

Memo

To: Honorable Mayor and City Council
From: Joe Kohlmann, City Administrator
Date: March 13, 2012
Re: Gideon's Bay Milfoil Treatment

The Lake Minnetonka Association is requesting funding for the milfoil treatment of Gideon's Bay. The City contributed \$5,000 in 2011 and has budgeted another \$5,000 for 2012.

Due to the State shutdown as well as some permit coordinating issues, the Lagoon where the Municipal Docks are located was not treated with the milfoil application. The Lake Minnetonka Association has since determined that lagoons, coves, and channels **will not** be the focus of receiving an application of the milfoil treatment in 2012.

Attached are two emails that reference the lack of treatment in the lagoon in 2011 and the intent not to treat lagoons in 2012.

Attached is a formal letter addressing the treatment of lagoons, channels and coves from the LMA.

Attached is an "open letter to cities" Dick Osgood requested be in the packet

Attached is an "Assessment of Lake Vegetation Management Plan Objectives"

Council Action Requested:

Consider the donation request from Dick Osgood and the Lake Minnetonka Association.

Joe Kohlmann

From: Dick Osgood [DickOsgood@usinternet.com]
Sent: Wednesday, February 15, 2012 8:34 AM
To: rich.kofski@thomsonreuters.com
Cc: jkohlmann@cityoftonkabay.net; bill@labellebarin.com; Osgood@cs9.adn.edgecastcdn.net; judd@visi.com; bncohen1@mchsi.com; ratherton1@mchsi.com; rossmcglasson@usfamily.net
Subject: Re: Cities Support
Follow Up Flag: Follow up
Flag Status: Red

Rich & others:

Yes. I will draft a statement clarifying this, then post it on our website.

Thanks,

Dick Osgood
Certified Lake Manager (Cert. No. 07-01M)

OSGOOD CONSULTING, LLC
22720 Galpin Lane (952) 470-4449
Shorewood, MN 55331 (952) 237-0969 Mobile

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Lake Minnetonka Association - Executive Director
North American Lake Management Society - Past-President, Certified Lake Manager, Outstanding Corporation
Minnesota Waters - Officer & Aquatic Invasive Species Committee Chair

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On Feb 14, 2012, at 11:32 AM, <rich.kofski@thomsonreuters.com> wrote:

Joe,

Per our conversation, I would like to formally request Tonka Bay City funding for this program on Gideon Bay again in 2012. Tonka Bay contributed \$5K last year and we had great results.

Attached is a letter and a detailed report for your reading pleasure.

Dick,

Can you please provide some details on how the channel / lagoon treatments will work this year vs. the Bay-wide treatment.

There were some permitting issues last year (state shutdown and personal nuisance treatment permit overlapping with the larger project). We may focus on the Bay-wide

treatment and nuisance treatments will be handled by individual residents. I personally am doing my shoreline with one of the applicators I have used in the past and also contributing to the Bay-wide effort.

Regards,

Rich Kofski
30 Florence Drive
Tonka Bay, MN 55331
Gideon Bay Resident
Cell 612-770-4323

Rich Kofski | Thomson Reuters | West Education Group (WEG), A Thomson Reuters Business | 610 Opperman Drive, Eagan, MN 55123 | Ph: 651.848-5689 | E-mail: rich.kofski@thomsonreuters.com

From: Dick Osgood [mailto:DickOsgood@usinternet.com]
Sent: Tuesday, February 14, 2012 9:31 AM
To: Bob Pillsbury; Kurt Ostrowski; Tom Lowe; Mary Tucker; Judd Brackett; Tom Fletcher; Jack Kimball; Kevin Kennifick; Kofski, Richard (Professional); Mike Mason; Terry Bryce; Jennifer Mullin; Mary Drazan; Rob Roy; kentnorby@aol.com; Nan & Bob Woodburn
Subject: Cities Support

All:

Please see the open letter I have drafted for your use. I have also attached the assessment report.

I recommend we appear before each City adjacent to the five bays and give an update as well as make a specific funding request for 2012 (Greenwood has already committed \$2,000 for 2012 for St. Albans Bay). I think the request should come from the Bay captains and I will attend the meeting to provide support.

