

**Lake Menomin  
&  
Tainter Lake**



**Community Survey  
Report 2004**

# **Lake Menomin & Tainter Lake Community Survey Report 2004**

A Survey to Assess Characteristics, Practices, and Community Perceptions of  
Tainter Lake, Lake Menomin, and tributary watersheds.

Survey Conducted:  
July 2003

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Wisconsin DNR  
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Prepared by:

  
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## Special Acknowledgements

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- City of Menomonie City Council voted to pursue two Lake Planning Grants on behalf of the community. The City worked with Cedar Corporation in preparing the project scope and descriptions for the grant application, in gathering the City’s mailing list, especially Roxann Rude, and in donating their bulk mailing permit to reduce the postage expense.
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- Lastly, to the community of Lake Menomin and Tainter Lake, who reviewed our survey and offered not only important data but also valuable opinions and concerns.

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## Executive Summary

On March 31, 2003, the City of Menomonie was awarded two Wisconsin Department of Natural Resources (WDNR) Lake Planning Grants. Cedar Corporation, an engineering and environmental consulting firm from Menomonie, Wisconsin, was retained to:

- Proceed as the facilitator of the grant;
- Conduct basic in-lake water quality data collection, collect lake water samples, and provide the samples and information to the State Lab of Hygiene;
- Purchase a pH probe for the Tainter / Menomin Lake Association Self-Help volunteers;
- Support community education and shoreland restoration;
- Research information on the formation of the delta in Lake Menomin, below the Hospital Ravine; and,
- Conduct a community survey to assess recreational use and the community perceptions of the Lake Menomin and Tainter Lake watershed.

The survey provides an assessment of the present and future recreational use of the lakes, and of the concerns and attitudes of current lake residents and users. As part of the overall process, it was important that the residents of the local community have the opportunity to provide input. The community survey information and other data will be used by the Lake Association, its supporters, and consultants to draft a Lake Management Plan for Lake Menomin and Tainter Lake. Response to questions also provides community feedback to the WDNR and City.

It is not possible to consider everyone's opinions, thus only a sample of the local residents were surveyed. The City sent out 1,067 anonymous surveys over the Lake Menomin and Tainter Lake area. Nearly 23% of the surveys were returned by July 18, 2003. Although the number seems low, this is a typical response rate of a mailed survey based on similar experience in this region.

Based on the survey results, the comments suggest:

1. People rate top use of the lakes and adjacent parks for peace and tranquility, enjoyment of the view, and fishing.
2. Most respondent's (94.3%) feel there is too much floating algae and/or scum on the lake's water surface and around adjacent parks.
3. Most respondents (36%) indicate their homes were built after 1978, while twenty percent (20%) specified their homes were built before 1940. Forty-three percent (43%) of the survey respondents do not have City water and sewer, while most of these people (32%) have a drainfield / conventional septic systems. When asked about how their septic system is working, many respondents (38%) feel their septic system is working properly and only 3% identified they have experienced problems with their septic system.

4. About half of the respondents are aware Xcel Energy's improvements to the Cedar Fall's dam will improve Tainter Lake elevation management; most (41%) feel these improvements will improve the ability to use the lake.
5. Seventy-seven percent (77%) of the respondents are aware of the Tainter / Menomin Lake Improvement Association and 75% of the respondents are not members. Forty percent of respondents said they do not want to become a member. Survey participants indicated the Association's public education efforts are best accomplished through newsletters and articles in the local newspapers.
6. Many respondents believe failing/faulty septic systems and chemical runoff from lawns, agricultural soil erosion and sedimentation, and chemical/fertilizer runoff are significant contributors to the water quality in the lakes. .
7. The top three organizations believed responsible for water quality improvements on both Lake Menomin and Tainter Lake are: 1. State Government, 2. County Government, and 3. Lakeshore Property Owners.
8. The top three supported funding solutions for lake and watershed management and clean-up solutions are: 1. Form a Lake District, 2. Increase State Tax (~0.5%), and 3. Charitable Donations.
9. The three things most liked about Menomin and Tainter Lakes and the surrounding area are great accessibility and parks, scenic and natural beauty of the lakes, and the lakes offer good fishing.
10. The three things most disliked about Lake Menomin, Tainter Lake, and the surrounding area are the green water, bad odor, and mowed landscape to the shorelines.

Conducting surveys like this is a time consuming effort so our thanks goes out to all those who took the time to complete the questionnaires. The information gained from the survey has been given the WDNR and Tainter / Menomin Lake Improvement Association Board necessary feedback from the community on their progress to date and offers continued support for future plans.

## **I. Introduction**

In 2003, the City of Menomonie was awarded two Lake Planning Grants from the Wisconsin Department of Natural Resources (WDNR). A four-phase approach was organized to utilize these funds to better understand lake quality and community involvement.

PHASE I—basic in-lake water quality data collection efforts conducted by Cedar Corporation in 2003. These data provided the WDNR updated baseline water quality data for Tainter Lake and Lake Menomin for the purpose of TMDL assessment and development strategy for the Lower Chippewa River Basin.

PHASE II—purchase a pH probe for the Tainter / Menomin Lake Association Self-Help volunteers and to support the education of lakeshore owners about shore land restoration.

PHASE III—research information to reduce the formation of the Lake Menomin delta below the Hospital Ravine.

PHASE IV—prepare and administer a community survey. Through the combined efforts of the City of Menomonie, Cedar Corporation, and the Tainter / Menomin Lake Improvement Association, a community survey was prepared and this report documents the survey results.

The information gathered in the survey will be used to assess recreational use and the communities' perception of Menomin and Tainter Lakes. The survey results can be used during the creation of a Lake Menomin and Tainter Lake Management Plan.

## II. Background

### a. Red Cedar River Basin:

The Red Cedar River Basin drains 175.8 square miles (or 112,556 acres) in West-Central Wisconsin and is a portion of the Lower Chippewa River Basin (Attachment A). The area includes parts of Barron, Chippewa, Dunn, Polk, Rusk, Sawyer, St. Croix, and Washburn Counties. All lakes, rivers, and streams of this region drain into the Red Cedar River Basin (Attachment B). The northern parts of the basin are predominately forested and the southern portions include impoundments such as Tainter and Menomin Lakes, which are the focus of this project. Both of these Red Cedar River impoundments and/or lakes have become focal points for water quality issues within the basin due to the drainage from northern portions of the basin.

### b. Wilson Creek Watershed:

Tainter Lake and Lake Menomin are located in the geographic area known as the Wilson Creek Watershed (LC04) of the Lower Chippewa River Basin (Attachment C). This watershed covers a portion of Dunn, Pierce, and St. Croix Counties and is rich with natural resources. The Wisconsin Department of Natural Resources (WDNR) *1996 Lower Chippewa River Basin Water Quality Management Plan* mentions the Red Cedar River supports protected, threatened, and endangered fish species. This plan also covered water quality investigations that allowed the characterization of the lake water quality in these lakes and have led to the recommendation that the WDNR encourage further water quality monitoring in these lakes.

### c. Tainter Lake:

Tainter Lake (Attachment D) is a 1,752-acre flowage formed by Xcel Energy Company's Cedar Falls Dam on the Red Cedar River. The Red Cedar River / Tainter Lake watershed drains portions of eight counties with an average flow of 1,200 cubic feet per second. The Hay River is a major tributary to Tainter Lake and has an average flow of 300 cubic feet per second (Swim, et. al., 2000). Tainter Lake has a mean hydraulic residence time estimated from summer 1990 data to be 7.3 days, a mean water depth of 13.3 feet, a maximum water depth of 37 feet, and a volume of 22,543 acre-feet (Schreiber, 1992).

The Environmental Protection Agency (EPA) determined Tainter Lake to be eutrophic according to a 1974 survey and currently the lake water violates an EPA water quality standard for surface pH as it is greater than nine. In 1998, the EPA determined Tainter Lake to have a high priority ranking for mercury (metals), pH, eutrophication (organic enrichment and low dissolved oxygen), and fish consumption advisory. Tainter Lake is highly eutrophic and stratifies in the summer in the down stream, deeper areas of the lake. The Red Cedar River TMDL (Total Maximum Daily Load) Work Group was formed to address the basin's overall resource health and developed a preliminary water quality goal (target level) of 45% phosphorus reduction for Tainter Lake TMDL. Interest to gather water quality data from both impoundments originated from these TMDL meetings because members were interested in attempting to correlate the 1989-1990 Tainter Lake baseline data with 2002-2003 water quality data. The recommendations from the TMDL work group would benefit from the Tainter Lake water quality study as the additional data could be compared to the 1990 study. The TMDL process has been slowed due to the State's budget and other issues.



#### d. Lake Menomin:

Lake Menomin (Attachment E) is a 1,405-acre flowage formed by the Xcel Energy Company's Menomonie Dam on the Red Cedar River. The lake has a mean hydraulic residence time estimated from the summer of 1996 data to be 12.5 days, a maximum depth of 34-feet, is considered to have poor water quality in terms of clarity, and was tested for baseline water quality data during the summer of 2002. With the advent of summer and the approach of fall, clarity worsens and algae blooms become a problem; 1990 trophic status index values ranged from 60-80 (Schreiber). Water quality in the Red Cedar Basin is impaired by excessive loadings of sediment and nutrients arising from point and nonpoint pollution (WDNR 1999). WDNR inflow/outflow studies have determined that greater than 90% of the water flowing into Lake Menomin originates from Tainter Lake.

The EPA has listed Lake Menomin under Section 303(d) of the Federal Clean Water Act of the Impaired Waters because the water does not meet water quality criteria for specific substances or designated uses (i.e. nutrients or sediments). In 1998, an EPA report considers Lake Menomin to have a medium priority ranking for pH and eutrophication (organic enrichment and low dissolved oxygen). This lake is also has a high nonpoint source ranking by the Wisconsin Department of Natural Resources in the *1996 Lower Chippewa River Basin Plan*. The two years of sampling for baseline water quality data can be used to determine whether or not a separate TMDL goal should be established for Lake Menomin.

#### e. Menomonie, Wisconsin:

The City of Menomonie (Attachment F) is an urban community with a population of 14,933 (Census 2000). The City has taken proactive steps in the past to ensure the protection of the Red Cedar River Basin's water quality and recreational enjoyment for the general public. Some examples are:

- Development of the City of Menomonie Storm Water Management Plan
- Storm Water Management & Erosion and Sediment Control Ordinance
- EPA 104b3 Grant Application for the Hospital Ravine Improvement Project
- Lake Menomin 2002 & 2003 Lake Planning Grant—Monitoring
- Tainter Lake 2003 Lake Planning Grant—Monitoring
- Infiltration pond installation for various individual industries and facilities (Lee Score Memorial Airport, Wal Mart, CFG, TNT, Ford, etc.)
- The Larson's Ravine Stabilization
- Dry ponds and treatment boxes on Patrick McCoy property
- Market Place Foods & Advanced Auto Parts Store—Treatment box structures
- Tamarack Ridge (Albrigala, LLC)—Water Quality/Quantity Treatment
- Wilson Creek TRM Project & KOA Erosion Control Project
- Wolske Bay Lake Improvement Project and Shoreland Restoration

The water quality samples collected in 2002 and 2003 were forwarded to the WDNR State Lab of Hygiene for analysis. The results were published in the WDNR STORET system and the data is available under "Download Data" or "Annual Reports" at the following Internet location: <http://dnr.wi.gov/org/water/fhp/lakes/lakesdatabase.asp>. The data has been provided to the WDNR for evaluation, interpretation, and comment through the TMDL process.

### **III. Methodology**

The survey was designed to provide information on the recreational use of the Menomin and Tainter Lakes. Questions were asked about the frequency of visits and duration of residency, recreational use of the lakes, perceived water quality, the efforts of the Lake Association, and opinions on the priority of issues concerning the lakes. A sample survey is located in Attachment H.

Using the U.S. Postal Service was determined to be the best method of survey distribution and collection. Cedar Corporation mailed out the anonymous surveys on July 1, 2003, all surveys were returned by July 18, 2003, and the surveys were compiled, tabulated, and analyzed for this report.

One thousand, sixty-seven (1,067) surveys were sent out to residents/addresses located in the watersheds in and around Menomin and Tainter Lakes. Out of these surveys, nearly 23% (N=245) of the surveys were returned and analyzed. Responses that required survey participants to write out an answer are documented in Attachment G titled "Survey Comments"

#### IV. Results

1. Please check the lake(s) or adjacent park areas you or members of your household have visited within the last two years (Check all that apply):
  - A. **77.6%** Lake Menomin
  - B. **71.8%** Tainter Lake
  - C. 2.9% None
  - 0.8% Blank Responses
  
2. If you checked "none" for Question 1, when did you last visit one or more of the lakes or adjacent park areas?
  - A. **2.9%** 2-3 years ago
  - B. 0% 4 years ago
  - C. 1.2% 5 or more years ago
  - D. 0.8% Never
  - 95.1% Blank Responses
  
3. If you haven't visited the lakes or adjacent park areas within the past two years, please indicate why (Check all that apply):
  - A. 0% Don't know what is available there.
  - B. 0% They're too far away.
  - C. 0.8% I'm/we're too busy.
  - D. 0.4% I'm/we're not interested in going there.
  - E. **1.6%** Health/aging issues make it difficult to go there.
  - F. 0% It is too crowded.
  - G. 0.8% I/we like other lakes better.
  - H. **4.5%** Water quality concerns.
  - I. 0.8% Other (please list)...*See "Survey Comments"*
  - 91.8% Blank Responses
  
4. If you do not have a residence on one of the lakes, please indicate the number of years you have been visiting the lake(s).
  - A. 2.4% Less than 1 year
  - B. 7.8% 1-5 years
  - C. 5.7% 6-10 years
  - D. 4.5% 11-15 years
  - E. 4.9% 16-20 years
  - F. **31.4%** Over 20 years
  - G. 1.2% Haven't visited these lakes
  - 42% Blank Responses

5. If you do not have a residence on one of the lakes, please indicate the distance you travel to visit the lakes.

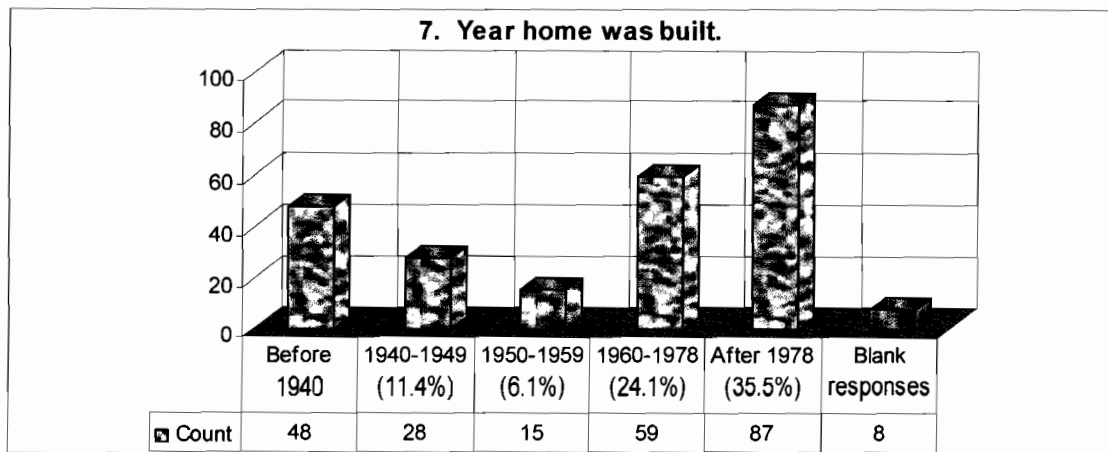
- A. **24.1%** Less than 1 mile
- B. 22.4% 1-5 miles
- C. 9.4% 6-10 miles
- D. 2.9% 11-15 miles
- E. 1.6% 16-20 miles
- F. 0% 20-60 miles
- G. 0% Over 60 miles
- H. 1.2% Haven't visited these lakes
- 38.4% Blank Responses

