# Lake Washington Improvement Association

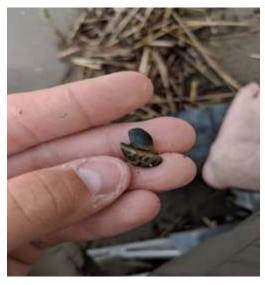


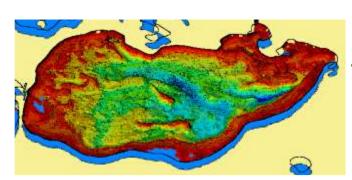
# Fall 2018





ITS A
ZEBRA MUSSEL
HALLOWEEN
(Page 9)





We've drained the lake!

### FALL NEWSLETTER, 2018

Lake Washington Improvement Assn.
PO Box 68 Dassel, MN 55325
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#### General Issues:

info@lakewashingtonassn.com

### **Membership Changes:**

membership@lakewashingtonassn.com

#### **Lost and Found:**

lostfound@lakewashingtonassn.com

The Lake Washington Newsletter is published three times a year (Spring, Summer and Fall) by the Lake Washington Improvement Association. It is distributed free to lake property owners and friends around Lake Washington.

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### **End Of The Dock**

By Steve Grotbo, President

With ice out being in May and it feeling like the ice is going to be forming any day now, summer was just too short. Weather wise it definitely had its ups and downs with almost being too hot at times followed by too cold. The association did keep busy with a lot of activity. Following are some of the notable items.

- Annual spring meeting which included free pork chop dinner. Many comments on this being the best one in years. Thanks again to B&B Sports for providing the chops.
- New lake directory (https://www.lakewashingtonassn.com/pdfs/Directory2018.pdf). This provides a full color book on your coffee table with lots of information including history of the lake.
- New lake mapping (https://www.lakewashingtonassn.com/maps.php). Getting down to the one-foot contours certainly provides some greater detail compared to the abstract one from 1970.
- Water quality testing done by volunteers with water samples sent to RMB (http://rmbel.info/).
- Vegetation survey done by volunteers.
- Automated I-LIDS (camera / voice) at Ellsworth landing is installed / monitored / removed / stored by volunteers.
- Zebra mussel monitoring and reporting to U of M is done by volunteers.
- Volunteers worked with DNR for next actions on cormorants and pelicans.
- Watershed volunteers cleaned up Ellsworth landing, worked with Meeker Soil and Water (MSWC) for runoff concerns, and helped property owners to work with MSWC.
- Active participation with MCAL (Meeker County Association of Lakes) from volunteers.
- Treasurer provided transparent use of funds along with keeping association a 501c3 charity.
- Very active in applying for and receiving grant money for projects from board member.
- Maintain website and Facebook page.
- Three newsletters each season.
- Monthly minutes of all activities and concerns.
- Membership volunteers are keeping addresses and contact information up to date.
- Shoreline Captains had direct contact with all residents which resulted in two thirds being members. Well above the average.
- U of M funding was provided for Zebra Mussel research. Seeing some promising results (https://www.maisrc.umn.edu/news/bacteria-mussels).
- Old dam concerns were addressed.
- Provided easy supporting of Dassel fire department.
- Annual fall potluck. I think everyone who attended got a door prize, so many thanks to the businesses that supported that.
- Limnopro Aquatic Science was engaged to provide in depth study on aquatic invasive species.
- Starry Trek research was attended by board member.
- Lost and Found broadcast service (lostfound@lakewashingtonassn.com)

Many thanks to those who have helped and who are continuing to help with this volunteer organization.