Please let me know what additional information or materials I can provide.

Dick Osgood
Certified Lake Manager (Cert. No. 07-01M)

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this project. Other funding partners have included the Minnesota Department of Natural Resources, the Lake Minnetonka Conservation District's Save-the-Lake Fund, and the Cities of Excelsior, Greenwood, Minnetrista, Mound, Orono, Shorewood, Tonka Bay.

2. We need our financial support again this year (and for many years to come for that matter).

The good news is that because of the great results last year the **treatment cost for Gideon Bay this year is expected to be much lower** (it will fluctuate from year to year). It is expected to be approximately one quarter (1/4) of the cost of last year's treatment (**about \$20K in 2012 instead of \$75K in 2011**).

We are asking for **\$250 this year instead of the \$925 for 2011**.

We do not need to sign the Minnesota DNR forms this year.

Please consider contributing again this year and talk to your neighbors to continue to spread the word. **Please contribute by April 1, 2012**.

Contributions can be sent:

- By check to the LMA (P.O. Box 248, Excelsior, MN 55331) with Gideon 2012 in the memo line

Lake Minnetonka Association (LMA)
P.O. Box 248
Excelsior, MN 55331
Dick Osgood
952-470-4449 (Office) 952-237-0969 (Cell)
dickosgood@usinternet.com

- By credit card through the LMA website (under the "Bay Project" tab – Please pick Gideon Bay). Use the following link <http://lmassociation.moonfruit.com/#/bay-projects/4558535357>

3. Also consider contributing to the Lake Minnetonka Association (LMA) general fund for all the work they do for the community. Use this link <http://lmassociation.moonfruit.com/#/support-us/4558339627>

4. A note regarding lagoons, channels, small coves and what are called "nuisance treatments". This program going forward will focus on the "Baywide treatments" not the "nuisance treatments". Please see the letter from the LMA below and it is also attached for your reference. Any questions or concerns regarding this please send them to the LMA and / or Dick Osgood. This is way over my pay grade (and out of my control) as a community bay volunteer. ☺

This document describes the 2012 milfoil treatment program and clarifies baywide versus nuisance treatments and the respective permit requirements.

Baywide Versus Individual Treatments

The Milfoil Demonstration Project is guided by a Lake Vegetation Management Plan (LVMP) that provides for baywide control of Eurasian watermilfoil and in some cases curlyleaf pondweed. The Lake Minnetonka Association serves as Project Manager.

Individual residents in the treated bays have contributed funds for this project through the Lake Minnetonka Association. Because these treatments provide benefits to the general public, it has been determined that contributions are tax-deductible.

Because some bay residents live on coves, channels or lagoons, there has been interest in those areas being treated. However, in many cases, the plant nuisances in these areas were native plants and not milfoil.

To stay compliant with our nonprofit status and be faithful to the Demonstration Project, the Lake Minnetonka Association has determined that individual nuisance permits and treatments cannot be managed under this program.

Nuisance Treatments

Nuisance control is a specific term used by the MN DNR and refers to the control of aquatic plant nuisances by individuals or adjacent to individuals' lakeshore properties (many of these had involved lagoons, channels and coves). In the first few years of this project, we coordinated these treatments on behalf of each bay as part of this project to facilitate (or at least to attempt to) a smooth application from the bay-wide treatments. In 2011, with the addition of two new bays, this process got complicated by increased requests as well as the requirement for individual consents to be signed. This change required a great deal of time.

In most cases, the nuisance plants have not been Eurasian watermilfoil or curlyleaf pondweed, which are the targets of this program. I know that many of the contributors have weed problems over and above milfoil and that we have encouraged their financial participation by offering nuisance plant control.

Because the main bay wide treatments have been deemed a 'public' benefit, contributions are tax-deductible. The nuisance treatments on the other hand are designed to provide relief for individuals and are therefore not tax-deductible.

In response to these developments, the Lake Minnetonka Association Board has directed that nuisance treatments not be included in this project. So in 2012, these will be handled differently.

Professional Lake Management, the applicator we have used in this project, is set up for and is agreeable to handle these permits and treatments for individuals desiring them in 2012. Many of the Bay residents have also received solicitation from other vendors. Individuals may choose their preferred applicator.