6. Do you own or rent your home?

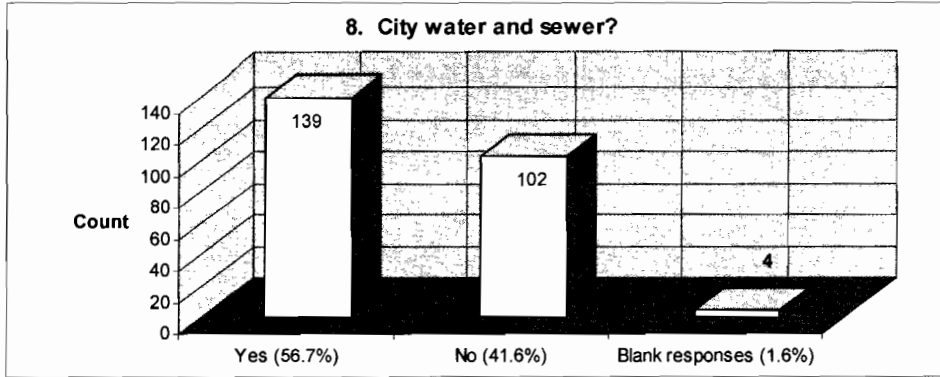
- A. **95.5%** Own
- B. 1.2% Rent
- 3.3% Blank responses

7. To the best of your knowledge, when was your home built?

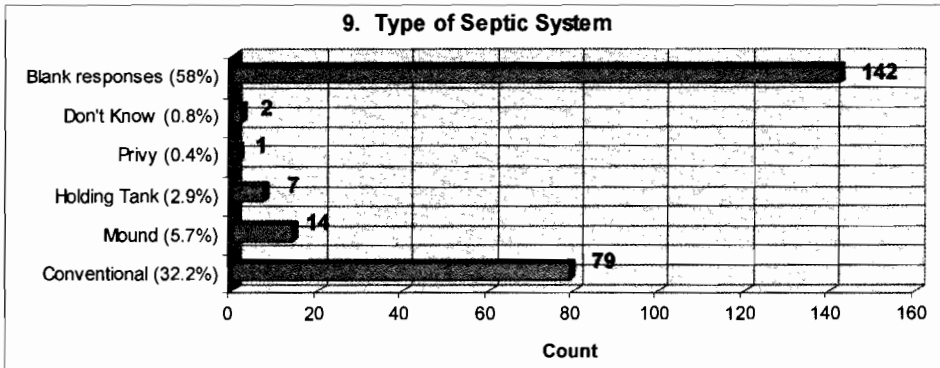
- A. 19.6% Before 1940
- B. 11.4% 1940-1949
- C. 6.1% 1950-1959
- D. 24.1% 1960-1978
- E. **35.5%** After 1978
- 3.3% Blank responses



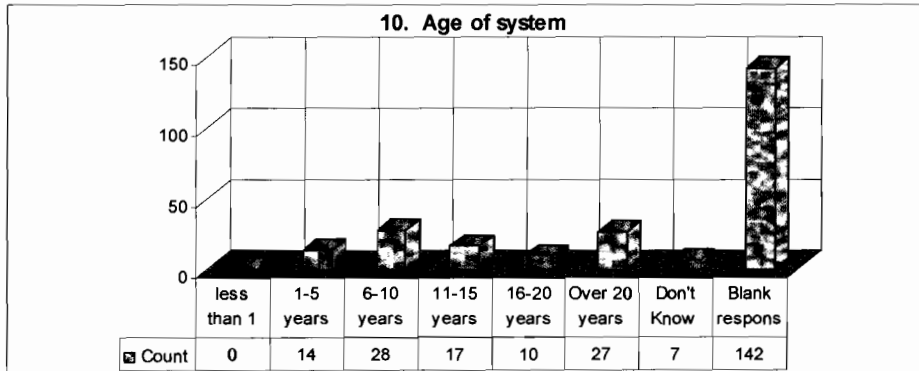
8. Are you served with City water and sewer?
- A. 56.7% Yes (If you answered Yes, skip to question 14.)
  - B. 41.6% No (If you answered No or Don't Know, please go to question 9.)
  - 1.6% Blank Responses



9. What type of septic system do you have on your property?
- A. 32.2% Drainfield / Conventional
  - B. 5.7% Mound System
  - C. 2.9% Holding Tank
  - D. 0.4% Privy
  - E. 0.8% Don't know
  - 58% Blank Responses



10. How old is your septic system?
- A. 0% Less than 1 year
  - B. 5.7% 1-5 years
  - C. 11.4% 6-10 years
  - D. 6.9% 11-15 years
  - E. 4.1% 16-20 years
  - F. 11% Over 20 years
  - G. 2.9% I don't know
- 58% Blank Responses



11. Have you ever experienced any problems with your septic system, such as backing up, saturated conditions near the absorption field, or other?
- A. 3.3% Yes
  - B. 38.4% No
- 58.4 % Blank Responses

12. Where is your well located in relation to your septic system?

i. Distance away:

- A. 0% 1-5 feet
  - B. 0% 6-10 feet
  - C. 2.9% 11-20 feet
  - D. **35.5%** Over 20 feet
- 61.1% Blank Responses

*Note: Wisconsin Department of Commerce updated Chapter 83 of the Wisconsin Admin. Codes in April 2000 and require at least 25 feet separation between a well and septic tank. They also require a minimum separation of 50 feet between the well and absorption system.*

ii. Uphill or down hill (circle one)

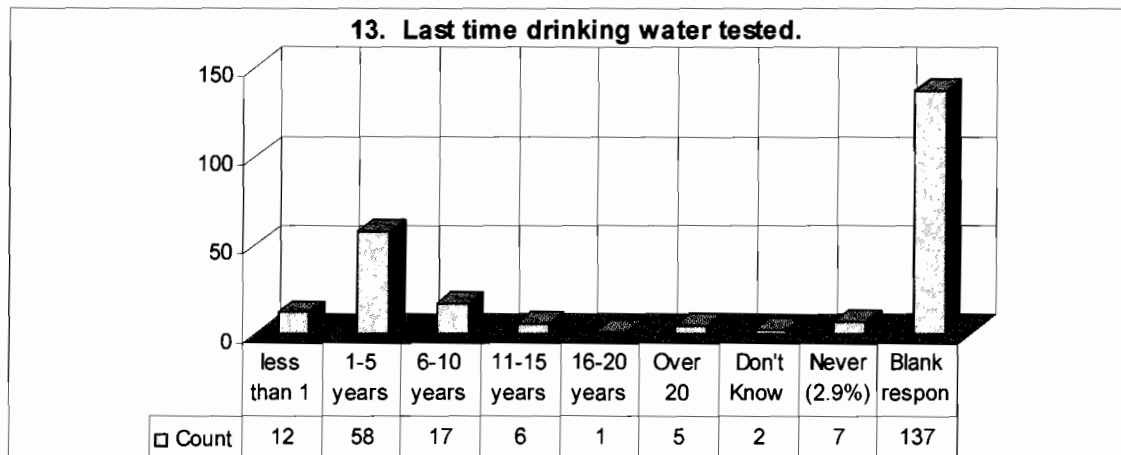
- A. **19.2%** Uphill
  - B. 5.3% Downhill
- 75.5% Blank Responses

iii. Slope:

- A. 1.8% 0 %
  - B. 11.4% 1-3%
  - C. **7.8%** 4-6%
  - D. 2.4% 6-10%
  - E. 0.8% 10-20%
  - F. 0.8% Over 20%
- 64.9% Blank Responses

*Note: Dunn County restricts construction on slope greater than 10% slope.*

13. When was the last time you had your drinking water tested?
- A. 4.9% Less than 1 year ago
  - B. **23.7%** 1-5 years ago
  - C. 6.9% 6-10 years ago
  - D. 2.4% 11-15 years ago
  - E. 0.4% 16-20 years ago
  - F. 2.0% Over 20 years ago
  - G. 0.8% I don't know
  - H. 2.9% Never
- 55.9% Blank Responses



14. Are you aware of any abandoned or unused wells on your property?
- A. 3.3% Yes
  - B. **93.5%** No
  - C. 0.8% Don't Know
- 2.4% Blank Responses

15. Do you use a water filter and/or purifier system with your drinking water?
- A. **66.5%** No
  - B. Yes - Why do you use a water filter/purifier?
    - i. 10.2% Improve taste
    - ii. 10.6% Reduce the risk to my family's health
    - iii. 2.4% Other (Explain)...See "Survey Comments" (remove iron)
- 2.4% Blank Responses



16. Regardless of the amount of time you can spend at the lakes or parks, which are your three most important reasons from the following list for using the lakes and adjacent parks, or for owning/renting lakeshore property. (Place a "1" by the most important reason, a "2" by the second most important reason, and a "3" by the third most important reason.)

	<u>Most Important</u>	<u>2<sup>nd</sup> Most Important</u>	<u>3<sup>rd</sup> Most Important</u>	<u>Blank Responses</u>
A. Entertaining Friends & Family	13.1%	9.4%	10.6%	66.9%
B. Because of Neighbors	1.6%	0.8%	2.0%	95.5%
C. Proximity to Work	0.8%	2.9%	1.6%	91.7%
D. Observing Wildlife	6.9%	11.8%	11.8%	69.4%
E. Swimming/SCUBA Diving	0.8%	0.8%	3.3%	95.1%
F. Peace and Tranquility	<b>31.4%<sup>1</sup></b>	18.4%	12.2%	38.0%
G. Enjoyment of the View	<b>26.9%<sup>2</sup></b>	24.9%	12.2%	35.9%
I. Water Skiing	2.0%	2.0%	3.3%	92.7%
J. Fishing	<b>18.4%<sup>3</sup></b>	8.6%	9.8%	63.3%
K. Jet Skiing	0%	0%	1.6%	98.4%
L. Motorized Boating	3.7%	7.3%	10.2%	78.8%
M. Canoeing/Rowing	2.4%	3.3%	6.5%	87.8%
N. Sailing/Wind Surfing	1.2%	2.0%	2.0%	94.7%
O. Because my property is a good investment	7.3%	3.3%	7.3%	82%

Notes: <sup>1</sup> to <sup>3</sup> = highest to third highest importance for using the lakes

17. Please indicate your opinion of the natural area around the lakes and adjacent parks. If you feel the area lacks or is over consumed by any of the following, place an "x" in the column that reflects your opinion:

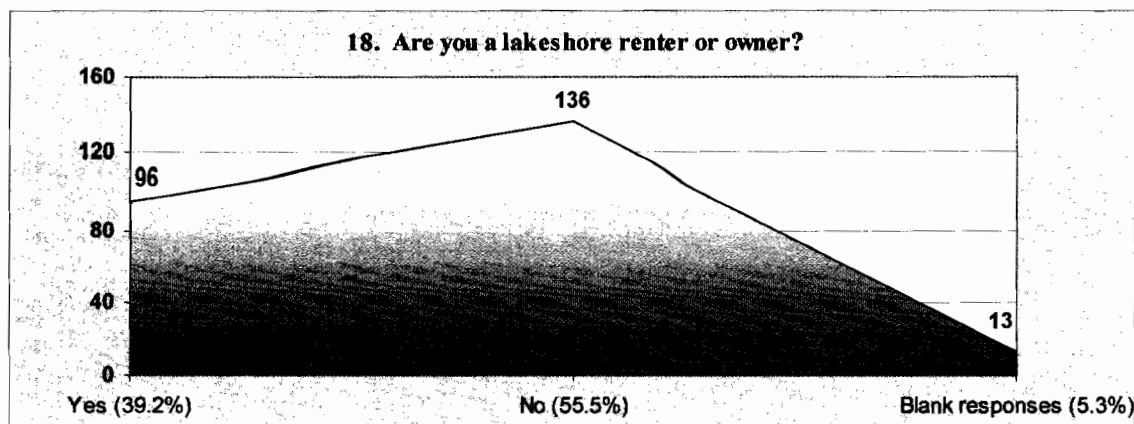
	Too Much	About Right	Too Little	Don't Know	Blank Responses
A. Natural, rooted vegetation near shore (trees and shrubs)	7.3%	<b>55.9%</b>	18.0%	8.2%	10.6%
B. Floating algae and/or scum on the water surface	<b>94.3%</b>	1.6%	0%	1.6%	2.4%
C. "Keeper-size" pan and game fish	0%	25.7%	29.8%	<b>32.7%</b>	11.8%
D. Diversity of birds and wildlife	0.4%	<b>62.4%</b>	18.0%	9.0%	10.2%
E. Eagles	0.4%	<b>58.0%</b>	20.4%	11.8%	9.4%
F. Ducks and/or Geese	0.8%	<b>53.9%</b>	22.0%	13.1%	10.2%
G. Beavers and/or Muskrats	3.7%	33.1%	12.2%	<b>39.6%</b>	11.4%
H. Motorized watercraft	26.9%	<b>55.1%</b>	1.6%	6.1%	10.2%
I. Fish habitat	0.4%	<b>31.8%</b>	31.0%	24.9%	11.8%

18. Are you a lakeshore property owner or renter?

A. 39.2% Yes (If you answered Yes, please go to question 19.)

B. 55.5% No (If you answered No, skip to question 25, next page.)

5.3% Blank Responses



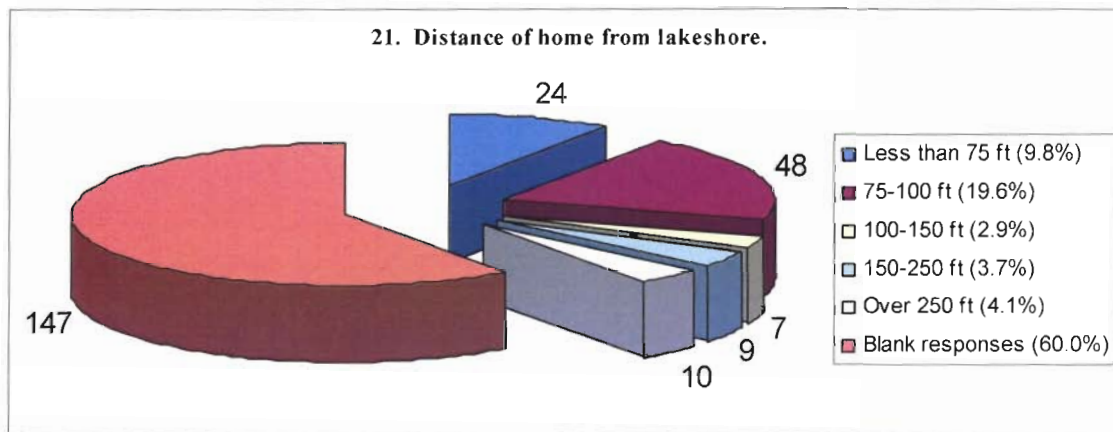
19. If you are a lakeshore property owner or renter, what is your primary reason for living on the lake? See "Survey Responses" (peace and tranquility)

