Lake Vegetation Management Plan: Lake Minnetonka – Carmans, Grays & Phelps Bays

February 20, 2008





INTRODUCTION

The Lake Minnetonka Association and the Lake Minnetonka Conservation District have cooperated to prepare this plan in response to ongoing concerns with nuisance plants in Lake Minnetonka, especially Eurasian watermilfoil. As well, the two organizations cooperated in a Eurasian watermilfoil demonstration project in 2006 that included three bays – Carmans, Grays and Phelps.

This Lake Vegetation Management Plan, or LVMP, follows the template provided by the Minnesota Department of Natural Resources (DNR).

The LVMP was coordinated and developed by a project team and technical committee, listed below. In addition, numerous opportunities for public input were provided (see Section 3). The ongoing implementation of this plan will be overseen by the same Project Team and Technical Committee.

Project Team

Lake Minnetonka Association - Dick Osgood, Executive Director

Lake Minnetonka Conservation District - Greg Nybeck, Executive Director

Project Members/Advisors (Technical Committee)

Minnesota Department of Natural Resources - Chip Welling, Neil Vanderbosch

US Army Corps of Engineers – John Skogerboe

Three Rivers Parks – John Barten

Hennepin County Environmental Services – Tony Brough

University of Minnesota – Ray Newman

Rep. Jim Ramstad's Office - Lance Olson

Lake Minnetonka Association – Richard Glidewell

Lake Minnetonka Conservation District – Tom Tanner, Herb Suerth

LAKE VEGETATION MANAGEMENT PLAN

1. Description of the Lake and Water Quality

- A. Lake name: Minnetonka Carmans, Grays and Phelps Bays
- B. Lake identification number (DOW Number): 27-0133
- C. County: Hennepin
- D. Acreage: The acreages below are taken from the MN DNR's LakeFinder.

	$\underline{\text{Acres}^1}$	Inventoried Acreage ²	Treated Acres ³
Carmans	403 (182)	172	95
Grays	175 (127)	160	160
Phelps	373 (272)	208	150
Entire Lake	14,004		

- 1. Acreage (littoral acreage) from MN DNR Department of Waters
- 2. Acreage inventoried as part of this plan (see section 2 below)
- 3. Acreage within the each bay that is proposed to be treated in 2008 (see also section 6 below)

Type of estimate: Dept. of Waters _X_ or Planimetered (preferred): ____

E. Acreage littoral: See above.	
F. Percentage littoral: See above.	
G. Classification of lake:	Natural Environment Recreational Development _X_ General Development

H. Water Quality

All water quality data are from the Minnehaha Creek Watershed District 2006 (field year) water quality report.

i. Clarity as indicated by Secchi disk observations in meters or feet (specify):

For most recent year (Carmans),

Mean value: 2.3 meters

Range: seasonal average

No. observations: 11

Trends: There has been a general improvement in water quality in Lake Minnetonka

over the past 30-40 years, long-term data for Carmans Bay are lacking.

For most recent year (Grays),

Mean value: 3.1 meters

Range: seasonal average

No. observations: 12

Trends: There has been a general improvement in water quality in Lake Minnetonka

over the past 30-40 years, long-term data for Grays Bay are lacking.

For most recent year (Phelps),

Mean value: 2.3 meters

Range: seasonal average

No. observations: 11

Trends: There has been a general improvement in water quality in Lake Minnetonka

over the past 30-40 years, long-term data for Phelps Bay mirror this

improvement.

ii. If available, concentration of total phosphorus (parts per billion or ppb):

For most recent year (Carmans),

Mean value: 25 ppb

Range: seasonal average

No. observations: 11

Trends: There has been a general improvement in water quality in Lake Minnetonka

over the past 30-40 years, long-term data for Carmans Bay are lacking.

For most recent year (Grays),

Mean value: 35 ppb

Range: seasonal average

No. observations: 12

Trends: There has been a general improvement in water quality in Lake Minnetonka

over the past 30-40 years, long-term data for Grays Bay are lacking.

For most recent year (Phelps),

Mean value: 30 ppb

Range: seasonal average

No. observations: 11

Trends:: There has been a general improvement in water quality in Lake Minnetonka

over the past 30-40 years, long-term data for Phelps Bay mirror this

improvement.

iii. If available, concentration of chlorophyll-a (parts per billion or ppb):

For most recent year (Carmans),

Mean value: 6 ppb

Range: seasonal average

No. observations: 11

Trends: There has been a general improvement in water quality in Lake Minnetonka

over the past 30-40 years, long-term data for Carmans Bay are lacking.

