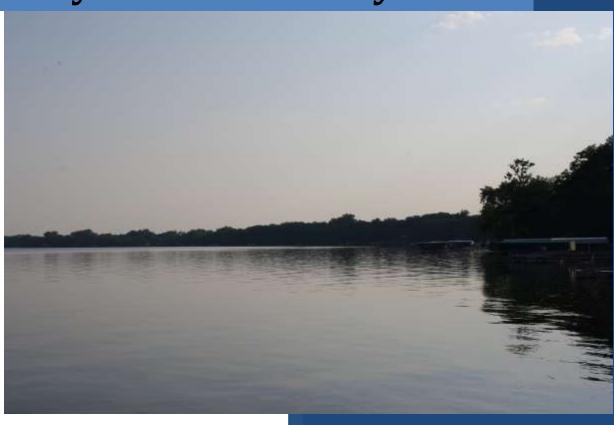
Property Owner Survey 2013



Lake Washington Improvement Association of Meeker County

Lake Washington Improvement Association of Meeker County, MN

2013 Property Owners Survey Analysis

Lake Washington Improvement Association of Meeker County, Board of Directors conducted a Property Owners Survey to better define and update our Lake Management Plan. By surveying property owners, the goal was to gather demographic data on property ownership and how the lake is used, what are the issues and concerns, awareness and knowledge of what the Lake Association Board of Directors does, and gather information to better implement future planning for our Lake.

This survey provided an opportunity for lake property owners to make their opinions and concerns known to the Lake Washington Board of Directors. The questions in this survey were designed to:

- -gather demographic information such as length of property ownership, watercraft ownership, preferred water activities, number of people using the lake, and fishing habits.
- -look at well water and septic testing, and internet availability.
- -rank order the issues or problems of most concern.
- -identify Lake Washington Association membership and awareness of the Board of Directors primary focus and communication with the property owners.
- -provide information for future planning in the areas of identifying Invasive species, sharing costs of Invasive Species treatments, and water quality issues.

This survey was distributed by hand to 320 properties on Lake Washington, during May, June, and July 2013. The Board of Directors had determined each property would get one copy of the survey. This was to allow for equal representation for each property. A copy of the survey was distributed to each property by Lake Washington Shoreline Captains (a group of volunteers that have agreed to regularly contact property owners at minimum once per year to share what the Lake Association is doing for the lake and encourage membership in the Association). Cathy Klehr, Committee Chairperson of Shoreline Captains, provided property ownership lists to each Captain and enough surveys for one copy per property. Each Shoreline Captain developed a numbering system to assure each property received one copy of the survey and provide a level of confidentiality for the respondents. The Shoreline Captains completed follow up visits to gather completed surveys and encourage property owners to turn in their surveys. 223 surveys were returned and are the basis for this summary. The goal was to get 70% participation, the Shoreline Captains provided an invaluable service to the Association by completing numerous follow up visits and were able to collect 69+% of the surveys distributed. This report summarizes the survey responses and discusses how these responses can be used by the Association to make recommendations or take actions for the management of Lake Washington of Meeker County.

Summary of the Survey

The purpose of report is to communicate the findings of the comprehensive survey to Lake Washington property owners and others concerned with its management and oversight. The data was coded into a Microsoft Excel spreadsheet and used to graphically or numerically represent the responses to the 31 questions on the survey. Not all the questions were answered on all the surveys, that can be attributed to survey fatigue (survey was too long); oversight because the questions were on back to back sheets, or active decisions by some to not answer certain questions. This occurred on less than 10% of the surveys returned and was not considered statistically relevant to the overall results. For number 32 on the survey we asked for written feedback on questions or issues the respondents would like asked of the DNR, County Commissioner, Township Boards, or specific information they would like to know. All the written comments have been attached as an addendum to this report. Of note a Wordel, a statistical representation of how often certain words appeared on each survey, was created and is also included at the end of this report.