20. How many years have you owned or rented your lake property?

- A. 0.4% Less than 1-year
  - B. 8.6% 1-5 years
  - C. 7.8% 6-10 years
  - D. 6.9% 11-15 years
  - E. 4.9% 16-20 years
  - F. **13.9%** Over 20 years
- 57.6% Blank Responses

21. How far is your home from the lakeshore?

- A. 9.8% Less than 75 feet
  - B. **19.6%** 75 to 100 feet
  - C. 2.9% 100 to 150 ft
  - D. 3.7% 150 to 250 feet
  - E. 4.1% More than 250 feet (If more than 250 feet, how much? See "Survey Responses")
- 60.0% Blank Responses



22. Which of the following features exist where your property meets the lake? (Check all that apply.)

- A. **33.5%** Natural Vegetation
  - B. **30.6%** Trees and Shrubs
  - C. 19.6% Rocks for Stabilization
  - D. 2.0% Wood Retaining Wall
  - E. 2.0% Masonry Retaining Wall
  - F. 3.3% Beach
  - G. 4.1% Lawn
  - H. 17.1% Steep Natural Slope or Drop-off
- 58.4% Blank Responses

23. Is your shoreline eroding?

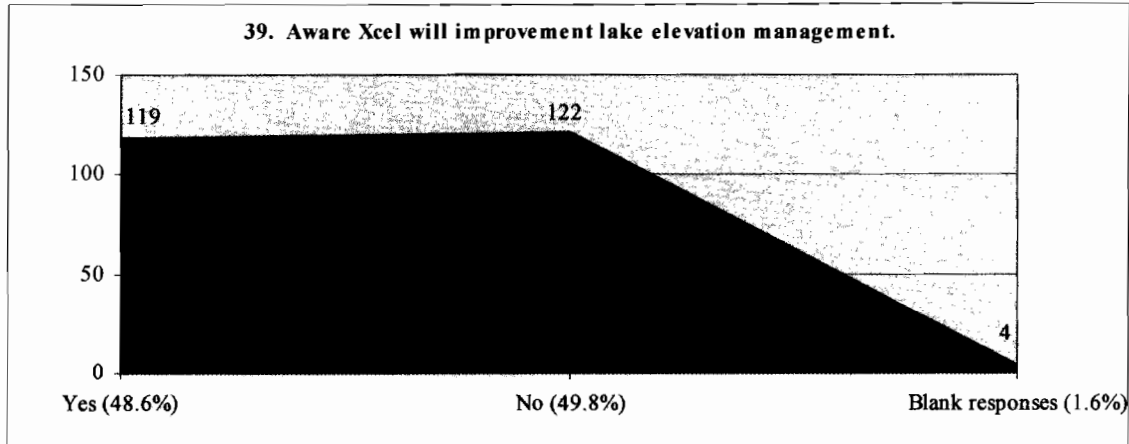
- A. 15.9% Yes
  - B. **20.8%** No
- 63.3% Blank Responses

24. How many of the following watercrafts are kept at your property? (Check all that apply.)
- A. **18.0%** Fishing Boat
  - B. 9.4% Ski/speed Boat
  - C. 5.3% Rowboats
  - D. **16.3%** Pontoons
  - E. 2.9% Sailboats
  - F. 0.8% Jet Skis
  - G. **21.2%** Canoes/kayak
  - H. 3.7% Other...*See "Survey Comments" (paddle boat)*
  - 62.4% Blank Responses
25. On average, how often do you mow your lawn during the summer months?
- A. 3.3% Twice a Week
  - B. **54.3%** Once a Week
  - C. 9.8% Once Every 2 Weeks
  - D. 31.4% When It Needs Mowing
  - E. 0.8% I do not have a lawn. (Please Go to Question 33.)
  - 0.4% Blank Responses
26. What do you do with the grass clippings? (Check all that apply.)
- A. 0.4% Burn on-site
  - B. 0% Dispose along lake bank
  - C. **80.4%** Leave on lawn
  - D. **11.8%** Compost them on site
  - E. **13.5%** Use them as mulch
  - F. 6.5% Other...*See "Survey Results" (take to City dump)*
  - 0.4% Blank Responses
27. How often do you water your lawn during the summer months?
- A. 0.4% Every day
  - B. 2.0% Every other day
  - C. 5.3% Once a week
  - D. 1.2% Once every 2 weeks
  - E. 39.2% When it needs watering
  - F. **50.6%** I do not water my lawn
  - 1.2% Blank Responses
28. Do you use a lawn fertilizer or a lawn pesticide?
- A. **51.0%** Yes
  - B. 47.3% No (Please Go to Question 32.)
  - 1.6% Blank Responses
29. Who applies the fertilizers?
- A. **44.9%** Myself/Family Member
  - B. 7.8% A Lawn Care Professional
  - 47.3% Blank Responses

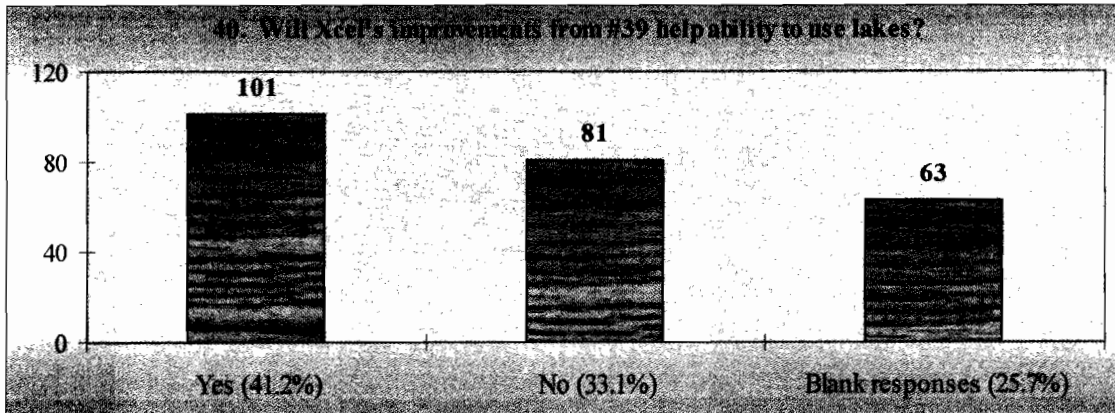
30. Who applies the pesticides?
- A. **25.3%** Myself/Family Member
  - B. 7.8% A Lawn Care Professional
  - 66.9% Blank Responses
31. On average, how often are fertilizers and/or pesticides applied to your lawn?  
(Check all that apply.)
- A. **40.4%** 1 time before June
  - B. 2.4% 2 times before June
  - C. 0.4% 3 or more times before June
  - D. 11.8% 1 time from June to August
  - E. 4.9% 2 times from June to August
  - F. 3.3% 3 or more times from June to August
  - G. **18.2%** 1 time after August
  - H. 1.2% 2 times after August
  - I. 0.4% 3 or more times after August
  - 48.2% Blank Responses
32. Have you or a lawn company ever conducted a soil test on your lawn or garden?  
(Check all that apply.)
- A. 12.7% Yes, on my lawn
  - B. 6.9% Yes, on my garden
  - C. **79.6%** No, never
  - 2.0% Blank Responses
33. What do you do with your leaves in the fall?
- A. 6.5% Nothing
  - B. 7.8% Burn them on site
  - C. 2.9% Dispose of them along lake bank
  - D. **20.0%** Compost them on site
  - E. **20.8%** Use them for mulch
  - F. **26.5%** Mow them and leave on lawn
  - G. **37.6%** Other (Specify)...*See "Survey Comments" (take to City dump)*
  - 0.8% Blank Responses
34. Do you have any pets at your home?
- A. **51.4%** No. (Go to Question 36.)
  - B. 47.3% Yes.
  - 1.2% Blank Responses
- If yes, how many?
- i. **27.8%** 1
  - ii. 13.9% 2
  - iii. 5.7% 3
  - iv. 2.4% 4
  - v. 1.2% 5 or more
  - 49.0% Blank Responses

35. What do you do with your pet(s)' waste?
- A. 11.8% Nothing
  - B. 8.6% Bury it on our property
  - C. 0.8% Flush it down a toilet
  - D. **24.5%** Dispose of it in the garbage
  - E. 6.9% Other (Specify)...*See "Survey Comments" (take to City dump)*
  - 47.3% Blank Responses
36. In the past couple of years, have you taken any of the following measures to improve the water quality at your home? (Check all that apply.)
- A. 6.5% Contacted an agency for information about local water quality.
  - B. **20.8%** Read a specific publication for information on protecting local water quality.
  - C. 18.4% Tested my drinking water.
  - D. 5.7% Tested my garden/lawn soil.
  - E. 15.5% Used bottled water for drinking/cooking purposes.
  - F. **20.4%** Installed a water treatment/filter/purifier device.
  - G. **33.9%** Installed a water saving device (toilet or shower head).
  - H. **31.0%** Pumped my septic system.
  - I. 20.0% Improved the physical condition of the plumbing system in my home (pipes, pump, water softener, etc.).
  - J. 1.6% Sealed an abandoned or unused well on my property.
  - 27.3% Blank Responses
37. a. How many adults (18 years or older) lived in your home last year?
- A. 16.3% 1 Adult
  - B. **71.8%** 2 Adults
  - C. 6.1% 3 Adults
  - D. 3.3% 4 Adults
  - E. 0.8% 5 or more Adults
  - 1.6% Blank Responses
- b. How many children (17 years and younger) lived in your home last year?
- F. **16.3%** No Child
  - G. 9.8% 1 Child
  - H. 13.5% 2 Children
  - I. 3.7% 3 Children
  - J. 0.8% 4 or more Children
  - 55.9% Blank Response
38. What is your current employment status? (Check all that apply.)
- A. **66.1%** Employed full- or part-time
  - B. **33.1%** Retired
  - C. 0.8% Student
  - D. 1.2% Unemployed
  - 0.8% Blank Responses

39. Are you aware that Xcel Energy is going to improve the ability to manage lake elevations on Tainter Lake?
- A. 48.6% Yes
  - B. 49.8% No
  - 1.6% Blank Responses

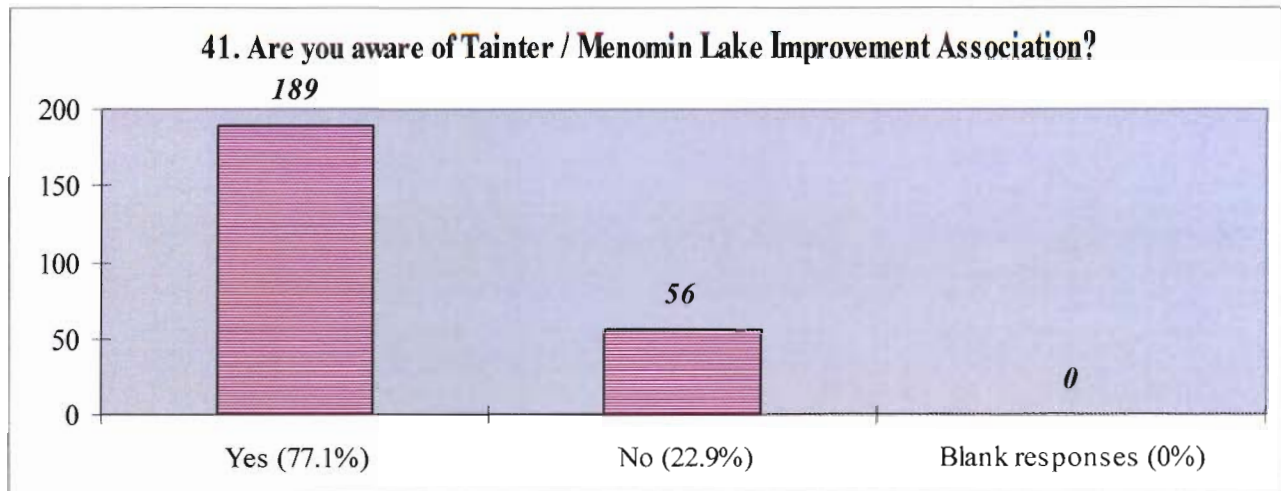


40. Do you believe Xcel Energy's improvements mentioned in Question 39 will improve your ability to use the lake?
- A. 41.2% Yes
  - B. 33.1% No
  - 25.7% Blank Responses



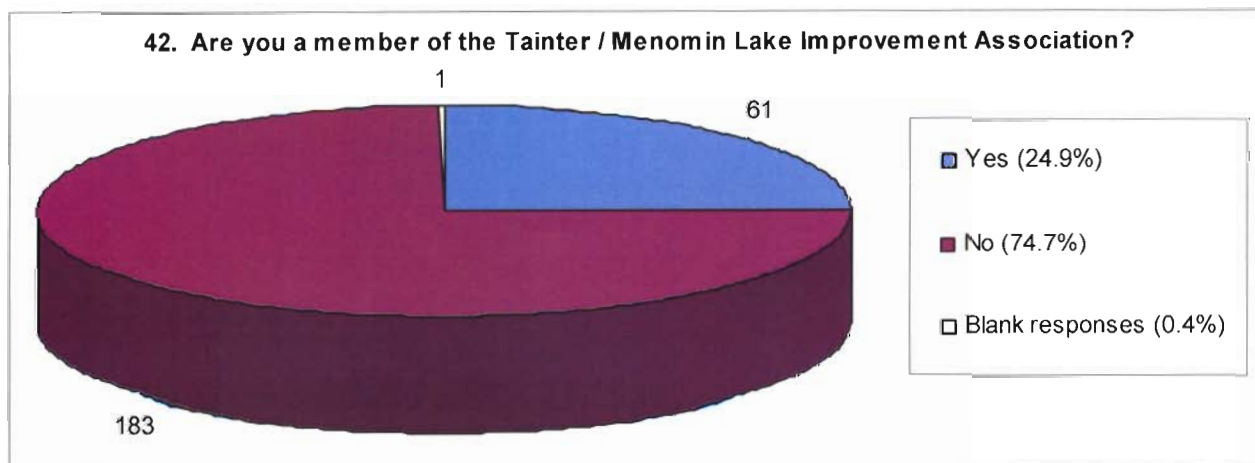
41. Are you aware of the Tainter/Menomine Lake Improvement Association, Inc.?