For most recent year (Grays),

Mean value: 4 ppb

Range: seasonal average

No. observations: 12

Trends:: There has been a general improvement in water quality in Lake Minnetonka

over the past 30-40 years, long-term data for Grays Bay are lacking.

For most recent year (Phelps),

Mean value: 7 ppb

Range: seasonal average

No. observations: 11

Trends:: There has been a general improvement in water quality in Lake Minnetonka

over the past 30-40 years, long-term data for Phelps Bay mirror this

improvement.

2. Aquatic Vegetation

All required aquatic vegetation data and analyses are contained in the supplemental report:

Lake Minnetonka Invasive Aquatic Plant Management Demonstration Project - Draft Interim Report, John G. Skogerboe, US Army Engineer Research and Development Center, Eau Galle Aquatic Ecology Laboratory, Spring Valley, WI 54767, 8 October 2007.

3. Public Participation

A. Number of resident on the lake to which notice of intent was sent.

See Appendix A.

B. Number of meetings held to develop plan and number of attendees at each meeting:

13 July 2007 LMCD Exotic Task Force (LVMP Technical Committee)

5 September 2007 Stakeholder Meeting #1 – Problem Identification 26 September 2007 Stakeholder Meeting #2 – Goals and Objectives

12 October 2007 LMCD Exotic Task Force (LVMP Technical Committee)
24 October 2007 Stakeholder Meeting #3 – Management Alternatives

30 November, 2007	LMCD Exotic Task Force (LVMP Technical Committee)
12 December, 2007	LMCD Exotic Task Force (LVMP Technical Committee)
3 January 2008	Stakeholder Meeting #4 – Management Actions and Financing
8 February 2008	LMCD Exotic Task Force (LVMP Technical Committee)

C. Other means by which people were involved in development of the plan:

Stakeholder Survey (Appendix A).

4. Problems to Be Addressed in this Plan

Based on the results of the stakeholders meetings and the stakeholders' survey (Appendix A), the problems to be addressed in this plan are:

- Eurasian watermilfoil is the most problematic plant in the three bays because it interferes with
 most recreational activities, creates a shoreland cleanup and maintenance chore and probably
 diminishes ecological health. Other invasive species, particularly curlyleaf pondweed, should be
 controlled as well.
- Native submersed plants also interfere with recreational use and riparian access in some areas; but it is recognized that some kind of rooted submersed plants will always be present, so control of native plants should be balanced with their protection.
- Water lilies are sometimes problematic, although there is an appreciation that water lilies provide valuable habitat.
- The overall plant management is poorly coordinated.

5. Goals and Objectives for the Management of Aquatic Plants

Goal A. Eurasian watermilfoil and other invasive plants, such as curlyleaf pondweed, will be controlled throughout the respective bays in a manner that is safe and effective to reduce interference with recreational activities, reduce lakeshore cleanup and improve ecological health.

Objective A-1. Eurasian watermilfoil (EWM) will be controlled to levels of 20% occurrence (littoral zone) during the year of treatment (year 1) and maintained to frequencies below 20% in subsequent years (years 2-5). Curlyleaf pondweed (CLP) levels will be evaluated in the early season of year 2, then controlled to levels of 20% occurrence (littoral zone) during the year of treatment (year 1) and maintained to frequencies below 20% in subsequent years (years 2-5). A metric relating to the density or matting coverage of EWM will be developed during year 1 and EWM will be controlled to less than that benchmark in years 2-5.

Objective A-2. The water clarity in the bays will not be diminished as a result of treatments.

Objective A-3. An annual assessment of user perceptions with respect to the treatments' impacts on reducing interference with recreational activities and a reduction in lakeshore cleanup chores will be conducted to provide an additional objective basis for evaluating treatment effects.

Goal B. Native submersed plants should be protected, except in localized areas where they pose a nuisance (see Goal C) although control will be allowed in localized areas where native plants inhibit access to open water or prohibit recreation (see Goal C).

Objective B-1. The overall diversity of native submersed plants, as measured by the mean number of native species per point (littoral zone), will be maintained or allowed to increase. The biomass of native submersed species will be measured from 35 random sites (per bay) in year 1, and that will be used as a benchmark such that native submersed plant biomass will be maintained at or above that level in years 2-5.

