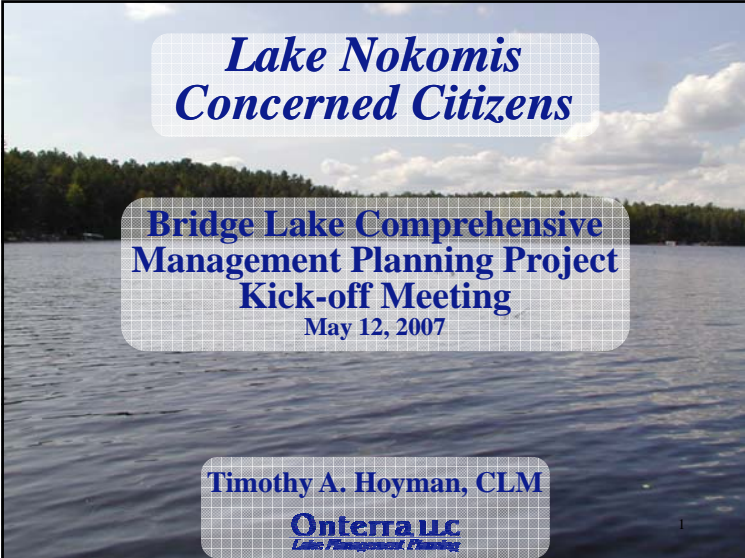


A

APPENDIX A

Public Participation Materials




**Lake Nokomis
Concerned Citizens**

**Bridge Lake Comprehensive
Management Planning Project
Kick-off Meeting**
May 12, 2007

Timothy A. Hoyman, CLM
Onterra LLC
Lake Management Planning

Presentation Outline

- Introduction to Lake Ecology
- Current Lake Project
 - Goals
 - Components
 - Process
- Bridge & Nokomis EWM



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2

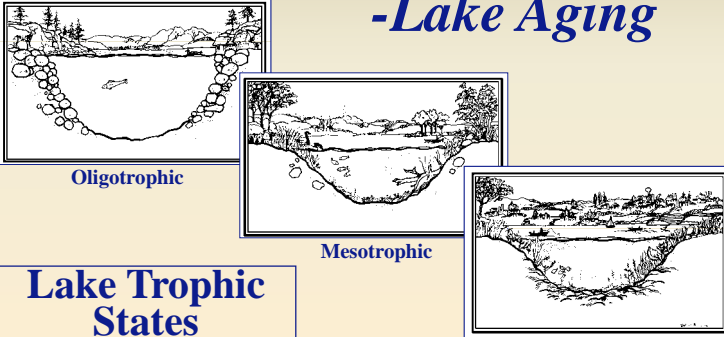
General Lake Ecology



3

General Lake Ecology

Eutrophication -Lake Aging



Oligotrophic

Mesotrophic

Eutrophic

Lake Trophic States

Onterra LLC
Lake Management Planning

4

General Lake Ecology

Cultural Eutrophication

Accelerated eutrophication caused by human activity.



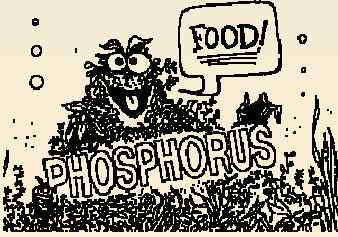
Onterra LLC
Lake Management, Planning

5

General Lake Ecology

Phosphorus

- *Limiting Nutrient*
- *Controls Plant Abundance (Productivity)*
 - *Algae*
 - *Macrophytes*




6

General Lake Ecology

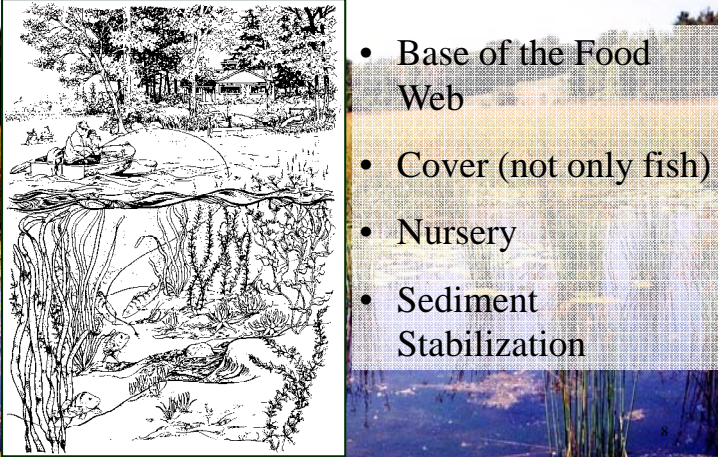
Aquatic Plants (macrophytes)

- *Native Plants*
- *Exotic Plants (non-native)*



7

Native Aquatic Plants



- **Base of the Food Web**
- **Cover (not only fish)**
- **Nursery**
- **Sediment Stabilization**

8

General Lake Ecology

Non-native Aquatic Plants

Curly-leaf Pondweed



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General Lake Ecology

Non-native Aquatic Plants

Eurasian Water Milfoil




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10

General Lake Ecology

Consequences of Exotics

- Competition with Natives
 - Monotypic Community
- Decreased Recreational Value
- Decreased Property Value



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11



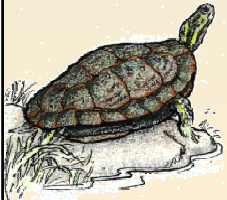
Comprehensive Lake Management Plan

12

Current Project

Study and Plan Goals

- Collect & Analyze Data
- Construct Long-Term & Useable Plan



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Lake Management, Planning

13

Current Project

Study Components

- Public Participation
- Watershed Modeling
- Water Quality
- Aquatic Vegetation
 - Curly-leaf Survey *Completed - None Found*
 - Comprehensive Survey *Completed - WDNR/Onterra*
 - Treatment Monitoring *Pre-treatment Completed*
- Plan Development

Onterra LLC
Lake Management, Planning

14

Current Project

Planning Process

Planning Committee Meetings

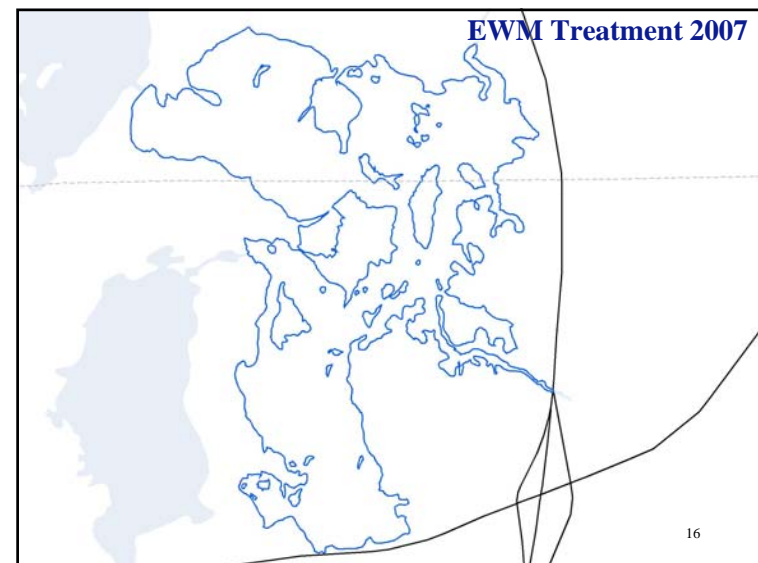
- Study Results (including a stakeholder survey)
- Conclusions & Initial Recommendations
- Management Goals
- Management Actions
 - Timeframe
 - Facilitator(s)

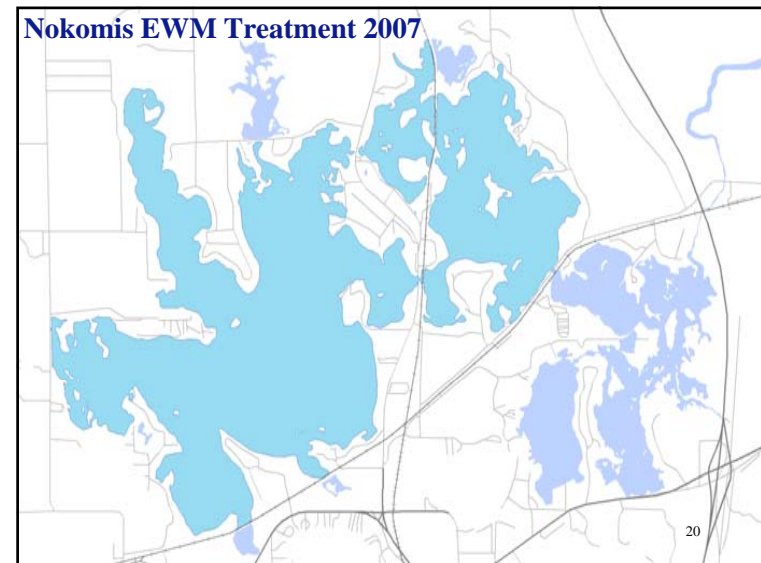
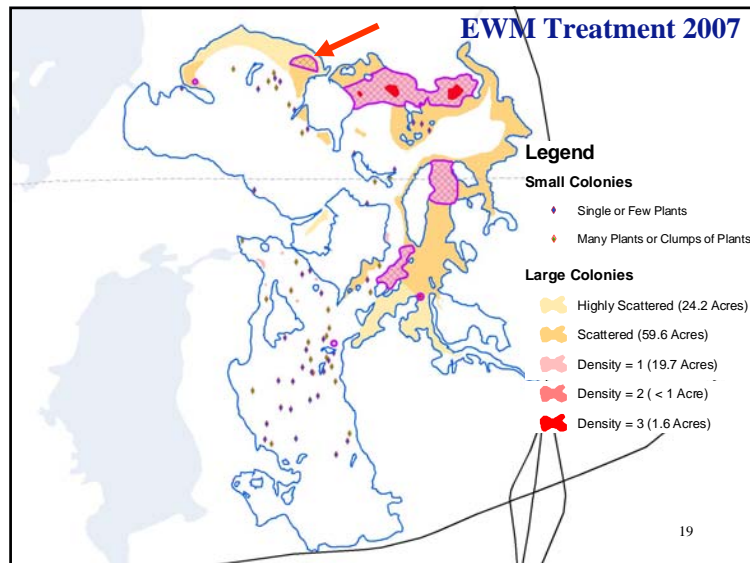
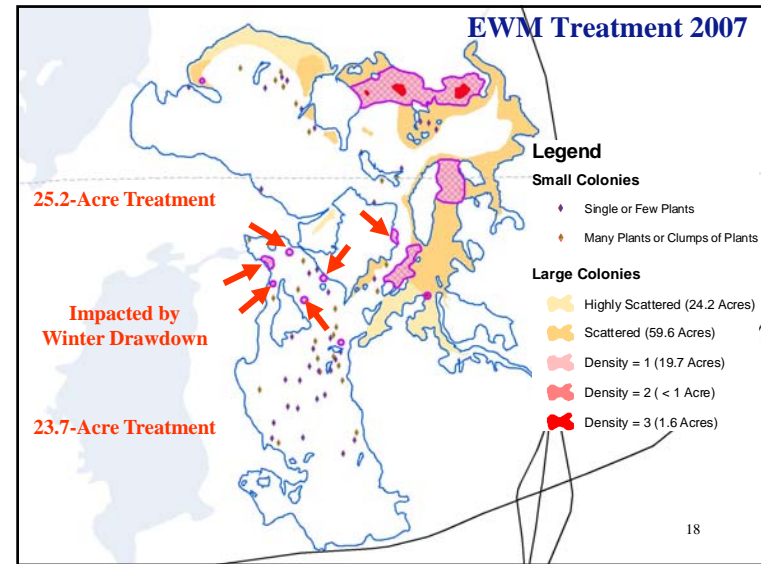
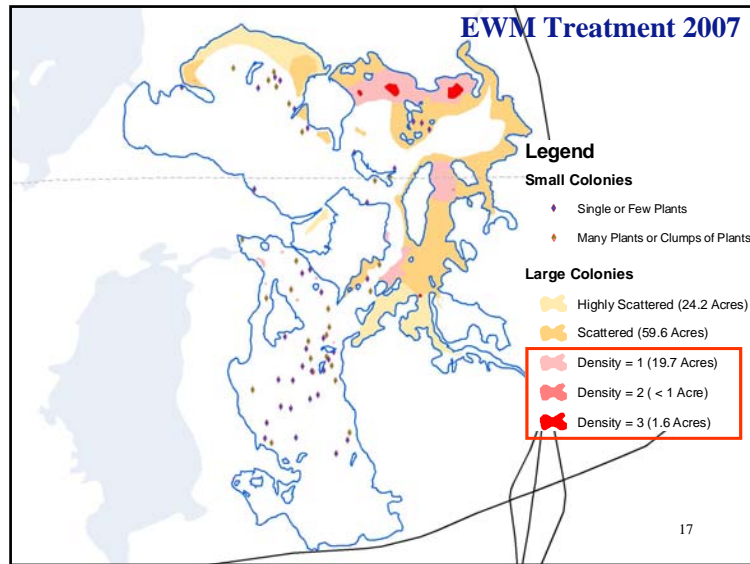


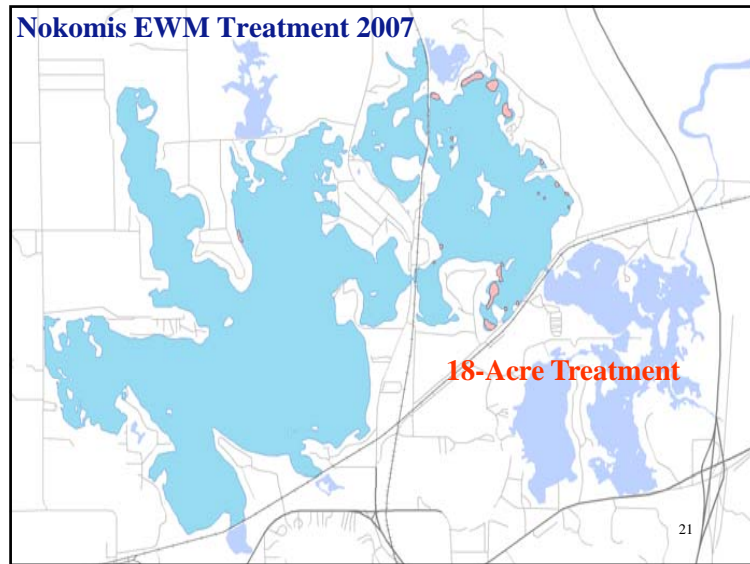
Implementation Plan

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Lake Management, Planning

15







Thank You

.....

Many of the graphics used in this presentation were supplied by:

	Wisconsin Lakes Partnership		
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Onterra LLC
Lake Management Planning

22

The slide has a tan background. At the top, the text 'Thank You' is written in a large, bold, blue serif font. Below this is a horizontal dotted line. Under the dotted line, the text 'Many of the graphics used in this presentation were supplied by:' is written in a smaller, italicized font. Below this text are four logos arranged horizontally: the Wisconsin Lakes Partnership logo (a map of Wisconsin with a lake), the LEAF Extension logo (the word 'LEAF' in small letters above 'Extension' in a stylized font), and the Wisconsin Department of Natural Resources logo (a green square with a white 'W' and a yellow sun over a blue lake). At the bottom left is the logo for Onterra LLC, which includes the text 'Onterra LLC' in bold and 'Lake Management Planning' in a smaller font below it. At the bottom right is the number '22'.

Lake Nokomis Concerned Citizens – Bridge Lake Management Planning Project

On Saturday, May 12th, the Lake Nokomis Concerned Citizens held a project kick-off meeting for the Bridge Lake Management Planning project that began last fall. The project's intent is to assemble the required data and information necessary to create a realistic management plan for Bridge Lake. Much of the plan will likely deal with aquatic plant management issues associated with exotic and native vegetation within the lake, but it will also include components regarding water quality, continued stakeholder involvement, and watershed impacts.

During the meeting, Tim Hoyman, an aquatic ecologist with Onterra, LLC out of De Pere, WI gave a presentation discussing the project, its components, methods, and goals. During his presentation, Tim also described the *eutrophication* process, which is basically a lake's ability to produce more biomass as it ages. One way Bridge Lake shows its productivity is through the large amount of aquatic plant biomass it supports. All lakes progress through different trophic states as they age and each state represents a different level of production within the lake. Lakes with low levels of productivity are called "oligotrophic", while lakes with high rates of production are called "eutrophic". Mesotrophic lakes are in a trophic state of moderate productivity. All lakes progress through these trophic states naturally. Unfortunately, the eutrophication process in most lakes has been accelerated as a result of human activities in their watersheds and on their shorelands. The eutrophication process is distinctly accelerated in flowages because of their unnaturally large watersheds. These large watersheds deliver large amounts of nutrients to the flowages which fuels plant growth. A primary focus of the Bridge Lake management plan will be to find ways to manage the plant growth so the lake can remain healthy and support the recreational activities everyone enjoys.

Tim will be working closely with a new committee formed to complete the lake management plan. The LNCC Planning Committee will be chaired by Peter Lloyd and will act as the primary contact point for Onterra during the planning process. The Planning Committee will create and disburse a stakeholder survey to all Bridge Lake riparian households. It is hoped that each household will complete the survey so the information can be used in the development of the management plan. The survey will be one way that Bridge Lake property owners can express their feelings about the management of Bridge Lake.

The survey will be mailed sometime in June with responses being requested by the end of July. The Planning Committee will meet with Tim multiple times during the fall and winter, with the management plan being completed next spring.

If you have questions regarding the lake management project on Bridge Lake, please feel free to contact Tim Hoyman at t Hoyman@onterra-eco.com or by writing to:

Onterra, LLC
135 South Broadway Suite C
De Pere, WI 54115.

Bridge Lake Management Planning Project

Update – September 2007

Submitted by:

Tim Hoyman

Aquatic Ecologist

Onterra, LLC

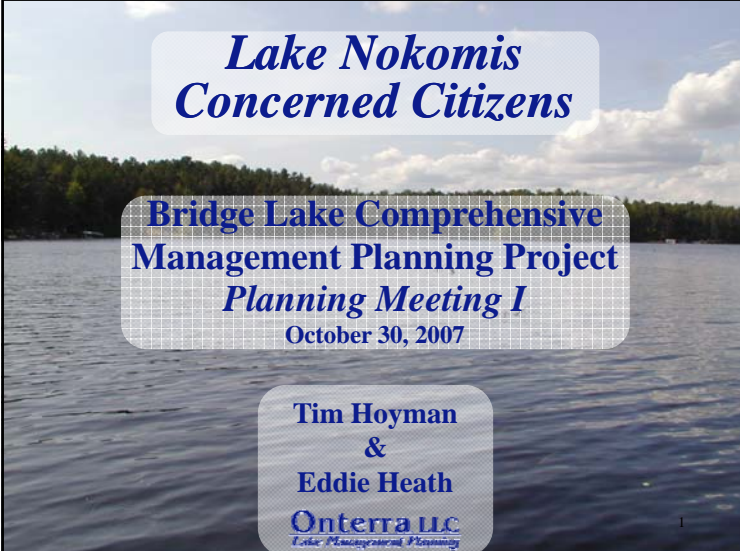
As summer winds down, so does another very busy field season. During our travels we were fortunate to be able to visit Bridge Lake numerous times. The first time was in early spring during the pre-treatment surveys when we refined the Eurasian water milfoil (EWM) treatment areas that were determined the year before, and completed quantitative sampling in each area. Based upon those studies, a few small areas that were near shore were dropped from the treatment, which allowed for nearly an acre and a half of treatment to be added in the northwest bay of the lake. These treatment areas, along with numerous other topics were discussed during the project kick-off meeting that was held on May 12th.

During the fourth week of August, post treatment surveys of Bridge Lake were completed to assess the impact of the treatments completed in May. All treatment sites were monitored and very little EWM was found in any of the treatment areas, indicating that the treatments were a success. During the same trip, remaining areas of EWM were mapped and will be used to develop a treatment plan for 2008.

We also visited the lake five times since February to collect water quality samples. The final samples will be collected this fall. Analysis will begin once all of the results are received from the Wisconsin State Laboratory of Hygiene later this fall.

An important milestone in the project was reached when the stakeholder surveys were mailed out by the LNCC Bridge Lake Planning Committee at the end of August. Thank you to Peter Lloyd and the other committee members that were instrumental in the development and disbursement of the survey. The committee asked that all surveys be returned by September 21st; however, if you have not returned yours as of yet, please take the time to complete it and mail it in the envelope that was provided. This is a very important aspect of the planning process because it is an excellent method for Bridge Lake stakeholders to get their ideas and thoughts into the mix that will become the Bridge Lake Management Plan.

The next few months will be busy with data analysis and the development of the management plan. Once the plan is developed, a public meeting called a “Project Wrap-up Meeting” will be held to present the study results and the management plan to all interested folks.