- A. 77.1% Yes
- B. 22.9% No
- 0% Blank Responses



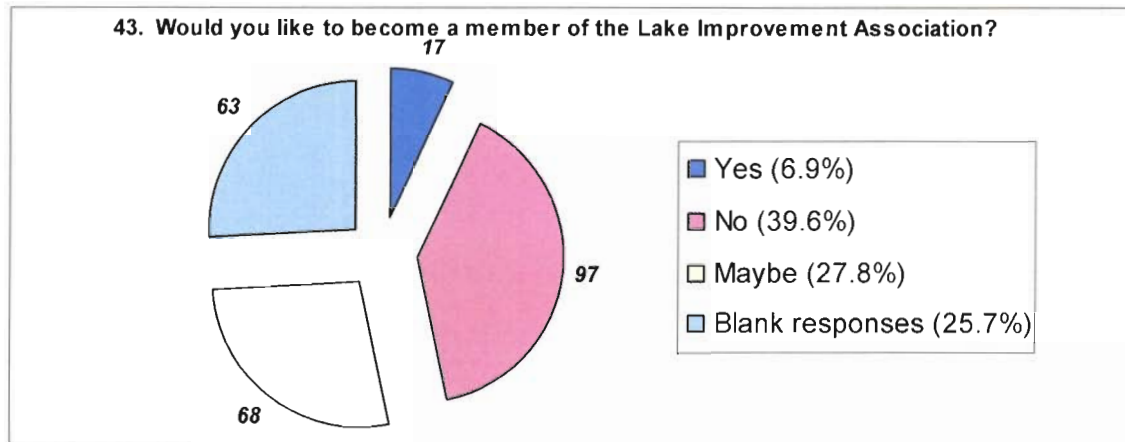
42. Are you a member of the Tainter/Menomine Lake Improvement Association, Inc.?

- A. 24.9% Yes
- B. 74.7% No
- 0.4% Blank Responses



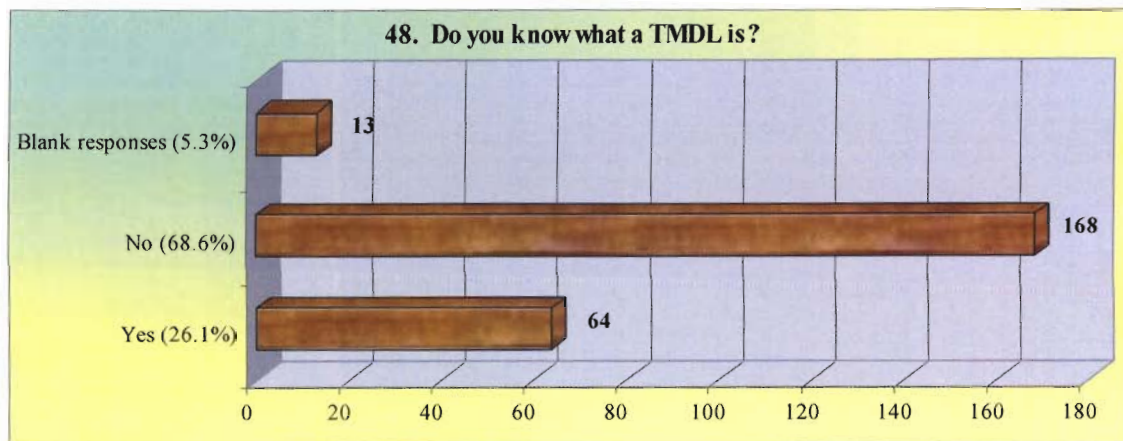


43. Would you like to become a member?
- A. 6.9% Yes
  - B. **39.6%** No
  - C. 27.8% Maybe
  - 25.7% Blank Responses



44. One of the Association's activities is to educate and inform the public; what is the best way for the Association to communicate with you about their activities? (Check all that apply.)
- A. 11% Meetings
  - B. **57.1%** Newsletters
  - C. **50.2%** Articles in Local Papers
  - D. 8.6% Informal Discussions on Radio
  - E. 15.9% E-mail
  - F. 5.7% I don't wish to be contacted
  - G. 1.2% Other ...*See "Survey Comments" (keep updating their website)*
  - 2.0% Blank Responses
45. Over the years the Tainter/Menomine Lake Improvement Association, Inc. has undertaken projects to improve the quality of the water in Lake Menomine and Tainter Lake. Which one of the following statements best represents your feelings about their efforts?
- A. 15.5% The Association should continue these efforts at the present level.
  - B. **64.1%** The Association should increase its commitment to improving the lakes.
  - C. 0.4% The Association should decrease efforts on the lakes, but not completely.
  - D. 1.2% The Association should not do anything and should leave it up to governmental agencies.
  - E. 14.7% I don't know.
  - 4.1% Blank Responses

46. To what extent does water quality affect your decision to visit or use Lake Menomin, Tainter Lake, and adjacent parks?
- A. **76.7%** Great effect
  - B. 17.6% Little to no effect
  - C. 3.7% No Opinion
  - 2.0% Blank Responses
47. Since living on or near Lake Tainter/Lake Menomin, do you feel the water (clarity) quality has:
- A. 5.3% Improved
  - B. 31.0% Remained the same
  - C. 19.2% Slightly Degraded
  - D. **35.9%** Considerably Degraded
  - E. 4.5% No Opinion
  - F. 2.9% Other (Specify)...*See "Survey Comments" (depends on the weather)*
  - 1.2% Blank Responses
48. Do you know what a TMDL (Total Maximum Daily Load) is?
- A. 26.1% Yes
  - B. **69.6%** No
  - 5.3% Blank Responses



49. Please indicate your understanding of a TMDL:
- A. **51.0%** No understanding of TMDL; would like to know more.
  - B. 11.4% Know a little; would like to know more.
  - C. 12.2% Fairly good understanding of TMDL.
  - D. 5.3% Good knowledge of TMDL; understand that one was being created in our basin.
  - E. 3.3% Excellent understanding of TMDL and know how this will affect the basin.
  - 16.7% Blank Responses

50. In your opinion, what impact, if any, has each of the following have on the water quality of the lakes?							
Opinion question	Great Impact	Moderate Impact	Slight Impact	No Impact	Does Not Apply	Don't Know	Blank Response
A. Failing/faulty septic systems around the lake(s)	40% <sup>3</sup>	19.6%	15.9%	0.8%	0.0%	16.7%	6.9%
B. Aquatic plant (weed) removal	9.8%	15.5%	16.3%	18.8%	3.3%	23.3%	13.1%
C. Shoreline vegetation removal	20.8%	19.6%	19.6%	8.2%	1.2%	18.0%	12.7%
D. Chemical runoff from lawns	40% <sup>1</sup>	27.3%	15.9%	1.6%	0.0%	7.8%	7.3%
E. Urban, road, or parking lot runoff	27.3%	29.0%	19.6%	3.7%	0.4%	10.6%	9.4%
F. Soil erosion and sedimentation from home sites	24.5%	24.5%	25.3%	4.1%	0.0%	10.6%	11.0%
G. Soil erosion and sedimentation from farms & fields	57.1% <sup>2</sup>	19.2%	6.5%	0.4%	0.0%	9.0%	7.8%
H. Animal (livestock) wastes	53.9% <sup>2</sup>	22.9%	6.9%	1.2%	0.0%	8.6%	6.5%
I. Timber harvesting	8.6%	21.2%	29.8%	9.0%	1.6%	19.2%	10.6%
J. Exhaust & fuel leakage from motorized watercraft	18.8%	20.8%	35.5%	4.5%	0.8%	11.0%	8.6%
K. Chemical/fertilizer runoff from cropland	65.3% <sup>1</sup>	15.5%	6.1%	0.4%	0.0%	6.9%	5.7%
L. Soil erosion and sedimentation from development	24.9%	28.6%	23.3%	1.2%	0.0%	12.2%	9.8%

<sup>1</sup> Highest opinion to have greatest influence on lake's water quality.

<sup>2</sup> Second highest opinion group to have second greatest influence on lake's water quality.

<sup>3</sup> Third highest opinion group to have third greatest influence on lake's water quality.

51. Please check the top three organizations/persons you feel should be responsible for water quality improvements in Lake Menomin and Tainter Lake.

	Most Important	2 <sup>nd</sup> Most Important	3 <sup>rd</sup> Most Important	Blank Responses
A. City Government	23.3%	0.8%	0.8%	75.1%
B. County Government	<b>45.7%</b> <sup>2</sup>	2.4%	2.9%	49.0%
C. State Government	<b>48.2%</b> <sup>1</sup>	4.5%	2.9%	44.5%
D. Federal Government	19.6%	0.8%	1.6%	78.0%
E. Watershed Residents	23.7%	1.6%	1.2%	73.5%
F. Lakeshore Property Owners	<b>27.3%</b> <sup>3</sup>	0.4%	2.4%	69.8%
G. Lake Users	13.5%	2.4%	1.2%	82.9%
H. Businesses in the Watershed	15.9%	2.9%	0.8%	80.4%
I. Farmers	24.5%	2.0%	2.4%	71.0%
J. Lake Association	21.6%	0.4%	1.6%	76.3%
K. Other (identify)...	5.3%	0.0%	0.0%	94.7%
<i>See "Survey Comments" (Everyone)</i>				

Notes: <sup>1</sup> to <sup>3</sup> = highest to third highest responsible for improving the lake's water quality

52. The costs for lake/watershed management and clean-up solutions will not be entirely born by local, state, and federal governments. Increasing the available funding will reduce the amount of time to implement improvements. Funding can be obtained from several approaches. What approach would you support? (Choose the top two options. Place a "1" by your first choice and a "2" by your second choice.)

	Most Important	2 <sup>nd</sup> Most Important	3 <sup>rd</sup> Most Important	Blank Responses
A. Volunteer Efforts	13.5%	13.5%	2.0%	71.0%
B. Charitable Donations	<b>13.9%</b> <sup>3</sup>	11.4%	0.8%	73.9%
C. Taxing Authority	6.9%	4.9%	1.2%	86.9%
D. Form a Sanitary District	9.0%	9.4%	0.8%	80.8%
E. Form a Lake District	<b>26.1%</b> <sup>1</sup>	15.1%	0.8%	58.0%
F. Increase Property Tax	2.4%	4.1%	0.0%	93.5%
G. Increase State Tax (~1/2%)	<b>16.7%</b> <sup>2</sup>	5.7%	0.4%	77.1%
H. Other: ... See "Survey Comments" (many ideas for an increased tax)	6.1%	3.3%	0.0%	90.6%

Notes: <sup>1</sup> to <sup>3</sup> = highest to third highest chosen funding option

53. List one thing you like most about Lake Menomin and Tainter Lake or the area immediately surrounding the lakes...See "Survey Comments" (scenic and natural beauty, good fishing, and accessibility and parks)
54. List one thing you like least about Lake Menomin and Tainter Lake or the area immediately surrounding the lakes...See "Survey Comments" (green water, bad odor, and mowed to the shorelines)
55. If you could make one improvement to Lake Menomin, Tainter Lake, or the area immediately surrounding the lakes, what would it be? ...See "Survey Comments" (Clean up lakes in various ways.)
56. Please add any comments or suggestions you would like to make...See "Survey Comments"

## V. References

Schreiber, Ken. 1992. Red Cedar River/Tainter Lake Phosphorus Assessment. Final Report. Western District of the WDNR.

WDNR, May 1996. Water Quality Management Plan: Lower Chippewa River Basin. WDNR PUBL-WR-216-96-REV.

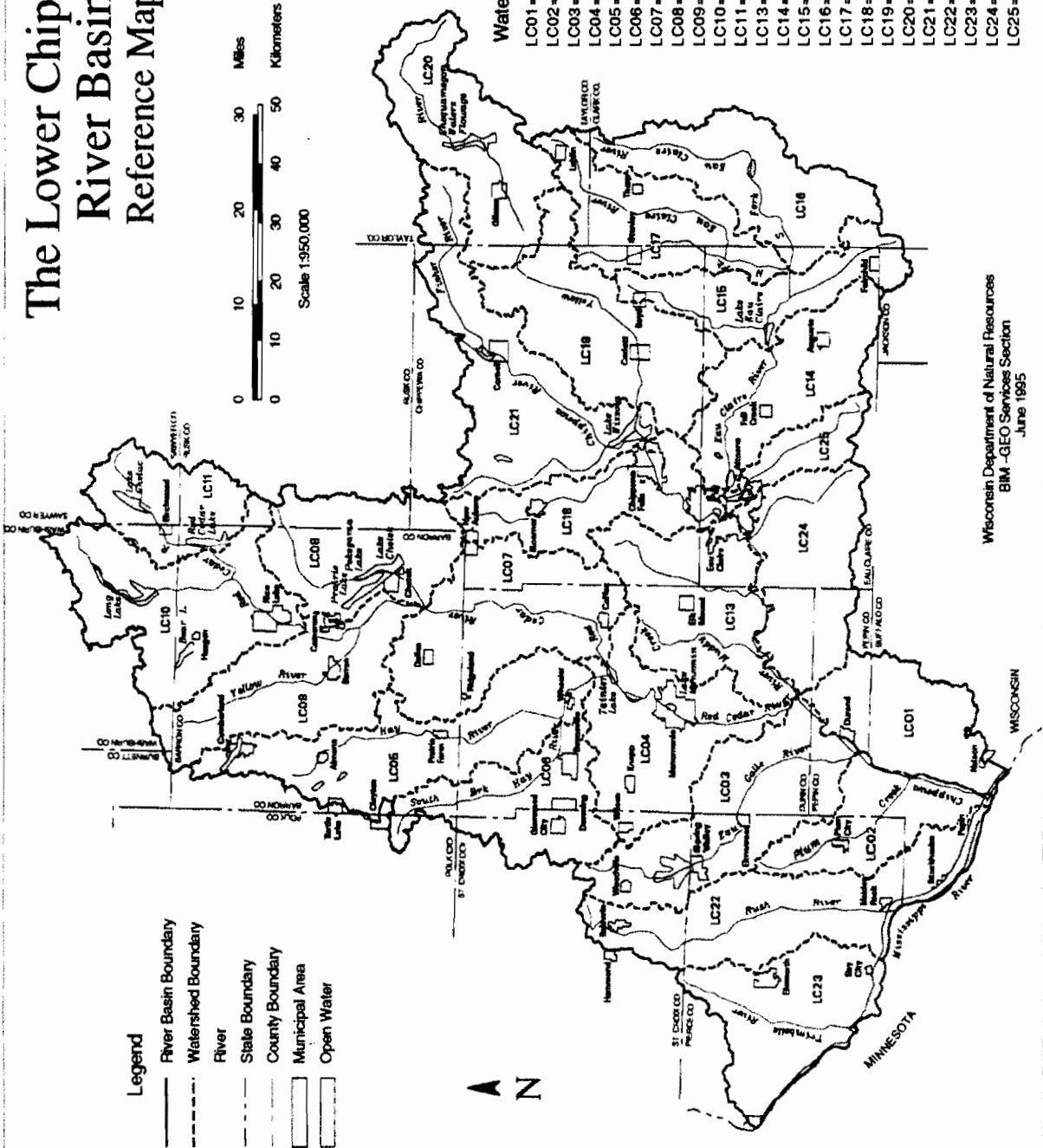
WDNR, July 1999. Prediction of Suspended Solids and Total Phosphorus Yields in the Red Cedar River Drainage System. WDNR. Report to Red Cedar River Basin Project.

WDNR, 2001. The State of the Lower Chippewa River Basin. WDNR Draft PUBL #WT 554-00.