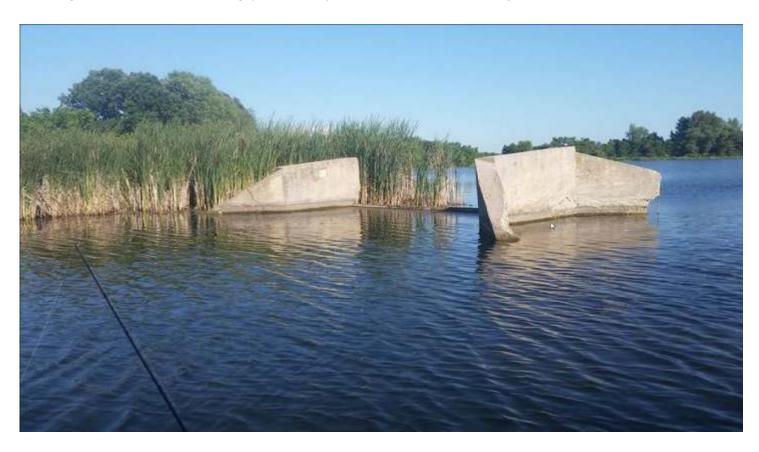
# A History of the Lake Washington Dams

By Steve Ullom

In early spring of 1932, Reuben Johnson paid Anderson Brothers, contractors from Litchfield, to build the original outlet dam for Lake Washington where the lake flowed into Washington Creek. The primary reasons for building the dam were to help conserve water during drought years and provide work during the Great Depression.

A "stoplet" dam consists of concrete piers on each side with slots for timbers. Thus they were able to adjust and maintain desired water levels for the lake. The dam had a 20 foot opening between the piers with a 4-5 foot drop from the top to the creek bed below.

The original piers are still standing (see picture) and are under easement by the DNR Fisheries Division.



Prior to construction of the dam, much of the area around the lake would drain down and be planted in corn, oats, gardens, or was pasture land. I have heard stories of people talking about driving through the corn fields to get to the lake or others playing softball out hundreds of feet from what is now our shoreline. This may explain some of the unusual objects that were photographed during Ron Bubany's mapping of the lake bottom.

Because no set water level was established at the time the first dam was built, and the opening was only 20 feet wide, water would back up into the lake and flood property around the lake. This was a common problem for similar dams throughout the state during these times.

# Lake Washington Dams (continued)

In 1944 farmers with property abutting the lake complained that the level of Washington was causing damage to their property. Then in 1946-47, the DNR Waters Division (with responsibility to keep over 300 dams in the state safe and functional), attempted to set up a runoff elevation with free-flowing conditions for each dam. The goal was to protect shoreland owner's rights as well as rights of those located further downstream from the dams.

When a dam with a set runoff has changed the natural level of the lake over time (more than 15 years), then the new runoff level maintained by the dam becomes the new high-water elevation for the lake. In 1951, the Minnesota Department of Conservation Supervisor Carl Bark, with the Lake & Stream Improvement Unit of Fisheries did an analysis of the Lake Washington Dam. He found the dam structure to be in reasonable condition, but with the 20 foot weir (opening) in the present dam it was causing water to back up and stay for too long before the water level was back to a more normal level.

With his recommendation a new concrete dam was built in 1952 about ¾ of a mile further north of the old dam on Washington Creek. The dam was more then twice the 20 foot opening (weir) of the old dam with an elevation of 103.9. This served at least two purposes: it prevented water building up along the Hwy 12 culvert, with some years water running over the road and allowed for the lake high water elevation to be stabilized. The state number is NID#MN01186. The new dam did result in farmers along Washington Creek between the old and new dams losing some acreage of tillable land, but they were compensated.

In the 1980's, there was a fish barrier on the top of the dam, but it was removed in the 1990's as it collected too many objects and vegetation that slowed the natural flow of water. The dam was last inspected June 20, 2016 – No safety issues were noted. Some minor maintenance issues noted: floating bog blocking a portion on the right side of the spillway, a few chips and minor cracks in the concrete.







# **Aquatic Invasive Species**

By Mark Johnson

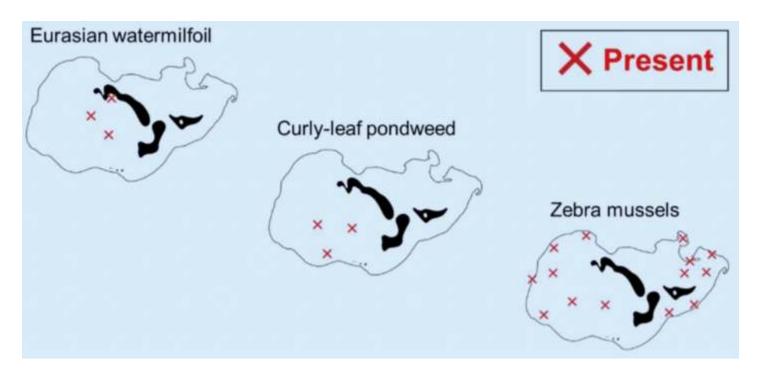
This year our vegetation surveys produced similar results as in the previous few years. No Eurasian Water Milfoil found, and only small quantities of curly leaf pondweed found at a few waypoint locations. Many of the vegetation samples had zebra mussels on them - if you have spent anytime in the water, you probably would have come across them.