**Lake Nokomis
Concerned Citizens**

**Bridge Lake Comprehensive
Management Planning Project
Planning Meeting I**
October 30, 2007

**Tim Hoyman
&
Eddie Heath**
Onterra LLC
Lake Management Planning

1

Presentation Outline

- Current Lake Project Overview
- Study Results
 - Watershed
 - Water Quality
 - 2007 EWM Treatment
 - Aquatic Plants
 - Stakeholder Survey
- Discussion
- Management Goals




Onterra LLC
Lake Management Planning

2

Current Project

Study and Plan Goals

- Collect & Analyze Data
- Construct Long-Term & Useable Plan



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Lake Management Planning

3

Current Project

Study Components

- Public Participation
- Watershed Modeling
- Water Quality
- Aquatic Vegetation
 - Curly-leaf Survey *Completed - None Found*
 - Comprehensive Survey *Completed - WDNR/Onterra*
 - Treatment Monitoring *Pre & Post Completed*
- Plan Development

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Lake Management Planning

4

Current Project

Planning Process

Planning Committee Meetings

- Study Results (including a stakeholder survey)
- Conclusions & Initial Recommendations
- Management Goals
- Management Actions
 - Timeframe
 - Facilitator(s)

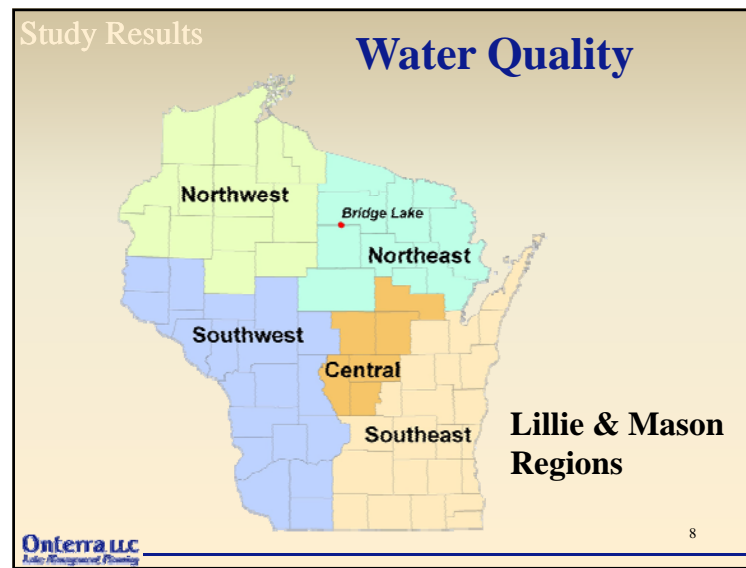
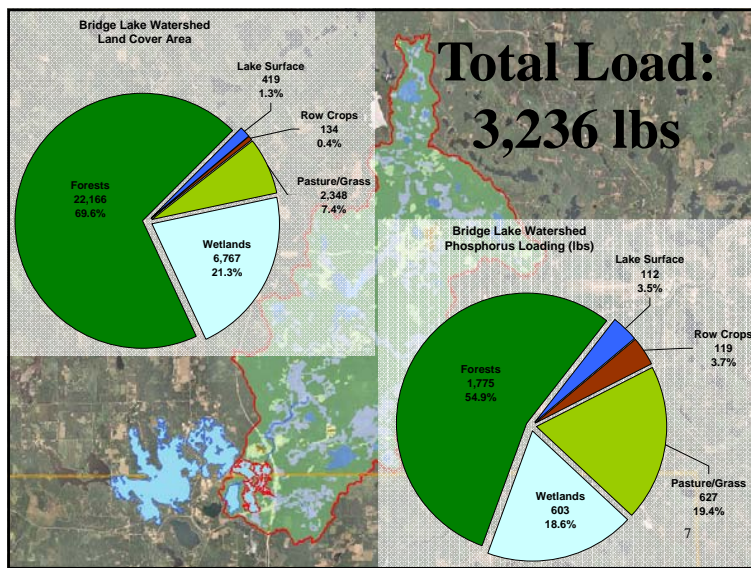
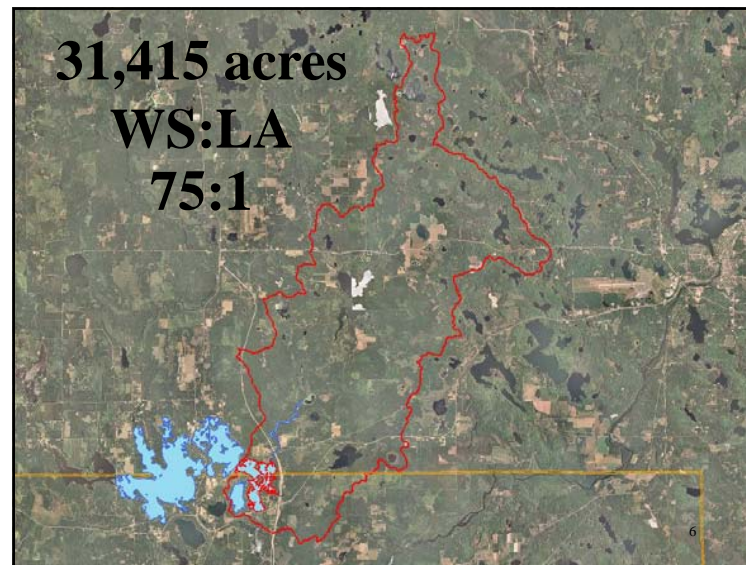
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Implementation Plan



Onterra LLC
Lake Management Planning


5



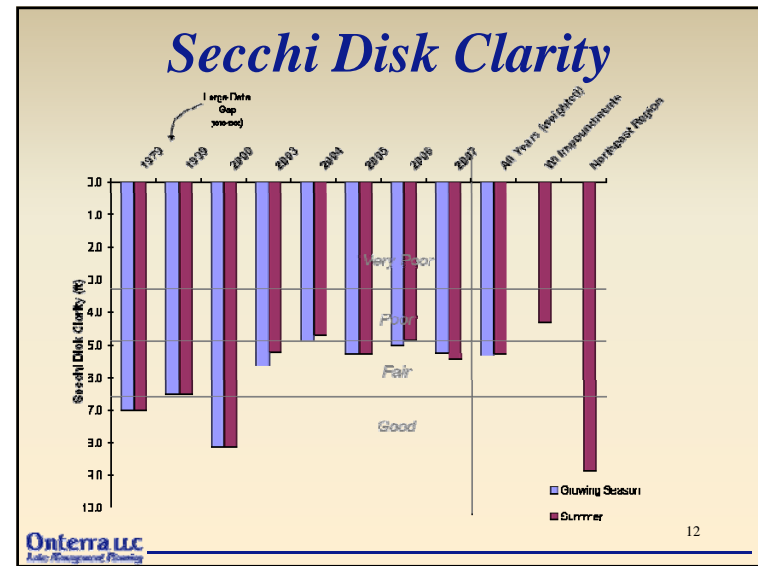
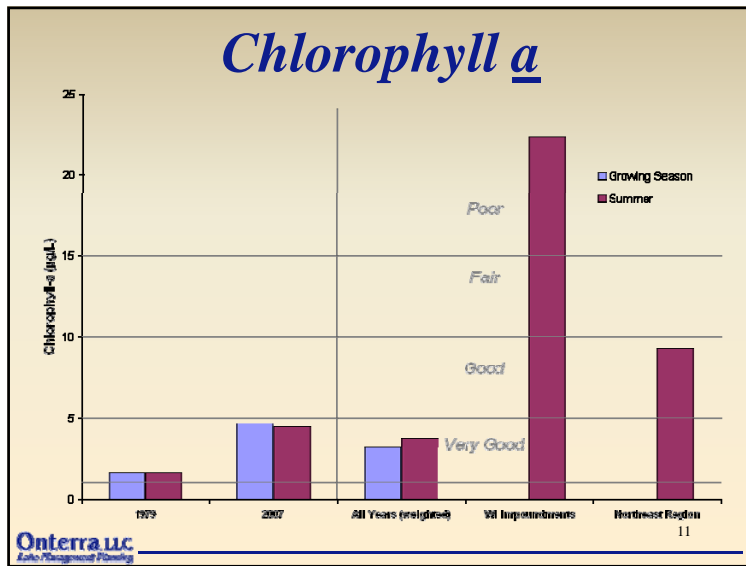
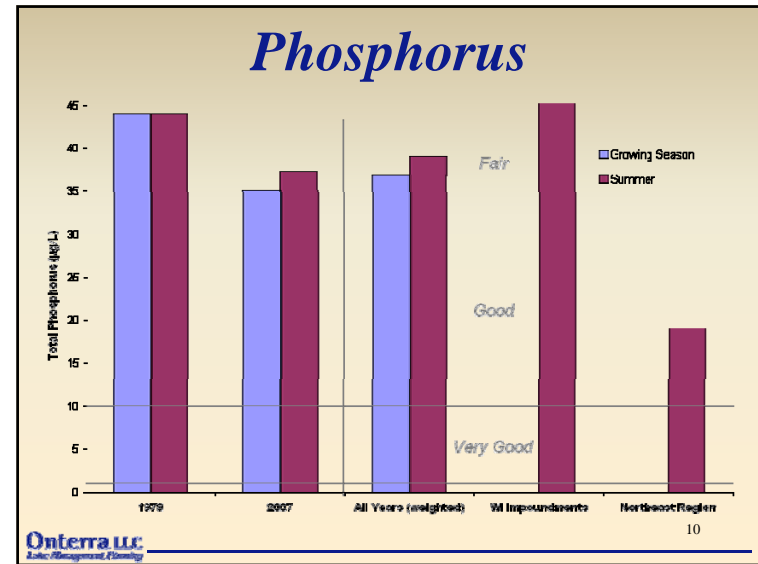
Study Results

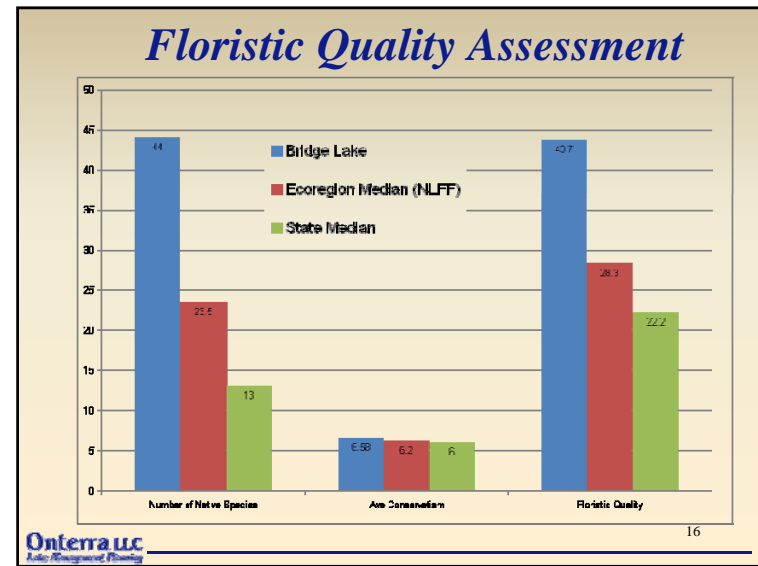
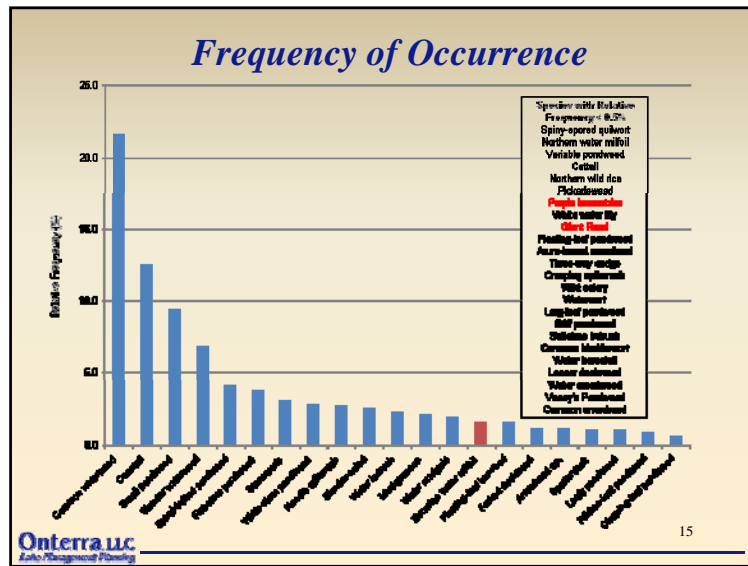
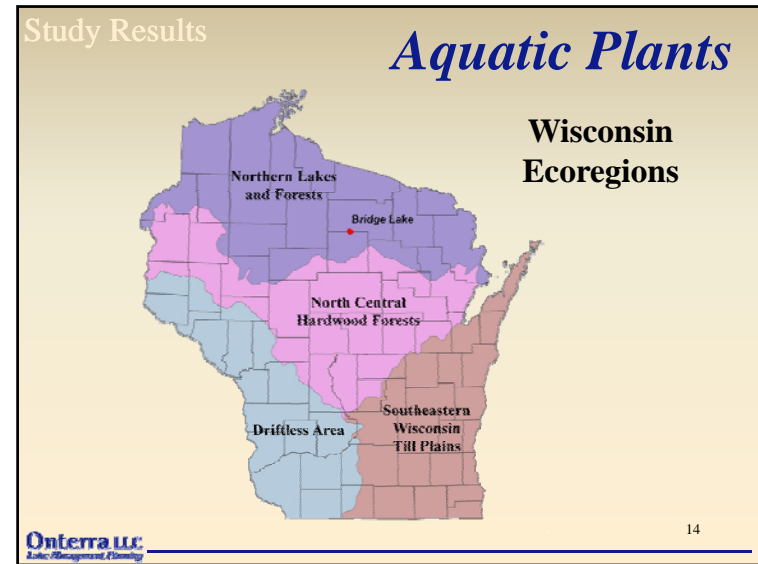
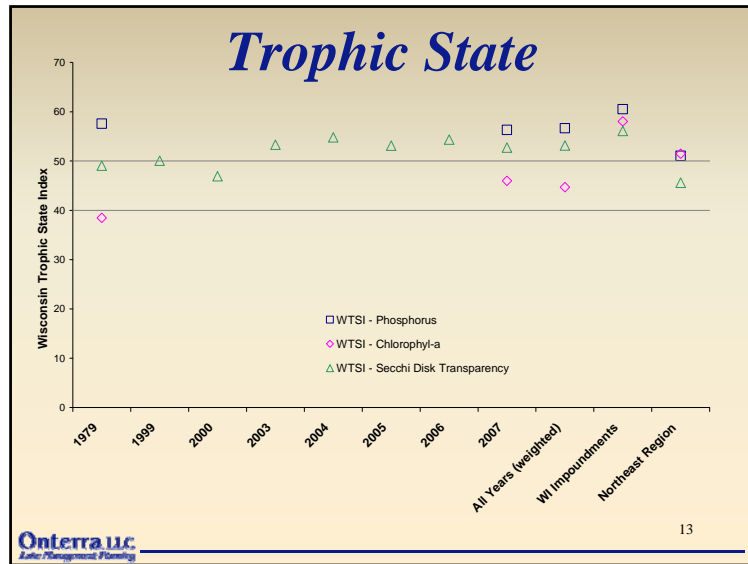
Water Quality

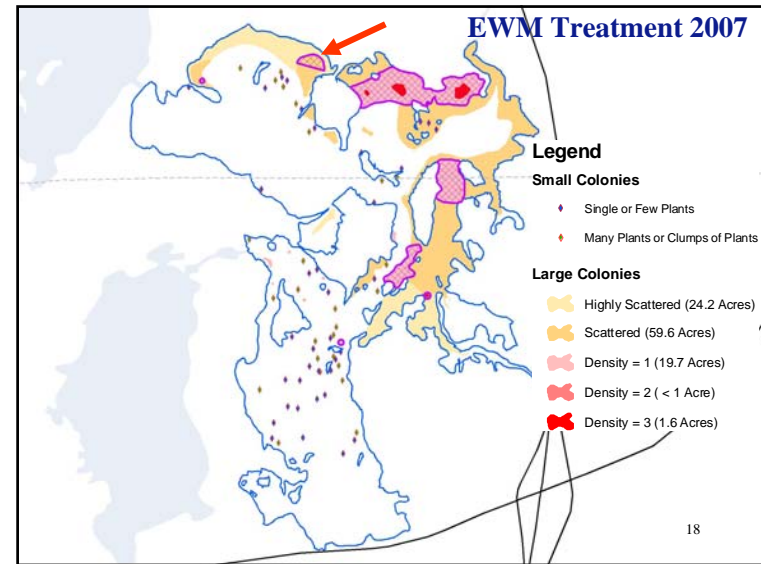
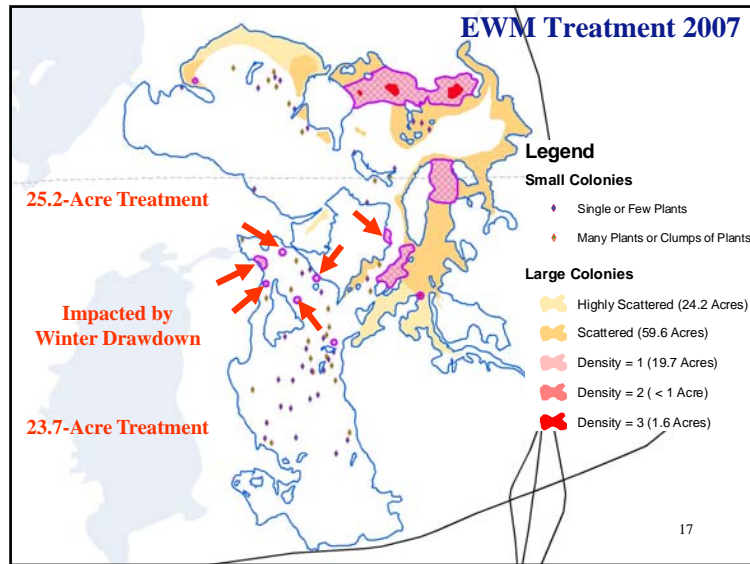
- ↑ Phosphorus (Limiting Plant Nutrient)
- ↑ Chlorophyll-*a* (Algal Abundance)
- ↓ Water Clarity (Secchi Disk)



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Lake Management Planning



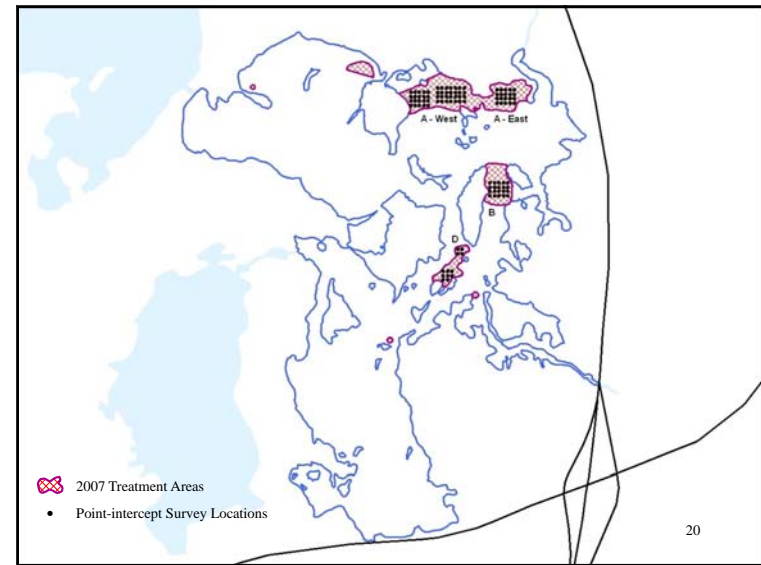


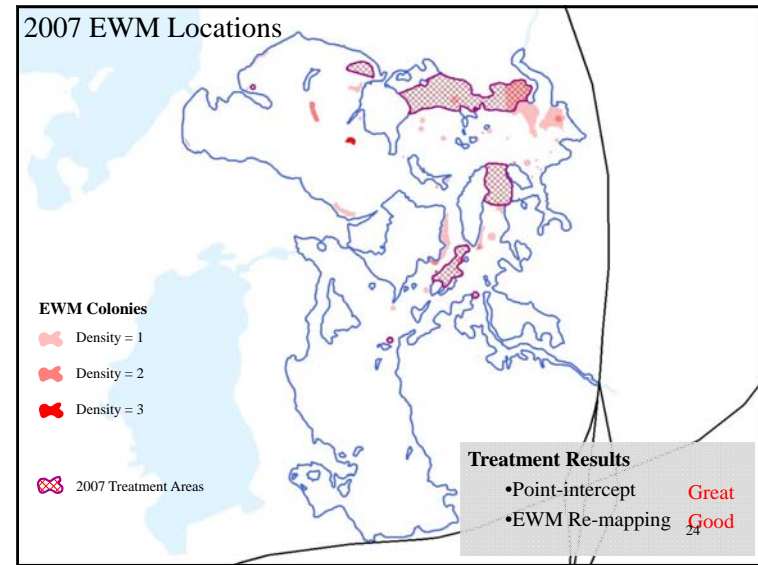
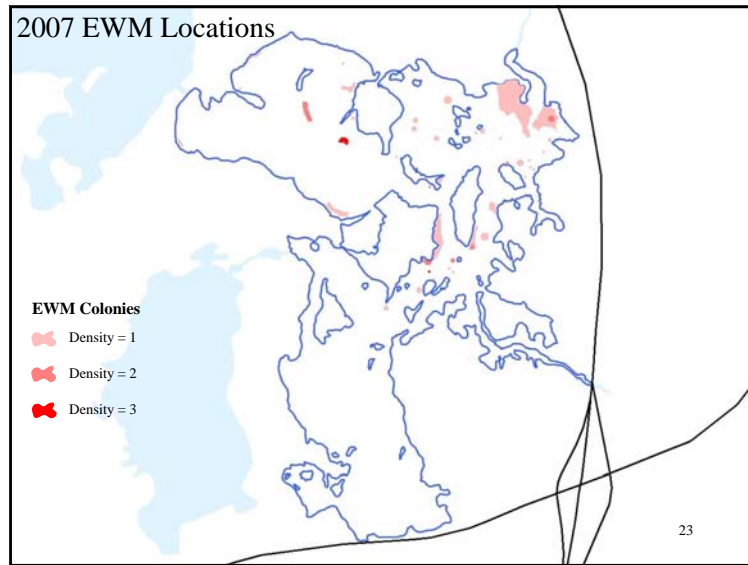
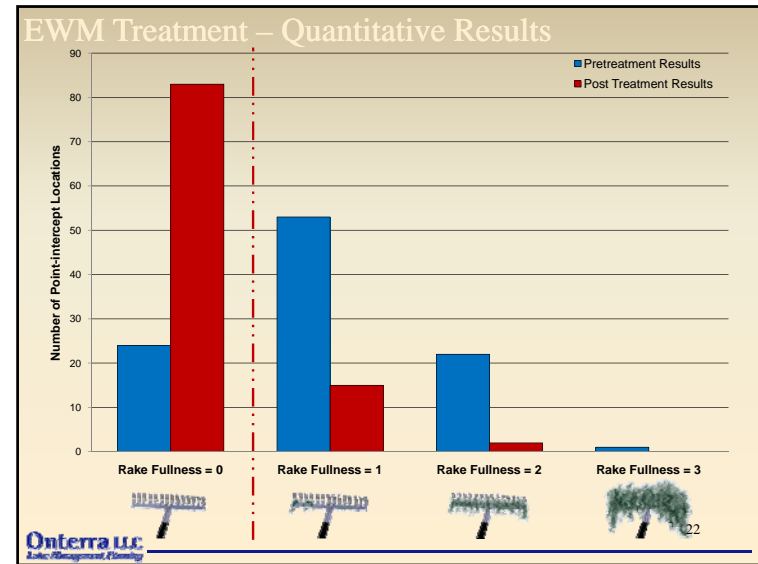
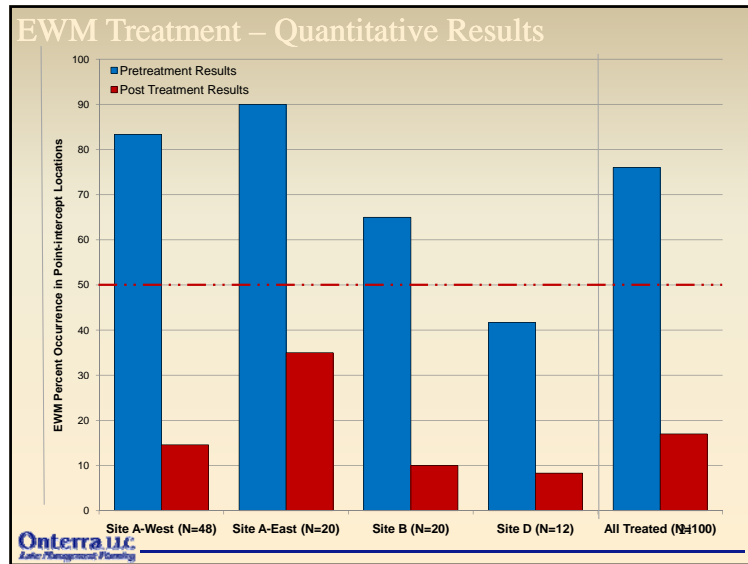