The Survey was organized into four different areas:

- **1. Property Ownership**: Looking at lake use year round vs. seasonal, when ownership occurred, types of water craft and water activities engaged in, the number of people spending time at the lake, fishing tendencies, well water testing, septic tank pumping, and internet connections.
- **2. Issues**: Asked to rank order 6 different identified issues or concerns and opinion of overall water quality over the past 5 years.
- **3. Lake Association:** questions asked about Association membership, attendance at regularly planned annual meetings, and use of Lake Washington website, awareness of the Lake Vegetation and Management Plans, and feedback on the Newsletter that is published and sent to all property owners 3 times per year.
- **4. Information and Future Planning:** asking how confident people are at identifying Eurasian Water Milfoil, rank ordering of things people would like the board to concentrate on in the next 2-5 years, sharing in the cost of aquatic invasive species, septic line installations, what they considered to most affect water quality.

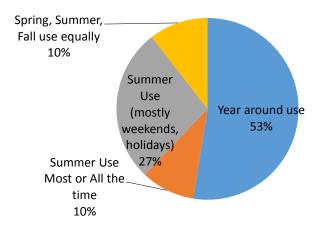
A Power Point presentation providing a summary of some of the key information of this survey put together and presented by Caroline Ullom, at the Annual Lake Association Members meeting on May 3, 2014 and is posted on the Lake Washington website at www.lakewashingtonassn.com.

Analysis of the Survey Results

Analysis of the survey results can be found in the following pages. Each question is graphically or numerically presented with comments providing analysis and possible Action Plans/Goals to be considered.

A summary analysis of the data collected showed that 53% of the people use the lake on a year round basis and with 27% being at the lake primarily on weekends and holidays. The average year of ownership is 1988. New ownership growth was fairly flat until 1980, possibly due to the new road on the south side of the lake. The increase in taking ownerships significantly increased beginning in the 1990's peaking in the 2000's. A factor to consider is that 35% of those surveyed have taken ownership since 2000. When we look at how people use the lake 55% of the people owned fishing boats, followed by pontoons, ski boats, and personal water craft. Swimming, boating, and fishing were the top three priorities when it came to actively using Lake Washington. Corollary uses included tubing, water skiing, and ice fishing. When asked specifically about fishing habits 75% of the respondents at least casually fish on a regular basis. 69% of those that fish agree there are fewer fish in total than in the past. When asked to rank order issues or problems Eurasian Water Milfoil was first followed by cormorants, water clarity, fishing, shoreline erosion, and boating traffic. Asked about overall water quality over the past 5 years, 76% said it was "about the same or getting better". 84% of the people that completed the survey are Lake Association Members. One can make the assumption the 16% that filled out the survey and are not members clearly have a vested interest in Lake Washington, but we did not ask for specific information as to why they are not members. Asked to "rate what Lake Washington Association has been doing impacts water quality", 62% said "they are doing a good job managing water quality", but 35% didn't know much about what the Association does for water quality. 52% of the people said they have used the Lake Washington website, primarily to look for updates and maps for milfoil treatments. Just slightly more than half were aware of the Vegetation Management Plan the Association has. But 90% were aware that the plan involves treating about 100 acres every year with the focus on rotating treatments around the lake. The Association's main source of information sharing and education is the Newsletter, sent to all property owners in the Spring, Summer, Fall. The positive numbers reflect that most people like that the information is current and relative to them. Asked "can they identify Eurasian Water Milfoil plants: 34% were confident and 46% were pretty sure, showing a significant number of people aware of what milfoil looks like. 140 people were interested in "ways to share milfoil treatment costs equally", with only 200 responding to this question. When asked to rank order what 'most' affects water quality on the lake: runoff 46% and milfoil 38% were the two areas of any statistical significance.