1. US EPA. Listed Water Information. Tainter Lake:  
[http://oaspub.epa.gov/waters/enviro.control?p\\_list\\_id=WI-112\\_Tainter\\_Lake&p\\_cycle=1998](http://oaspub.epa.gov/waters/enviro.control?p_list_id=WI-112_Tainter_Lake&p_cycle=1998)
2. US EPA. Listed Water Information. Lake Menomin:  
[http://oaspub.epa.gov/waters/enviro.control?p\\_list\\_id=WI-108\\_Menomin\\_Lake&p\\_cycle=1998](http://oaspub.epa.gov/waters/enviro.control?p_list_id=WI-108_Menomin_Lake&p_cycle=1998)

**ATTACHMENT A:**  
**Lower Chippewa River Basin**

# The Lower Chippewa River Basin Reference Map



- Legend**
- River Basin Boundary
  - - - Watershed Boundary
  - River
  - - - State Boundary
  - - - County Boundary
  - ▭ Municipal Area
  - ▭ Open Water

**Watershed Code and Name**

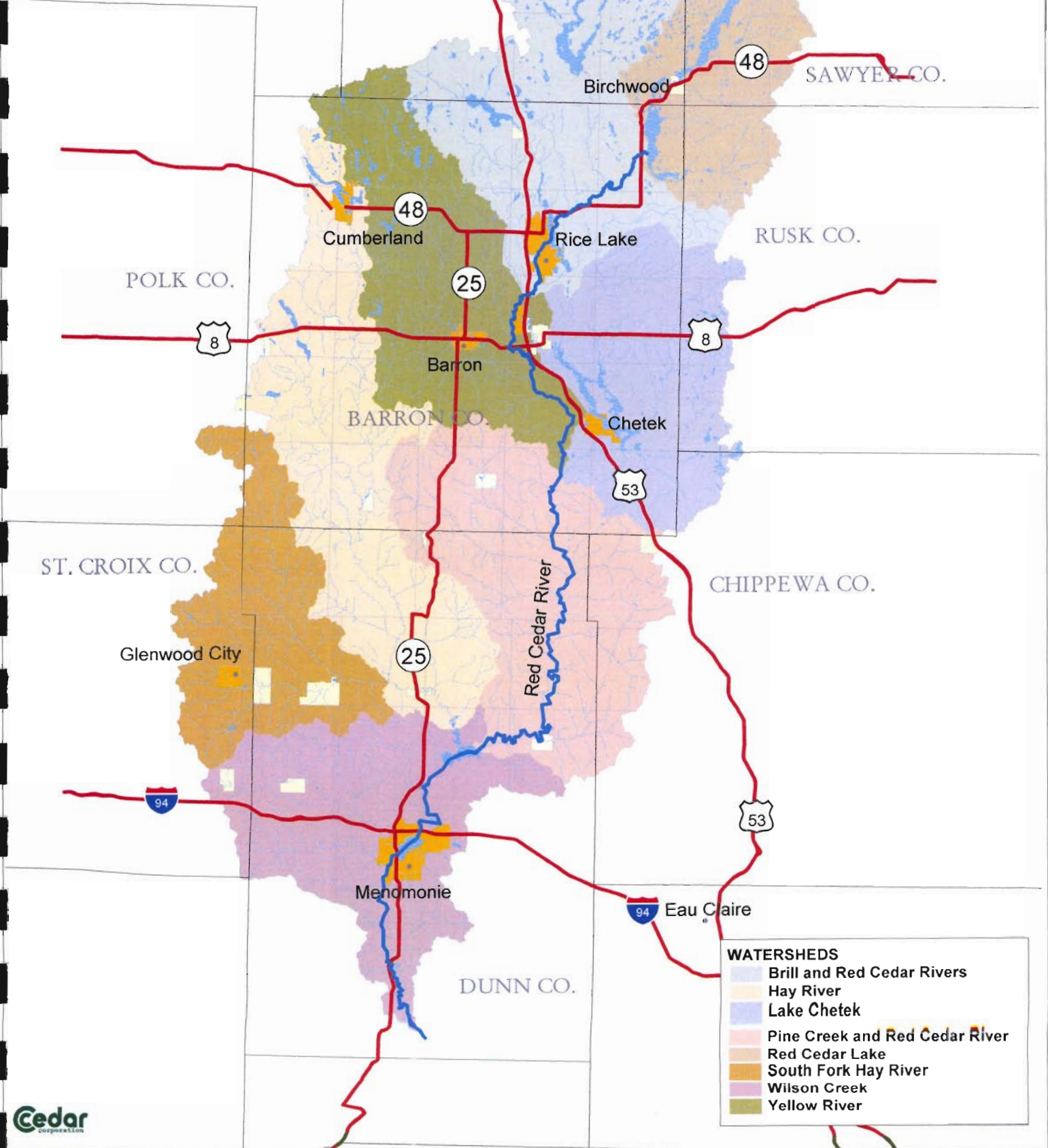
- LC01 = Bear Creek
- LC02 = Plum Creek
- LC03 = Eau Claire River
- LC04 = Wilson Creek
- LC05 = Hay River
- LC06 = South Fork Hay River
- LC07 = Pine Creek and Red Cedar River
- LC08 = Lake Chetek
- LC09 = Yellow River
- LC10 = Brill and Red Cedar Rivers
- LC11 = Red Cedar Lake
- LC13 = Muddy and Elk Creeks
- LC14 = Lower Eau Claire River
- LC15 = Black and Hay Creeks
- LC16 = South Fork Eau Claire River
- LC17 = North Fork Eau Claire River
- LC18 = Duncan Creek
- LC19 = Lower Yellow River
- LC20 = Upper Yellow River
- LC21 = McCann Creek and Fisher River
- LC22 = Rush River
- LC23 = Trimbelle River and Isabelle Creek
- LC24 = Lowes and Flock Creeks
- LC25 = Otter Creek

Wisconsin Department of Natural Resources  
 BIM - GEO Services Section  
 June 1985



**ATTACHMENT B:**  
**Red Cedar River Basin**

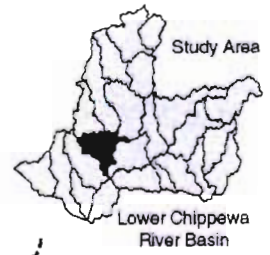
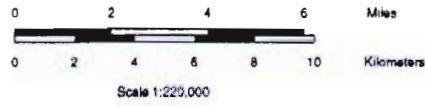
# RED CEDAR RIVER BASIN



WATERSHEDS	
	Brill and Red Cedar Rivers
	Hay River
	Lake Chetek
	Pine Creek and Red Cedar River
	Red Cedar Lake
	South Fork Hay River
	Wilson Creek
	Yellow River

**ATTACHMENT C:**  
**Wilson Creek Watershed**

# Wilson Creek Watershed (LC04)



- Legend**
- Town
  - Dam
  - River Basin Boundary
  - Watershed Boundary
  - River
  - State, Federal or Interstate Highway
  - Township, Range Line
  - County Boundary
  - State Boundary
  - Open Water
  - Wetland
  - Municipal Area

- Wastewater Treatment Plant Discharge**
- |                                |                                 |
|--------------------------------|---------------------------------|
| <b>Municipal Discharge to:</b> | <b>Industrial Discharge to:</b> |
| Surface Water                  | Surface Water                   |
| Groundwater                    | Groundwater                     |
| Both                           | Both                            |

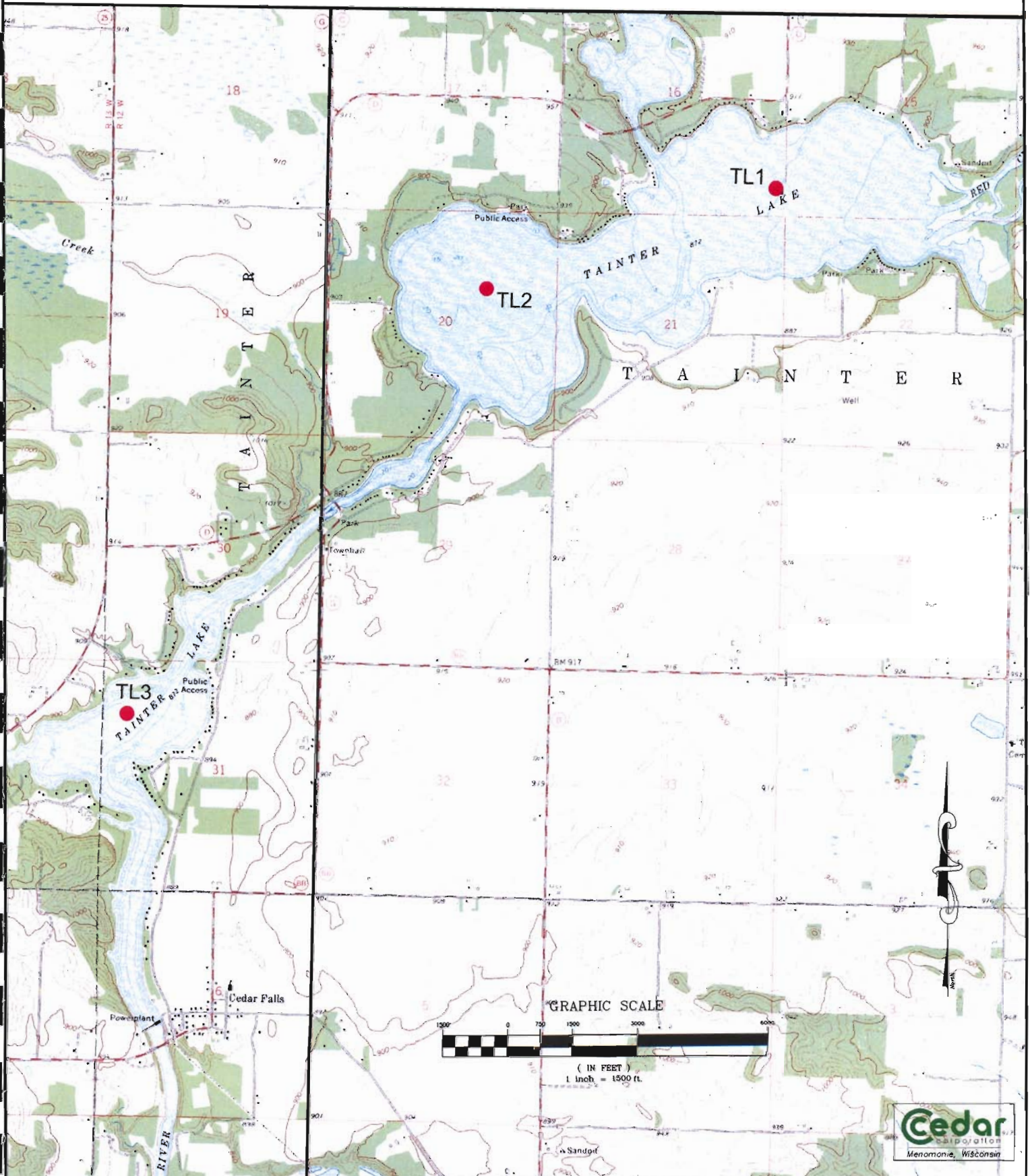
Wisconsin Department of Natural Resources  
BIM-GEO Services Section  
June 1995



**ATTACHMENT D:**

**Tainter Lake  
&  
Sampling Locations**

# Project Location: Tainter Lake





**ATTACHMENT E:**  
**Lake Menomin  
&  
Sampling Locations**





**Project Location: Lake Menomin**

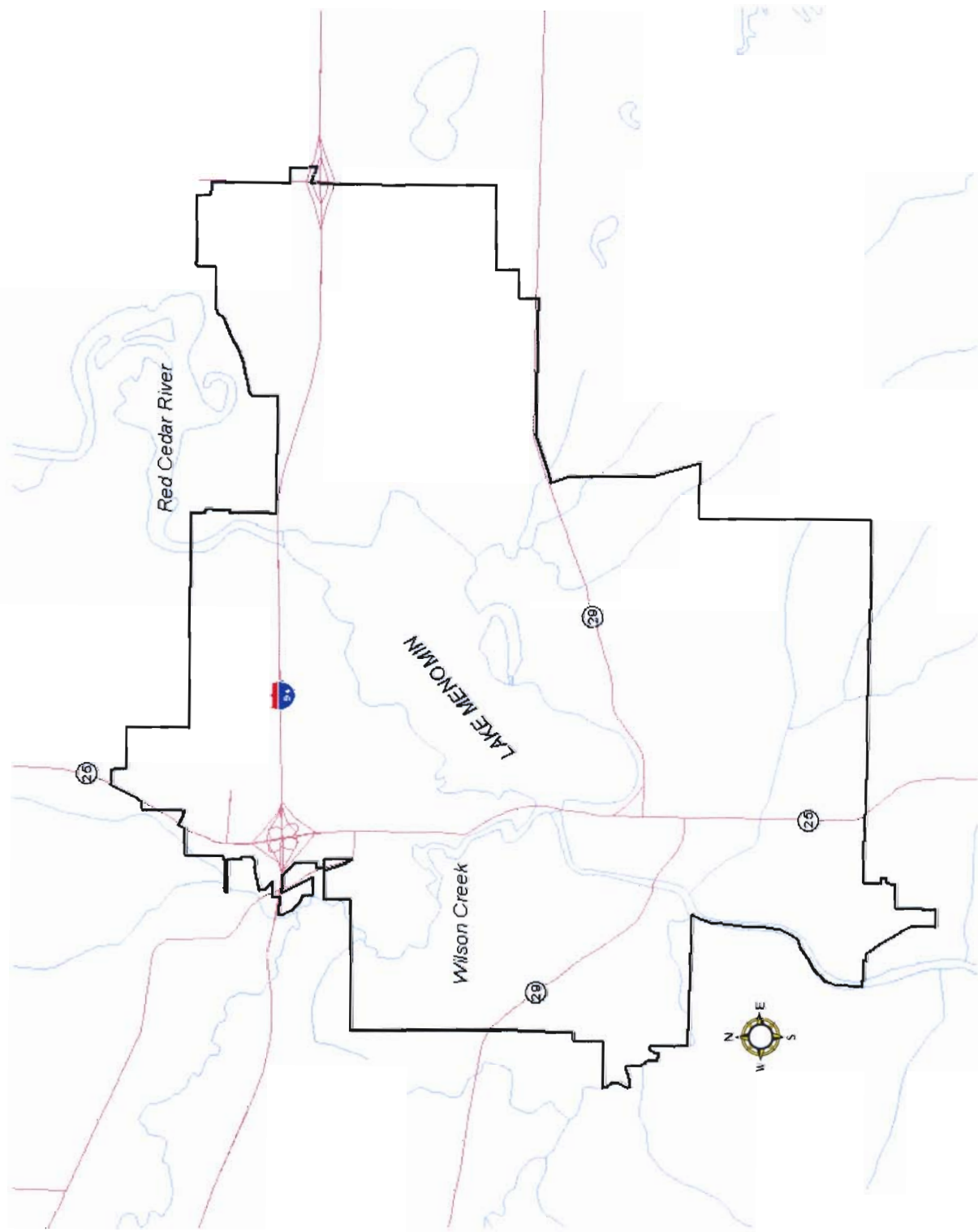
N

1 cm = 250 meters

**Cedar**  
Corporation



**ATTACHMENT F:**  
**Menomonie, Wisconsin**



**ATTACHMENT G:**

**Survey Comments**

**SURVEY COMMENTS  
LAKE MANAGEMENT PLAN  
JULY 2003**

3. **If you haven't visited the lakes or adjacent park areas within the past two years, please indicate why: Other:**

"I live on lake."  
"Not much to do at Lamb's Creek."