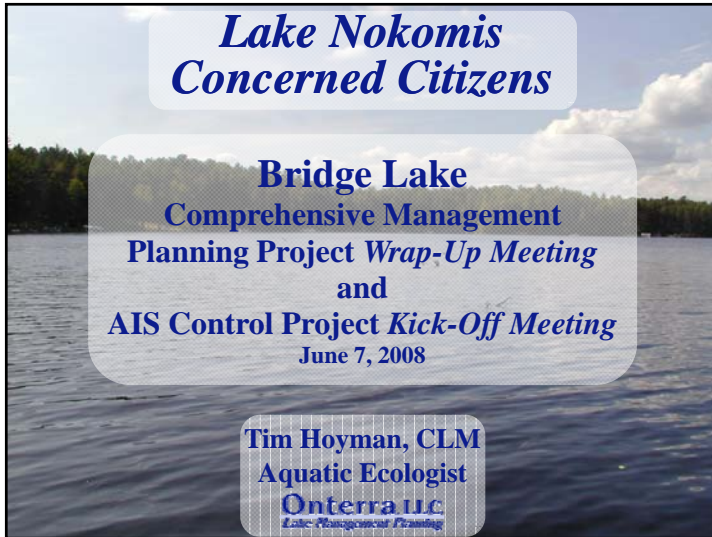
Chemical Treatment
May 9, 2007

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**Lake Nokomis
Concerned Citizens**

**Bridge Lake
Comprehensive Management
Planning Project *Wrap-Up Meeting*
and
AIS Control Project *Kick-Off Meeting*
June 7, 2008**

**Tim Hoyman, CLM
Aquatic Ecologist
Onterra LLC
*Lake Management Planning***

Presentation Outline

- Lake Management Planning Project Overview
- Study Results
 - Watershed
 - Water Quality
 - Aquatic Plants
 - Stakeholder Survey
- Conclusions
- Implementation Plan
- AIS Control Project Overview
- 2007 and 2008 EWM Treatments
- Volunteer Opportunities




**Onterra LLC
*Lake Management Planning***

Planning Project

Study and Plan Goals

- Collect & Analyze Data
- Construct Long-Term & Useable Plan



**Onterra LLC
*Lake Management Planning***

Planning Project

Study Components

- Public Participation
- Watershed Modeling
- Water Quality
- Aquatic Vegetation
 - Curly-leaf Survey *Completed - None Found*
 - Comprehensive Survey *Completed - WDNR/Onterra*
 - Treatment Monitoring
- Plan Development

**Onterra LLC
*Lake Management Planning***

Planning Project

Planning Process

Planning Committee Meetings

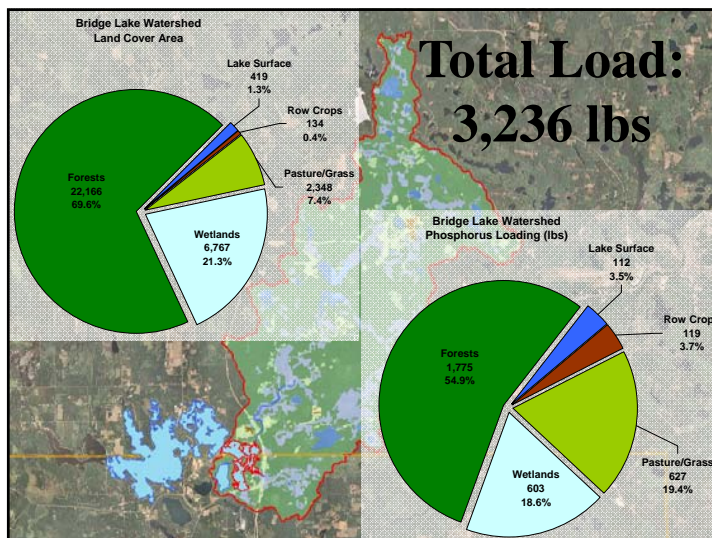
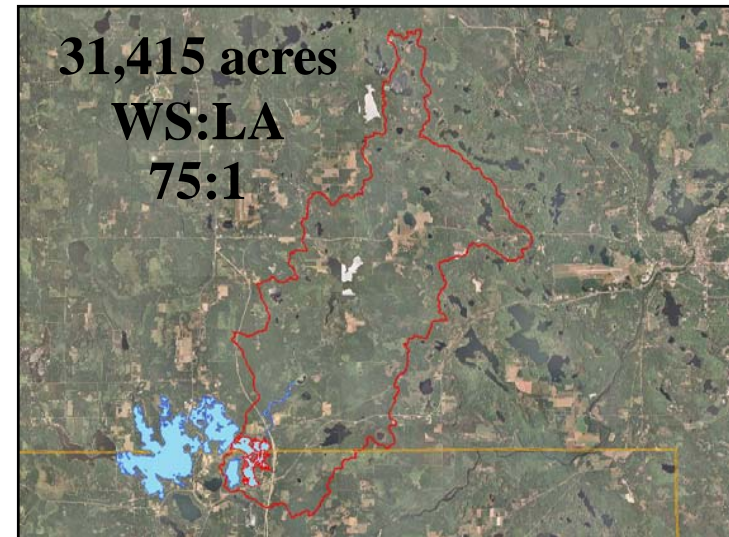
- Study Results (including a stakeholder survey)
- Conclusions & Initial Recommendations
- Management Goals
- Management Actions
 - Timeframe
 - Facilitator(s)

↓

Implementation Plan




Onterra LLC
Lake Management Planning



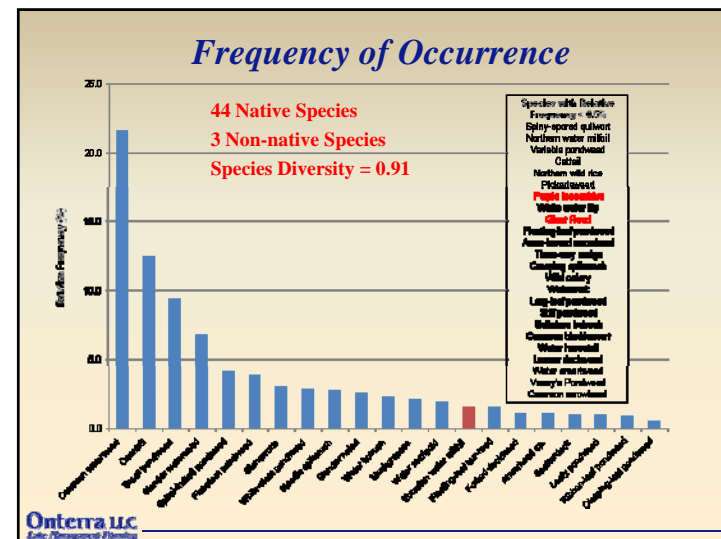
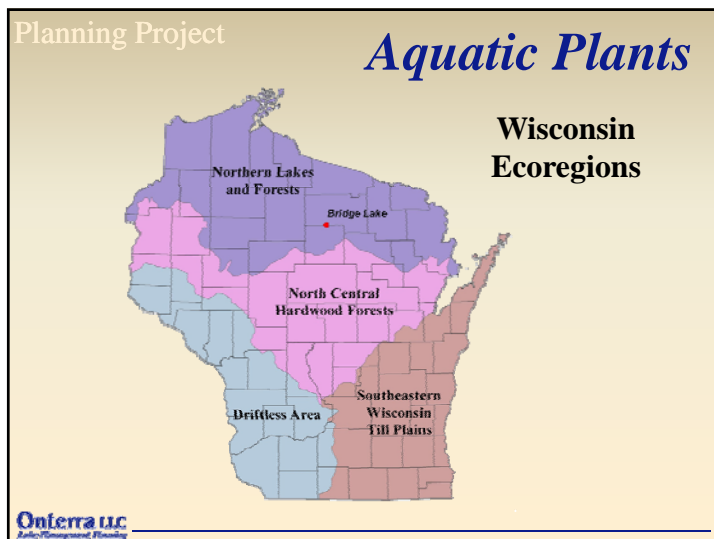
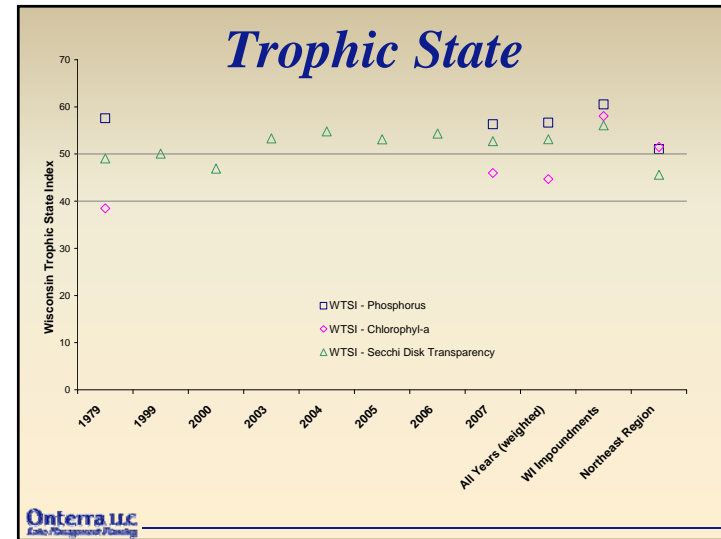
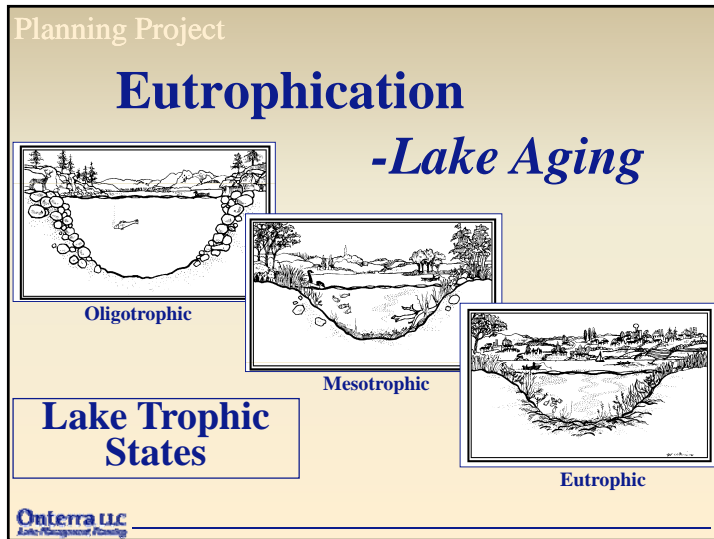
Planning Project

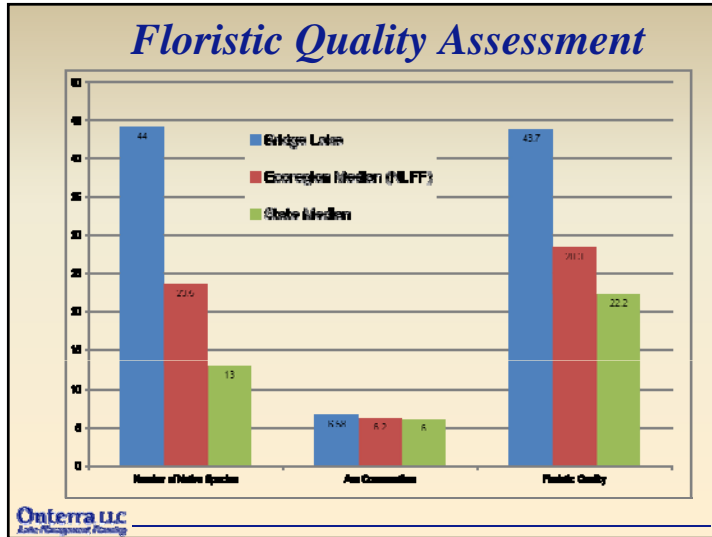
Water Quality

- ↑ Phosphorus (Limiting Plant Nutrient)
- ↑ Chlorophyll-*a* (Algal Abundance)
- ↓ Water Clarity (Secchi Disk)



Onterra LLC
Lake Management Planning





Stakeholder Survey

Returned Surveys	Sent	% Returned
Nokomis	46	39.1
Bradley	81	37.0
Total	127	37.8

- Return rate was “acceptable”
- Even return among townships
- AIS are a concern with respondents
- Many water level comments
- Full results will be available in management plan

Onterra LLC
Lake Management Planning

Planning Project

Conclusions

- Bridge Lake is a shallow lake with a large watershed that supplies a great deal of phosphorus and sediment to the lake.
- The lake is productive, but has better water quality than most Wisconsin impoundments.
- Limited historic data indicates that water quality has remained the same over the past two decades.

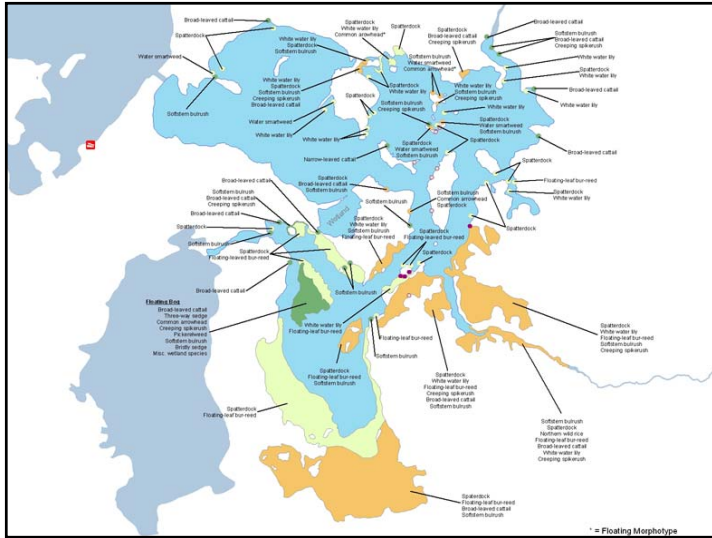
Onterra LLC
Lake Management Planning

Planning Project

Conclusions

- Aquatic plant community of Bridge Lake is outstanding.
- The plants provide excellent habitat for fish and other wildlife.
- Southern area of lake has filled in with emergent plants (and sediment) making navigation to open water difficult for some riparian property owners.

Onterra LLC
Lake Management Planning

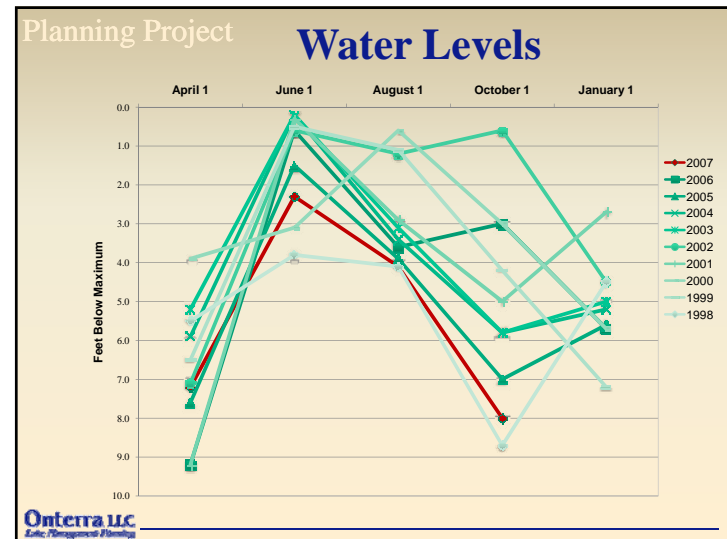


Planning Project

Conclusions

- Eurasian water milfoil infestation is a major threat to native plant habitat and recreation on the lake.
- 2,4-D treatments are effective for controlling EWM on the lake.
- Water levels are a major concern of many riparian property owners.

Onterra LLC
Ecologic Management Planning



Planning Project

Conclusions

- Eurasian water milfoil infestation is a major threat to native plant habitat and recreation on the lake.
- 2,4-D treatments are effective for controlling EWM on the lake.
- Water levels are a major concern of many riparian property owners.
- Many misconceptions occur regarding water levels and WVIC's management of them.



Planning Project

Goal 1: Maintain Current Water Quality Conditions

Management Actions

1. Monitor water quality through WDNR Citizens Lake Monitoring Network.
2. Reduce phosphorus and sediment loads from immediate watershed.



Planning Project

Goal 2: Control AIS within Bridge Lake

Management Actions

1. Initiate Clean Boats/Clean Waters water craft inspections at Rice River Reservoir public access sites.
2. Reduce occurrence of purple loosestrife on Bridge Lake shorelands.
3. Control Eurasian water milfoil within Bridge Lake.
4. Buoy dense beds of Eurasian water milfoil to reduce spread via fragmentation caused by watercraft.



Planning Project

Goal 3: Improve understanding of Bridge Lake, the Rice River Reservoir, and the operations of the WVIC among stakeholders

Management Actions

1. Create series of newsletter articles addressing specific and relevant topics of interest to Bridge Lake stakeholders.
2. Monitoring of water levels by Bridge Lake volunteer.
3. Research and develop plan to slow the advancement of native bulrushes and cattails in southern portion of Bridge Lake.



Planning Project

Goal 4: Improve safety on Bridge Lake

Management Actions

1. Mark navigational hazards and no-wake areas on lake.
2. Riparian landowners monitor for unsafe or prohibited activities on Bridge Lake.
3. Investigate creation and enforcement of slow-no-wake hours on Bridge Lake.



Thank You

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Many of the graphics used in this presentation were supplied by:



Wisconsin
Lakes
Partnership

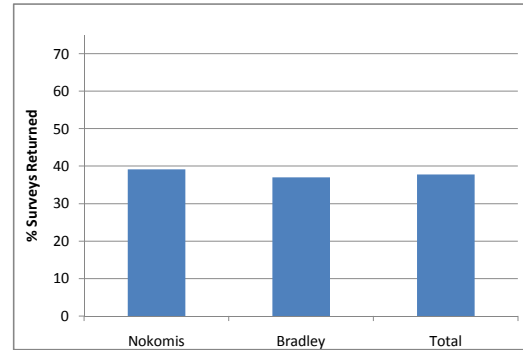


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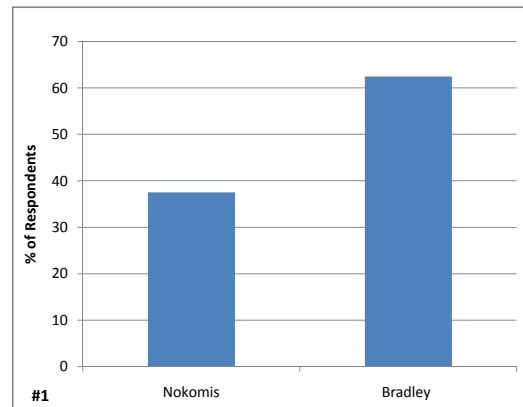
APPENDIX B

Stakeholder Survey Response Charts and Comments

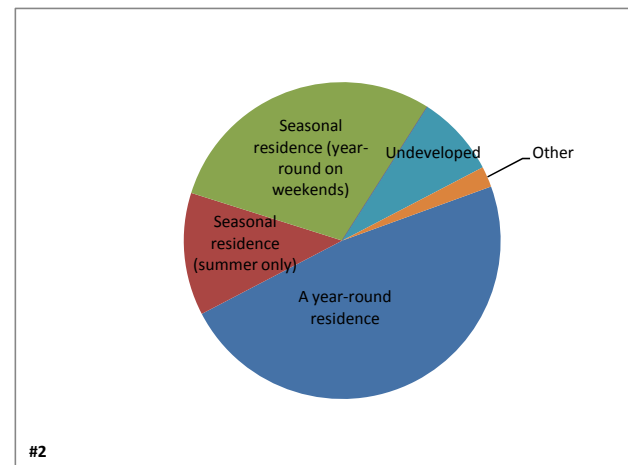
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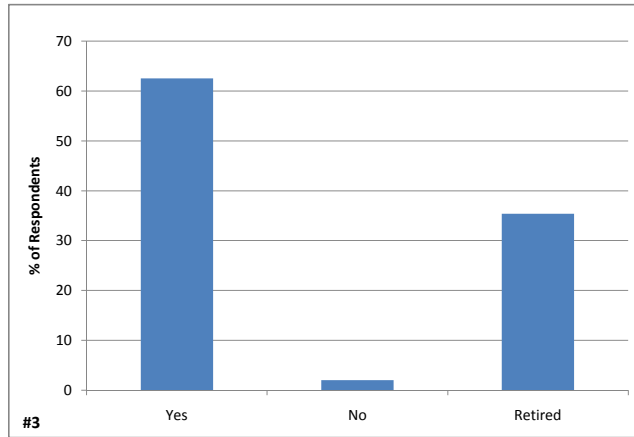
#1 In which township is your Bridge Lake property located?		%
Nokomis	18	37.5
Bradley	30	62.5
	48	



#2 What type of property do you own on Bridge Lake?		%
A year-round residence	23	47.9
Seasonal residence (summer only)	6	12.5
Seasonal residence (year-round on weekends)	14	29.2
Rental property	0	0.0
Undeveloped	4	8.3
Other (please specify)	1	2.1
	48	



#3 Are you currently employed?		%
Yes	30	62.5
No	1	2.1
Retired	17	35.4
	48	



If you are not a year-round resident, how many days each year is your property used by you or others?