Goal C. Provide limited individual nuisance or access control when bay-wide selective control applications are performed.

Objective C-1. Any subsequent chemical treatments within the same season shall be subject to inspection and shall be granted no more than 50 shoreline feet, or half their lake frontage whichever is less, by 50 feet lakeward plus a 15 foot channel to open water. Offshore treatment of native submersed plants shall not be permitted. Should native submersed plants rebound to a large extent causing recreational nuisances, this limitation will be revisited. These treatments for submersed plants other than curly-leaf pondweed or Eurasian water milfoil shall require a separate permit and shall require annual signatures for such treatment. No permit fee will be assessed to those already having paid a permit fee for early season control of non-native submersed plants.

Goal D. This plan will be considered as a framework for possible expansion in the future to other bays in Lake Minnetonka.

Objective D-1. This LVMP will be expanded to other bays in Lake Minnetonka, depending on a number of factors, including, but not limited to a) the outcomes of the control and protection actions in the three bays (this plan), b) interest or demand from other bays, c) a significant change in the EWM or CLP situation elsewhere in Lake Minnetonka and d) availability of financial resources.

6. Actions to Achieve those Goals

Management actions are keyed to the management goals and objectives.

Action A-1. Selective herbicides will be used in the three bays to control EWM and CLP.

There are five herbicides (diquat, endothall/Aquathol K, fluridone, 2,4-D, and triclopyr) that can be used to control EWM and three herbicides (diquat, endothall/Aquathol K, and fluridone) that can be used to control CLP. In addition, treatment regimes can be fine-tuned using combinations of herbicides such as endothall +2,4-D and endothall + triclopyr. Most of the listed herbicides have both liquid and granular formulations. Granular formulations can extend exposure times in target areas but also increase cost per unit area. Selection of the herbicide is based on target species, expected herbicide exposure times, native species present in the target area, and herbicide use restrictions.

The management objective is to control both EWM and CLP which dictates that either diquat, endothall, or fluridone will be required. Based on expected exposure times and native plant considerations, endothall applied as Aquathol K at 1 mg/L active ingredient (ai) for control of curly-leaf pondweed in early spring (April to early May) for maximum selectivity is recommended. Higher rates of endothall (1.5 to 2 mg/L ai) could be used to also control EWM, but this rate could also negatively impact coontail which is a major constituent of the native plant community which could also negatively impact water clarity. Research has shown that endothall can be combined with low rates of 2,4-D or triclopyr to control both target species with a very high degree of selectivity if applied in early spring.

The initial application (year 1) should be endothall (Aquathol K, 1 mg/L ai) + 2,4-D (liquid amine formulation, 0.5 mg/L ai). However, current label restriction on 2,4-D make this formulation very difficult to use in Minnesota. 2,4-D has recently gone through re-registration at the US EPA, and a new label is expect by 2009, which should make it's use much easier. The granular ester 2,4-D formulation could be used in place of the liquid amine formulation, but the desired application rate is unclear at this time and it is more expensive. Triclopyr is similar to 2,4-D, but does not have the same label restrictions currently imposed on liquid amine, 2,4-D. Triclopyr is also more expensive; however, when it is used at low rates in combination with endothall, the cost is manageable. Endothall (1 mg/L ai) + triclopyr (0.25 to 0.5 mg/L ai) is recommended to be used for the initial application in 2008 (Year 1). The lower rate of triclopyr can be used for large block treatments and the higher rate in small or narrow areas where exposure times may be limited. The maximum allowed application rates for these herbicides are 5 mg/L ai for endothall, 4 mg/L ai for 2,4-D, and 2.5 mg/L ai for triclopyr.

Year 1 (2008) Recommended Treatment

Aquathol K (1 ppm) Renovate (0.25 ppm)

Subsequent herbicide application recommendations (2009 and beyond) will depend on the results of the initial application and changes in herbicide labels. It is anticipated the number of acres requiring treatment will diminish (as noted below) over the five-year project.

Years 1-5 (2008-2012) Anticipated Treatments

	<u>Carmans</u>	<u>Grays</u>	<u>Phelps</u>
2008	95 acres	160 acres	150 acres
2009	95 acres	160 acres	150 acres
2010	95 acres	160 acres	150 acres
2011	32 acres	53 acres	50 acres
2012	20 acres	32 acres	32 acres

Based on the results of plant density and matting (see monitoring below), metrics for EWM will be developed by the Technical Committee.