This August I participated in Starry Trek. Starry Trek is a statewide search for Starry Stonewort - sponsored by the Minnesota Aquatic Invasive Species Research Center (MAISRC). The focus is on looking for new infestations at public boat landings with a goal of early detection if found. I was assigned to the group that surveyed Lake Washington, Stella and Manuella. The good news is no Starry Stonewort found!

Also in August, LWIA hired Limnopro Aquatic Science to survey our lake for AIS and report back on their AIS findings. The survey included 4 expanded area searches that were completed at Ellsworth Landing, Dassel Rod & Gun Club boat landing, the culvert between Stella and Washington, and a waypoint on the east side of the lake. In addition, Limnopro conducted vegetation surveys at 20 additional waypoints along with a deep water plankton tow of the lake to search for spiny water flea. **In summary:** 

AIS Not Found - Starry Stonewort or Spiny Water Flea.

**AIS Found** - Eurasian Water milfoil (3 of 24 waypoints), Curly Leaf Pondweed (3 of 24 waypoints, and Zebra Mussels (14 of 24 waypoints). All three AIS are known to exist in Lake Washington.



Next summer our vegetation surveys will include the three waypoints where Eurasian Water milfoil was found by Limnopro. In addition, expanded areas around these waypoints will be surveyed to determine how wide spread it is and conclude next steps. Until then, enjoy the winter!

# 2018 Grant Program

By Sharon Daniels, Grant Coordinator



### **2018 Approved Grant Programs**

Rain, Rain go away! Let the sun shine and the Fall colors become bright and beautiful!

With Fall upon us it is now time to begin the grant process for Meeker County Association of Lakes (MCAL) and AIS for 2019.

In the past couple of newsletters I have stated the In-Kind hours (volunteer hours) of those that have completed projects around the lake. I have now completed an excel chart showing in-kind hours for 2018. Thus far there have been 1,276 volunteer hours! THAT'S A LOT OF VOLUNTEER HOURS INTO KEEPING THE LAKE AT ITS BEST BY MANY PEOPLE! THANKS TO ALL! In September I gathered receipts for expenses completing the many projects and I will be billing out invoices for reimbursement from grant money allotted to us in 2018 to Paul Virnig, Meeker County Administrator for Meeker County Association of Lakes (MCAL), and to Kristin Cote, Zoning Administrator for Aquatic Invasive Species (AIS).

October 18, 2018 is the deadline to have the MCAL grant application completed for 2019. I will be attending the MCAL meeting on October 18 and handing in the application. The AIS grant application is due November 13, 2018 to which I will be completing after October 1st. The board has identified three prominent projects for 2019 for *MCAL application*. They are: Watershed (sediment, erosion & nutrients focus), Vegetation surveying (mapping with extensive water surveying) and Water quality testing (H<sub>2</sub>O sampling, Secchi tests, weed raking, etc.). The *AIS grant application* will involve projects of AIS education, inspection programs, treatment and management. These projects are very vital to us as lake owners and to the public to keep our lake at its best and that is why we apply for grant funding/reimbursement to help defray the costs each year. If anyone has any questions, comments, or concerns in regards to grant processing you can reach me at <a href="mailto:sdaniels@grdaniels.com">sdaniels@grdaniels.com</a>.

### **MCAL**

#### By Patty Hanson

The Meeker County Association of Lakes (MCAL) consists of representatives of the lakes in Meeker County. Do you know how many lakes there are in our county? The answer may surprise you! The answer is 100. (Chamber of Commerce person used to ask this of my students).

Not all one hundred lakes send a representative to MCAL because many do not have active lake associations. At these quarterly meetings I find out about grants to help defray the costs to our organization. We discuss what projects we are doing and what problems we have. Many times our problems are similar to those of other lakes. We share information with each other. We also have speakers, such as Scott MacKenthun (DNR), attend and discuss milfoil, zebra mussels, cormorants, pelicans, and starry stonewort.