1. Which statement best describes how your lake shore property was used in the last year?



Comments: This information provides a picture of the increased numbers of full time residents over the past 30 years, when it was estimated about 20% of the properties were year round homes. There continue to be new homes built on Lake Washington and there is potential land available for development in the future. The implications for the impact on water quality of Lake Washington must be considered and explored as there is more green space around the lake and more hard surfaces that lead to greater runoff.

Action Plan: Look the impact runoff has on lake quality. Consider ways to better control this, by providing education on runoff control and diversion from hard surfaces. Look at what information and how to shared it with property owners in areas that impacts aspects of the lake and water quality i.e. septic, water, lakescapping, invasives, fish populations, boating.

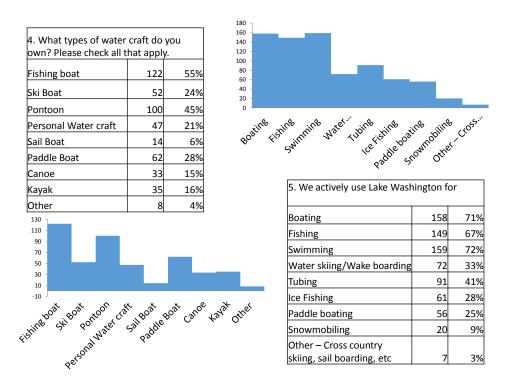
The data shows over 50% of respondents are full time residents, and there is also a large population (27%) that only use the lakes on weekends in the summer and holidays – these people might be more difficult to reach about lake issues and education.



Comments:

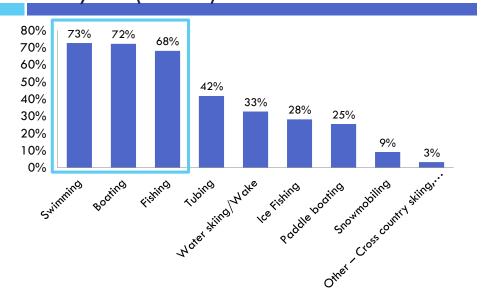
This graph highlights that although the average year of ownership by a family is 1988, there is actually a skew of the data to more recent dates. This signals many properties might be on their first generation of ownership on the lake and may need more frequent reminders as to historical data (example 35% of home owners took possession after 2000 – meaning they took ownership after milfoil was discovered on the lake and that is their baseline for expectations).

Action Plan: Provide more and better information to property owners on historical data i.e. when the dams were built, high and low water histories, weather conditions that impact the lake, encourage ownership decisions that consider the impact on Lake Washington.



This information provides us with an understanding of the number of motorized watercraft that is available for use on the lake, about 1.5 boats per property. Some things to consider are the impacts of gasoline engines on the water, the affect on vegetation growing in the lake, and the effects on shallow areas with regard to turbidity.

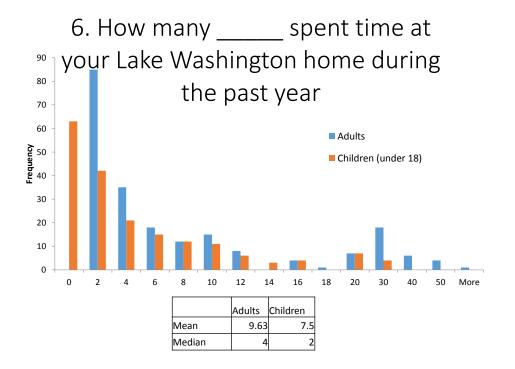
How lake residents use their lake shore last year (2 of 2)



Comments: This information suggests that water activities are a very important part of property ownership on the lake and people enjoy being in the water. This information must be a major factor when it comes to maintaining water quality and providing open areas for people to actively use the lake.

Action Plan: Focus on water quality needs to be encouraged and promoted as a major priority for all lake residents. Providing education and information to property owners' and users of the lake about their part in this process. Actively continue with programs that identify and treat invasive species, explore ways to reduce runoff into the lake, and identify areas or causes that have an impact on water quality. Continue actively informing residents of water issues that impact their use of the lake i.e. lake itch, high and low water conditions.