Action A-2. No specific action.

It is anticipated the proposed treatments will not result in diminished water clarity. This presumption will be monitored (see monitoring below) and evaluated throughout the project.

Action A-3. The Project Team will conduct an annual assessment of user perceptions and the Technical Committee will review the results.

This action will provide an annual "smell test" to assure lake users' expectations are realistic.

Action B-1. No specific action.

Objective B-1 is satisfied through action A-1 and will be evaluated following the annual monitoring (see below).

Action C-1. Lakeshore treatments implemented by individual lakeshore owners.

Individual lakeshore owners will initiate treatments as they choose and the DNR will issue permits in accordance with this LVMP.

Action D-1. The Lake Minnetonka Association, the Lake Minnetonka Conservation District or others may initiate further planning depending on the factors listed in Objective D-1.

Through the normal management, monitoring and evaluation activities, this LVMP may be amended to allow for comprehensive plant management in other bays of Lake Minnetonka.

7. Conditions of Operations and Permits

MN DNR staff will coordinate approval of any required variances in accordance with this plan (see Draft Variance Letter, attached).

8. Responsibilities

- A. Individual Landowners: Individual lakeshore owners on the respective bays will be responsible for submitting financial contributions to the Lake Minnetonka Association each year. In addition, individual lakeshore owners choosing to conduct nuisance plant control activities adjacent to their lakeshore will abide by MN DNR permit requirements (see Objective C-1) and this plan and will be responsible for paying for those treatments or treatment services.
- B. Lake Association: The Lake Minnetonka Association will coordinate the treatments within the three bays, collect funds from lakeshore owners and perform other tasks and activities as specified in this plan. The Lake Minnetonka Association will share administrative responsibilities with the Lake Minnetonka Conservation District. The LMA and LMCD will operate under a letter of agreement between the two organizations.
- C. Local Units of Government: The Lake Minnetonka Conservation District will share administrative responsibilities with the Lake Minnetonka Association and perform other tasks and activities in

accordance with this plan. The LMA and LMCD will operate under a letter of agreement between the two organizations.

- D. Department of Natural Resources: The MN DNR will perform task and services in accordance with this plan.
- E. Other Governmental Agencies: Other governmental agencies will perform tasks and services in accordance with this plan.

9. Monitoring

Monito	oring Required?		
	X_ YES (See attached doct NO	ument – Monitoring Requirements)	
10. Du	uration and Review of the	e LVMP	
The du	aration of this plan is five years.	Review will occur as specified elsewhere in this plan.	
11. Pr	eparation, Approval, and	Distribution of the LVMP:	
Α.	Preparation of the LVMP was	based on results of a survey of the aquatic vegetation	done by:
	John G. Skogerboe [Name - print]	US Army Engineer Research and Development Cente [Organization]	er
В.	The LVMP document was pre	pared by:	
	Dick Osgood* [Name - print]	Lake Minnetonka Association [Organization]	
	*With assistance and oversigh the Technical Committee.	t by the Greg Nybeck (Lake Minnetonka Conservation	District) and
C.	Signatures of Approval:		
	[Signature]	_ MN DNR Regional Fisheries Manager or designee	[Date]
	[Signature]	MN DNR Other:	[Date]

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[Signature]	[Organization]	[Date]
[Signature]	[Organization]	[Date]
E. Distribution of Approved I	LVMP	
i. Division of Ecological So	ervices:	
ii. Section of Wildlife:		
iii. Division of Trails and V	Waterways:	

iv. Other:

ATTACHMENTS & SUPPORTING DOCUMENTATION

12 Monitoring (Required)

a. Aquatic Vegetation

Aquatic vegetation will be inventoried by the US Army Corps of Engineers staff using the same methods as in this plan. In addition, vegetation density and matting will be measured in accordance with this plan's objectives and metric will be developed by the Technical Committee.

b. User Perception

The Lake Minnetonka Association will develop a user perception survey to be used during each year of treatment in accordance with Objective A-3. The Technical Committee will review the survey. The Lake Minnetonka Association will mail the survey to the residents of each bay, compile the results and prepare a summary for use by the Technical Committee.

c. Water Clarity

Water clarity in the three bays will be measured bi-weekly from May through September using a Secchi disk. These data will be compared to three reference bays (Carmens/Upper Lake East, Grays/Wayzata, Phelps/Spring Park) in accordance with Objective A-2.