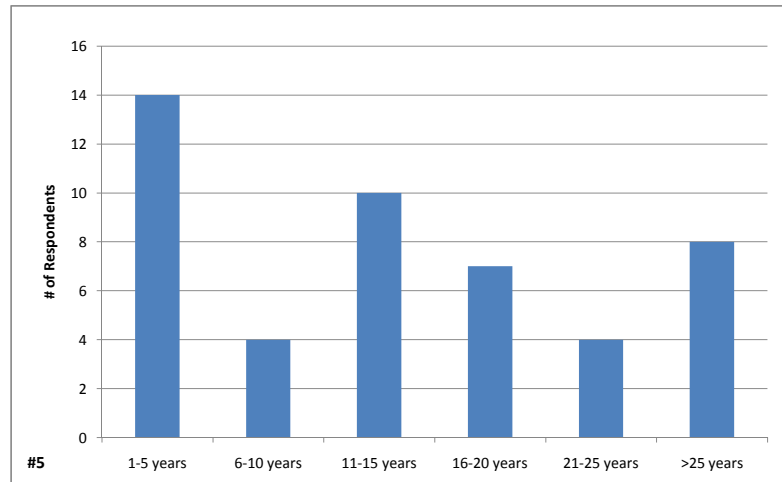
#4 Answered Question	21
Average	99.3
Standard Deviation	66.0

How many years have you owned property on Bridge Lake?

#5 Answered Question	47
Average	17.1
Standard Deviation	16.1

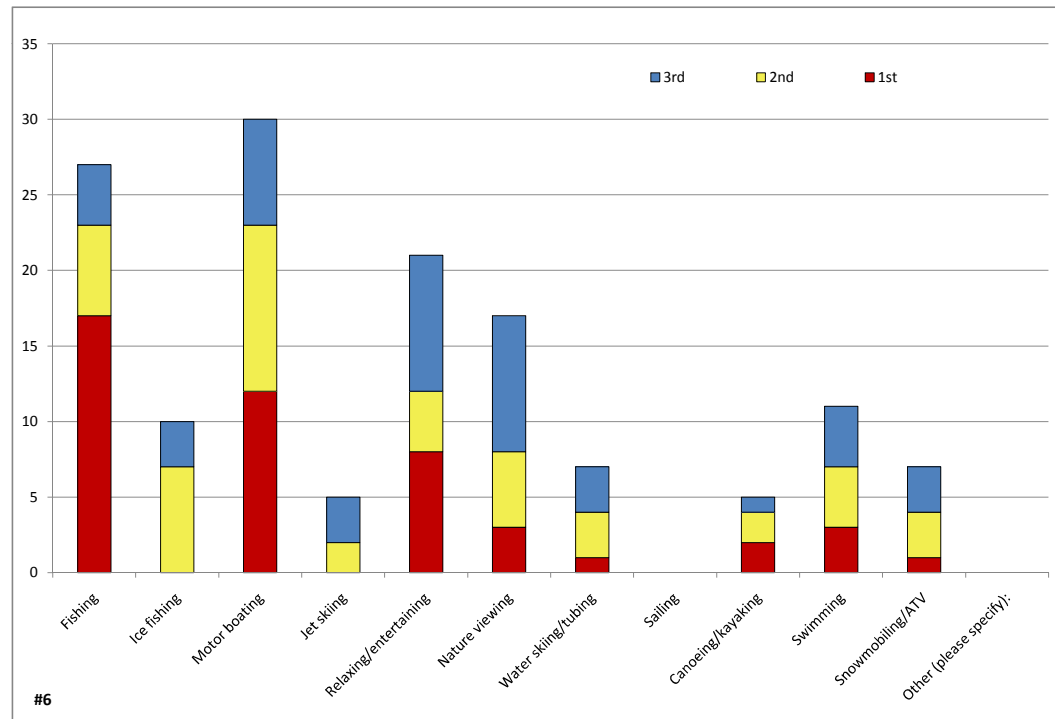
How many years have you owned property on Bridge Lake?

#5 Answered Question	47
1-5 years	14
6-10 years	4
11-15 years	10
16-20 years	7
21-25 years	4
>25 years	8



Please rank the activities below that are the most important or enjoyable to you on Bridge Lake?

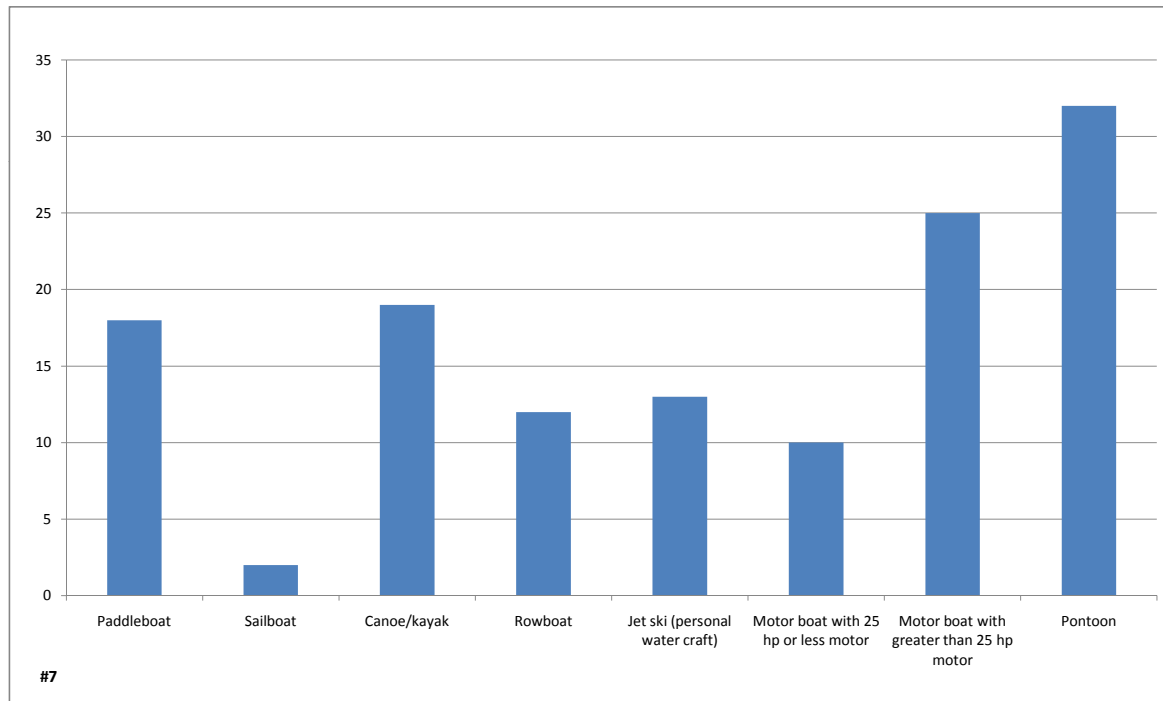
#6	1st	2nd	3rd
Fishing	17	6	4
Ice fishing	0	7	3
Motor boating	12	11	7
Jet skiing	0	2	3
Relaxing/entertaining	8	4	9
Nature viewing	3	5	9
Water skiing/tubing	1	3	3
Sailing	0	0	0
Canoeing/kayaking	2	2	1
Swimming	3	4	4
Snowmobiling/ATV	1	3	3
Other (please specify):	0	0	0
	47	47	46



What types of watercraft do you currently

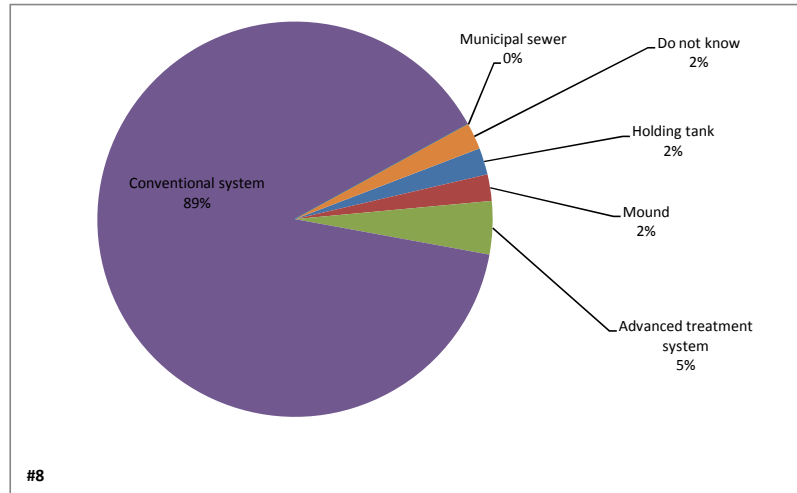
#7 use on Bridge Lake?

Paddleboat	18
Sailboat	2
Canoe/kayak	19
Rowboat	12
Jet ski (personal water craft)	13
Motor boat with 25 hp or less motor	10
Motor boat with greater than 25 hp motor	25
Pontoon	32



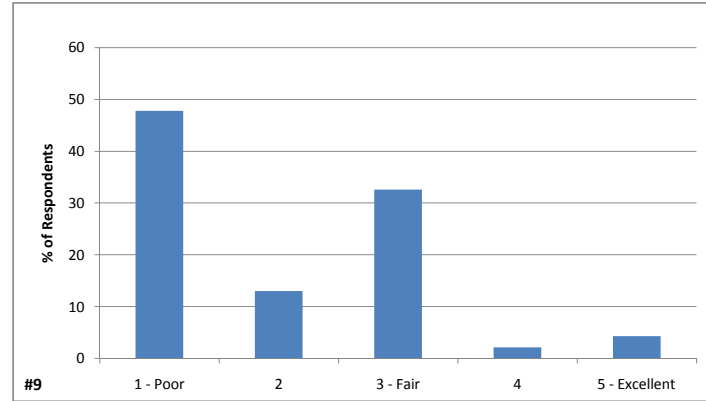
#8 What type of septic system does your property utilize?

Holding tank	1
Mound	1
Advanced treatment system	2
Conventional system	41
Municipal sewer	0
Do not know	1
	46



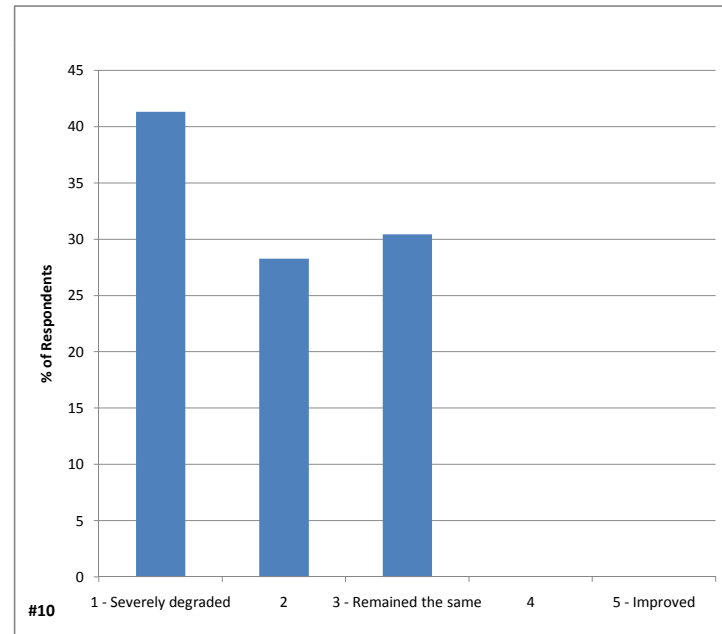
#9 How would you describe the current water quality of Bridge Lake?

		%
1 - Poor	22	47.8
2	6	13.0
3 - Fair	15	32.6
4	1	2.2
5 - Excellent	2	4.3
	46	

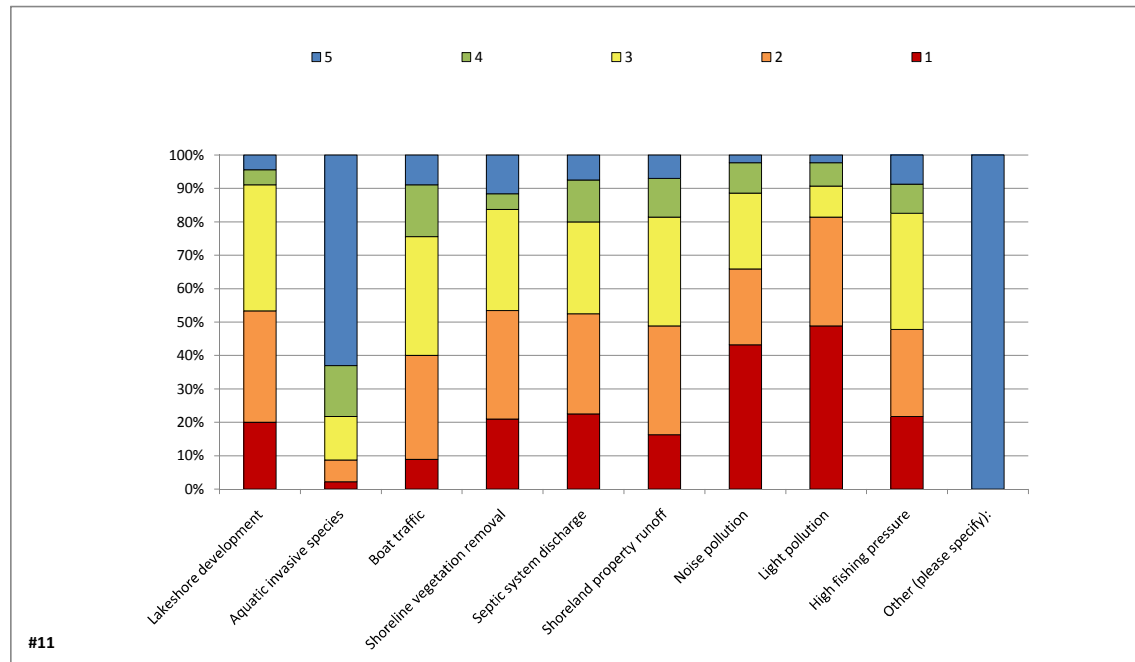


#10 How has the water quality changed in Bridge Lake since you obtained your property?

		%
1 - Severely degraded	19	41.3
2	13	28.3
3 - Remained the same	14	30.4
4	0	0.0
5 - Improved	0	0.0
	46	

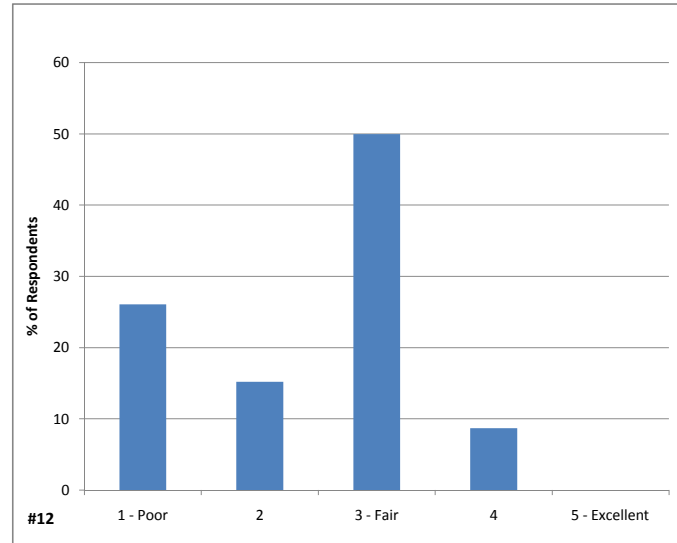


#11 To what level do you believe each the following factors are impacting Bridge Lake?	Impact Level				
	1 No Impact	2	3 Moderate Impact	4	5 Great Impact
Lakeshore development	9	15	17	2	2
Aquatic invasive species	1	3	6	7	29
Boat traffic	4	14	16	7	4
Shoreline vegetation removal	9	14	13	2	5
Septic system discharge	9	12	11	5	3
Shoreland property runoff	7	14	14	5	3
Noise pollution	19	10	10	4	1
Light pollution	21	14	4	3	1
High fishing pressure	10	12	16	4	4
Other (please specify):	0	0	0	0	16



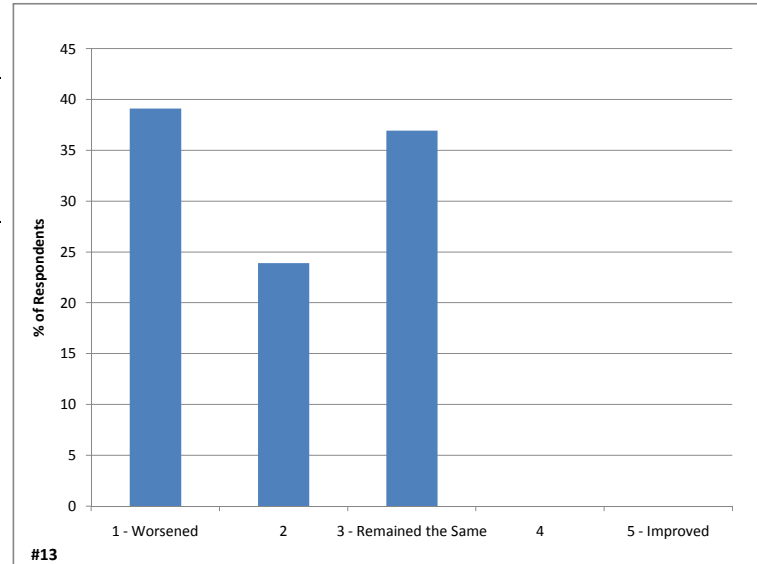
#12 How would you describe the current quality of fishing on Bridge Lake?

		%
1 - Poor	12	26.1
2	7	15.2
3 - Fair	23	50.0
4	4	8.7
5 - Excellent	0	0.0
	46	



#13 How has the quality of fishing changed on Bridge Lake since you obtained your property?

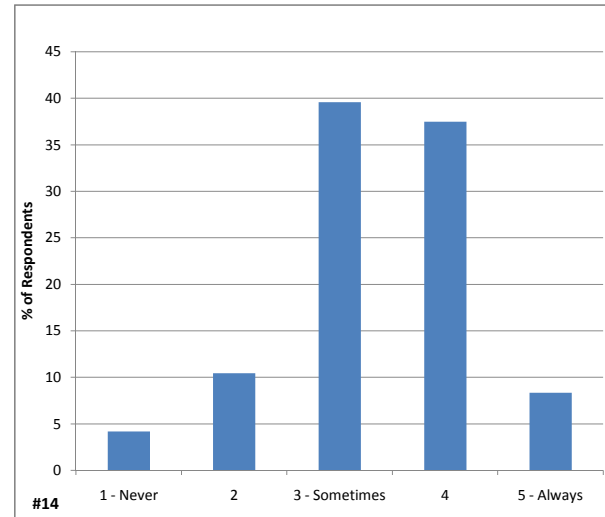
		%
1 - Worsened	18	39.1
2	11	23.9
3 - Remained the Same	17	37.0
4	0	0.0
5 - Improved	0	0.0
	46	



Do you believe Lake Nokomis Concerned Citizens has kept you adequately informed regarding issues with

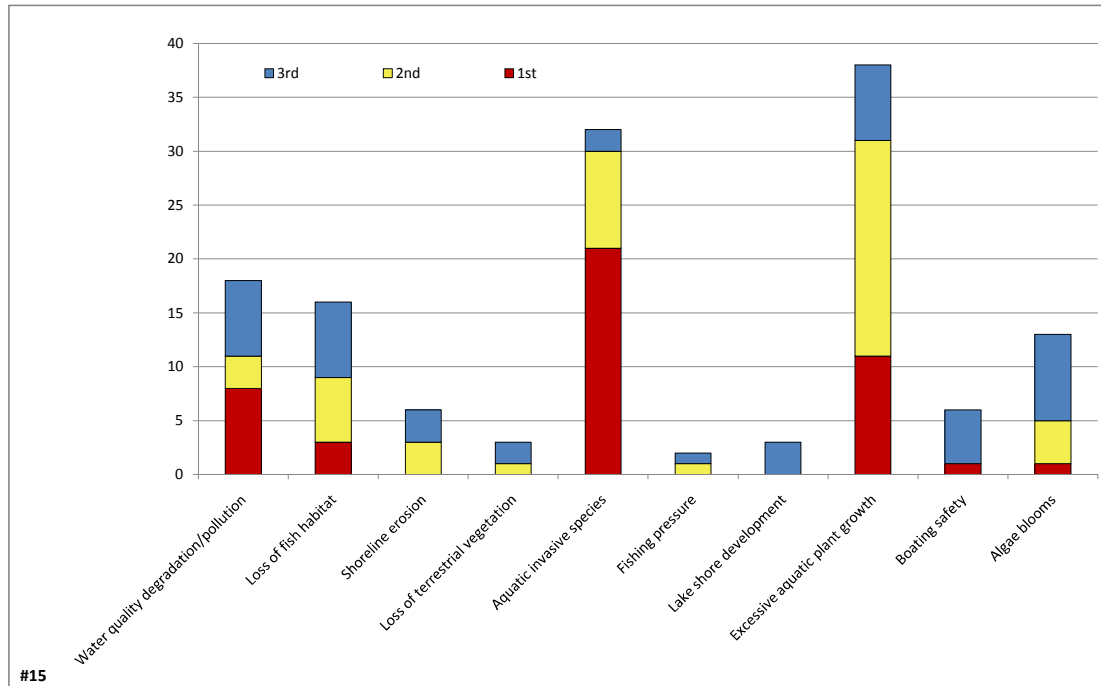
#14 Bridge Lake and its management?