Swimming, boating, fishing are clearly the three priorities of lake residents. Secondary interests are all corollary related to these also (tubing, water skiing, and ice fishing).

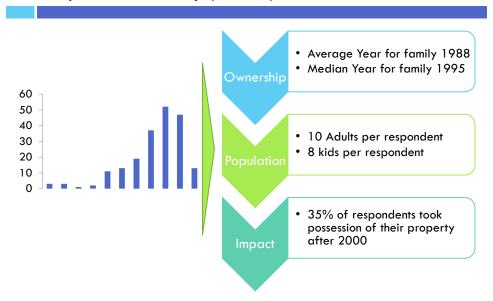


Comments: The survey information may under represent the number of people using the lake during the course of the year. Of importance imbedded in this data is the number of people that are potentially using the lake during a year and the impact this can and does have on the wells and septic systems around the lake. Also, one wonders about how knowledgeable those visiting the lake are in the areas of safety, protecting the waters, and lakeshore use.

Action Plan: The need to provide educational materials to all property owners about boating rules and safety, how to protect the waters from things that can degrade the water quality, and responsible lake shore use. (This could include fires on the beach, chemicals not to use near or in the water, responsible management of vegetation along shorelines, to fishing regulations, etc.)

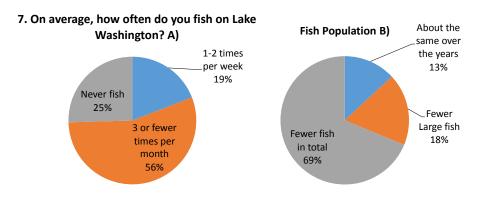
Summary of demographics on next page also – basically this question has a large range mostly because the question was so open ended. Some people reported 0 for number of adults so the mean might be even a little low for overall lake users

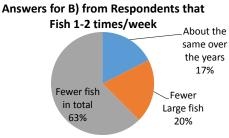
Year lake property first came into ownership by respondents family (2 of 2)



Comments:

This PP slide was included in the presentation as a summary of data that was included already in previous pages



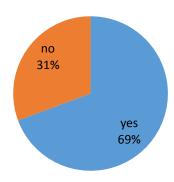


Comments: The number of survey respondents indicating they fish on Lake Washington (170/223) includes a very significant number of property owners. This would indicate and does reflect the number of people who earlier said they fished (Quest. #5), and is considered a statistically significant correlation across this survey sample.

From the data we can see that 75% of respondents at least casually fish on the lake and that by an even bigger margin realize that the fish are fewer than they were in the past. It actually makes no difference how often the people fish (self-identified frequent fisherman have almost the same results for part b as the general population)

Action Plan: Share this information with the fisheries people and explore the historical data on fish populations. Partner with the DNR Fisheries to explore ways to better manage, maintain, and increase fish populations and regularly share this information with property owners.

8. Have you had your well water tested?

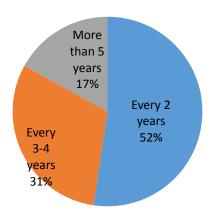


The fact many properties have been bought in the past 20 years would be reflected in how many people have had their well water tested. Of concern are nearly 1/3 of the people have not had their water tested and this could be a potentially dangerous situation if they are operating a shallower well.

Action Plan: Encourage people to have their well water tested by providing information they could use to do the testing.

Some people did not understand the question and some people indicated that there water was tested frequently.

9. How often do you have your septic tank pumped / checked?



Comments:

This graph should be taken with a grain of salt as these are all self-reported. It is best to keep in mind how many things you can remember to do every three years (or even name something you did 4 years ago — not much but big milestones probably come to mind so unless this coincides with a life event, things usually appear to have happened sooner because you give yourself the benefit of the doubt and you realize the socially accepted answer isn't '5+ years') Overall this 'response bias' may have skewed data toward over reporting of the option '3-4 years' instead of picking option 'More than 5 years'

Action Plan: Better educate property owners about safe and efficient septic system, look at ways to encourage people to have septic systems checked on a regular basis to prevent contamination and failure.