DRAFT VARIANCE LETTER

Date

Permittee

Dear Permittee:

This letter constitutes a variance from the following sections of Minnesota Rule 6280 for portions of Carman's, Gray's, and Phelp's Bays on Lake Minnetonka (27-133).

- Chapter 6280.0350, Subp. 4, A. This variance allows control of curly leaf pondweed and Eurasian water milfoil with an aquatic labeled herbicide in an area greater than 15% of the littoral area and along more than 100 feet of shoreline per sit belonging to an individual property owner.
- Chapter 6280.0350, Subp. 4, B. This variance allows for signtures to be valid for up to five years or until there is a change of ownership whichever occurs first.
- Chapter 6280.0250, Subp. 2, A. (2). This variance allows application of aquatic labeled herbicide to control curly leaf pondweed and Eurasian water milfoil in areas that do not interfere with watercraft use, swimming, or other traditional recreational uses.

Conditions of this variance are as follows:

- Residents on Lake Minnetonka Carman's, Gray's, and Phelp's Bays will receive a variance to the 15% maximum chemical treatment limit of the littoral zone as well as a variance to the 100-foot maximum shoreline per property treatment. Residents on these bays will be allowed to treat their entire shoreline.
- Any subsequent chemical treatments within the same season shall be subject to inspection and shall be granted no more than 50 shoreline fee, or half their lake frontage whichever is less, by 50 feet lakeward plus a fifteen foot channel to open water. Offshore treatment of native vegetation shall not be permitted. Should native submersed macrophytes rebound to a large extent causing recreational nuisances, this limitation will be revisited. These treatments for submerged aquatic macrophytes other than curly leaf pondweed and Eurasian water milfoil, shall require a separate permit and shall require annual signatures for treatment. No permit application fee will be assessed to those already having paid a permit application fee for treatment associated with the early season treatment of curly leaf pondweed and Eurasian water milfoil.
- An Aquatic Plant Management permit will need to be applied for annually. Signatures for near shore (within 150 feet from shore) treatment will be valid for 5 years or until change in ownership whichever occurs first. A map showing size and location of treatment area must be included with permit application.

• Monitoring data and plant survey results shall be submitted to the MN DNR's Aquatic Plant Management (APM) office in Saint Paul before the end of that treatment year. Results must be compiled and submitted in a manner that is readily reviewable by APM staff. This data must be received before a permit will be issued for the following season.

Justification for a variance to MN Rule 6280 is based on the goals and objectives spelled out in an approved Lake Vegetation Management Plan. The goals and objectives of this approved plan included, but is not limited to, a reduction in the occurrence and biomass of curly leaf pondweed and Eurasian water milfoil, thereby reducing pesticide use, and enhance the native aquatic plant community for the benefit of fish and wildlife.

Please follow the conditions of the variances, LVMP, and your permits carefully. If you have any questions regarding these conditions please contact Neil Vanderbosch, Aquatic Plant Management Specialist in Saint Paul at 651-259-5816. Thank you for your cooperation.

Plan Duration and Review

It may be necessary to make minor adjustments to this plan in any one year. This may be done by mutual agreement. This plan will be in effect through 1 January 2013. At that time, all parties agree to review the plan and its effectiveness in reaching its goals. Adjustments to the plan based on this review can be made at that time and the plan renewed by mutual agreement.

Sincerely,

Steve Hirsch, Acting Director Division of Ecological Services Ron Payer, Director Division of Fisheries

APPENDIX A

STAKEHOLDER SURVEY RESULTS

This survey was sent to 755 in August 2007. The surveys were sent to various stakeholder groups:

Stakeholder Group	Number Sent
LMCD Member Cities	14
Multiple Dock Facilities on Carmans, Grays, & Phelps Bays	5
Minnetonka Municipal Docks	29
Wayzata Bay Management	73
Tonka Bay Marina	251
EWM/Exotics Task Force Members	10
Carmans, Grays, & Phelps Bay Residents	352
2007 Special Event Permit Holders	21

In addition, the survey form was available on the LMCD's web site

The results from 101 respondents are summarized here. Several additional surveys were received following the tally of these results, but upon cursory review, the responses were substantially consistent with those reported here. The actual number of responses is indicated. The questions were open-ended (unless noted), so the answer categories represent a summary of the responses provided.