The Lake Minnetonka Association, with the assistance of our Bay Captains and bay residents, has been the project manager for the Milfoil Control Demonstration Project since 2008. This phase of the project is scheduled to be completed in 2012 and we plan to continue this work after that.

The residents of Carmans, Gideon, Grays, Phelps and St. Albans Bays strongly support the milfoil control demonstration project and other Bays are interested in joining. The attached report summarizes the effectiveness of this project during the first four years. As we look forward to the treatments in 2012 and beyond, we ask the Cities of Lake Minnetonka for continuing support.

The attached report, "*Assessment of the Lake Vegetation Management Plan Objectives*," demonstrates this project has been highly effective controlling milfoil and protecting native plants while maintaining water clarity.

Funding for this project has come largely from private, voluntary contributions from our members. We have received support from some Cities, the Minnesota Department of Natural Resources and the Lake Minnetonka Conservation District Save-the-Lake Fund (which are private contributions).

Below is a summary of the financial support we have received through 2011:

	Carmans	Gideon	Grays	Phelps	St. Albans	TOTAL
Residents	\$103,188	\$72,985	\$136,515	\$78,976	\$64,014	\$455,678
Cities	\$3,000	\$10,500	\$0	\$75,000	\$7,500	\$96,000
Save-the-Lake	\$29,865	\$0	\$21,887	\$38,820	\$0	\$90,572
MN DNR	\$35,758	\$8,250	\$28,639	\$43,889	\$8,250	\$124,786
TOTAL	\$171,811	\$91,735	\$187,041	\$236,685	\$79,764	\$767,036

Overall, Bay residents have contributed 59% of the total project funding, followed by the Minnesota Department of Natural Resources (16%), adjacent Cities (13%) and the Lake Minnetonka Conservation District's Save-the-Lake Fund (12%).

However, funding has been uneven among the bays and among Cities:

	<u>Carmans</u>	<u>Gideon</u>	<u>Grays</u>	<u>Phelps</u>	<u>St. Albans</u>
Residents	60%	80%	73%	33%	80%
Cities	2%	11%	0	32%	9%
Save-the-Lake	17%	0	12%	16%	0
MN DNR	21%	9%	15%	19%	10%

* Cities providing funding include: Excelsior, Greenwood, Minnetrista, Mound, Orono, Shorewood and Tonka Bay.

The Lake Minnetonka Association believes this is a worthy and sustainable program that provides substantial public benefits. We are asking that Lake Minnetonka Cities consider ongoing and coordinated support for this program in 2012 and into the future. In addition, we ask the Cities of Lake Minnetonka to direct your Lake Minnetonka Conservation District representatives to support the development of a comprehensive milfoil and invasive plant management plan for Lake Minnetonka. That plan should include the herbicide treatment program and should receive significant and reliable public funding.

LAKE MINNETONKA ASSOCIATION
Open Letter to Cities, March 9, 2012

This project ought to be continued and supported as an ongoing and effective public program because:

- According to our analysis, the herbicide treatment program is more cost-effective (per acre of milfoil controlled) than the harvesting program.
- The herbicide program controls milfoil early in the season and for multiple seasons.
- The herbicide program uses products that are environmentally safe as they are registered by the US Environmental Protection Agency and permitted by the Minnesota Department of Natural Resources.
- The herbicide program requires no capital investments.
- The herbicide program is operated by licensed professionals.
- The herbicide program has significantly increased the public's use and enjoyment of the treated bays.

We ask:

- That you direct your LMCD Representative to have the Lake Minnetonka Conservation District develop a comprehensive milfoil (and other invasive plant) management plan for Lake Minnetonka to evaluate the overall milfoil and invasive plant problems, evaluate feasible, cost-effective management and control alternatives and implement a coordinated management program.
- The Lake Minnetonka Cities, either independently or through the Lake Minnetonka Conservation District provide ongoing funding for milfoil and invasive plant management on Lake Minnetonka.

We would appreciate the opportunity to appear before your City Council to review the herbicide program, address your questions and concerns and assist in working with your Lake Minnetonka Conservation District Representatives in developing a comprehensive management program for Lake Minnetonka.