10. Do you have internet connections?

At your lake place 58%
At my home other than the lake 29%
Do not have internet 19%

There are 116 respondents that live on the lake year round, 93 of them have internet connections – 80% of full time residents have internet connections (mixing Q1 and Q10)

Of those who do not live full time on the lake only 36 respondents have internet connection at their cabins (16%)

With more information being shared via the internet and the lake association's reliance on providing more information this way, it is important to note that 80% of full time residents and 16% of seasonal owners have internet connections at the lake.

Action Plan: Look at ways to reach more people using other electronic devices or paper means when it comes to providing relevant day to day information i.e. lake itch, lost items, safety concerns.

^{*}note some people have internet connections at both home and cabin

11. How would you rank the following issues or problems? Please order 1 ...

	Water Quality	Eurasian Water Milfoil control	Shoreline erosion	Boating traffic	Cormorants	Fishing
AVG	2.7	1.68	4.1	5.4	2.4	4
MEDIAN	3	1	4	6	2	4

This is one of several questions asked on this survey that are similar in content and were asked to provide a check on reliability of responses and better identify the issues that most property owners are concerned about. Of interest on this questions, when asked to rank order these choices Eurasian Water Milfoil Control ranks number 1, this makes sense as many people have been profoundly affected by milfoil infestations over the past 10 years since the Association took control of providing treatments and have developed a plan to manage milfoil infestations. Cormorants and Water Quality were statistically tied for number 2. The fact cormorants were considered a significant issue at this time was reflected in the number of times "cormorants" was hand written on a survey. It should be noted that many people appear to recognize the importance of maintaining or improving water quality, and this maybe a reflection of the educational outreach by the Association to all property owners, but also suggests the vested interest property owners are taking in managing water quality.

Action Plan: Continue to provide regular up to date information and education about all of these issues and how the Association is working on addressing them.

12. Over the past five years, what would you say is the overall water quality of Lake Washington

Getting better	About the same	Getting worse
22%	54%	24%

This information shows that 76% of the respondents see the water quality of Lake Washington is being maintained or is improving. Of interest is that 24% believe the water quality is getting worse.

Action Plan: Share and better explain what the water quality testing we have been doing indicates. On a yearly basis share the water quality testing we have been doing and provide a summary of what this means with regards to overall water quality.

13. Please indicate the number of times that you/your family has attended the following annual...

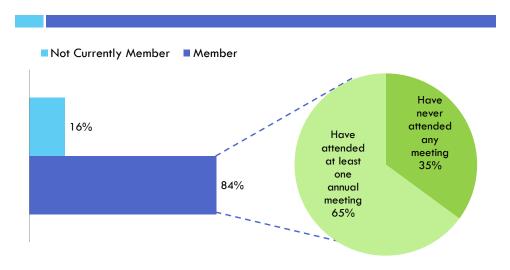
	Annual Membership Meeting (first Saturday in May)	Bar –B-Q Potluck social meeting in August	Have not attended any of these meetings
Average # of meetings	7.067797	5.534483	
YES	1:	16	
NO			82

- Yes answers were calculated if they had ever attended even 1 meeting either in the spring or fall
- No answers were just a sum of the respondents that picked option 3 of that 53 are members of the LWIA (98 respondents were members & had been to 1+ meetings)

Comments:

Have included the slide from the power point presentation on the next page that gives a better picture.

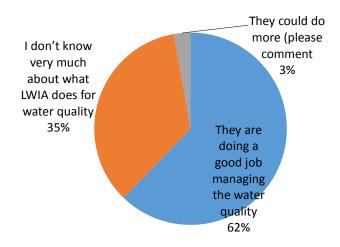
LWIA Membership Information



Action Plan: Explore reasons some association members do/cannot attend any of the annual meetings. Look at ways to better accommodate those that are/cannot attend.