Ken Klehr, Sharon Daniels, Dave Rathe (alternate) and I have been Lake Washington representatives to MCAL. Ken was also our Lake Washington Association President. He had expansive detailed knowledge, kept us informed, and presented what our Lake Washington was doing each meeting. I learned from the best. Ken. Thanks for your mentoring and service.

(Patty is referring to Ken in the past tense because he has, sadly, passed away . His obituary can be found at https://www.mcnearneyfuneralhome.com/obituaries/Kenneth-George-Ken-Klehr?obId=3359323 - ed.)



#### LWIA GENEROUSLY SUPPORTED BY LOCAL BUSINESSES

We would like to say a special thank you to the following businesses that contributed Door Prizes to giveaway at LWIA Pot Luck on August 4<sup>th</sup>:

- Sears (Hutchinson);
- Econofoods (Litchfield);
- Dassel Coop;
- Perrenial Banks (Darwin/Dassel);
- Lake Region Insurance (Cokato); Red Rooster Foods (Dassel);
- Country Store (Litchfield);
- Runnings (Litchfield);
- B&B Sports (Hutchinson);
- Garden Nook Tea (Dassel);
- Darwin Monument;
- Sears (Litchfield),
- Darwin Liquors;
- Darwin Tavern; Schmitty's (Darwin).

The support we enjoy from local businesses is overwhelming and the best way to show our gratitude is to Thank them when we are doing business with them.

# **Zebra Mussels**

(an Aquatic Invasive Species from Eastern Europe) By Dave Rathe



#### BOOM!

You didn't hear the explosion, but you likely saw it. Our zebra mussel settlement plates "hotels" were loaded this fall. And you are probably seeing bunches of them on your docks and lifts. There were so many mussels on the hotels, it was hard to count them this year.

You can see the location of the hotels on the map. These locations are the same as the last two years.



# Zebra Mussels (continued)

As you can see in the table below the population of zebra mussels is growing extremely fast.

	Zebra Mussel Counts by Settlement Plate														
	Hotel #1	Hotel #2	Hotel #3	Hotel 34	*Hotel #5	Hotel 36	Hotel \$7	Hotel #8	Hotel 99	Hotel \$10	Hotel \$11				
2016	0	0	0	1	0	0	0	0	0	0	2				
2017	5	20	3	0	0	100	1	0	61	7	C				
**2018	300	505	234	148	65	695	760	805	220	740	95				
	* Hotel #5	is half size													
	** Zebra mussel counts are approximate														







# Zebra Mussels (continued)

You make the calculation (your own estimate of zebra mussel population in our lake):

Knowns – there were 218 zebra mussels found per square foot of hotel area and there are about 115,000,000 square feet of lake surface area.

Unknowns – what percent of Lake Washington is habitable by zebra mussels?

Calculation -218 zebra mussels/ft<sup>2</sup> x habitable % = number of zebra mussels currently in the lake 10% habitable = 2.5 billion zebra mussels

1% habitable = 250 million zebra mussels

0.1% habitable = 25 million zebra mussels

0.01% habitable = 2.5 million zebra mussels

Remember: The MN DNR requires you take the following steps to prevent the spread of zebra mussels:

Clean – weeds and debris from your boats, and remove any attached zebra mussels,

**Drain** – your boat, live wells, and bait wells, and keep all drain plugs out while traveling,

**Dispose** – of unwanted bait in the trash,

**Dry** – docks, lifts, swim rafts and other equipment for at least 21 days before placing equipment into another water body,

**Do not transport** – a special permit is required to transport zebra mussels for any reason.

More information on zebra mussels can be found on the MN DNR website. http://www.dnr.state.mn.us

There is no need to report zebra mussel findings on our docks, boat lifts, etc. when putting them up for the winter. Pretty much everyone will have them.

The zebra mussel shells are sharp especially dead ones. It's a good idea to wear sandals or shoes while wading in the lake.

Special thanks go to Mike Wosmek for setting out and picking up all of the zebra mussel hotels.