Thanks.



Dick Osgood, Executive Director
Lake Minnetonka Association

Assessment of the Lake Vegetation Management Plan Objectives

Lake Minnetonka Association

January 17, 2012

The Lake Minnetonka Association has been the project manager for Lake Vegetation Management Plans (LVMPs) involving five bays on Lake Minnetonka:

- LVMP for Carmans, Grays and Phelps Bays (2008)
- LVMPs for Gideon and St. Albans Bays (2011)

At this time, we have received the results from the USAERD¹, plus earlier years' reports and have objective information upon which to evaluate the results with respect to the objectives in the LVMPs. In addition, results from Welling² are reported here.

The above-referenced LVMPs contain management objectives, which are evaluated here. The performance of the bay-wide herbicide treatments has been the topic of discussion on many levels. This assessment is prepared to help frame an objective evaluation of the results.

Background

As originally conceived, the bay-wide treatments were to use selective herbicides that targeted Eurasian watermilfoil (EWM) and curlyleaf pondweed (CLP) and enhance native plants without diminishing water clarity. The recommended 'low dose combination protocol' was intended to be applied in the first two seasons (2008 and 2009), then the size of the treatment areas was expected to substantially diminish in subsequent years.

Following the first year of treatment (2008), however, due to poor results, these protocols have been adjusted. In fact, the treatment protocols have been adjusted in each of the four years of this program.

In addition, two other bays have been added to the program – Gideon and St. Albans.

A summary of the treatments, by bay, is presented below:

	2007	2008	2009	2010	2011
Carmans	P	TrL, En, E	NT	En, E	TrH, L
Grays	P	TrL, En, E	TrH, L	TrH, E, S	TrH, L
Phelps	P	TrL, En, E	TrH, L	TrH, En, E, S	TrH, L
Gideon	NT	NT	NT	P	TrH, L
St. Albans	NT	NT	NT	P	TrM, L

¹ Netherland et al. 2011. Aquatic plant surveys on Gray's, Phelp's, and Carman's Bays, Lake Minnetonka, Minnesota for 2007 through 2011 following four years of sustained management efforts. US Army Engineer Research and Development Center. December 8, 2011.

² Welling. 2011. Summary with excerpted results prepared by Chip Welling. October 19, 2011.

Assessment of the Lake Vegetation Management Plan Objectives, January 17, 2012

Key: P = pre-treatment year
 Tr = Triclopyr
 TrL = low dose (0.25 ppm); TrM = medium dose (0.25 – 0.5 ppm); TrH = high dose (> 0.75 ppm)
 En = Endothall
 NT = No treatment; S = Spot or partial treatments
 E = Early season; L = Late season

Results

The results are presented according to the objectives contained in the LVMP (Carmans, Grays and Phelps). The objectives in the LVMPs for Gideon and St. Albans are similar and not repeated here.

Objective A-1 EWM will be controlled to levels of 20% occurrence (littoral zone) during the year of treatment and maintained to frequencies below 20% in subsequent years. CLP levels will be evaluated in the early season of year 2, then controlled to levels of 20% occurrence during the year of treatment and maintained to frequencies below 20% in subsequent years.

<u>EWM</u>	2007	2008	2009	2010	2011
Carmans	58/60	59/72*	--/77*	74*/77	60/4*
Grays	86/86	50*/54*	37*/1*	45*/57*	56*/90
Phelps	65/67	60/69	29*/20*	50*/51*	41*/24*
Gideon			44/--	--/59	49/5*
St. Albans				72/70	54/0*

Key: Frequencies of occurrence, early season/late season
 * Indicates statistically significant difference from pre-treatment year