This means that 35% of the current members of the lake assn have never been to a meeting and really present an interesting challenge for how to deliver information to them and for really anyway for them to interact with the LWIA

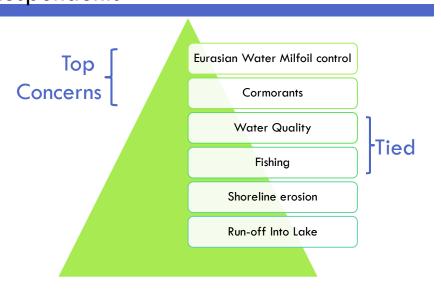
14. How would you rate what Lake Washington Association has been doing impacts the water quality?



The 35% that does not know much about what LWIA is doing to manage and improve water quality should be considered a significant number. This suggests more action on the part of the Association to educate and inform people of what is being done and how they can decrease their impact on lake water quality. Proves more education might be needed.

Action Plan: Share what the association is doing to improve water quality i.e. biweekly milfoil surveys, monthly water quality testing, secchi disk reading, sponsoring shoreline vegetation, water control projects and special testing of areas around inlet pipes, and provide information to property owners of ways they can help to reduce their impact on water quality.

Important Issues Ranked by Respondents



15. In rank order... issues ...the Lake Washington Improvement Association Board of Directors to consider

	Aquatic Invasive Species treatments (Milfoil, Curly Leaf Pond Weed, other)	Water quality issues (septic systems, runoff into the lake, continued water testing)	Fish populations	Boat inspections of boat traffic coming into the lake	Cormorants
AVG	1.625	2.9295775	3.5	3.7827	2.5
MEDIAN	1	3	4	4	2

This is another way of asking the property owners to rank the issues they consider to be important for Lake Washington. These results almost exactly mirror the responses from question #11 and demonstrate the high correlation of responses.

Action Plan: Continue to provide regular up to date information and education about all of these issues and how the Association is working on addressing them. Also, what property owners can and should be doing to help with these issues.

16. Are you a member of Lake Washington Improvement Association of Meeker County?

Member	84%	183
Not Currently	16%	35
Member	10%	33

This data would suggest that a higher rate of Association members responded to the survey when compared to the total property owner's numbers. Historically for the past 8 years our membership has been about 65-70% of the total properties or 220 members. This information is skewed by the fact some properties have more than one member. But when comparing the rate of membership with other similar organization across the state, we are doing quite well.

Action Plan: Look at ways to identify why some people are choosing to not join the association: are membership dues a reason. Provide more education about what the membership dues do for the Association and individuals.

17. Have you used the Lake Washington website to look up information

	YES	NO
Have you used the Lake		
Washington website to look up		
information about things		
happening on the Lake?	52%	48%

This information suggests that a fair number of people are using our website to gain information about what the association is doing with regards to all aspects of lake management. Another thing to consider is that our news letters, coming out three times a year could be providing most or all the information people want to know about the lake.

Action Plan: Be sure to include notice of all the information we have on our website in our newsletters and encourage people to go to the website to see more complete information about specific topics. Water testing, milfoil treatments, fish reports, etc.

•

a. Communicate with the Board of Directors?

	Yes	No
PCT	13%	87%
Number	22	143

b. Look at updates or maps of EWM treatments

	Yes	No
PCT	57%	43%
Number	96	71

Over half of the respondents have looked for updates or milfoil maps – shows a lot of interest.

Action Plan: Continue informing people of the information they can find on the website. Up date the website to make it easier to use and communicate with the board of directors.