		%
1 - Never	2	4.2
2	5	10.4
3 - Sometimes	19	39.6
4	18	37.5
5 - Always	4	8.3
	48	



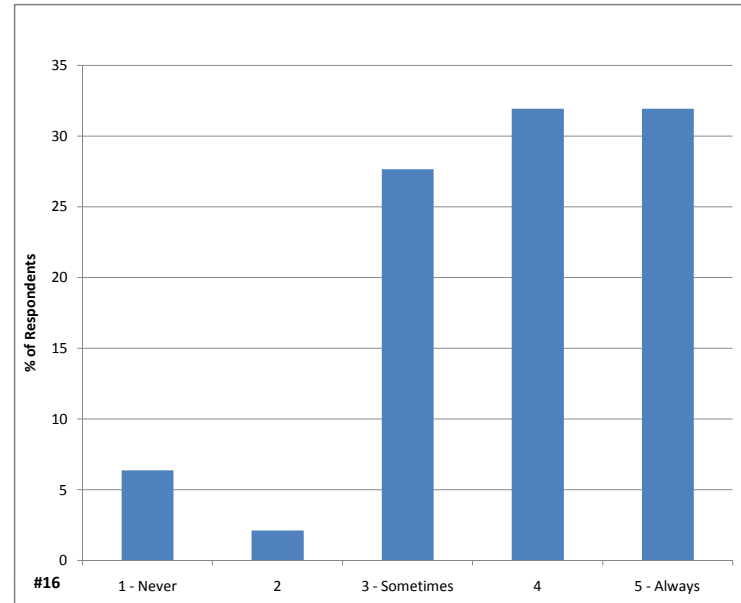
From the list below, please rank your top three

#15 concerns regarding Bridge Lake?	1st	2nd	3rd
Water quality degradation/pollution	8	3	7
Loss of fish habitat	3	6	7
Shoreline erosion	0	3	3
Loss of terrestrial vegetation	0	1	2
Aquatic invasive species	21	9	2
Fishing pressure	0	1	1
Lake shore development	0	0	3
Excessive aquatic plant growth	11	20	7
Boating safety	1	0	5
Algae blooms	1	4	8
	45	47	45



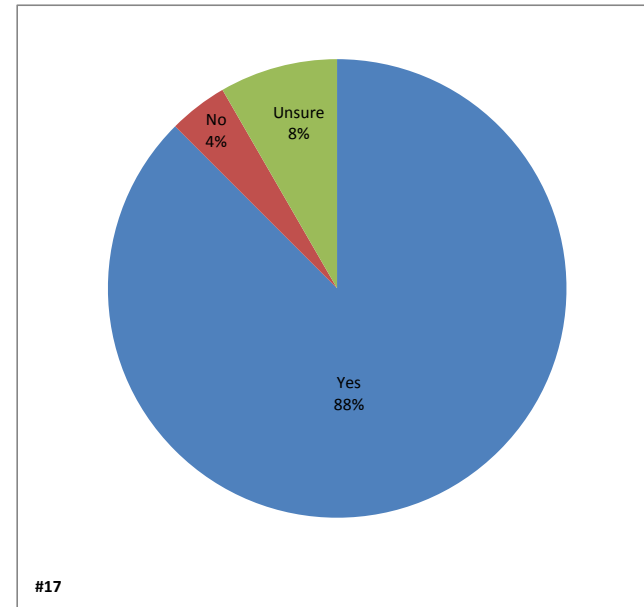
How often does aquatic plant growth impact your recreational use of Bridge Lake?

		%
1 - Never	3	6.4
2	1	2.1
3 - Sometimes	13	27.7
4	15	31.9
5 - Always	15	31.9
	47	



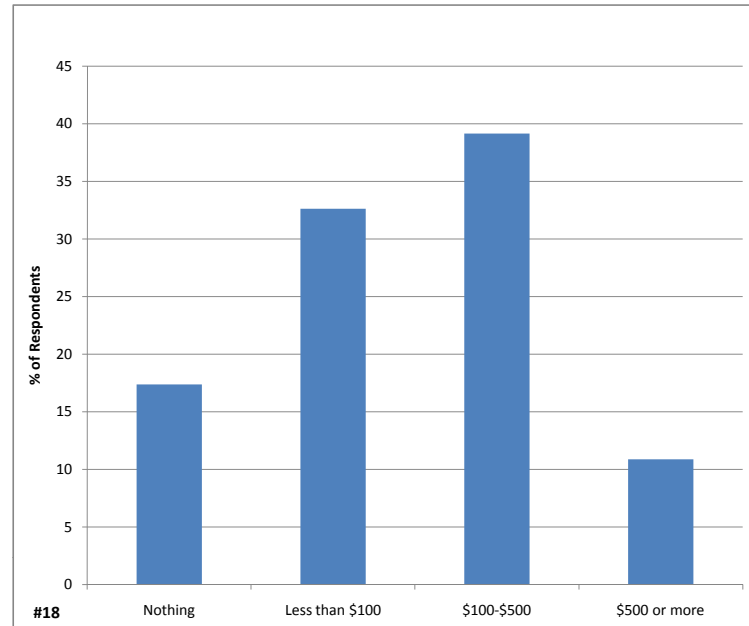
Considering your answer to the question above, do you believe aquatic plant control is needed on Bridge Lake?

Yes	42
No	2
Unsure	4
	48



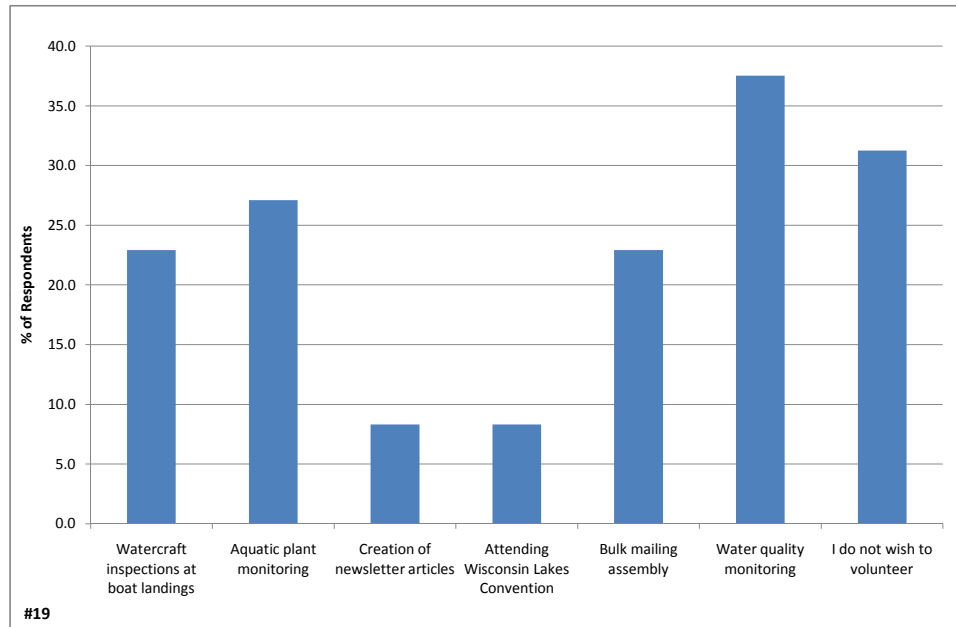
How much are you willing to pay per year, as an individual, to achieve the level of plant control you believe is necessary on Bridge Lake?

		%
Nothing	8	17.4
Less than \$100	15	32.6
\$100-\$500	18	39.1
\$500 or more	5	10.9
	46	

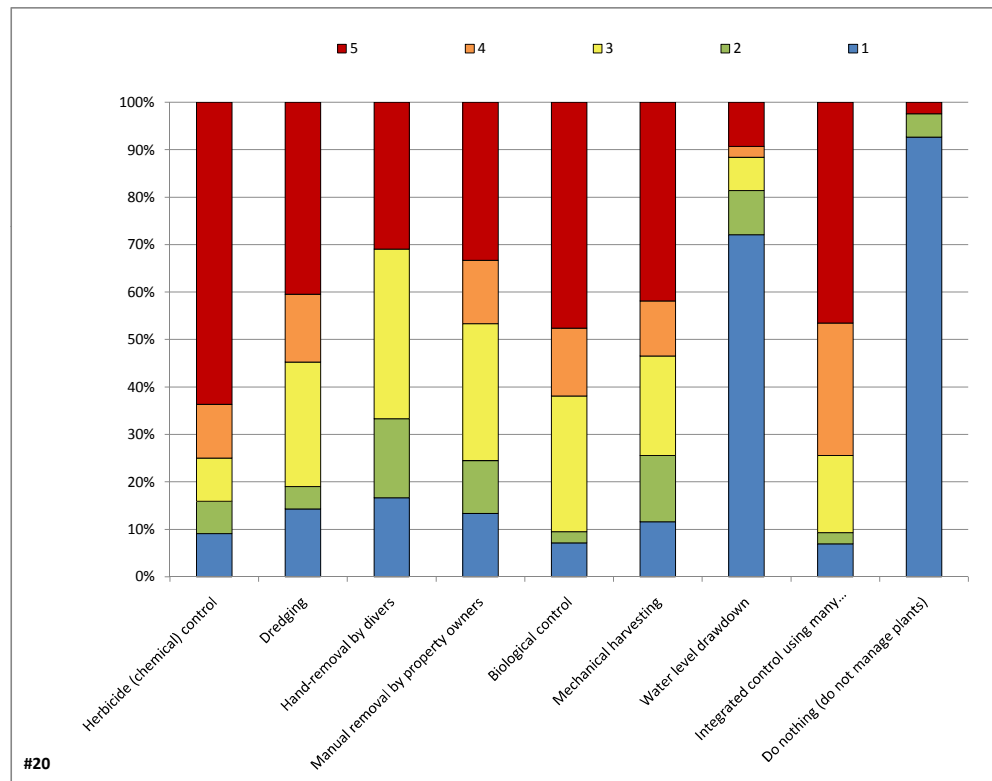


#19 Please circle the activities you would be willing to participate in if called upon.

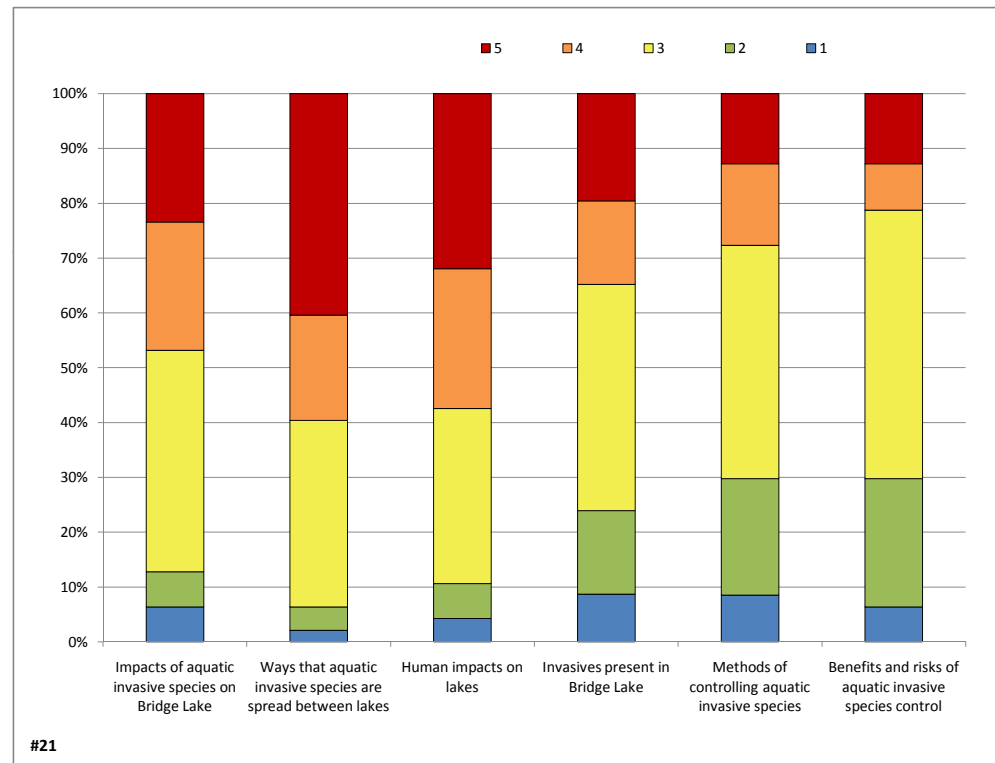
		%
Watercraft inspections at boat landings	11	22.9
Aquatic plant monitoring	13	27.1
Creation of newsletter articles	4	8.3
Attending Wisconsin Lakes Convention	4	8.3
Bulk mailing assembly	11	22.9
Water quality monitoring	18	37.5
I do not wish to volunteer	15	31.3



#20	What is your level of support for the <i>responsible</i> use of the following techniques on Bridge Lake?				
	1 Not Supportive	2	3 Moderately Supportive	4	5 Highly Supportive
Herbicide (chemical) control	4	3	4	5	28
Dredging	6	2	11	6	17
Hand-removal by divers	7	7	15	0	13
Manual removal by property owners	6	5	13	6	15
Biological control	3	1	12	6	20
Mechanical harvesting	5	6	9	5	18
Water level drawdown	31	4	3	1	4
Integrated control using many methods	3	1	7	12	20
Do nothing (do not manage plants)	38	2	0	0	1



#21	Please describe your level of understanding of each of the following lake management issues.					
	1 No Understanding	2	3 Basic Understanding	4	5 Full Understanding	
Impacts of aquatic invasive species on Bridge Lake	3	3	19	11	11	
Ways that aquatic invasive species are spread between lakes	1	2	16	9	19	
Human impacts on lakes	2	3	15	12	15	
Invasives present in Bridge Lake	4	7	19	7	9	
Methods of controlling aquatic invasive species	4	10	20	7	6	
Benefits and risks of aquatic invasive species control	3	11	23	4	6	

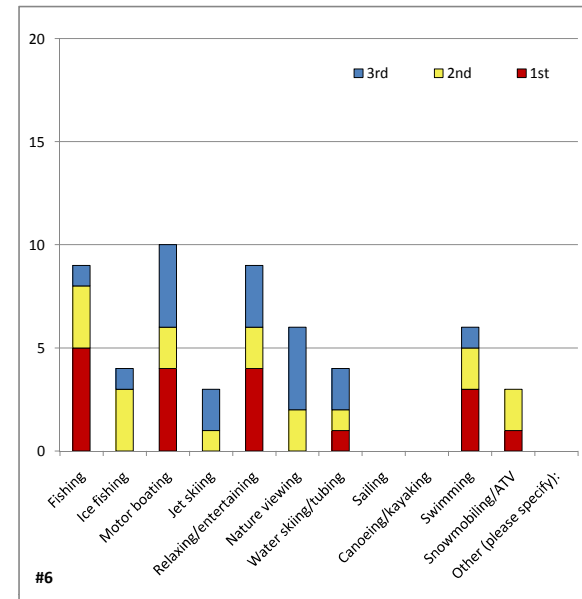


Nokomis:

Please rank the activities below that are the most

#6 important or enjoyable to you on Bridge Lake?	1st	2nd	3rd
Fishing	5	3	1
Ice fishing	0	3	1
Motor boating	4	2	4
Jet skiing	0	1	2
Relaxing/entertaining	4	2	3
Nature viewing	0	2	4
Water skiing/tubing	1	1	2
Sailing	0	0	0
Canoeing/kayaking	0	0	0
Swimming	3	2	1
Snowmobiling/ATV	1	2	0
Other (please specify):	0	0	0
	18	18	18

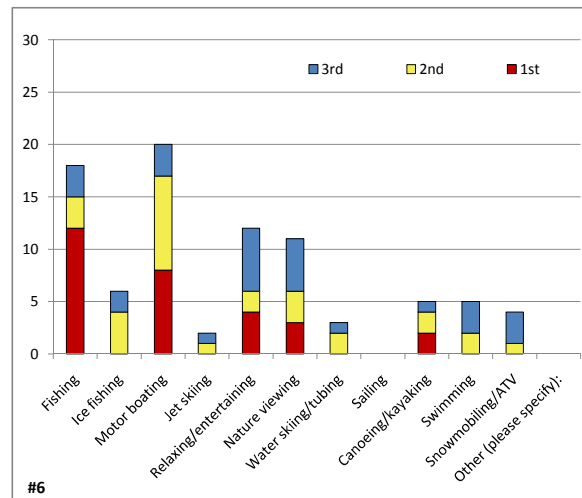
PLEASE NOTE: The figures on this and the following pages were created to see if differences in responses occurred between respondents from the Towns of Nokomis and Bradley. Although differences seem to be apparent, they must be taken in the context that roughly 38% of the surveys were returned out of the 127 that were distributed.



Bradley:

Please rank the activities below that are the most

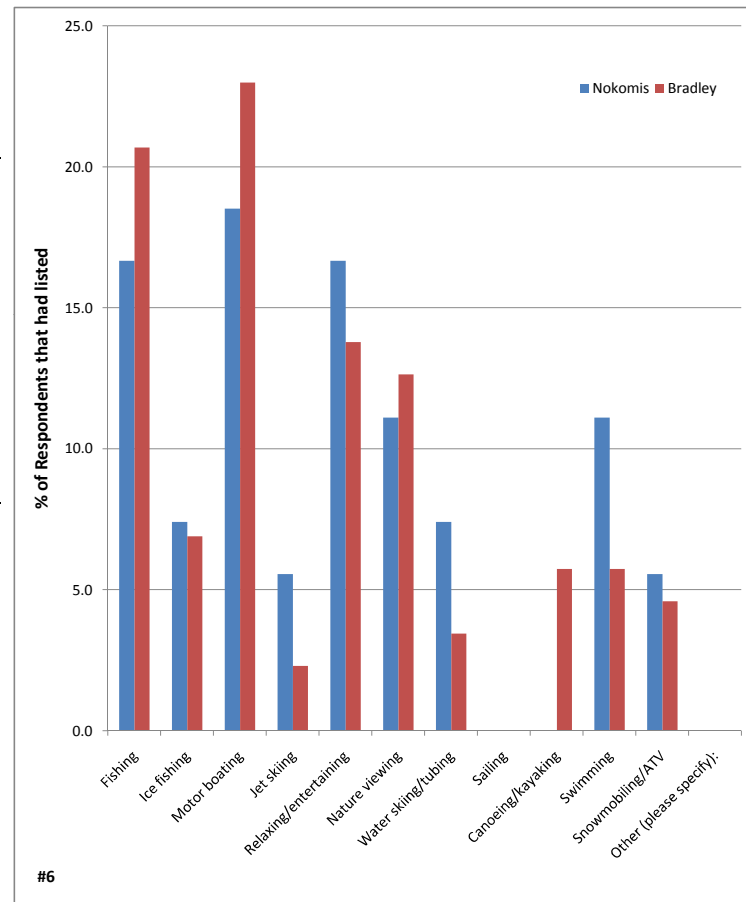
#6 important or enjoyable to you on Bridge Lake?	1st	2nd	3rd
Fishing	12	3	3
Ice fishing	0	4	2
Motor boating	8	9	3
Jet skiing	0	1	1
Relaxing/entertaining	4	2	6
Nature viewing	3	3	5
Water skiing/tubing	0	2	1
Sailing	0	0	0
Canoeing/kayaking	2	2	1
Swimming	0	2	3
Snowmobiling/ATV	0	1	3
Other (please specify):	0	0	0
	29	29	28



Please rank the activities below that are the most important or enjoyable to you on Bridge Lake?

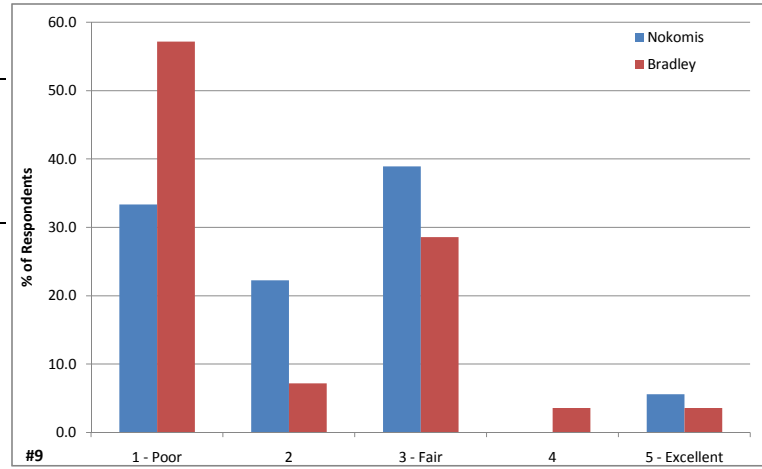
#6		Nokomis	Bradley
	Fishing	16.7	20.7
	Ice fishing	7.4	6.9
	Motor boating	18.5	23.0
	Jet skiing	5.6	2.3
	Relaxing/entertaining	16.7	13.8
	Nature viewing	11.1	12.6
	Water skiing/tubing	7.4	3.4
	Sailing	0.0	0.0
	Canoeing/kayaking	0.0	5.7
	Swimming	11.1	5.7
	Snowmobiling/ATV	5.6	4.6
	Other (please specify):	0.0	0.0
		100.0	98.9

Note: The above data shows the percentage of respondents that ranked the activity as either being their 1st, 2nd, or 3rd most important.



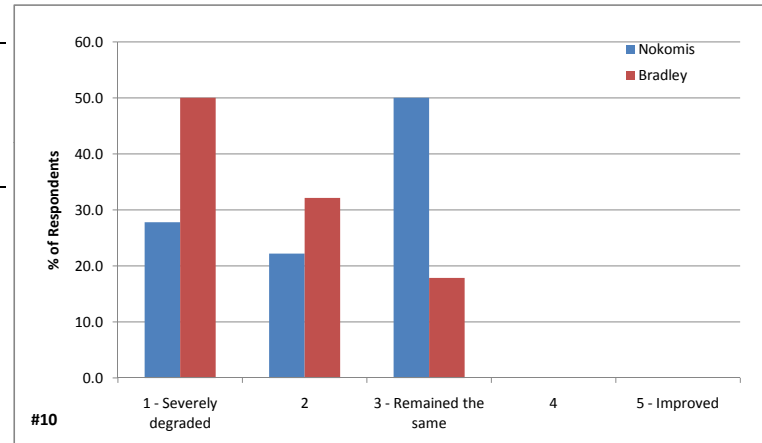
How would you describe the current water quality of Bridge Lake?