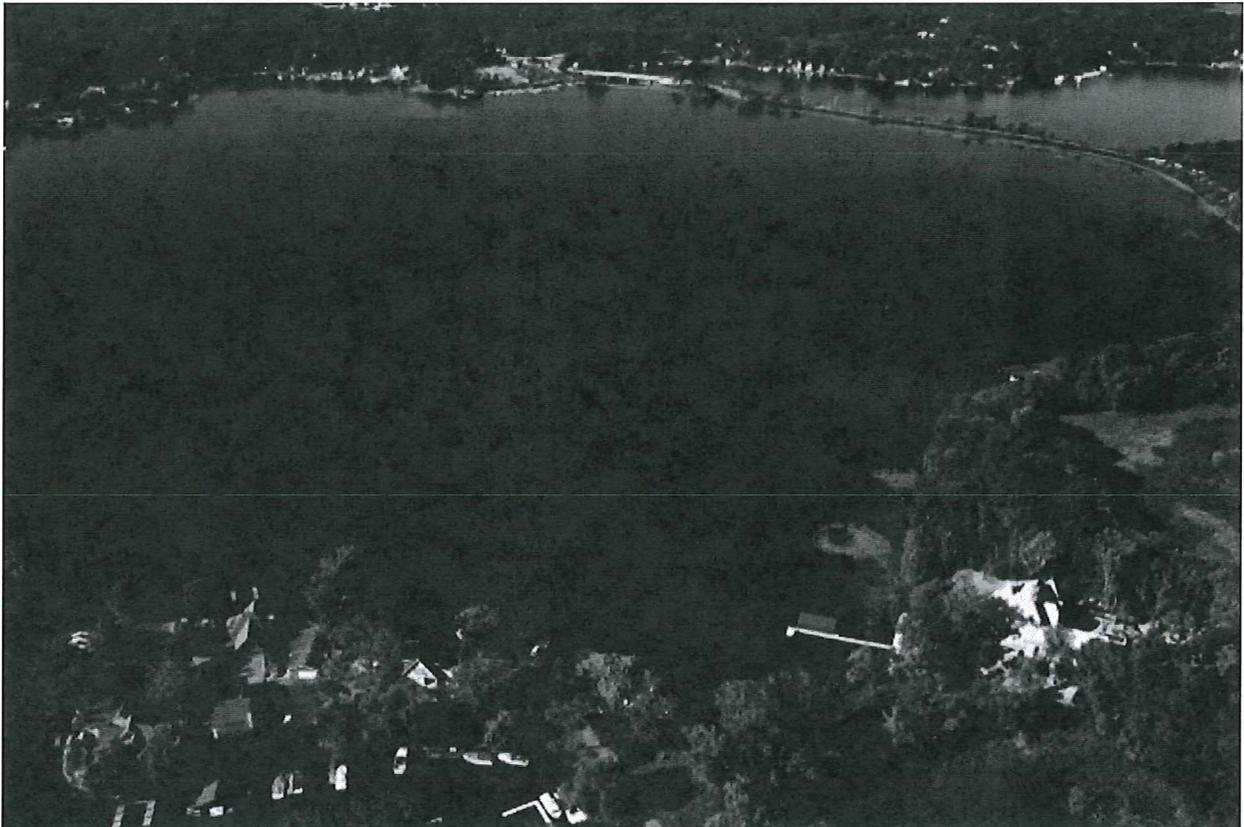
<u>CLP</u>	2007	2008	2009	2010	2011
Carmans	28/4	4*/0	--/0	3*/0	21/0
Grays	20/3	5*/0	23/1	0*/0	0*/0
Phelps	36/5	1*/7	40/3	0*/0*	24*/1*
Gideon			7/--	--/0	8/8
St. Albans				11/0	6/0*

Key: Frequencies of occurrence, early season/late season
 * indicates statistically significant difference from pre-treatment year

Additional data is forthcoming from September 2011.

Comments:

- None of the 2008 treatments provided EWM control to meet the objective, however, statistically significant reductions in EWM frequency occurred in Carmans and Grays Bays.
- The management objectives for EWM were met in 2009 for the two treated bays (Grays and Phelps); EWM returned to pre-treatment levels in Carmans Bay (no treatment in 2009).
- Grays Bay was not treated in 2010 or 2011, yet no matting milfoil has occurred (see photo).
- By 2011, the treatment protocols have been refined so EWM is controlled to <20% in all treated bays (Carmans, Phelps, Gideon & St. Albans) during the year of treatment.
- CLP has not been problematic for the most part. When treated, it is controlled to <20%.
- EWM frequencies have declined significantly following every treatment (except Phelps 2008). Even in years when the EWM decline has occurred, but not to <20%, EWM biomass and matting have been substantially reduced and have not been problematic (personal observations and reports from bay residents).