Lake Minnetonka Stakeholder Survey

2007 Lake Vegetation Management Plan

Eurasian watermilfoil has been in Lake Minnetonka for 20 years and has become a widespread problem. Curlyleaf pondweed, another exotic plant, is also in Lake Minnetonka and can be problematic. These plants interfere with recreation as well as doing ecological damage. Controlling milfoil or curlyleaf pondweed does not necessarily mean the areas of the lake will be plant-free, as many native plants also grow (or could grow) in these areas. The questions below are designed to understand how you perceive and experience any problems with milfoil or other plants.

1. Eurasian watermilfoil and curlyleaf pondweed are exotic plants.

Can you identify Eurasian watermilfoil and curlyleaf pondweed [pictures included]?

- (91) Yes
- (5) No

Should exotic plants be controlled?

- (97) Yes
- (2) No
- (2) Unsure

Should native plants be protected?

- (63) Yes
- (17) Unless they are weeds or nuisances
- (10) Yes, in certain (limited) areas
- (7) Do not know or have enough information
- (2) No

2. Do plants affect your use of the lake? If yes, how?

- (57) Yes Swimming
- (50) Yes Water activities
- (28) Yes Clogs props
- (19) Yes Lakeshore clean up
- (25) Yes Avoid areas
- (21) Yes fishing
- (6) No

Do you know what specific plants are valuable or problematic?

- (37) Eurasian watermilfoil, invasives, and/or curlyleaf pondweed
- (24) Yes
- (14) No
- (5) Water lilies
- (2) All bad

3. How do you feel about the following current management of plants in Lake Minnetonka?

Plants that are managed in large areas via the harvesters.

- (44) Short-term, small scale only
- (32) Not effective
- (16) Effective
- (3) Shoreline clean up

Plants that are managed by individual lakeshore owners by raking or pulling, using herbicides or weedrollers.

- (67) OK as one element
- (17) Will not address larger problem
- (4) Concerns with using herbicides
- (1) Cities should remove fragments

Nuisance plants are tolerated.

- (42) Not an option
- (16) Not preferred
- (7) Yes, without exotics
- (3) OK
- 4. Please list other concerns about managing plants.

Herbicides (use them, concerns with side-effects), danger to swimmers, do not delay (action), make recommendations, ecological impacts (of exotics), be proactive, larger-scale control needed, the use of chemicals and lawn irrigation, lily pads, cost.

Management Goals

- 5. Please provide your thoughts regarding management goals for the LVMP:
 - (43) Eradicate or control Eurasian watermilfoil, exotics
 - (8) Make sure to include prevention of other exotics
 - (7) Comprehensive plan needed
 - (6) Use herbicides
 - (<5@) Look at runoff & fertilizers, make lake usable, plan or control not needed, protect water quality, be realistic, keep informed, continue to allow individual treatments, increase use of harvesters

Management Actions

Below are categories of possible management actions. Please comment on each:

- 6. Do nothing. This is always an option.
 - (75) Not an option
 - (4) An option
 - (2) Obviously, 'duh'
- 7. Mechanical control, including hand-pulling, raking or harvesting.
 - (66) Can be part of an effective solution
 - (32) Not effective
- 8. Herbicides, including small-scale spot treatments (as may be done by some individuals presently) or larger-scale selective (meaning selecting to kill target plants like milfoil, but to not kill leave non-target plants) treatments.
 - (83) Yes, but if safe and protective of native plants
 - (5) Yes
 - (4) No

9. Other comments about management actions.

Opposed to large-scale herbicides (1), what are we waiting for? (9), need a coordinated effort (4), need research for biocontrols (1).

About You

How do you use the lake? (check all that apply)

- (24) Swimming
- (62) Fishing
- (94) Pleasure boating
- (20) Sailing
- (38) Waterskiing
- (27) Personal watercraft
- (87) Aesthetic viewing
- (68) Wildlife appreciation
- (5) Other

Lakeshore owner (70):

Which bay do you live on?

(70) Wayzata, Libbs, Cooks, Phelps, Grays, Carmans, Upper Lake, St. Albans, Echo, Gideons

Do you control plants now? If so, how?

- (55) Yes
 - (18) Rake shore
 - (22) Mechanical
 - (31) Herbicides
- (12) No

Lake User: (30)

How, or where, do you get access to the lake?

- (21) Marina
- (5) Public access
- (2) Municipal docks
- (1) Various points