18. Are you aware the [LWIA] has a Lake Vegetation Management Plan that includes biweekly monitoring of...

	Yes	No
Percentage	56%	44%
Number	121	94

19. Have you read the Water Quality Reports posted on our webpage?

	Yes	No
PCT	35%	65%

These survey responses show how well the association is sharing information with property owners and that the information on the water quality testing needs to be somehow better shared with people receiving the news letters.

Action Plan: Provide information about our lake management and vegetation plans in summary form in our newsletters and encourage people to see the full report online. Also have paper copies of important plans like these available at annual meetings.

20. Are you aware ...involves treating up to 100 acres of Eurasian Water Milfoil each year? ...

	Yes	No
Percentage	90%	10%

21. Are you aware the ... focus is on rotating treatment around the lake, with the goal of keeping the lake accessible

	Yes	No
PCT	89%	11%

Comments: These numbers also reflect the issue considered most important to the respondents on this survey. This may reflect how well we have been at communicating our plans and actions, especially in our newsletters. Seems like we need to continue providing as much information as possible in the manner we have been doing it. Great focus, really shows that this is clearly an extremely important issue for the LWIA to focus on.

22. Have you read the most current Lake Management Plan 2010 that is published on our website?

	Yes	No
Percentage	38%	62%

23. Have you been receiving the Newsletters published in Spring, Summer and Fall of each year?

	Yes	No
Percentage	94%	6%

Comments: It is surprising to see that 38% of the respondents have actually taken the time to read the Lake Management Plan on line. This says a lot about the interest and desire of some to understand what the association is doing with regards to total lake management practices.

To see that 6% of the respondents say they are not receiving the newsletters should be a bit concerning, considering all the time and effort the association put into gathering up to date data.

Action Plan: Look at ways to identify the people on the lake not receiving the newsletters.

94% is high – this is really an amazing feat and really shows the effort that goes into delivering them and the impact that they have on respondents (if respondents didn't read the newsletter they might not remember receiving them with such frequency)

24. The LWIA Newsletter (mark all that apply)

	Keeps me updated on laws and rule changes	Provides good information about what is happening on Lake Washington	Like that there are three issues per year	Provides information I find very useful	Would like more information about lake issues Lake Itch, boating rules, improving water quality	I know all the information before it arrives
PCT	68%	86%	64%	68%	41%	4%

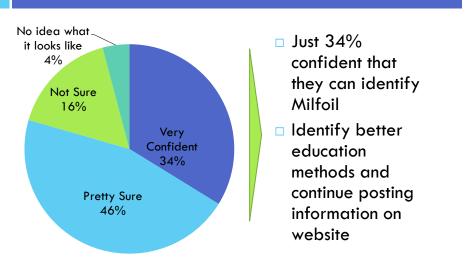
These numbers reflect that the news letters have been, for most people, providing current information that is relevant to the Lake Washington community.

25. Would you want to get more of your information from LWIA via the internet such as the newsletter, vegetation survey updates, AIS treatments, water quality issues?

	Yes	No
Percentage	57%	46%

These numbers correlate closely to the number of people that use the internet to visit LWIA website to get information and updates.

If asked to identify Eurasian Water Milfoil, respondent would say....



Comments: The information gathered on this question demonstrates the need to provide more and better education with regards to milfoil identification. This could and would be especially helpful when moving things in and out of the water, what with the new rules about AIS transporting. The fact 80% are pretty sure should demonstrate the awareness these people have of what milfoil looks like.

Action Plan: Coordinate training and better educate property owners of what milfoil looks like in cooperation with the DNR Aquatic Invasive Species specialist.

27. In the next 2-5 years, what would you personally like the LWIA to concentrate on?

	Milfoil	Cormorants	Fish populations	Boating inspections	Improving water quality	Shoreline improvements	Boater Education	Lake Improvement District	Run off into the lake	Septic updates/compliance
avg	1.9	2.9	4.6	6.8	4.4	6.9	8.48	8	5.3	6.6
median	1	2	4	7	4	7	9	8	5	7

This is yet another way of asking the property owners to rank order the issues they consider to be important for Lake Washington. These results almost exactly mirror the responses from question #11 and #24 demonstrating the high correlation of responses.