	% Nokomis	% Bradley
1 - Poor	33.3	57.1
2	22.2	7.1
3 - Fair	38.9	28.6
4	0.0	3.6
5 - Excellent	5.6	3.6
	100	100



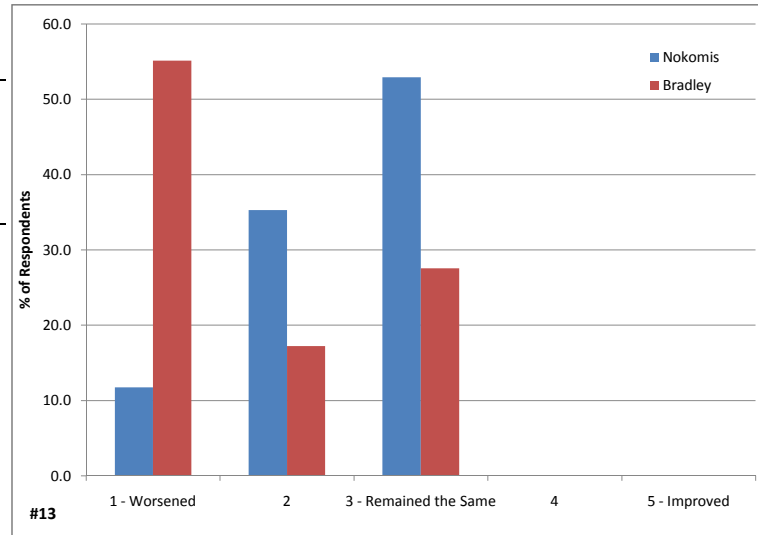
How has the water quality changed in Bridge Lake since you obtained your property?

	% Nokomis	% Bradley
1 - Severely degraded	27.8	50.0
2	22.2	32.1
3 - Remained the same	50.0	17.9
4	0.0	0.0
5 - Improved	0.0	0.0
	100	100



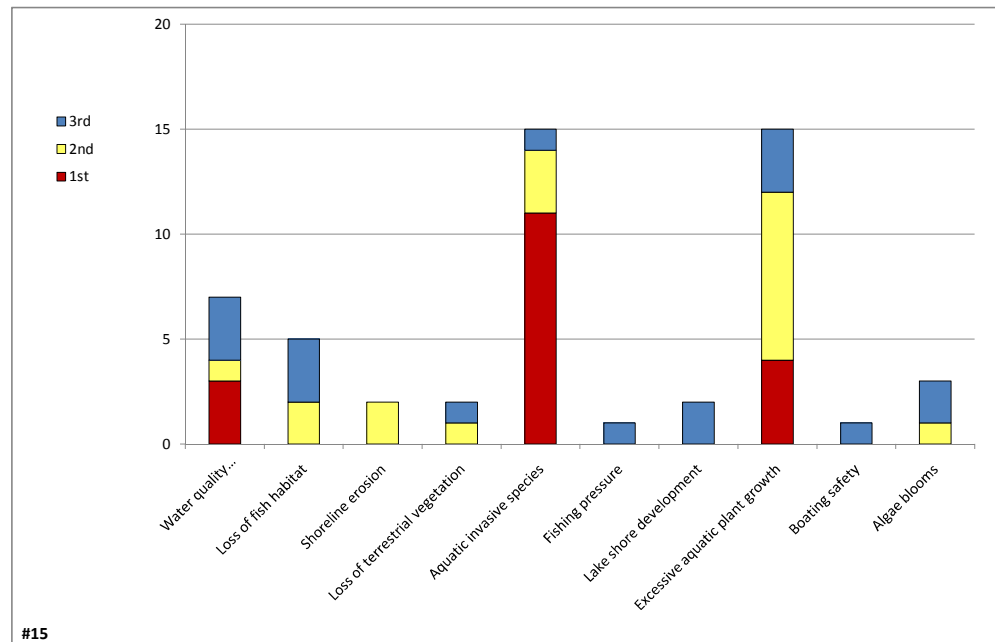
How has the quality of fishing changed on Bridge Lake since you obtained your property?

#13		% Nokomis	% Bradley
1 - Worsened		11.8	55.2
2		35.3	17.2
3 - Remained the Same		52.9	27.6
4		0.0	0.0
5 - Improved		0.0	0.0
		100.0	100.0



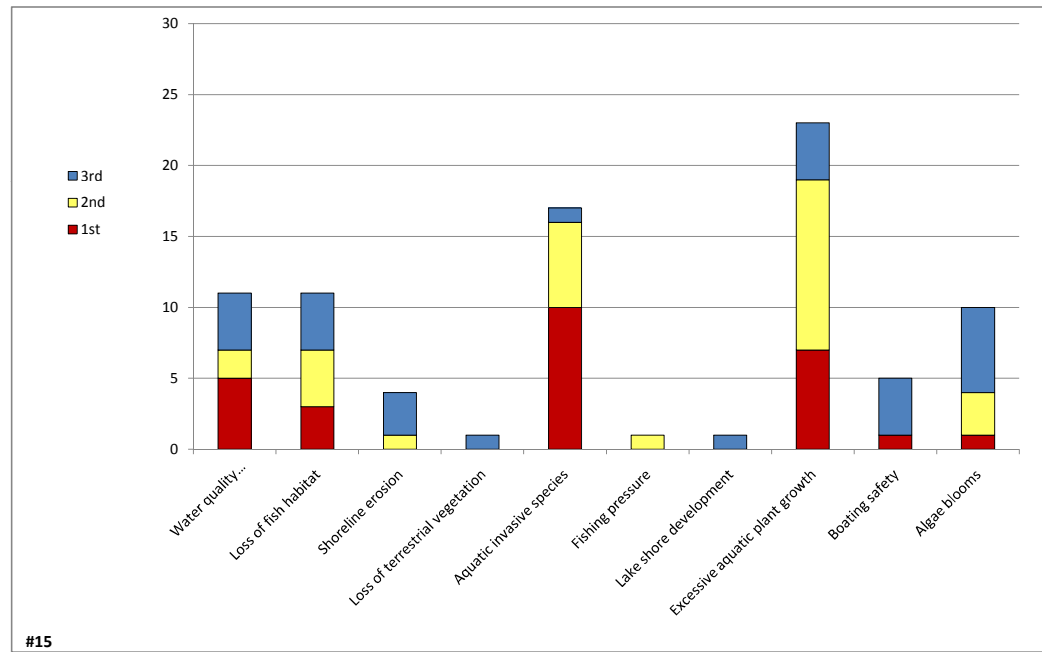
#15 Nokomis: From the list below, please rank your top three concerns regarding Bridge Lake?

	1st	2nd	3rd
Water quality degradation/pollution	3	1	3
Loss of fish habitat	0	2	3
Shoreline erosion	0	2	0
Loss of terrestrial vegetation	0	1	1
Aquatic invasive species	11	3	1
Fishing pressure	0	0	1
Lake shore development	0	0	2
Excessive aquatic plant growth	4	8	3
Boating safety	0	0	1
Algae blooms	0	1	2
	18	18	17

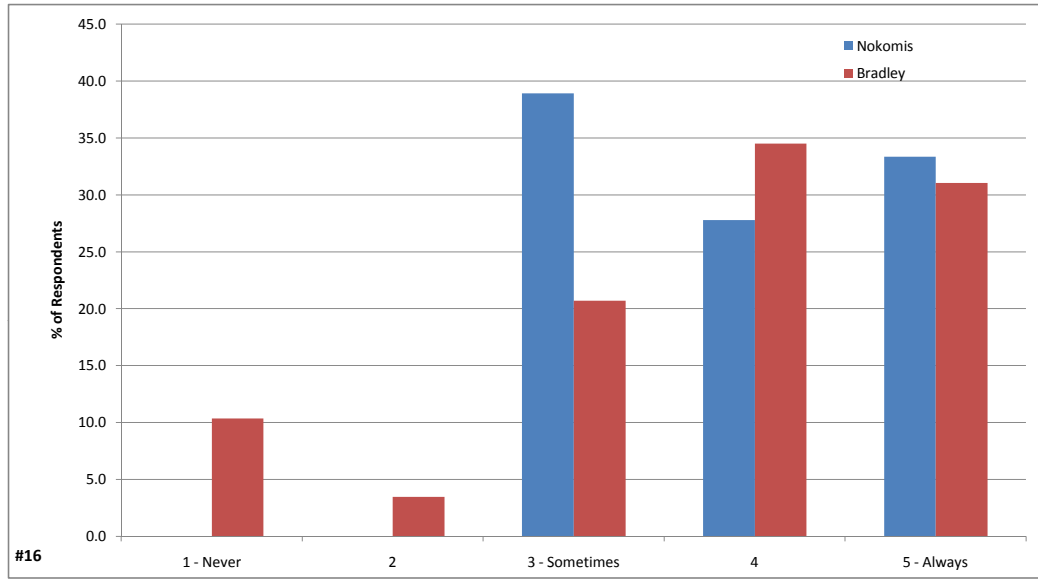


Bradley: From the list below, please rank your top three concerns regarding Bridge Lake?

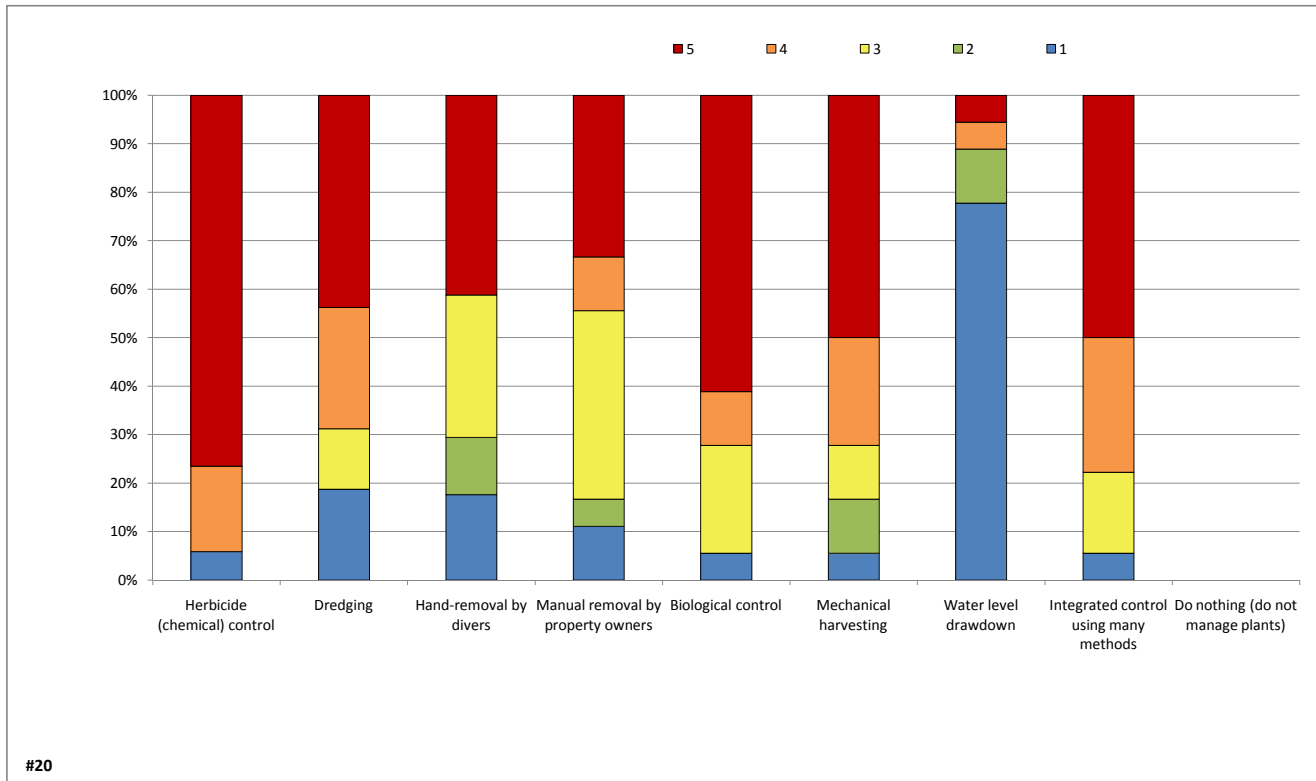
#15	1st	2nd	3rd
Water quality degradation/pollution	5	2	4
Loss of fish habitat	3	4	4
Shoreline erosion	0	1	3
Loss of terrestrial vegetation	0	0	1
Aquatic invasive species	10	6	1
Fishing pressure	0	1	0
Lake shore development	0	0	1
Excessive aquatic plant growth	7	12	4
Boating safety	1	0	4
Algae blooms	1	3	6
	27	29	28



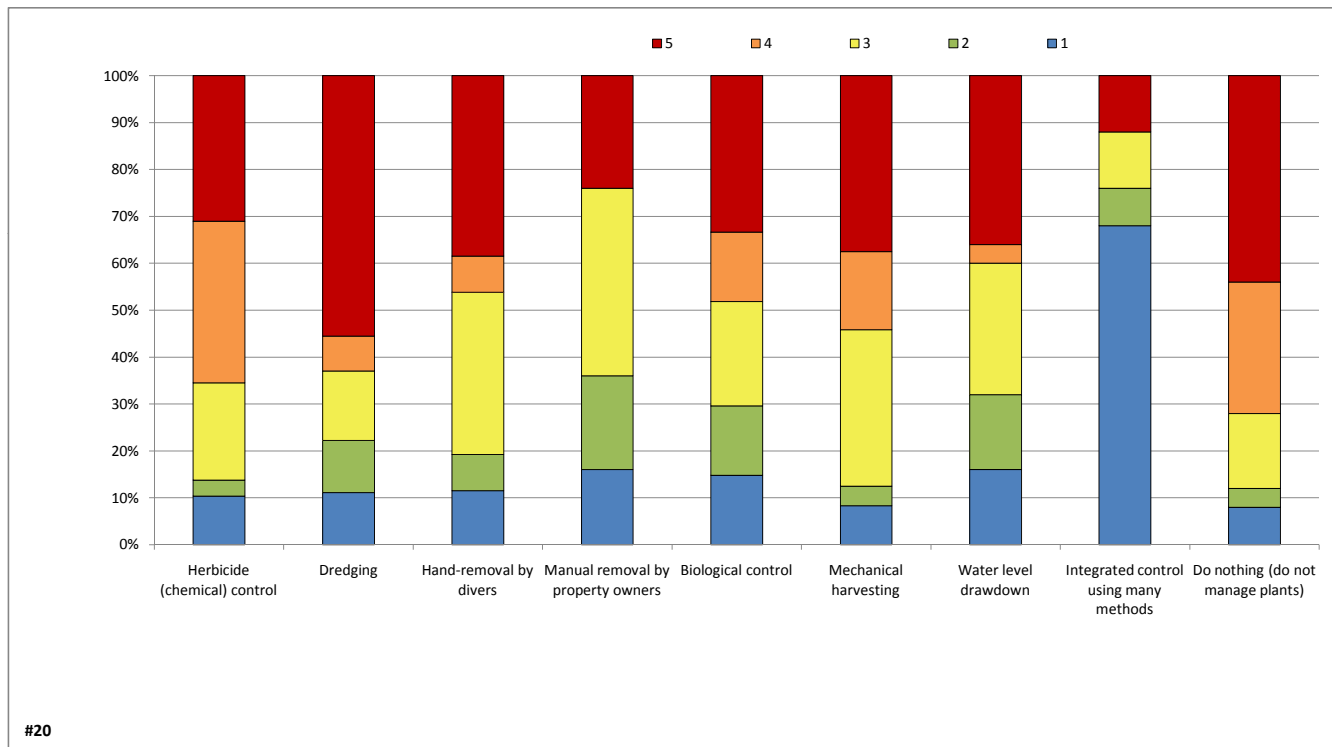
#16 recreational use of Bridge Lake?	% Nokomis	% Bradley
1 - Never	0.0	10.3
2	0.0	3.4
3 - Sometimes	38.9	20.7
4	27.8	34.5
5 - Always	33.3	31.0
	100.0	100.0



#20 Nokomis: What is your level of support for the responsible use of the following techniques on Bridge Lake?	1 Not Supportive		3 Moderately Supportive		5 Highly Supportive	
	1	2	3	4	5	Total
Herbicide (chemical) control	1	0	0	3	13	17
Dredging	3	0	2	4	7	16
Hand-removal by divers	3	2	5	0	7	17
Manual removal by property owners	2	1	7	2	6	18
Biological control	1	0	4	2	11	18
Mechanical harvesting	1	2	2	4	9	18
Water level drawdown	14	2	0	1	1	18
Integrated control using many methods	1	0	3	5	9	18
Do nothing (do not manage plants)	0	0	0	0	0	0



#20 Bradley: What is your level of support for the responsible use of the following techniques on Bridge Lake?	1 Not Supportive		3 Moderately Supportive		5 Highly Supportive		
	2	4	2	4	2	4	
Herbicide (chemical) control	3	1	6	10	9		29
Dredging	3	3	4	2	15		27
Hand-removal by divers	3	2	9	2	10		26
Manual removal by property owners	4	5	10	0	6		25
Biological control	4	4	6	4	9		27
Mechanical harvesting	2	1	8	4	9		24
Water level drawdown	4	4	7	1	9		25
Integrated control using many methods	17	2	3	0	3		25
Do nothing (do not manage plants)	2	1	4	7	11		25



Bridge Lake Survey Comments

Survey Number	Comment
1	Water levels dam management, ridiculous. Possible consideration of forming of a business district, as a separate entity within the lake district. Comprised of the resort restaurant. Bar owners who are impacted by the quality of the lake environment. Organize a petition to the state government, DNR, local elected officials, to reinstate the public intervenors office, back into the DNR.
2	To enjoy a lake you must have water. 2 months is not enough. We need an agreement with Wis Valley Improvement to stop the excessive drawdowns. This and dredging are the only effective means of controlling the weeds on Bridge Lake bays.
3	Bridge Lake is an area that needs help. It is a beautiful lake but years of no lake management has taken its toll. This planning project is an exciting project. We hope something will really happen.
4	No Comment
5	Recreational use of the Deer Lake Rd/Klade Rd area is non-existent. Boating/swimming, jetskiing, aesthetic beauty have all disappeared. This area is next to lifeless water is present only 3-4 months of the year and is choked by weeds and driftwood. What a shameful and unfair situation considering the high tax assessment.
6	The problems on Bridge Lk will soon be the problems of the entire lake area. Information planning and action needs to happen quickly.
7	Control boat traffic into Deer Lake and check all boats at landings when entering the lake, not going out.
8	Bridge Lake Newsletter. Buy the dam. Lake district limit boating (skiing and personal water craft) in EWM zones clean boats clean waters-boat launch inspections
9	No Comment
10	Although you say we "can't do anything about water levels" it is very hard to answer questions about Bridge Lake water when "we haven't had any for past 2 summers." Check out the "waterfront property" that those of us on the south end of the lake are paying taxes on. Fishing-can't do that, aquatic plants?-that is all we have is plants! The biggest invasive species we have is the company that monitors lake levels.
11	No Comment
12	Why do they draw down the water in July and August. They make the draught worse.
13	No Comment
14	No Comment
15	Its unfair that property owners should assume total responsibility for quality management when others play a major part with creating the problems. Though the lakes should belong to everyone, so should the responsibilities be shared.
16	There is a bog off Deer Lake Road east that continues to grow and if it continues to grow as in the past, the home owners, there will be "bogged in". The water level is so bad as of 8/30/07 that the lake is unusable.
17	Because nothing has been done with the existing bog it has developed into an island, and in the near future Bridge Lake will become a marsh. This is the south end of Bridge Lake before entering the channel to Deer Lake. The aquatic invasive species need to be treated on all shore lines on Bridge Lake, only able to use a boat from May 1 to July 15. Then there is no water and stumps are in the way.
18	I am very supportive of controlling weeds -especially Eurasian milfoil. I've donated \$100 a few times. But this year my beach area and the area around my pier were choked w/milfoil! I also would like to see a Hazard Buoy on the rock bar on the North half of the North side of Bridge Lake. I watched at least six boats ruin props/lower units this summer. With all of the markers LNCC has all over Nokomis- there is not one on Bridge Lake!
19	You state water levels are "beyond your control" WVIC should be held to their contract with water level management. The lookin clause should have some teeth to it. Many of you questions are a direct result of poor water levels. Since many of us do not have "lake" property 8 months/yr our property taxes should be prorated accordingly. Not water, no lake property taxes, more spring melt and rain run off must be kept to minimize these drains of Bridge Lake

Bridge Lake Survey Comments

Survey Number	Comment
20	Stump removal for boating safety. Weed taking over especially near Hwy 8. Have a concern about exposed stumps and muck when lake is down with breeding bastonmycosis issues for people and pets.
21	No Comment
22	When we bought our property 7 years ago the lake was in great shape. The water was high most of the year (including right before ice up), the fishing was great and each year since then, things have gotten progressively worse. The flowage hasn't filled in 3 years. It seems there are fewer legal walleyes and now-MILFOIL! It is everywhere on the Lake! Something drastic must be done soon or it will choke out the whole lake. Land owners better realize soon that they might ante up with the funds to do this because if they wait for the "DNR" or the "state" to do it for them it will be way too little, too late. I have seen a lake taken over by milfoil and it was literally impossible to fish (in May) and I can only imagine what it looked like in August.
23	My family has been on Bridge "lake" for almost 6 years, and I have seen our portion of the "lake" change from a lake where water fluctuated from full to one or 2 feet. But in the last 20 years, we have more accurately been a wetlands. Due to drought and a poor program of water management by WVIC I no longer feel a part of the "lake" system. June is a very short summer.
24	Water
25	Enclosed are pictures from 2004 (when we purchased) and this summer. We understand the lower water levels due to drought conditions and annual drawdown. But we are concerned about the level of weeds and vegetation overtaking our bay.
26	This survey is useless, being there is only water in Bridge Lake for 2 months.
27	What will be done to the growing bog on Bridge Lake? What about a consistent/maintained water level on Bridge Lake?
28	The water level on our bay is very low. If this continues we believe the land should be reclassified. We pay lakefront property taxes and only have "lakefront" 2 months of the year. Better management of water levels is needed.
29	None of these issues warrant any concern if there is no water in Bridge Lake.
30	Glad to have the enthusiastic management effort necessary to maintain Bridge Lake and the ultimate effort on Deer lake
31	No Comment
32	No Comment
33	Education of landowners regarding effects of descending property and treating lawns with chemicals is high priority to us. Would support tax incentive for good shoreline property management practices and fee assessments to owners with expansive grass lawns.
34	No Comment
35	Without sustainable water levels, none of this matters. They always seem to be water available for the increasing number of kayaking and canoe competitions downstream in Wausau, while our water is 30-40 ft from shore.
36	No Comment
37	Control all invasive species NOW!
38	At this time, it seems that Bridge Lake is in the worst condition of all the lakes of the Nokomis chain. Something must be done! The lake is dying. Why are the weeds so awful in Bridge Lake? We've never seen it this bad!
39	No Comment
40	I know we don't have much control on drawdown but the last 2 years there wasn't enough water to do much of anything in the front of my cottage, yet just enough for the bog in front of us to grow about 600% over the past 15 years.
41	Without the knowledge of complete aquatic management it seems that Bridge Lake is overgrown.
42	Water level draw down is a very big issue! Or change the name to Mud Lake.
43	Keep up the good work! I love the lake and look forward to a time when we will have more day there and more time to be involved.