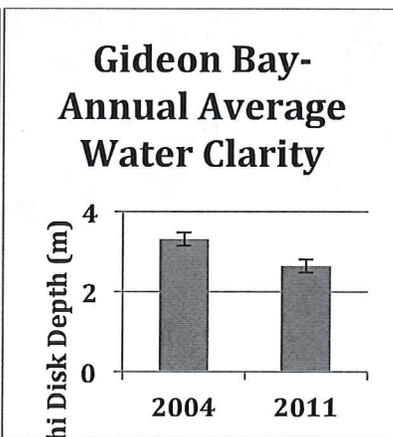
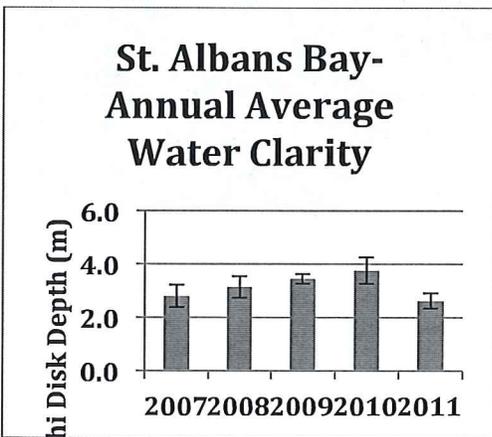
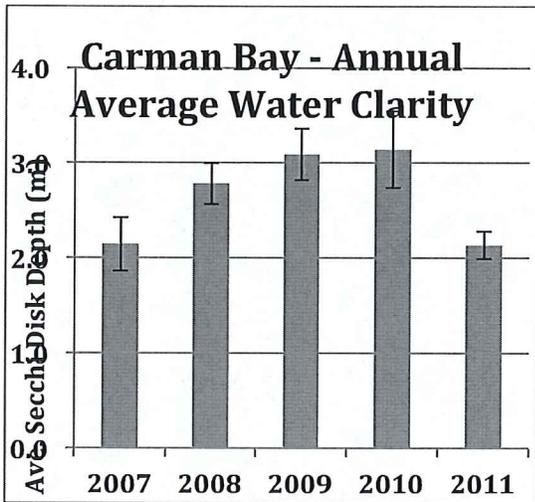
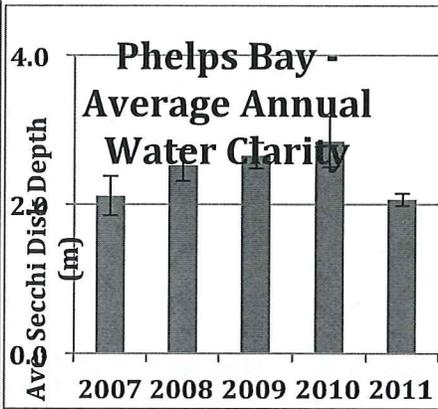
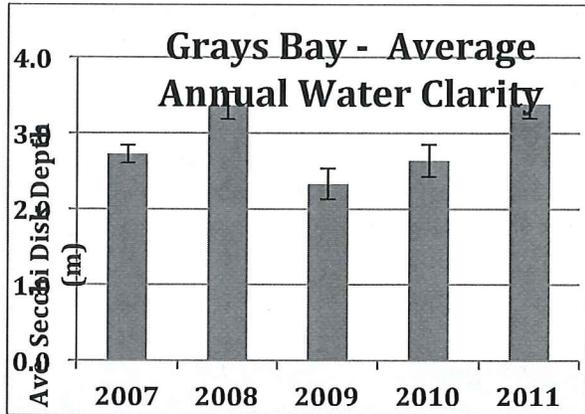


August 11, 2011

Assessment of the Lake Vegetation Management Plan Objectives, January 17, 2012

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

The Minnehaha Creek Watershed District has monitored water clarity (as well as total phosphorus and chlorophyll, not reported here). Graphic results are shown below:



Comments:

- Grays Bay water clarity declined in 2009. However, the decline appears to be within the range of the pre-treatment year (2007). In addition, the lake level was about 2-feet below normal that season and there was no flow through the bay.
- Water clarity either had no change or increased in Carmans, Phelps and St. Albans Bays following treatments.
- Water clarity in Gideon Bay was diminished compared to 2004, the only comparison data available.
- Overall, there is little evidence of water clarity declines relating to the herbicide 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.