28. Please check the following that you would want more information on

Rain Gardens	Lake Scapeing	Shoreline filtration by plants	Lake Improvement District	Controlling runoff
25	54	34	40	55

Nothing was super high on the response data, several surveys left this question blank probably due to response fatigue (in was located at the end of the survey)

29. Would you be interested in learning about ways all property owners could equally share in the cost of ... treatments?

	Yes	No
Percentage	70%	30%

^{*}The number break down 140 (yes) to 60 (no)

This means that 140 people (only 200 responded to this question) recognize the problem of Milfoil and its cost. Something to be looked at in the future.

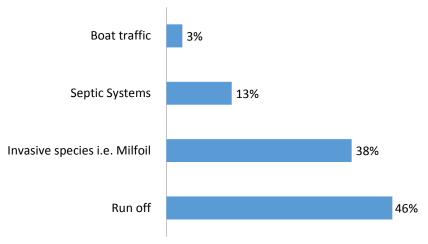
Action Plan: Share information about what is involved in the formation of a Lake District.

30. Would you be interested in learning about the possibility and cost of having a septic lines installed around the lake?

	Yes	No
Percentage	43%	57%

The results of this question would suggest a majority of people do not consider this to be a significant concern at this time.

31. What do you think most affects the water quality of Lake Washington?



^{*}several respondents indicated several factors

This question presented different reasons that may impact water quality and asked the respondents to rank order them. The fact that 46% think run off most affects the water quality on Lake Washington is considered significant enough for the association to look at including more education and information about runoff and ways to better manage it.

Action Plan: Provide information on what contributes to run off problems, provide specific examples of how property owners can control runoff from their properties into the lake.

Information Distribution

Done Well by LWIA

- □ Receiving Newsletter (94%)
- Aware of Lake Vegetation Plan to treat Milfoil (90%)
- Awareness that rotation of treatment Milfoil to promote accessibility to lake (89%)

Needs Improvement

- Read the most current Lake Management Plan 2010 (38%)
- □ Awareness that the LWIA is contracting with a private company to do monthly water quality testing (35%)

Comments:

How do Respondents Use the LWIA Website?

57%	Look at updates or maps of EWM treatments on the LWIA
52%	Use the LWIA website to look up information about things happening on the Lake
57%	Would want to get more information from the LWIA via the internet

Comments:

Common Questions/Comments

- What is the DNR doing about Cormorants control? (mentioned 28 times)
- Expressed belief that the DNR does not listen to them or is not doing their job (mentioned 6 times)
- How do we control runoff into the lake? Specific properties mentioned in some of the responses (mentioned 4 times)
- Inquired about culvert between lakes being dredged or deepened (mentioned 4 times)
- Using fishing/water craft licenses to pay for milfoil control (mentioned 2 times)

Other comments/questions to other Agencies (mentioned once)

Run an inspection at the boat landing and charge a nominal fee to enter lake
Schedule a day that people could get their wells tested for a discount
Why is the Meeker County Sheriff patrolling Lake Washington?
Better signage at 233rd as it is very hard to see at night
Boat landing on NW side of lake and widen north road
Why can't we have a bike path?
Get garbage collectors to offer recycling pick-up
How can they lower taxes?
When is the NE side going to get natural gas?

How to eradicate buck thorn trees

The following is a graphic representing words written on the surveys. The larger the words the more times they appeared on the surveys. The written comments clearly identified the areas of greatest concerns the property owners have at this time. Clearly cormorants, pelicans, re-stock, milfoil and walleyes are areas that the Association needs to continue addressing and providing as much information as possible to all owners. All written comments will be attached to this document once a final copy is prepared. All this information will be posted on our website www.lakewashingtonassn.com

walleyes walleyes walleyes to control the stock of the st