Bridge Lake Survey Comments

Survey Number	Comment
44	No Comment
45	No Comment
46	No Comment
47	No Comment
48	I always thought Bridge Lake was part of Lake Nokomis and LNCC looked over??? I know you do not want to hear about water levels but does any of this really matter when we do not have any type of control on water levels. My family planned their vacations in August on Lake Nokomis and could not even get the boat in the water. I regret buying on Lake Nokomis. So, you want me to focus on how people enjoy the Lake when you can't really use it??

C

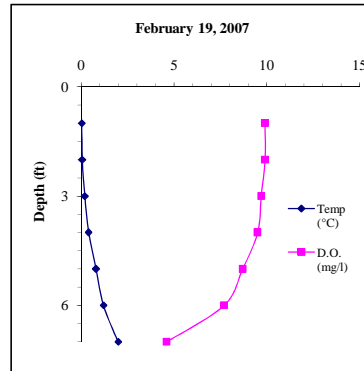
APPENDIX C

Water Quality Data

Bridge Lake

Date: 02-19-07 Max Depth (ft): 8.1
 Time: 12:41 BLS Depth (ft): 3.0
 Weather: 100% clouds, 20 ° F BLB Depth (ft): 7.0
 Ent: BTB Verf: Secchi Depth (ft): 4.1

Depth (ft)	Temp (°C)	D.O. (mg/l)	pH	Sp. Cond (µS/cm)
1.0	0.03	9.9	6.8	120
2.0	0.06	9.9	6.9	119
3.0	0.20	9.7	6.9	119
4.0	0.40	9.5	6.9	118
5.0	0.80	8.7	7.0	119
6.0	1.20	7.7	7.0	124
7.0	2.00	4.6	6.9	131



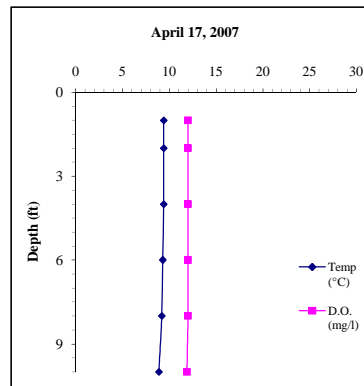
Parameter	BLS	BLB
Total P (µg/L)	32.000	41.000
Dissolved P (µg/L)	7.000	12.000
Chl a (µg/L)		
TKN (µg/L)	ND	300.00
NO3+NO2-N (µg/L)	175.000	84.000
NH3-N (µg/L)	55.000	190.000
Total N (µg/L)	175.00	384.00
Lab Cond. (µS/cm)		
Lab pH		
Alkal (mg/l CaCO3)		
Total Susp Sol (mg/l)	ND	5
Calcium (mg/l)		

Data collected by EJH, ice = 2.9 ft

Bridge Lake

Date: 04-17-07 Max Depth (ft): 12.5
 Time: 13:00 BLS Depth (ft): 3.0
 Weather: full sun, 57° F BLB Depth (ft): 9.0
 Ent: BTB Verf: Secchi Depth (ft): 4.7

Depth (ft)	Temp (°C)	D.O. (mg/l)	pH	Sp. Cond (µS/cm)
1.0	9.4	12.0	7.8	71.3
2.0	9.4	12.0	8.0	71.4
4.0	9.4	12.0	8.0	71.4
6.0	9.3	12.0	8.0	71.5
8.0	9.2	12.0	8.0	71.5
10.0	8.9	11.9	8.0	72.0



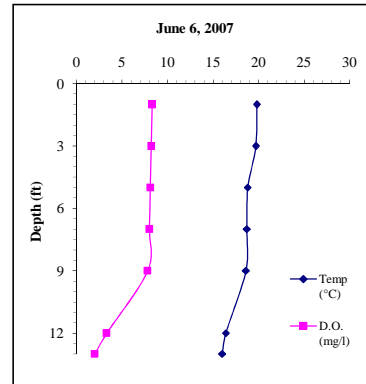
Parameter	BBLB	BBLB
Total P (µg/L)	28.000	28.000
Dissolved P (µg/L)	3.000	4.000
Chl a (µg/L)	5.35	
TKN (µg/L)	410.00	390.00
NO3+NO2-N (µg/L)	ND	ND
NH3-N (µg/L)	ND	ND
Total N (µg/L)	410.00	390.00
Lab Cond. (µS/cm)	75	75
Lab pH	7.54	7.51
Alkal (mg/l CaCO3)	28	28
Total Susp Sol (mg/l)	ND	ND
Calcium (mg/l)	7.7	

Data collected by EJH

Bridge Lake

Date: 06-06-07 Max Depth (ft): 14.5
 Time: 13:00 BLS Depth (ft): 3.0
 Weather: partly cloudy, windy BLB Depth (ft): 12.0
 Ent: BTB Verf: Secchi Depth (ft): 5.0

Depth (ft)	Temp (°C)	D.O. (mg/l)	pH	Sp. Cond (µS/cm)
1.0	19.8	8.3	7.8	85.8
3.0	19.7	8.2	7.8	85.5
5.0	18.8	8.1	7.7	85.5
7.0	18.7	8.0	7.7	85.6
9.0	18.6	7.8	7.6	84.9
12.0	16.4	3.3	7.0	86.3
13.0	16.0	2.0	6.9	85.5



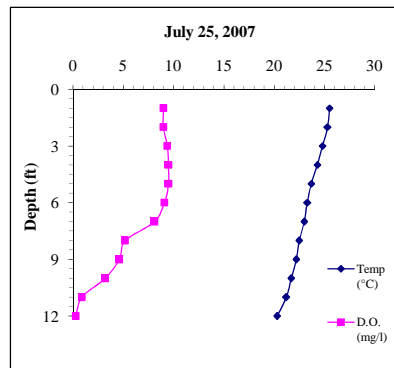
Parameter	BBLB	BBLB
Total P (µg/L)	34.000	36.000
Dissolved P (µg/L)		
Chl a (µg/L)	3.08	
TKN (µg/L)		
NO3+NO2-N (µg/L)		
NH3-N (µg/L)		
Total N (µg/L)		
Lab Cond. (µS/cm)		
Lab pH		
Alkal (mg/l CaCO3)		
Total Susp Sol (mg/l)	2	3
Calcium (mg/l)		

Data collected by EJH and BTB

Bridge Lake

Date: 07-25-07 Max Depth (ft): 13.4
 Time: 9:05 BLS Depth (ft): 3.0
 Weather: calm, full sun, 80° F BLB Depth (ft): 7.0
 Ent: BTB Verf: Secchi Depth (ft): 6.3

Depth (ft)	Temp (°C)	D.O. (mg/l)	pH	Sp. Cond (µS/cm)
1.0	25.5	9.0	8.7	94.0
2.0	25.3	9.0	8.7	93.0
3.0	24.8	9.4	8.8	93.0
4.0	24.3	9.5	8.8	93.0
5.0	23.7	9.5	8.8	93.0
6.0	23.3	9.1	8.5	92.0
7.0	23.0	8.1	7.9	93.0
8.0	22.5	5.2	7.4	93.0
9.0	22.2	4.6	7.3	93.0
10.0	21.7	3.2	7.1	93.0
11.0	21.2	0.9	6.9	93.0
12.0	20.3	0.3	6.9	97.0



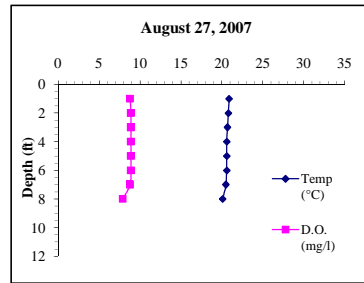
Parameter	BBLB	BBLB
Total P (µg/L)	30.00	50.00
Dissolved P (µg/L)	2.000	5.000
Chl a (µg/L)	2.60	
TKN (µg/L)	760.00	820.00
NO3+NO2-N (µg/L)	ND	ND
NH3-N (µg/L)	ND	ND
Total N (µg/L)	760.00	820.00
Lab Cond. (µS/cm)	93	93
Lab pH	8.21	7.58
Alkal (mg/l CaCO3)	36	36
Total Susp Sol (mg/l)	2	3
Calcium (mg/l)		

Data collected by BTB and CRS

Bridge Lake

Date: 08-27-07 Max Depth (ft): 9.6
 Time: 11:30 BLS Depth (ft): 3.0
 Weather: mostly cloudy, 70° F, calm BLB Depth (ft): 8.0
 Ent: BTB Verf: Secchi Depth (ft): 5.0

Depth (ft)	Temp (°C)	D.O. (mg/l)	pH	Sp. Cond (µS/cm)
1.0	20.9	8.8	8.3	96.0
2.0	20.8	8.9	8.3	96.0
3.0	20.7	8.9	8.3	96.0
4.0	20.6	8.9	8.4	96.0
5.0	20.6	8.9	8.4	96.0
6.0	20.6	8.9	8.4	96.0
7.0	20.5	8.8	8.4	96.0
8.0	20.1	7.9	8.0	96.0



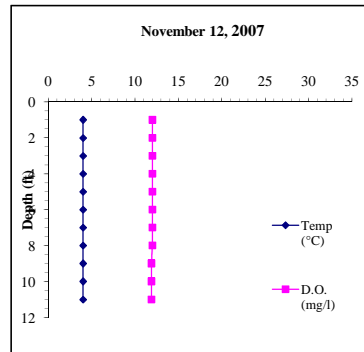
Parameter	BBLB	BBLB
Total P (µg/L)	48.000	55.000
Dissolved P (µg/L)		
Chl a (µg/L)	7.69	
TKN (µg/L)		
NO3+NO2-N (µg/L)		
NH3-N (µg/L)		
Total N (µg/L)		
Lab Cond. (µS/cm)		
Lab pH		
Alkal (mg/l CaCO3)		
Total Susp Sol (mg/l)	3	5
Calcium (mg/l)		

Data collected by BTB and WJC

Bridge Lake

Date: 11-12-07 Max Depth (ft): 13.1
 Time: 10:00 BBLB Depth (ft): 3.0
 Weather: 100% clouds, 40°F, windy BLB Depth (ft): 8.0
 Ent: EJH Verf: Secchi Depth (ft): 4.2

Depth (ft)	Temp (°C)	D.O. (mg/l)	pH	Sp. Cond (µS/cm)
1.0	4.0	12.0	8.4	87.9
2.0	4.0	12.0	8.4	87.0
3.0	4.0	12.0	8.5	87.0
4.0	4.0	12.0	8.5	87.2
5.0	4.0	12.0	8.3	87.1
6.0	4.0	12.0	8.4	87.0
7.0	4.0	12.0	8.3	87.1
8.0	4.0	12.0	8.3	87.3
9.0	4.0	11.9	8.2	87.3
10.0	4.0	11.9	8.1	87.1
11.0	4.0	11.9	8.1	87.2



Parameter	BBLB	BBLB
Total P (µg/L)	34.000	33.000
Dissolved P (µg/L)		
Chl a (µg/L)	23.50	
TKN (µg/L)		
NO3+NO2-N (µg/L)		
NH3-N (µg/L)		
Total N (µg/L)		
Lab Cond. (µS/cm)		
Lab pH		
Alkal (mg/l CaCO3)		
Total Susp Sol (mg/l)	3	3
Calcium (mg/l)		

Data collected by EJH

Water Quality Data

2007 Parameter	Surface		Bottom	
	Count	Mean	Count	Mean
Secchi Depth (feet)	6	4.9		
Total P (µg/L)	6	34.3	6	40.5
Dissolved P (µg/L)	3	4.0	3	7.0
Chl a (µg/L)	5	8.4	0	
TKN (µg/L)	3	390.0	3	503.3
NO3+NO2-N (µg/L)	3	58.3	3	28.0
NH3-N (µg/L)	3	18.3	3	63.3
Total N (µg/L)	3	448.3	3	531.3
Lab Cond. (µS/cm)	2	84.0	2	84.0
Lab pH	2	7.9	2	7.5
Alkal (mg/l CaCO3)	2	32.1	2	32.2
Total Susp Sol (mg/l)	6	1.7	6	3.2
Calcium (µg/L)	1	7.7	0	

Wisconsin Trophic State Index (WTSI)

Year	TP	Chla	SD
1979	57.59	38.48	49.07
1999			50.08
2000			46.92
2003			53.31
2004			54.82
2005			53.12
2006			54.34
2007	56.31	45.97	52.73
All Years (weighted)	55.77	44.68	53.14
WI Impoundments	60.51	58.05	56.10
Northeast Region	51.05	51.49	45.61

Morphological / Geographical Data

Parameter	Value
Acreage	411
Volume (acre-feet)	3163.5
Perimeter (miles)	8.92
Shoreland Development	3.14
Maximum Depth (feet)	15
County	Lincoln - Oneida
WBIC	1516800
Lillie Mason Region(1983)	Northeast Region
Nichols Ecoregion(1999)	NLFF

Watershed Data

WILMS Class	Acreage	kg/yr	lbs/yr
Row Crops	134.0	54	118.8
Pasture/Grass	2348.0	285	627.0
HD Urban	0.0	0	0.0
Wetland	6767.0	274	602.8
Forest	22166.0	1615	3553.0
Open Water	419.0	170	374.0

Watershed to Lake Area 75 :1

Year	Secchi (feet)				Chlorophyll a (µg/L)				Phosphorus (µg/L)				Nitrogen (µg/L)			
	Growing Season Count	Mean	Summer Count	Mean	Growing Season Count	Mean	Summer Count	Mean	Growing Season Count	Mean	Summer Count	Mean	Growing Season Count	Mean	Summer Count	Mean
1979	1	7.0	1	7.0	1	1.64	1	1.64	1	44	1	44	1	680	1	680
1983																
1984									6	40	2	27				
1985									2	47	2	49				
1986									2	40	2	42				
1987									1	34	1	34				
1999	1	6.5	1	6.5												
2000	1	8.1	1	8.1												
2003	11	5.6	8	5.2												
2004	10	4.9	5	4.7												
2005	7	5.3	7	5.3												
2006	11	5.0	7	4.9												
2007	4	5.3	3	5.4	5	8.4	3	4.5	5	34.8	3	37.3	2	760.0	1	760.00
All Years (weighted)		5.3		5.3		4.3		3.8		39.2		34.8		733.3		720.0
WI Impoundments				4.3				22.3				64.0				1060.0
Northeast Region				8.9				9.3				19.0				660.0

D

APPENDIX D

Watershed Analysis WiLMS Results

Date: 10/25/2007 Scenario: Wiscland Data

Lake Id: Bridge Lake

Watershed Id: BridgeFull

Hydrologic and Morphometric Data

Tributary Drainage Area: 31415.0 acre

Total Unit Runoff: 12.2 in.

Annual Runoff Volume: 31938.6 acre-ft

Lake Surface Area <As>: 419 acre

Lake Volume <V>: 3163 acre-ft

Lake Mean Depth <z>: 7.5 ft

Precipitation - Evaporation: 5.8 in.

Hydraulic Loading: 32141.1 acre-ft/year

Areal Water Load <q_s>: 76.7 ft/year

Lake Flushing Rate <p>: 10.16 1/year

Water Residence Time: 0.10 year

Observed spring overturn total phosphorus (SPO): 28 mg/m³

Observed growing season mean phosphorus (GSM): 35 mg/m³

% NPS Change: 0%

% PS Change: 0%

NON-POINT SOURCE DATA

Land Use	Acre (ac)	Low	Most Likely	High	Loading %	Low	Most Likely	High	
		Loading (kg/ha-year)				Loading (kg/year)			
Row Crop AG	134	0.50	1.00	3.00	3.7	27	54	163	
Mixed AG	0.0	0.30	0.80	1.40	0.0	0	0	0	
Pasture/Grass	2348	0.10	0.30	0.50	19.4	95	285	475	
HD Urban (1/8 Ac)	0.0	1.00	1.50	2.00	0.0	0	0	0	
MD Urban (1/4 Ac)	0.0	0.30	0.50	0.80	0.0	0	0	0	
Rural Res (>1 Ac)	0.0	0.05	0.10	0.25	0.0	0	0	0	
Wetlands	6767	0.10	0.10	0.10	18.6	274	274	274	
Forest	22166	0.05	0.09	0.18	54.9	449	807	1615	
Lake Surface	419.0	0.10	0.30	1.00	3.5	17	51	170	

POINT SOURCE DATA

Point Sources	Water Load (m ³ /year)	Low (kg/year)	Most Likely (kg/year)	High (kg/year)	Loading %
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SEPTIC TANK DATA

Description	Low	Most Likely	High	Loading %
Septic Tank Output (kg/capita-year)	0.3	0.5	0.8	
# capita-years	0.0			
% Phosphorus Retained by Soil	98	90	80	
Septic Tank Loading (kg/year)	0.00	0.00	0.00	0.0

TOTALS DATA

Description	Low	Most Likely	High	Loading %
Total Loading (lb)	1899.2	3243.8	5943.5	100.0
Total Loading (kg)	861.5	1471.4	2695.9	100.0
Areal Loading (lb/ac-year)	4.53	7.74	14.18	0.0
Areal Loading (mg/m ² -year)	508.06	867.75	1589.93	0.0
Total PS Loading (lb)	0.0	0.0	0.0	0.0
Total PS Loading (kg)	0.0	0.0	0.0	0.0
Total NPS Loading (lb)	1861.8	3131.7	5569.6	100.0
Total NPS Loading (kg)	844.5	1420.5	2526.4	100.0

Phosphorus Prediction and Uncertainty Analysis Module

Date: 10/25/2007 Scenario: Wiscland Data
 Observed spring overturn total phosphorus (SPO): 28.0 mg/m³
 Observed growing season mean phosphorus (GSM): 35.0 mg/m³
 Back calculation for SPO total phosphorus: 0.0 mg/m³
 Back calculation GSM phosphorus: 0.0 mg/m³
 % Confidence Range: 70%
 Nurenberg Model Input - Est. Gross Int. Loading: 0 kg

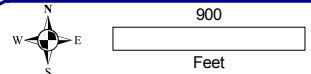
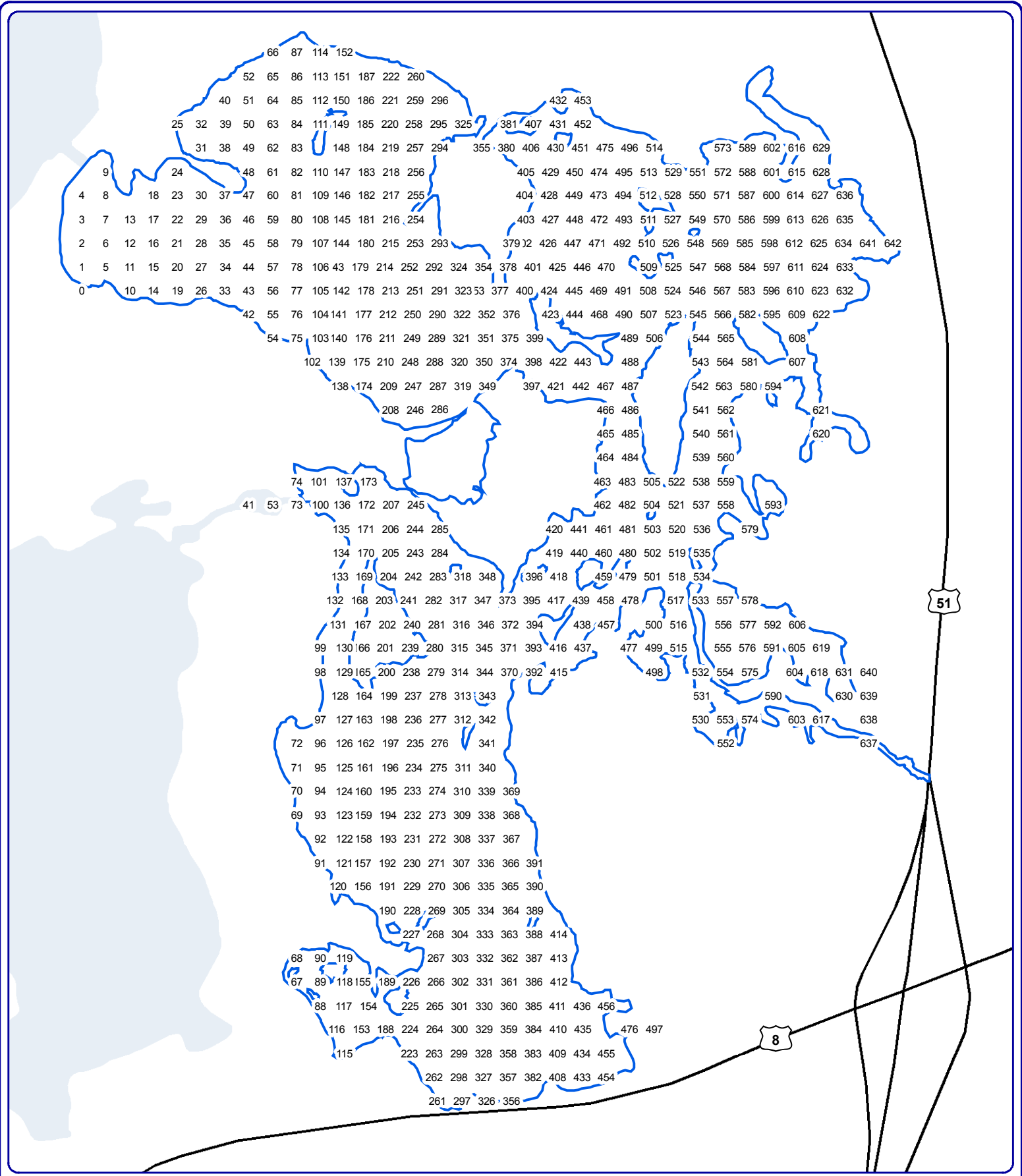
Lake Phosphorus Model	Low Total P (mg/m ³)	Most Likely Total P (mg/m ³)	High Total P (mg/m ³)	Predicted -Observed (mg/m ³)	% Dif.
Walker, 1987 Reservoir	17	28	52	-7	-20
Canfield-Bachmann, 1981 Natural Lake	18	30	52	-5	-14
Canfield-Bachmann, 1981 Artificial Lake	17	27	45	-8	-23
Rechow, 1979 General	13	22	40	-13	-37
Rechow, 1977 Anoxic	19	32	59	-3	-9
Rechow, 1977 water load<50m/year	14	24	44	-11	-31
Rechow, 1977 water load>50m/year	N/A	N/A	N/A	N/A	N/A
Walker, 1977 General	17	29	53	1	4
Vollenweider, 1982 Combined OECD	15	24	39	-8	-25
Dillon-Rigler-Kirchner	12	20	37	-8	-29
Vollenweider, 1982 Shallow Lake/Res.	12	19	33	-13	-41
Larsen-Mercier, 1976	17	28	52	0	0
Nurnberg, 1984 Oxidic	14	24	43	-11	-31

Lake Phosphorus Model	Confidence Lower Bound	Confidence Upper Bound	Parameter Fit?	Back Calculation (kg/year)	Model Type
Walker, 1987 Reservoir	18	46	Tw	0	GSM
Canfield-Bachmann, 1981 Natural Lake	9	86	FIT	1	GSM
Canfield-Bachmann, 1981 Artificial Lake	8	78	FIT	1	GSM
Rechow, 1979 General	13	36	FIT	0	GSM
Rechow, 1977 Anoxic	20	52	FIT	0	GSM
Rechow, 1977 water load<50m/year	15	39	FIT	0	GSM
Rechow, 1977 water load>50m/year	N/A	N/A	N/A	N/A	N/A
Walker, 1977 General	15	51	FIT	0	SPO
Vollenweider, 1982 Combined OECD	12	43	FIT	0	ANN
Dillon-Rigler-Kirchner	13	32	P	0	SPO
Vollenweider, 1982 Shallow Lake/Res.	10	34	FIT	0	ANN
Larsen-Mercier, 1976	19	45	P Pin	0	SPO
Nurnberg, 1984 Oxidic	13	41	FIT	0	ANN

E

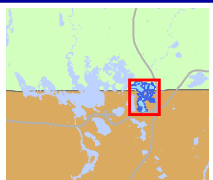
APPENDIX E

2006 Aquatic Plant Survey Data



Onterra LLC
 Lake Management Planning
 135 South Broadway Suite C
 De Pere, WI 54115
 920.338.8860
 www.onterra-eco.com

Sources:
 Roads & Hydro: WDNR
 Point-Intercept Locations: WDNR ISS
 Map date: November 27, 2007



Extent of large map shown in red.