The Lake Minnetonka Association polled all bay residents on the treated bays in 2008 via email. A summary of responses appears below:

	<u>Carmans</u>	<u>Grays</u>	<u>Phelps</u>
Did EWM interfere with recreation?	1	3	3
Improvements in your lakeshore clean up chores?	1	3	3
What was the overall effectiveness of the treatments?	1	3	3
Key	1 = poor; 2 = neutral; 3 = good		
	Median response indicated		

The total number of responses was low (= 17), so little weight can be given to these results.

Comments:

- The Carmans Bay treatment was least effective and the respondents noted this. Indeed, because of the poor results, sufficient funding from the residents was not raised for a treatment in 2009.
- Despite poor results in terms of EWM frequency (>20%), the respondents had favorable impressions.
- Lakeshore residents have provided substantial voluntary financial support for this project. To-date, more than \$460,000 has been contributed. The Lake Minnetonka Association takes this as a significant demonstration of support.

The survey has not been repeated.

A related survey was posed on the Carmans Bay website in 2011. While this survey instrument was not specifically designed to evaluate the LVMP objective, the responses from all bays were overwhelmingly positive (see: <http://www.lakeminnetonkaforum.com/>) - 92% of respondents favor the herbicide treatments (see also the individual comments).

Assessment of the Lake Vegetation Management Plan Objectives, January 17, 2012

Objective B-1 The overall diversity of native submersed plants, as measured by mean number of native species per point (littoral zone), will be maintained or allowed to increase.

The mean numbers of submersed native plants per littoral sampling point are summarized below:

	2007	2008	2009	2010	2011
Carmans	1.6/1.6	1.2/1.8	--/1.7	2.0/2.1	1.7/1.9
Grays	2.9/2.9	2.4/2.7	2.3/2.3	2.8/2.8	1.8/3.2
Phelps	2.2/2.4	1.8/2.3	2.0/2.1	2.2/2.5	2.0/2.5
Gideon			1.8/--	--/2.3	3.1/2.9
St. Albans				2.0/1.8	--/2.4

Key: Values, early season/late season

Comments:

- Native plants increased or remained the same in Carmans Bay following treatments.
- Native plants decreased in Grays and Phelps Bays, but have returned to pre-treatment levels in 2010 and 2011.
- Native plants increased in Gideon and St. Albans Bays following the treatments.
- By 2011, the treatment protocols have been refined so native plants remain unaffected or increase in all treated bays during the year of treatment.

Objective C-1 [Not copied here] Allows for nuisance plant control by individuals.

This has been allowed and many lakeshore owners have received permits for nuisance control treatments.

Objective D-1 The LVMP will be expanded to other bays in Lake Minnetonka, depending on a number of factors, including, but not limited to a) 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 of CLP situation elsewhere in Lake Minnetonka and d) the availability of financial resources.

Due to interest and demand from residents on Gideon and St. Albans Bays, the Lake Minnetonka Association developed LVMPs for those bays, which were implemented in 2011. The MN Department of Natural Resources and several Cities have granted funds in support of these treatments.

Overall Comments

- The LVMP objectives have been substantially accomplished, especially when considering the modified treatment protocols (Grays 2009 and all treatments in 2011).

Assessment of the Lake Vegetation Management Plan Objectives, January 17, 2012

- While plant biomass has not been measured as part of this project, EWM and CLP biomass appear to be substantially reduced following all treatments. The biomass of native plants may have declined in treatment years in some bays, but the ecological impact of this (positive or negative) is difficult to evaluate.
- There have been some concerns regarding the impact of the herbicides on the fisheries, however, there is no evidence to support this.
- The overall objective of enhancing native plants (frequency) is unclear at this time.