15. **Do you use a water filter and/or purifier system with your drinking water? If yes, other:**

"High nitrate level."  
"Eliminate rust (stains)."  
"On the ice maker to filter out sediment."  
"Keep iron out."  
"We use Culligan."  
"Rust, mineral taste."  
"Sand."  
"Built into our refrigerator with water/ice in the door."  
"Enhances water for health."  
"Softener - remove iron."  
"Remove iron."  
"Came with the refrigeration."  
"Rust in the water."  
"Softener."  
"Reduce iron."  
"Reduce minerals in water."  
"Possible allergic reactions to Menomonie water."  
"High iron content."  
"Remove sediment/sand."  
"High iron and nitrate."  
"Iron."  
"Remove sediments."  
"Drink more if I have a pitcher of water in the fridge."  
"Old pipes to house."  
"Color - mineral staining."  
"Iron removal."

"Peace and quiet."

"Recreation, nature."

"View."

"We like it."

"Enjoying outdoors."

"Enjoy natural environment."

"Availability."

"View."

"For water activity when we bought. Now peace and tranquility and enjoyment of the view."

"Recreation."

"The view."

"Personal enjoyment."

"Privacy and recreation."

"Water sports/lifestyle."

"Peacefulness. I like living near water."

"Enjoyment and view."

"Investment is good and beauty."

"Peace and quiet."

"Recreation."

"Quiet."

"View, boating, fishing."

"View. Water quality in summer makes all use impossible. Smell keeps us indoors."

"Peace and tranquility."

"Potential housing appreciation."

"My home."

"Peace and tranquility."

"Peace and tranquility."

"Quality of life."

"Breathtaking view (sometimes the smell does take your breath away)."

"To be able to use the lake - swimming, fishing, boating, etc."

"Investment."

"Boating, fishing, observing wildlife."

"Peace."

"Outdoor enjoyment/view."

"Boating."

"Summer enjoyment."

"Quiet and view."

"The view and peace and tranquility."

"Love it."

"Enjoy the peace, tranquility and view."

"View."

“Take to dump or City picks up.”  
“Bag and take to dump.”  
“Bags are picked up.”  
“City pick-up.”  
“City collection.”  
“Bring to dump for composting.”  
“Haul to dump.”  
“Carry to farm field.”  
“City pick-up.”  
“Landfill.”  
“Dump.”  
“Bag them. City pick up.”  
“Lawn service takes them.”  
“Bag them - City pick-up.”  
“Take to City compost site.”  
“City pick-up.”  
“City pick-up.”  
“Bag for collection.”  
“Grind up with mower.”  
“Take to dump for composting.”  
“City pick-up.”  
“Rake into woods.”  
“Bag and take to dump.”  
“Take to dump.”  
“Chip them then put along bank.”  
“Bag them for City pick up.”  
“Recycling center.”  
“City dump.”  
“Bag and dispose.”  
“Compost at City dump.”  
“City pick-up.”  
“Rake them into the woods.”  
“Haul to landfill also.”  
“Take to dump.”  
“Bag and dispose.”  
“Have to dump.”  
“Take to dump.”  
“Haul to landfill to be composted.”  
“Landfill for compost.”  
“City dump.”  
“Haul to country to burn.”  
“Put in woods.”  
“Landfill.”  
“Set them out for fall pick-up.”  
“Dump.”

"Take to landfill."  
"Put in woods to decay naturally."  
"Water and dirt go into septic system."  
"Place along rear of property in weeds."  
"Discard in ditch."  
"Dog does its waste in the woods across the road."  
"Put it on flowerbeds."  
"Remove it to off-site compost/garden."  
"I take her out on the farm."  
"Woods."  
"Trained to go in the woods."  
"Trained it in the woods."  
"Throw into hay field."  
"Compost."  
"Throw it into the woods."  
"Dispose of on land on the other side of road."

**44. One of the Association's activities is to educate and inform the public; what is the best way for the Association to communicate with you about their activities? Other:**

"They only listen to themselves."  
"They currently have a website and this is best for us."  
"Web site."  
"Phone."  
"Loathe the local papers, hate the radio, and don't answer the phone. Send me an e-mail at [lmknown@cruiskeen.com](mailto:lmknown@cruiskeen.com)."  
"Haven't heard anything about it for couple of years."

**47. Since living on or near Lake Tainter/Lake Menomin, do you feel the water (clarity) quality has: Other:**

"Slight improvement."  
"Varies with temperature and rainfall."  
"Depends on weather."  
"Algae bloom is a problem every summer."  
"Since 1961, both ups and downs."  
"Depends on weather - rain amount helps."  
"Since 1981 has drastically degraded - no sign of improvement."  
"It seems to change by year. Last year the smell was awful."  
"Improved in past 5 years - long way to go."

"The tax money is already there."

"Parties responsible for large scale fertilizer use."

"Responsibility of property owner."

"User tax on all watercraft on the lake."

"All users need to share the costs."

"Enforce ag waste/fertilizer laws."

"Grants."

"Tax chemical companies - lawn and farm."

"Algae."

"Tax businesses/farms, lake property owners."

"Seems like we should know where the exact problems are coming from before I could have an opinion who should pay for the improvements."

"The water dirty when it gets here."

"Restitution."

"City and County Government."

**53. List one thing you like most about Lake Menomin and Tainter Lake or the area immediately surrounding the lakes:**

"Natural beauty."

"Improvements are being made."

"Lake Menomin: still fairly natural shoreland. Many areas accessible to public."

"The view."

"Great fishing and not a lot of boat pressure."

"Be able to monitor its quality in July, July, August and October."

"Good fishing."

"Beauty and scenery."

"The beauty."

"Size."

"The view."

"Parks."

"Wildlife."

"The view."

"Parks."

"Naturalized shoreline."

"Pretty."

"Beauty."

"Love being by the water and the sound of the water."

"Undeveloped appearance of much of the lake."

"The views."

"Close to family."

"It is the center of our town."

"The beauty."

"Recreational value, natural beauty and peacefulness."



“Natural beauty, wildlife.”  
“View of Lake Menomin.”  
“Scenic.”  
“Boating.”  
“Enjoyment of view of undeveloped Lake Menomin shoreline.”  
“Central to identify/character of the community.”  
“The view, natural setting.”  
“A lake in center of town is wonderful.”  
“Nine months a year the lakes are beautiful. The rest of the time they look like pea soup.”  
“It’s beauty.”  
“The lack of view of houses and business parties on Lake Menomin.”  
“The view.”  
“Proximity to be available to many people.”  
“The availability and tranquility.”  
“Wildlife.”  
“The beautiful environment.”  
“Tranquility.”  
“Sense of community.”  
“Quietness.”  
“Accessibility.”  
“Woodland.”  
“Tranquility.”  
“Beautiful lake and park on Lake Menomin.”  
“Moderating affect of water mass on temperature.”  
“Natural surroundings despite a lot of development.”  
“Life style.”  
“View.”  
“Beautiful and natural surround/convenient.”  
“A green shoreline, building setback.”  
“Great atmosphere - Lake Tainter.”  
“Fishing.”  
“Proximity.”  
“Locale.”  
“Walking area, wildlife.”  
“Wakanda has such beautiful old trees and is a nice park.”  
“It’s quiet and friendly.”  
“Beautiful setting.”  
“Overall beauty and recreation.”  
“Parks, scenic views.”  
“Access to the lake.”  
“Scenic.”  
“Wildlife migration and fishing.”  
“Greenspace.”  
“Scenic beauty and nature.”  
“Scenic beauty.”

“Fish quality.”  
“The scenery - woods and hills.”  
“Good fishing.”  
“Scenic.”  
“Fishing.”  
“Enjoyment of the view.”  
“Natural beauty.”  
“Peaceful parks.”  
“Trees, natural landscape.”  
“It’s near.”  
“The natural beauty and parks - public access to lake.”  
“Its proximity and accessibility.”  
“Nice place.”  
“A lot of natural shoreline.”  
“View scapes.”  
“The quietness, the small number of jet skis on it (almost none).”  
“Pretty area geographically.”  
“Water.”  
“Recreation.”  
“The natural beauty of the lakes and wildlife included.”  
“The view.”  
“The peace and quiet on most weekdays.”  
“Variety of wildlife, close to work.”  
“Friendly people.”  
“Close to our Minneapolis home, wonderful view.”  
“Relaxing to look over lake when it doesn’t smell.”  
“It is beautiful.”  
“Scenic area.”  
“The beauty it adds to the City of Menomonie.”  
“The beauty of it.”  
“Natural.”  
“The view.”

**54. List one thing you like least about Lake Menomin and Tainter Lake or the area immediately surrounding the lakes:**

“Clear cutting trees and shrubs on shore lines.”  
“They are impounded, hold back high phosphorus containing sediment, and turn green and stink like a sewer late fall.”  
“The summer green.”  
“The algae.”  
“Algae blooms in the summer; odor they create when they decompose.”  
“Green.”  
“The green stuff.”

"It's often green and smells (Lake Menomin around the road down from North Menomonie)."

"Smell."

"It stinks."

"The slime and smell in summer."

"Water quality and smell."

"Some filling in the upper lake from the rivers."

"Green water."

"The green slime that stinks so bad you don't want to come out of your house."

"Plywood on the dam."

"Water quality."

"Personal watercraft - jet skis."

"Algae."

"Algae/fish habitat existence."

"Stinks, water is green."

"That they are not true lakes, but reservoirs of shallow, stagnating water."

"The green algae bloom."

"Smell."

"Algae odor in August."

"Green and smelly in summer."

"Water quality."

"The green bloom each summer (smell and sight of it)."

"Poor water quality."

"Smell."

"Water quality."

"Water quality - mid/early summer it's terrible - no swimming, too stinky to walk nearby - don't even like ideal of eating the fish."

"The smell."

"Bad smell/green color."

"Moderate population."

"Algae."

"Green from July to first frost. Water and smell."

"Blue-green algae."

"Filthy - stinks - not utilized as it could be."

"Too populated on lakeshore property."

"Not able to use for swimming and too many mosquitos."

"I do not like how green Lake Menomin is."

"The green and smell."

"The Cedar Falls dam flood gate system is aging."

"The stink from the green lake sludge."

"Increase in small motorized watercraft on lake (i.e., jet skis)."

"The green algae and the smell."

"Excess phosphorus and algae bloom. Fishermen leaving litter."

"Domestic waste that you can still find around the lakes."

"Green water."

“Green lake in July/August.”  
“Overgrowth of living units without public sewer.”  
“Green slime.”  
“The increasing land costs and increasing taxes.”  
“Sight and smell come July.”  
“The inconsistency of lake levels.”  
“Green slime.”  
“The stench produced by rotting algae.”  
“Green late July and August.”  
“Smell.”  
“Algae.”  
“Danger.”  
“Algae - smells horrible in late summer.”  
“How green and smelly it gets during summer.”  
“The smell.”  
“Dirty water and especially the smell in hot summer.”  
“Green algae after July.”  
“The green smelly lake in mid- to late summer.”  
“Filling in of sediment.”  
“Algae.”  
“Water quality (for swimming).”  
“The green color and stench in the summer.”  
“More boat traffic.”  
“Algae bloom in warm months.”  
“The smell and green appearance.”  
“Boat traffic (motors).”  
“Green water.”  
“Shallow conditions at mouth of rivers.”  
“Decaying weed smell and sight.”  
“Algae and smell.”  
“Smell of green soup after July 4.”  
“Water quality - use (increasing) of small water craft.”  
“The algae making Lake Menomin not swimmable and making fish undesirable (or at least questionable) to eat.”  
“Green lake in summer and have to push pontoon 50 feet to get into channel due to sediment.”  
“Smell.”  
“Green algae (smell).”  
“The algae in the lake.”  
“The poor job of construction site erosion control within the City of Menomonie.”  
“Odor in mid-summer.”  
“Jet skis - smell.”  
“Green water.”  
“Green and smelly.”  
“The green odor, and the smell in late summer.”

"Dredge a channel into the Tainter Lake. Fix the boards on the dam. We have no water the way it is."

"Sewer for any residence near lakes."

"Smell."

"Get rid of the algae."

"Remove the chemicals that create the algae that take away the oxygen that kills the habitat that causes the smell."

"Farm early spring planting fertilization run-off."

"Get rid of algae bloom."

"Clean the green."

"That the water would be clean."

"Remove all dams and let the river flow. Enforce shoreland zoning, especially the 30 foot access. Reduce phosphate and nitrogen load."

"Make them easier to view with less green in the water."

"Not have Tainter filling in."

"Clean up the water."

"Clean it up."

"Water quality."

"Develop an effective overall method to control and eliminate algae and scum."

"Control what is put on the soil."

"Get rid of the green algae."

"City sewer."

"Get a process started that will clean up these lakes, starting with the sources creating it from upstream."

"Buffers along waterways."

"Get rid of algae."

"Attempt to clean the water so one could swim in the Lakes."

"All area residents need to take responsibility for reducing poisonous run-off. But we need to be well informed and aware of our options such as Arnie's Greenhouse in Eau Claire. Or get someone locally to carry and advertise these organic residential herbicides and fertilizing alternatives. A friend a few years ago who had just bought a house was asking me about lawn care. He'd been to Wal-Mart and had been advised, of course, to buy the standard weed and feed lawn poison as well as two other fertilizer products - one for May, one July, one September. I think people need to understand that a little lawn care goes a long way and also must know where to get less poisonous alternatives. I think my lawn and flowers would make a pretty good promo for this."

"I've seen bald eagles trying to nest here, but the noise from some boats and erratic speed scares them off."

"Water quality."

"I would lower the water level, dredge out the Red Cedar/Tainter area, place sediment traps, empty periodically, continue working with industries and the TMDL, from them, get the cows out of the Hay River and Red Cedar River plus its tributaries, establish buffer zones on all farms attached to water front. We are looking at millions and millions of dollars. Make it a 10-15 year project and it could be done."

"Minimize the amount of algae growth."