Legend
 # Point-Intercept Sample Location
 Used by ISS - June 2006

Appendix E
Bridge Lake
 Oneida - Lincoln Counties, WI
Point-Intercept
Sample Locations

F

APPENDIX F

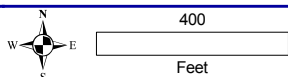
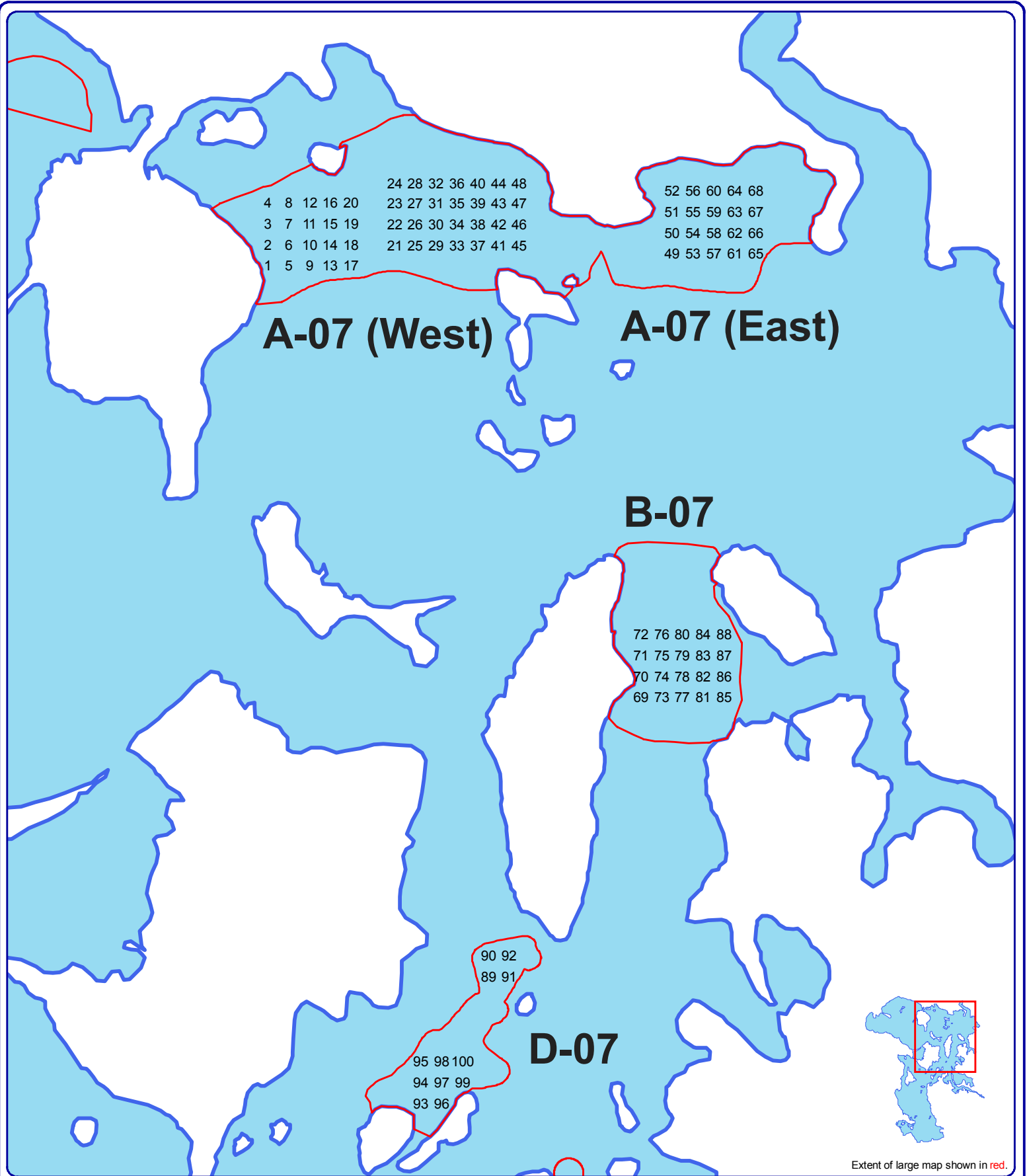
2007 Treatment Monitoring Data

Number	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	Depth (ft)	Sediment type (M=muck, S=Sand, R=Rock)	Rope (R); Pole (P); Visual (V)	<i>Myriophyllum spicatum</i>	<i>Potamogeton crispus</i>	<i>Elodea canadensis</i>	<i>Ceratophyllum demersum</i>	<i>Myriophyllum sibiricum</i>	<i>Potamogeton praelongus</i>	<i>Potamogeton zosteriformis</i>	<i>Potamogeton amplifolius</i>	Notes
1	45.55882	-89.68219	2	S	P	1								
2	45.55900	-89.68219	5	S	P	2		1						
3	45.55918	-89.68218	5	S	P	2		1				1		
4	45.55936	-89.68218	5	S	P	2		1		1				
5	45.55882	-89.68193	4	S	P	2		2						
6	45.55900	-89.68193	4	S	P	2								
7	45.55918	-89.68193	5	S	P	2		1		1				
8	45.55936	-89.68193	5	S	P	1		1		1				
9	45.55882	-89.68167	6	S	P	2		1		1				
10	45.55900	-89.68167	5	S	P	1		2						
11	45.55918	-89.68167	5	S	P	3		1						
12	45.55936	-89.68167	5	S	P	1								Filamentous algae
13	45.55882	-89.68142	5	S	P	1		1						
14	45.55900	-89.68142	6	S	P	1			1					
15	45.55918	-89.68142	6	S	P	2		1						
16	45.55936	-89.68142	4	S	P	1								Filamentous algae
17	45.55882	-89.68116	7	S	P	1		2						
18	45.55900	-89.68116	5	S	P	1		1			1			
19	45.55918	-89.68116	6	S	P	1		1						
20	45.55936	-89.68116	6	S	P	1								
21	45.55899	-89.68063	7	S	P	2								
22	45.55917	-89.68063	6	S	P	2		1						
23	45.55935	-89.68062	6	S	P			2						
24	45.55953	-89.68062	6	S	P	1		2						
25	45.55899	-89.68037	5	S	P			2						
26	45.55917	-89.68037	5	S	P	1		2						
27	45.55935	-89.68037	5	S	P	1		2	1			1		
28	45.55953	-89.68037	5	S	P	1		2						
29	45.55899	-89.68011	6	S	P	1		1						
30	45.55917	-89.68011	6	S	P	2		2						
31	45.55935	-89.68011	5	S	P	1		1						
32	45.55953	-89.68011	4	S	P	1		2	1					
33	45.55899	-89.67986	5	S	P	2								
34	45.55917	-89.67986	5	S	P	2								
35	45.55935	-89.67986	5	S	P	2		1						
36	45.55953	-89.67985	5	S	P			2						
37	45.55899	-89.67960	5	S	P	1		1						
38	45.55917	-89.67960	5	S	P	2		1						
39	45.55935	-89.67960	5	S	P	1		1		1				
40	45.55953	-89.67960	4	S	P	1		1		1	1			
41	45.55899	-89.67935	4	M	P			1	1					
42	45.55917	-89.67934	4	S	P	1		1						
43	45.55935	-89.67934	4	S	P			1	1	1				
44	45.55953	-89.67934	4	S	P			2						
45	45.55899	-89.67909	4	M	P	1		1	1	1			1	
46	45.55917	-89.67909	4	M	P				1	1				
47	45.55935	-89.67909	4	M	P			1		1		1		
48	45.55953	-89.67909	4	M	P	1		2	1					
49	45.55891	-89.67721	5	S	P	1		2						
50	45.55909	-89.67720	5	S	P			2						
51	45.55927	-89.67720	5	S	P	1		1	1	1			1	

Number	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	Depth (ft)	Sediment type (M=muck, S=Sand, R=Rock)	Rope (R); Pole (P); Visual (V)	<i>Myriophyllum spicatum</i>	<i>Potamogeton crispus</i>	<i>Elodea canadensis</i>	<i>Ceratophyllum demersum</i>	<i>Myriophyllum sibiricum</i>	<i>Potamogeton praelongus</i>	<i>Potamogeton zosteriformis</i>	<i>Potamogeton amplifolius</i>	Notes
52	45.55945	-89.67720	4	S	P			3						
53	45.55891	-89.67695	6	-	P	1		2						
54	45.55909	-89.67695	5	S	P	1		2		1				
55	45.55927	-89.67695	5	S	P	1			1	1				
56	45.55945	-89.67695	5	S	P	1		2		1	1			
57	45.55891	-89.67669	5	S	P	1		1						
58	45.55909	-89.67669	5	S	P	2		2						
59	45.55927	-89.67669	5	S	P	2		1						
60	45.55945	-89.67669	5	S	P	1		3						
61	45.55891	-89.67644	6	S	P	1		2						
62	45.55909	-89.67644	5	S	P	2		1		1		1		
63	45.55927	-89.67643	5	S	P	1		2			1			
64	45.55945	-89.67643	4	M	P	1		1		1	1			
65	45.55891	-89.67618	6	M	P	1		2						
66	45.55909	-89.67618	5	S	P	2								
67	45.55927	-89.67618	5	S	P	1		1	1					
68	45.55945	-89.67618	5	S	P	1		2						
69	45.55508	-89.67761	5	S	P	1		2					1	
70	45.55526	-89.67761	2	S	P									
71	45.55544	-89.67761	6	S	P	1		1						
72	45.55562	-89.67761	6	S	P			2						
73	45.55508	-89.67736	5	S	P	1		1						
74	45.55526	-89.67736	6	S	P	1		1						
75	45.55544	-89.67736	7	R	P	1		1	1					
76	45.55562	-89.67736	5	S	P	1		2						
77	45.55508	-89.67710	6	S	P			2		1				
78	45.55526	-89.67710	5	S	P	1					1			
79	45.55544	-89.67710	5	S	P	2		1			1			
80	45.55562	-89.67710	6	S	P	2						1		
81	45.55507	-89.67685	6	S	P	1			1	1				
82	45.55525	-89.67685	5	S	P				1	1		1		
83	45.55543	-89.67684	5	M	P	1			1					
84	45.55561	-89.67684	6	M	P				2					
85	45.55507	-89.67659	5	S	P			2	1			1		
86	45.55525	-89.67659	5	S	P	1		2	1			1		
87	45.55543	-89.67659	5	M	P				1				1	
88	45.55561	-89.67659	5	S	P	2			1					
89	45.55267	-89.67951	6	M	P			2						
90	45.55285	-89.67950	6	M	P	1		2						
91	45.55267	-89.67925	5	S	P			2						
92	45.55285	-89.67925	6	S	P	1		1						
93	45.55157	-89.68034	5	S	P			2						
94	45.55175	-89.68034	6	S	P			1	1					
95	45.55193	-89.68034	6	S	P	1		1	1					
96	45.55157	-89.68009	5	S	P	1			1					
97	45.55175	-89.68009	5	S	P			2						
98	45.55193	-89.68008	6	S	P	1		1						
99	45.55175	-89.67983	3	S	P									
100	45.55193	-89.67983	5	S	P			1						

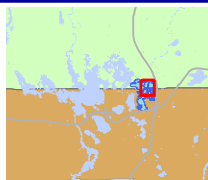
Number	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	Depth (ft)	Sediment type (M=muck, S=sand, R=Rock)	Rope (R); Pole (P); Visual (V)	<i>Myriophyllum spicatum</i>	<i>Potamogeton crispus</i>	<i>Elodea</i>	<i>Ceratophyllum demersum</i>	<i>Potamogeton zosteriformis</i>	<i>Potamogeton foliosus</i>	<i>Potamogeton praelongus</i>	<i>Potamogeton amplifolius</i>	<i>Potamogeton richardsonii</i>	<i>Nymphaea odorata</i>	<i>Nitella</i> sp.	<i>Myriophyllum sibiricum</i>	<i>Megalodonta beckii</i>
1	45.55882	-89.68219	on	shore														
2	45.55900	-89.68219	2	S	P			2	1					1				
3	45.55918	-89.68218	2	S	P			1	1									
4	45.55936	-89.68218	2	S	P			1	1	2								
5	45.55882	-89.68193	2	S	P			2	1	1					1			
6	45.55900	-89.68193	2	S	P			1		1		1						
7	45.55918	-89.68193	2	S	P	1		2	1									
8	45.55936	-89.68193	2	S	P			2										
9	45.55882	-89.68167	3	S	P			2	1									
10	45.55900	-89.68167	2	S	P			2	1									
11	45.55918	-89.68167	2	S	P			3	1									
12	45.55936	-89.68167	2	S	P			3	1									
13	45.55882	-89.68142	2	S	P			1	1									
14	45.55900	-89.68142	2	S	P			1	1	1	1							
15	45.55918	-89.68142	2	S	P			2	1	1								
16	45.55936	-89.68142	2	S	P			2					1					
17	45.55882	-89.68116	4	S	P			3										
18	45.55900	-89.68116	3	S	P			1		2		1						
19	45.55918	-89.68116	3	S	P			2	1		1							
20	45.55936	-89.68116	3	S	P			3	1		1							
21	45.55899	-89.68063	3	S	P			2					1					
22	45.55917	-89.68063	4	S	P			2	1									
23	45.55935	-89.68062	2	S	P			2										
24	45.55953	-89.68062	3	S	P			1		1								
25	45.55899	-89.68037	3	S	P			3	1									
26	45.55917	-89.68037	3	S	P			2										
27	45.55935	-89.68037	3	S	P			3			1							
28	45.55953	-89.68037	3	S	P			3		1		1						
29	45.55899	-89.68011	3	S	P			2		1			1					
30	45.55917	-89.68011	3	S	P			2	1									
31	45.55935	-89.68011	4	S	P			2										
32	45.55953	-89.68011	3	S	P			3										
33	45.55899	-89.67986	3	S	P	1		3				1						
34	45.55917	-89.67986	3	S	P			2										
35	45.55935	-89.67986	3	S	P	1		1										
36	45.55953	-89.67985	3	S	P			3	1	1								
37	45.55899	-89.67960	2	S	P	1		2	1	1				1				
38	45.55917	-89.67960	2	S	P	1		1										
39	45.55935	-89.67960	3	S	P			3		1								
40	45.55953	-89.67960	3	S	P	1		1		1								
41	45.55899	-89.67935	2	S	P			1	2	1		1						
42	45.55917	-89.67934	2	S	P			1	1	1								
43	45.55935	-89.67934	2	S	P			1		1								
44	45.55953	-89.67934	2	S	P	1		2		1								
45	45.55899	-89.67909	2	S	P				1				2					
46	45.55917	-89.67909	2	S	P			2										
47	45.55935	-89.67909	2	S	P			1	1	2		1						
48	45.55953	-89.67909	2	S	P			2		1		1						
49	45.55891	-89.67721	2	S	P			1	1		2							
50	45.55909	-89.67720	2	S	P			2		1								
51	45.55927	-89.67720	2	S	P	1		2		1								
52	45.55945	-89.67720	2	S	P	1		3				1	1					
53	45.55891	-89.67695	3	S	P	1		1	1									
54	45.55909	-89.67695	3	S	P			3		1		1						
55	45.55927	-89.67695	3	S	P			1	1			1						
56	45.55945	-89.67695	2	S	P			3		1								
57	45.55891	-89.67669	4	S	P	2		2		1								
58	45.55909	-89.67669	3	S	P			3			1							
59	45.55927	-89.67669	3	S	P			3	1			1						
60	45.55945	-89.67669	3	S	P			3				1						
61	45.55891	-89.67644	4	S	P	1		2	1		1							
62	45.55909	-89.67644	3	S	P	2		1	1									
63	45.55927	-89.67643	3	S	P			1	1							1		
64	45.55945	-89.67643	2	M	P	1		3		1								
65	45.55891	-89.67618	3	M	P			3	1									
66	45.55909	-89.67618	2	S	P			1			1							

Number	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	Depth (ft)	Sediment type (M=muck, S=Sand, R=Rock)	Rope (R); Pole (P); Visual (V)	<i>Myriophyllum spicatum</i>	<i>Potamogeton crispus</i>	<i>Elodea</i>	<i>Ceratophyllum demersum</i>	<i>Potamogeton zosteriformis</i>	<i>Potamogeton foliosus</i>	<i>Potamogeton praelongus</i>	<i>Potamogeton amplifolius</i>	<i>Potamogeton richardsonii</i>	<i>Nymphaea odorata</i>	<i>Nitella</i> sp.	<i>Myriophyllum sibiricum</i>	<i>Megalodonta beckii</i>
67	45.55927	-89.67618	2	S	P			2	1		1	1						
68	45.55945	-89.67618	2	S	P			1	2	1								
69	45.55508	-89.67761	2	S	P			3	1									
70	45.55526	-89.67761	2	S	P			1	1	1			1	1				
71	45.55544	-89.67761	3	S	P			2	1			1						
72	45.55562	-89.67761	2	S	P			3										
73	45.55508	-89.67736	2	S	P			2		1								
74	45.55526	-89.67736	3	S	P			1	1	1	1							
75	45.55544	-89.67736	4	R	P			2	1	1	1							
76	45.55562	-89.67736	3	S	P			2	1	1								
77	45.55508	-89.67710	3	S	P			2	1	1	1							1
78	45.55526	-89.67710	3	S	P			1	1	2								
79	45.55544	-89.67710	2	S	P			1	1	2								
80	45.55562	-89.67710	3	S	P			1	1	2								
81	45.55507	-89.67685	2	S	P			1	1	1							1	
82	45.55525	-89.67685	2	S	P			1	1	1	1							
83	45.55543	-89.67684	2	M	P			1	2	1								
84	45.55561	-89.67684	2	M	P	1		3	1	1								
85	45.55507	-89.67659	1	S	P	1		1	1	2								
86	45.55525	-89.67659	2	S	P			1	2	1			1					
87	45.55543	-89.67659	2	M	P			1	1				2					
88	45.55561	-89.67659	1	S	P			1	2	1								
89	45.55267	-89.67951	3	M	P			2										
90	45.55285	-89.67950	3	M	P	1		2	1									
91	45.55267	-89.67925	2	S	P			1	1	1	1				1			
92	45.55285	-89.67925	3	S	P			1	1	1								
93	45.55157	-89.68034	2	S	P			2	1									
94	45.55175	-89.68034	3	S	P			1	1		1	1				1		
95	45.55193	-89.68034	3	S	P			1										
96	45.55157	-89.68009	1	S	P			3	1									
97	45.55175	-89.68009	2	S	P			1	1		1							
98	45.55193	-89.68008	3	S	P			1	1									
99	45.55175	-89.67983	on	shore														
100	45.55193	-89.67983	2	S	P			1										




Onterra LLC
 Lake Management Planning
 135 South Broadway Suite C
 De Pere, WI 54115
 920.338.8860
 www.onterra-eco.com

Sources:
 Roads & Hydro: WDNR
 Aquatic Plants: Onterra, 2006 & 2007
 Map date: May 6, 2007



Legend

-  2007 Treatment Area
- # Point-intercept Sub-sample Location used in 2007

Appendix F
Bridge Lake
 Oneida - Lincoln Counties, WI
Treatment Monitor
Point-Intercept Locations