“No green (algae), make it clean enough to swim in again.”  
“Continue to improve water quality.”  
“Get rid of the algae.”  
“Get rid of smell.”  
“More walking trails at lakeside in downtown area and park areas.”  
“Stop waste/chemical runoff all the way up Red Cedar River. You can’t change the lakes without changing the river. The lakes are the river.”  
“Allow water to flow through dams at Cedar Falls and Menomonie at a higher rate per hour. Obviously this will result in lower lake levels.”  
“Get rid of the mosquitos.”  
“Flush out the green.”  
“Better control of the water level on the lakes by improving flood gate system.”  
“Clean the junk out, reduce the algae.”  
“More no wake areas in channels and narrow locations.”  
“Get the green algae and smell out.”  
“Impose a tax on fertilizer/phosphate use, keyed to TMDL, payable to lake district. If Lentz, Husby or other big polluters want to continue polluting, it’ll cost them.”  
“Major clean-up of the above waste.”  
“Get rid of the green.”  
“Clean-up the lake so we can use it.”  
“Clean the green.”  
“Improve water quality.”  
“Get rid of carp. Research proves that they rouse about 40% of greening.”  
“Clean/pure water. Control run-offs.”  
“Educate all neighbors including entire Red Cedar River residence and family, community on efforts.”  
“Clean-up the warm weather green growth.”  
“Clean the algae.”  
“Dredging.”  
“Lessen development.”  
“Clear up the water in Lake Menomin.”  
“Clean up the lake.”  
“Get rid of the green.”  
“Reduce algae levels.”  
“Clean up septic systems around the lakes.”  
“Reduce non-point ag inputs (cattle waste, crop chemicals).”  
“Stop farm run-off and any other fertilizer run-offs into the lake.”  
“Control algae (phosphorus).”  
“Prevent silting - upper Tainter will be a swamp within ten years - our lifetime.”  
“Deal with the causes of green scum.”  
“Keep cows out of creeks and phosphorus on the farms.”  
“Clean the green.”  
“Stop lake bank erosion.”  
“Water quality.”

“Water clarity.”

“The odor in the summer. In the last 8 years, 2002 was the worst. We had to keep doors and windows closed at times.”

“Ban jet skis on Tainter. Limit to upper Tainter. Noise pollution.”

“Decrease algae bloom.”

“Water clarity.”

“Cut down on speeding watercraft.”

“Create a sanitary district.”

“Dredging river channels.”

“Clear out the algae/weeds.”

“Water quality.”

“Purge it of aquatic growth by getting at the upstream infestation.”

“Water quality.”

“Clean the water (is there something microbial and naturally occurring that could be introduced to eat the algae) and make a trail around the entire lake.”

“Dredge Red Cedar River as it runs into lake so boaters can get their boats into lake without pushing.”

“Get rid of smell.”

“Eliminate point source pollution sources.”

“Harvest the algae to break the cycle of regrowth.”

“Reduce the sediment entering Lake Menomin from the stream behind the hospital and Wilson Creek.”

“Get rid of the green.”

“Clean the woods.”

“Clean it up.”

“Clean the green.”

“Make all land owners follow rules for clearing of adjacent properties.”

“Do not allow non-sewage water to drain out into lake for example: wash machine/dishwasher water.”

“Improve the water quality by decreasing the cause of its odor.”

“Get rid of the algae and its causes.”

“No more building on lakes if possible. Do some dredging of back waters.”

“No more algae or scum.”

“Improve water clarity (remove the green).”

“Decrease (eliminate) the smell and the green algae/sludge.”

“Decrease development.”

“Enact and/or enforce restrictions on improper development from start to finish. Fine developers and property owners for practices that lead to increased sediment and chemical load in the lakes, especially modern lawn care.”

“Get rid of the green algae.”

“Clean up the algae’s.”

“Enforce existing boating safety laws and regulation.”

“Make sure all septic systems are up to code and somehow clean the slime that occurs on both lakes.”

“Work on reducing algae.”

"Zebra mussels. This is the only waterway in the state we the DNR should actually have/encourage them."

"I hope that Xcel Energy's plan will also stabilize Red Cedar River levels. Raising and lowering the dam for power has caused unhealthy fluctuations in the river for many years."

"Water levels too uncontrolled, high wind conditions cause major bank erosion, loss of trees, vegetation and soil."

"Even though the annual algae bloom on the lakes make them less desirable, it appears this has been a long standing problem, not something of recent, modern times. The odds of successfully resolving this situation do not seem good."

"The docks on Lake Menomin are nice, but they would be much handier if they were made a little longer. It can be tough sometimes landing or putting in a pontoon boat when it's windy out."

"It would be nice if the area by the island up from the dam - this area be absolutely no wake, period - then maybe the bald eagle will return. Also, I don't know of where a family could take a row boat or canoe out on the lake and feel safe - this would be a good area for that. Life jacket use should be mandatory. I suggest in the fall when sweet corn is available, have a picnic, Cedar Corporation sponsored, and have booya served along with some games, bingo - proceeds to toward lake improvements. Must have volunteers. I will volunteer to help with the booya. I have recipe, but need help. Maybe someone has made this before."

"Place restrictions on all property owners, businesses, farms, etc. that border all rivers feeding into Tainter, i.e. Red Cedar and Hay Rivers, to prevent non-code septic systems, polluting farmland and industrial wastes from entering rivers and the lakes. Make all property owners comply with current standards."

"Ironically, until the bloom makes the Lake Menomin repulsive, the lake's poor reputation is a bonus. My family and I often have much of the lake for our own even on a beautiful Saturday in June/July. As of June 20, 2003, the lake in general and the shoreline areas in particular, were suffering significant bloom. This seems early to me and causes concern."

"I believe the problem with the lake may start farther up north...which we all need to work together with the different communities."

"They don't listen to anyone but themselves."

"As a property owner in the area, we are willing to be part of the solution. The lakes can be a greater asset to the area if they were cleaner. What would increased funding provide to actually clean up the lakes?"

"If there is a way to check if a lake owner's septic is bad or causing discharge into the lake. They should be forced to correct it. This morning there was not only very green water by our dock on Tainter, but this is the first time it turned into suds/foam when boat went by and stirred it up. This is the first I've seen this - what next!"

"Make Xcel legally guarantee the management of Tainter Lake levels to be authorized to continue their dam."

"I think it is a shame we cannot use Wakanda Park. We used to swim and have swimming lessons and now you cannot stand to go anywhere near after middle of July."



"I applaud your efforts. It will take a coalition of State, County and City governments and citizens of Dunn County to really bring change in the water quality of Menomin and Tainter Lakes. I think the Lake Association can lead the charge. Perhaps forming a link/bond with those whose chemicals are washing into the lake, i.e., business and farmers and instead of forcing them to comply, forging voluntary agreements with them in perpetuity, would be a partial solution to the problem of run-off. Does forming either a lake district or sanitary district give access to grants/funding?"

"We heard they were going to dump barley into upper Tainter Lake, but someone called it off. We thought it sounded like a good idea since it had a proven track record. I know a lot of people want to blame farmland, but why are other rivers that run through farmland (Willow and Apple, e.g.) not having the green problem that we have."

"The downtown of Menomonie is still not taking advantage of the lake. Need to develop shoreline walkway and benches."

"I grew up 40 years ago in Rice Lake and it would get algae problems also (swimmers itch). Too much crap drains into the Red Cedar watershed."

"Something needs to be done with the Hay River and Red Cedar River basin when it enters Tainter Lake. Huge mud flats and silting have made it impossible to blat up into the river. Dredging needs to be done soon. It gets worse every year. The DNR needs to get better at enforcement of high speed boaters, especially in channels. The lake habitat needs to be improved by stocking more game fish, building more fish cribs, and controlling the summer algae bloom. A lake-wide clean-up is needed to pick up trash, logs, and other debris that floats in from upstream. A harvest of rough fish is needed again. There are too many carp in the lake causing undesirable habitat for a good quality fishery."

"I would outlaw jet skis. I'm afraid that with Xcel Energy handling the lake elevations that where I live on Tainter Lake will flood again. It has never flooded here since the flash boards at the dam have been installed. Can Xcel Energy guarantee there will not ever flood this area?"

"The Dunn County Fish and Game Club could discourage litter with PR campaign (if you claim to love nature so much, why do you leave your garbage here?) and organizing annual lakeshore clean-ups. Many fishermen act like they think someone will clean up after them or else they're just pigs and don't ever notice the mess. Farming does not deserve to be such a sacred cos. Point sources are largely controlled and chemicals is the big problem. What local politicians can stand up to the Farm Bureau? Try the barley straw treatment somewhere. Let's see what it does."

"We have a beautiful lake that already has nice parks around it. Let's clean it up so it will be used to its fullest."

"We pay higher taxes on our property because the lake supposedly brings extra value to our land so we can watch and hear drunken ski jet drivers buzz around and yell, and then, later in the season, get to smell the green rot caused by city sewer treatment plant, private sewer systems, lawn run-off, municipal run-off, agricultural contamination and so on. I'd love to move away from this natural resource everyone seems to think is getting worse despite all the projects and efforts through the years. It's hopeless. How can the lake improvement association possibly claim success or worth? The lake is worse every year."

"Work with carp fishers to harvest the carp out of the lake."

"Algae is in the top three feet of the lake. It grows and worsens as the summer goes on. Each year it worsens earlier and earlier. If some water were allowed to pass over the dam, it would dray much of the algae with it, thus moving it downstream into the Mississippi. What is the impact on the hydro electric dam and why can't residents of the county or lake areas have a voice in that decision."

"Wild animal life is growing worse every year (i.e. deer, rabbits, squirrels)."

"Charge for boat access and parking at all Tainter and Menomin ramps. Levee a per boat use tax for residents who keep their boats on the lamp - \$5 - \$7.50/gc based on hp/length. Provide landowners with lists of products for week hill that are lake friendly. Provide literature regarding landscaping for an improved water quality. I picked up a great flyer at a garden supply business in Eau Claire - lost it temporarily, I hope."

"Those of us that have lived on the lake for many years have been involved with conservation projects and water quality issues over time. I have 20 years of such involvement. The lakes are an asset for all full and part-time residents of Dunn County. All who benefit need to share the burden as well as the benefits. Xcel Energy makes money from that water and therefore should take a more active role in the water quality."

"Data has been generated and is conclusive on the course of the algae problem. See DNR reports. We don't need more wasted money on studies. We need to take action based on fact. Specifically, reduce the chemical levels rom agriculture. Your questions seem to be geared to a septic system for Tainter and issues that have less than 3% impact on water quality. Is this a good use of public funds?"

"Keep it neat and clean."

"If live on lake or river, all septic should be up to date, responsibility of cost by resident homeowner or shouldn't live there."

"Potential homeowners are less than excited about purchasing a home on or near this Lake Menomin either because of the algae or the smell in mid-summer."

"Something needs to be done soon. Tainter is one of the dirtiest lakes in Wisconsin."

"I cannot believe that the DNR which does not allow individual landowners to till to create a beach or fill to level out rough land to eliminate mucky water troughs would allow American Materials to destroy all trees and vegetation where AM wants to (did) put a gravel pit. For two years until grass covered the area, there was run-off from the crushed rock which filled up a slough originally a good fishing area. Now they have moved operations further east and are piping in water to wash gravel and this will add to the filling up of the river and slough. Many people can no longer get boats up the river from where the Red Cedar flows into upper end of Upper Tainter Lake. The gravel pit is not responsible for that, but the DNR does not seem willing to help keep the river open."

"Wolske Bay needs more attention. It looks as if a person could walk across it. If you could tolerate the smell. Old ties and lumber tarnish a beautiful area. Trimming the brush near the library would allow for a better view of the lake."

"We enjoy Wakanda Park very much. The beauty of the trees, the mowed lawns, playground for children, the animals, museum, etc. The Evergreen Cemetery is a pretty place too. Very well kept up, peaceful with a great view of the lake. Riverside Park is nice too. Enjoy the fishing and tubing down the river. Also the bike trail. Menomonie has many beautiful places to see. Main Street benches along the river bank provide a beautiful view too."

"We have been cabin owners since 1970. Our first cabin was north of Rice Lake, WI, on one of the lakes that flows into the Red Cedar River. In all those years, we never experienced the green and smelly lake we have here on lower Tainter. The green already started this year before the 1<sup>st</sup> of July. The pea soup the lake gets in July and August is almost unbearable. The smell is awful. It makes it very difficult to use the lake in the manner we intended when we purchased our property in 1998. Our children and friends cannot swim in it. There must be something that's polluting the lake as it winds its way south through Tainter. Whether it is chemical or fertilizer, animal waste or a combination of all, we don't know. We truly hope these lakes can be renewed in the near future. As home owners on the lake, we work very hard on keeping the lake clear of any fertilizers or pesticide and human waste and debris. We would like to thank Cedar Corporation for this survey. It has been a way for us to vent our frustrations over the quality of the water on lower Lake Tainter."

"If the problem is being corrected, I like to know how, where, and when. Have never heard, nor seen anyone doing anything to lake. Clearing algae or spraying or whatever."

"Get rid of the green."

**ATTACHMENT H:**

**Sample Survey**

# Community Survey

Bremer Bank, Cedar Corporation, Dunn County Fish & Game Association, Dunn County Land Conservation Division, Main Street of Menomonie, Menomonie Chamber of Commerce, Menomonie Disposal Service, Red Cedar Pheasants Forever, Tainter/Menomin Lake Improvement Association, Town of Menomonie, UW-Extension, Wal-Mart Store & Distribution Center, The Waterfront, and the City of Menomonie are sponsoring the development of a lake management plan for Lake Menomin and Tainter Lake. Part of this plan is to obtain regular, frequent monitoring of the water quality in the lakes (including odor). The acquisition of water quality data is important as this information has been and will continue to be provided to the Wisconsin DNR, US Geological Survey, and the various levels of government, as we pursue solutions to resolve the water quality problem.

As part of the overall process, it is important that the residents of the local community have the opportunity to provide input. It is not possible to consider everyone's opinions, thus only a sample of the local residents are being surveyed and it is important that you complete the attached questionnaire. All responses will remain anonymous and will be tabulated and presented in a survey report to the sponsors of the plan. Your responses to the written questions *are* important, as are your comments and space is provided for them. Please complete the survey and return it to Cedar Corporation by re-folding the self-addressed survey and taping the top shut by July 18, 2003.

Thank you for your participation,  
PROJECT SPONSORS

- Please check the lake(s) or adjacent park areas you or a member of your household have visited within the last two years (check all that apply):  
A.  Lake Menomin      B.  Tainter Lake      C.  None
- If you checked "none" for Question 1, when did you last visit one or more of the lakes or adjacent park areas?  
A.  2-3 years ago      B.  4 years ago      C.  5 or more years ago      D.  Never
- If you haven't visited the lakes or adjacent park areas within the past two years, please indicate why:  
A.  Don't know what is available there.      F.  It is too crowded.  
B.  They're too far away.      G.  I/we like other lakes better.  
C.  I'm/we're too busy.      H.  Water quality concerns.  
D.  I'm/we're not interested in going there.      I.  Other (please list) \_\_\_\_\_  
E.  Health/aging issues make it difficult to go there.
- If you do not have a residence on one of the lakes, please indicate the number of years you have been visiting the lake(s).  
A.  Less than 1 year      D.  11-15 years      G.  Haven't visited these lakes  
B.  1-5 years      E.  16-20 years  
C.  6-10 years      F.  Over 20 years
- If you do not have a residence on one of the lakes, please indicate the distance you travel to visit the lakes.  
A.  Less than 1 mile      D.  11-15 miles      G.  Over 60 miles  
B.  1-5 miles      E.  16-20 miles      H.  Haven't visited these lakes  
C.  6-10 miles      F.  20-60 miles
- Do you (A.) own  or (B.)  rent your home?
- To the best of your knowledge, when was your home built?  
A.  Before 1940      C.  1950-1959      E.  After 1978  
B.  1940-1949      D.  1960-1978
- Are you served with City water and sewer?  
A.  Yes      B.  No      C.  Blank Responses  
(If you answered Yes, skip to question 14. If you answered No or Don't Know, please go to question 9.)



If you are NOT served with City water or sewer or DON'T KNOW,  
answer questions 9-13.

- What type of septic system do you have on your property?  
A.  Drainfield      C.  Holding Tank      E.  Don't know  
B.  Mound System      D.  Privy





10. How old is your septic system? A.  Less than 1 year D.  11-15 years G.  I don't know  
 B.  1-5 years E.  16-20 years  
 C.  6-10 years F.  Over 20 years
11. Have you ever experienced any problems with your septic system, such as backing up, saturated conditions near the absorption field, or other? A.  Yes B.  No
12. Where is your well located in relation to your septic system?  
 i. Distance away: A.  1-5 feet B.  6-10 feet C.  11-20 feet D.  Over 20 years  
 ii. Uphill (19.2%) - or - downhill (5.3%) (circle one)  
 iii. Slope: A.  0% B.  1-3% C.  4-6% D.  6-10%  
 E.  10-20% F.  Over 20%
13. When was the last time you had your drinking water tested?  
 A.  Less than 1 year ago D.  11-15 years ago G.  I don't know  
 B.  1-5 years ago E.  16-20 years ago H.  Never  
 C.  6-10 years ago F.  Over 20 years ago

Everyone please answer the following questions.

14. Are you aware of any abandoned or unused wells on your property?  
 A.  Yes B.  No C.  Don't Know
15. Do you use a water filter and/or purifier system with your drinking water?  
 A.  No  
 B. Yes - Why do you use a water filter/purifier?  
 i.  Improve taste  
 ii.  Reduce the risk to my family's health  
 iii.  Other (Explain) \_\_\_\_\_



16. Regardless of the amount of time you can spend at the lakes or parks, which are your three most important reasons from the following list for using the lakes and adjacent parks, or for owning/renting lakeshore property. (Place a "1" by the most important reason, a "2" by the second most important reason, and a "3" by the third most important reason.)
- |                                  |       |   |       |
|----------------------------------|-------|---|-------|
| A. Entertaining Friends & Family | _____ | I. Water Skiing                             | _____ |
| B. Because of Neighbors          | _____ | J. Fishing                                  | _____ |
| C. Proximity to Work             | _____ | K. Jet Skiing                               | _____ |
| D. Observing Wildlife            | _____ | L. Motorized Boating                        | _____ |
| E. Swimming/SCUBA Diving         | _____ | M. Canoeing/Rowing                          | _____ |
| F. Peace and Tranquility         | _____ | N. Sailing/Wind Surfing                     | _____ |
| G. Enjoyment of the View         | _____ | O. Because my property is a good investment | _____ |

17. Please indicate your opinion of the natural area around the lakes and adjacent parks. If you feel the area lacks or is over consumed by any of the following, place an "x" in the column that reflects your opinion:

	Too Much	About Right	Too Little	Don't Know
A. Natural, rooted vegetation near shore (trees and shrubs).....	_____	_____	_____	_____
B. Floating algae and/or scum on the water surface.....	_____	_____	_____	_____
C. "Keeper-size" pan and game fish.....	_____	_____	_____	_____
D. Diversity of birds and wildlife.....	_____	_____	_____	_____
E. Eagles.....	_____	_____	_____	_____
F. Ducks and/or Geese.....	_____	_____	_____	_____
G. Beavers and/or Muskrats.....	_____	_____	_____	_____
H. Motorized watercraft.....	_____	_____	_____	_____
I. Fish habitat.....	_____	_____	_____	_____



18. Are you a lakeshore property owner or renter? A.  Yes B.  No  
 (If you answered Yes, please go to question 19. If you answered No, skip to question 25, next page.)

ONLY lakeshore property owners & renters answer questions 19-24.

19. If you are a lakeshore property owner or renter, what is your primary reason for living on the lake?

ONLY lakeshore property owners & renters answer questions 19-24.

20. How many years have you owned or rented your lake property?

- A. \_\_\_\_\_ Less than 1-year      C. \_\_\_\_\_ 6-10 years      E. \_\_\_\_\_ 16-20 years  
 B. \_\_\_\_\_ 1-5 years      D. \_\_\_\_\_ 11-15 years      F. \_\_\_\_\_ Over 20 years

21. How far is your home from the lakeshore?

- A. \_\_\_\_\_ Less than 75 feet      D. \_\_\_\_\_ 150 to 250 feet      E. \_\_\_\_\_ More than 250 feet (if  
 B. \_\_\_\_\_ 75 to 100 feet      C. \_\_\_\_\_ 100 to 150 ft      more than 250 feet, how much? \_\_\_\_\_ )

22. Which of the following features exist where your property meets the lake? (Check all that apply.)

- A. \_\_\_\_\_ Natural Vegetation      D. \_\_\_\_\_ Wood Retaining Wall      G. \_\_\_\_\_ Lawn  
 B. \_\_\_\_\_ Trees and Shrubs      E. \_\_\_\_\_ Masonry Retaining Wall      H. \_\_\_\_\_ Steep Natural Slope or Drop-off  
 C. \_\_\_\_\_ Rocks for Stabilization      F. \_\_\_\_\_ Beach



23. Is your shoreline eroding?

- A. \_\_\_\_\_ Yes      B. \_\_\_\_\_ No

24. How many of the following watercrafts are kept at your property?

- A. \_\_\_\_\_ Fishing Boat      D. \_\_\_\_\_ Pontoons      G. \_\_\_\_\_ Canoes/kayak  
 B. \_\_\_\_\_ Ski/speed Boat      E. \_\_\_\_\_ Sailboats      H. \_\_\_\_\_ Other \_\_\_\_\_  
 C. \_\_\_\_\_ Rowboats      F. \_\_\_\_\_ Jet Skis

Everyone please answer the remaining questions.

25. On average, how often do you mow your lawn during the summer months?

- A. \_\_\_\_\_ Twice a Week      D. \_\_\_\_\_ When It Needs Mowing  
 B. \_\_\_\_\_ Once a Week      E. \_\_\_\_\_ I do not have a lawn. (Please Go to Question 33.)  
 C. \_\_\_\_\_ Once Every 2 Weeks



26. What do you do with the grass clippings?

- A. \_\_\_\_\_ Burn on-site      D. \_\_\_\_\_ Compost them on site  
 B. \_\_\_\_\_ Dispose along lake bank      E. \_\_\_\_\_ Use them as mulch  
 C. \_\_\_\_\_ Leave them on lawn      F. \_\_\_\_\_ Other \_\_\_\_\_

27. How often do you water your lawn during the summer months?

- A. \_\_\_\_\_ Every day      C. \_\_\_\_\_ Once a week      E. \_\_\_\_\_ When it needs watering  
 B. \_\_\_\_\_ Every other day      D. \_\_\_\_\_ Once every 2 weeks      F. \_\_\_\_\_ I do not water my lawn

28. Do you use a lawn fertilizer or a lawn pesticide?

- A. \_\_\_\_\_ Yes      B. \_\_\_\_\_ No (Please Go to Question 32.)



29. Who applies the fertilizers?

- A. \_\_\_\_\_ Myself/Family Member      B. \_\_\_\_\_ A Lawn Care Professional

30. Who applies the pesticides?

- A. \_\_\_\_\_ Myself/Family Member      B. \_\_\_\_\_ A Lawn Care Professional

31. On average, how often are fertilizers and/or pesticides applied to your lawn?

- A. \_\_\_\_\_ 1 time before June      D. \_\_\_\_\_ 1 time from June to August      G. \_\_\_\_\_ 1 time after August  
 B. \_\_\_\_\_ 2 times before June      E. \_\_\_\_\_ 2 times from June to August      H. \_\_\_\_\_ 2 times after August  
 C. \_\_\_\_\_ 3 or more times before June      F. \_\_\_\_\_ 3 or more times from June to August      I. \_\_\_\_\_ 3 or more times after August

32. Have you or a lawn company ever conducted a soil test on your lawn or garden?

- A. \_\_\_\_\_ Yes, on my lawn      B. \_\_\_\_\_ Yes, on my garden      C. \_\_\_\_\_ No, never





3. What do you do with your leaves in the fall?
- A.  Nothing  
 B.  Burn them on site  
 C.  Dispose of them along lake bank  
 D.  Compost them on site  
 E.  Use them for mulch  
 F.  Mow them and leave on lawn  
 G.  Other (Specify) \_\_\_\_\_



4. Do you have any pets at your home? A.  No (Please Go to Question 36.) B.  Yes. If yes, how many?
- i.  1    iv.  4  
 ii.  2    v.  5 or more  
 iii.  3

35. What do you do with your pet(s)' waste?
- A.  Nothing  
 B.  Bury it on our property  
 C.  Flush it down a toilet  
 D.  Dispose of it in the garbage  
 E.  Other (Specify) \_\_\_\_\_

36. In the past couple of years, have you taken any of the following measures to improve the water quality at your home? (Check all that apply.)
- A.  Contacted an agency for information about local water quality.  
 B.  Read a specific publication for information on protecting local water quality.  
 C.  Tested my drinking water.  
 D.  Tested my garden/lawn soil.  
 E.  Used bottled water for drinking/cooking purposes.  
 F.  Installed a water treatment/filter/purifier device.  
 G.  Installed a water saving device (toilet or shower head).  
 H.  Pumped my septic system.  
 I.  Improved the physical condition of the plumbing system in my home (pipes, pump, water softener, etc.).  
 J.  Sealed an abandoned or unused well on my property.



37. How many adults (18 years or older) and children (17 years and younger) lived in your home last year?
- A.  1 Adult    B.  2 Adults    C.  3 Adults    D.  4 Adults    E.  5 or more Adults  
 F.  No Child    G.  1 Child    H.  2 Children    I.  3 Children    J.  4 or more Children

38. What is your current employment status?
- A.  Employed full- or part-time    B.  Retired    C.  Student    D.  Unemployed

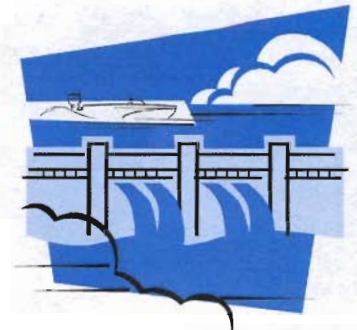
39. Are you aware that Xcel Energy is going to improve the ability to manage lake elevations on Tainter Lake?
- A.  Yes    B.  No

40. Do you believe Xcel Energy's improvements mentioned in Question 39 will improve your ability to use the lake?
- A.  Yes    B.  No

41. Are you aware of the Tainter/Menomoin Lake Improvement Association, Inc.?
- A.  Yes    B.  No

42. Are you a member of the Tainter/Menomoin Lake Improvement Association, Inc.?
- A.  Yes    B.  No

43. Would you like to become a member?
- A.  Yes    B.  No    C.  Maybe



44. One of the Association's activities is to educate and inform the public; what is the best way for the Association to communicate with you about their activities?
- A.  Meetings    E.  E-mail  
 B.  Newsletters    F.  I Don't Wish to be Contacted  
 C.  Articles in Local Papers    G.  Other \_\_\_\_\_  
 D.  Informal Discussions on Radio



45. Over the years the Tainter/Menomoin Lake Improvement Association, Inc. has undertaken projects to improve the quality of the water in Lake Menomin and Tainter Lake. Which one of the following statements best represents your feelings about their efforts?
- A.  The Association should continue these efforts at the present level.
  - B.  The Association should increase its commitment to improving the lakes.
  - C.  The Association should decrease efforts on the lakes, but not completely.
  - D.  The Association should not do anything and should leave it up to governmental agencies.
  - E.  I don't know.

46. To what extent does water quality affect your decision to visit or use Lake Menomin, Tainter Lake, and adjacent parks?
- A.  Great effect
  - B.  Little to no effect
  - C.  No Opinion

47. Since living on or near Lake Tainter/Lake Menomin, do you feel the water (clarity) quality has:
- A.  Improved
  - B.  Remained the same
  - C.  Slightly Degraded
  - D.  Considerably Degraded
  - E.  No Opinion
  - F.  Other (Specify) \_\_\_\_\_

48. Do you know what a TMDL (Total Maximum Daily Load) is?
- A.  Yes
  - B.  No



49. Please indicate your understanding of a TMDL:
- A.  No understanding of TMDL; would like to know more.
  - B.  Know a little; would like to know more.
  - C.  Fairly good understanding of TMDL.
  - D.  Good knowledge of TMDL; understand that one was being created in our basin.
  - E.  Excellent understanding of TMDL and know how this will affect the basin.

50. In your opinion, what impact, if any, has each of the following had on the water quality of the lakes?

	Great Impact	Moderate Impact	Slight Impact	No Impact	Does Not Apply	Don't Know
A. Failing/faulty septic systems around the lake(s).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B. Aquatic plant (weed) removal.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C. Shoreline vegetation removal.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D. Chemical runoff from lawns.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E. Urban, road, or parking lot runoff.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
F. Soil erosion and sedimentation from home sites.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
G. Soil erosion and sedimentation from farms & fields	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
H. Animal (livestock) wastes.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I. Timber harvesting.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
J. Exhaust & fuel leakage from motorized watercraft..	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
K. Chemical/fertilizer runoff from cropland.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
L. Soil erosion and sedimentation from development..	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

51. Please check the top three organizations/persons you feel should be responsible for water quality improvements in Lake Menomin and Tainter Lake.

- A.  City Government
- B.  County Government
- C.  State Government
- D.  Federal Government
- E.  Watershed Residents
- F.  Lakeshore Property Owners
- G.  Lake Users
- H.  Businesses in the Watershed
- I.  Farmers
- J.  Lake Association
- K.  Other (identify) \_\_\_\_\_



52. The costs for lake/watershed management and clean-up solutions will not be entirely born by local, state, and federal governments. Increasing the available funding will reduce the amount of time to implement improvements. Funding can be obtained from several approaches. What approach would you support? (Choose the top two options. Place a "1" by your first choice and a "2" by your second choice.)



- |                             |     |                               |       |
|-----------------------------|-----|-------------------------------|-------|
| A. Volunteer Efforts        | ___ | E. Form a Lake District       | ___   |
| B. Charitable Donations     | ___ | F. Increase Property Tax      | ___   |
| C. Taxing Authority         | ___ | G. Increase State Tax (~1/2%) | ___   |
| D. Form a Sanitary District | ___ | H. Other                      | _____ |

53. List one thing you like most about Lake Menomin and Tainter Lake or the area immediately surrounding the lakes:  
\_\_\_\_\_

54. List one thing you like least about Lake Menomin and Tainter Lake or the area immediately surrounding the lakes:  
\_\_\_\_\_

55. If you could make one improvement to Lake Menomin, Tainter Lake, or the area immediately surrounding the lakes, what would it be?  
\_\_\_\_\_  
\_\_\_\_\_

56. Please add any comments or suggestions you would like to make:  
\_\_\_\_\_  
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*The Project Sponsors thank you for your participation in this survey.  
Please re-fold the self-addressed stamped survey, tape the top shut, and send back to Cedar Corporation for analysis.*