# **Fishery Status**

By Patty Hanson

I receive communication from George Kraemer, the chair of MCAL and others on the board. Three lakes in Meeker County are surveyed every two years due to the concern about Double Crested Cormorants which affects the fish population. The data that was sent was from Scott MacKenthun, a Hutchinson Natural Resources Fishery Manager. Lake Washington was one of the lakes surveyed.

In 2016 the surveyors found 'nice abundance numbers of black crappie and walleye'. There was an 'abundance of young yellow perch, bluegill, and minnows'. The data is available on our web site at:

#### https://www.lakewashingtonassn.com/pdfs/2018\_dnr\_survey.pdf

This data shows the water quality, lake characteristics, and netting information. It shows the maximum length of walleye is 24.53; minimum length is 8.5; mean length is 13.69. They measured a total of 82 walleyes.

### **Watershed**

By Skip Sustacek

Our group has more information available to work with. We now have a map of the lake which shows the texture of the bottom. By texture I mean if the bottom is muddy or sand bottom. We will be using and working with this information to locate and check any problems that need attention.

It is very important that the lake is safe for all water activities.

We plan to check the water after heavy rains and where the intakes empty into the lake. Also checking and testing for any other water issues (Some people have reported issues and we try to help however we can).

Hope you all had a great summer. It always seems too short. Enjoy the winter at the lake as well.

#### From the lake:

This year we have noticed more trash washing up on the north shoreline (plastic bottles, bait containers, plastic bags, food wrappers, fishing gear, cans, boards, etc.) then past years. Maybe due to the high water and winds, but a gentle reminder to everyone to PLEASE take extra care controlling your trash when out on the lake.



# **Water Quality And Clarity**

By Dave Rathe

Water clarity this spring was quite good. We measured 14.5 feet on May 15<sup>th</sup>, it was amazing what you could see in the bottom of the lake. Minnesota Pollution Control Agency (MPCA) has other unusually clear water measurements of 10 feet back in 2005 and 15 feet in 1994.

Many folks have asked or postulated what caused the unusually clear water this year. You pick because we don't know.

Zebra mussels filtering the water here and in Stella,

Watershed improvements around the lake,

Unusual winter & spring,

Changes in the precipitation pattern,

Fewer fish stirring up the bottom of the lake,

Normal variation in lake clarity

New eyeglasses for volunteers taking the readings,

Combination of all of the above.

Total phosphorus this year averaged 19.2 micrograms/liter vs an average of 28.4, which is a measurement of nutrients in the water.

Total chlorophyll-a this year averaged 4.5 micrograms/liter vs an average of 12.1, which is a measurement of algae in the water.

Water clarity this year averaged 7.7 feet vs an average of 3.3 feet.

RMB Labs provided the analysis of the water samples and all data is reported to the MPCA.

All-in-all, very good water quality for Lake Washington in 2018.



### **COMMITTEE REPORTS**

## **Shoreline Captains/Membership Committee**

By Cathy Klehr

Thanks to all who have renewed their membership. To recognize these members, we have a listing on our web site (<a href="www.lakewashingtonassn.com">www.lakewashingtonassn.com</a>) and update it monthly throughout the year. Currently, we have 226 paid members. Your continued support is appreciated and needed in our effort to keep Lake Washington clean and healthy for **ALL** to enjoy throughout the year.

The Shoreline Captains have been busy visiting homes in their area throughout the summer delivering the new **Lake Washington 2018 Directory.** If you have been missed, contact your Shoreline Captain to make arrangements to receive your copy.

Special Thanks to all the Shoreline Captains for their time and effort they put into reaching out to lake residents:

Sheryl Faust Jenny Kjell John Sandstede Nancy Finkenaur

Jenna O'Brien Grace Brinkmann Pam Coppa Mary Jo Lyke

Bob Paulson Jim Barnes Cathy Klehr Sandy, Mike Wosmek

Phil Flores Sharon, Gary Daniels Christine, Steve Ullom John Bartz

Connie Paulson Ruth, John Fink Jo Lukes

For changes of address, phone, e-mail or any other information we should be aware of, please contact us at:

membership@lakewashingtonassn.com

### **Finance Committee**

By Lyle Walker

As the 2018 season winds down, the Lake Association's financial position remains strong. A few highlights include:

- 1. Again this year, no costs were incurred for lake treatment.
- 2. A \$5,000 donation was made to the Minnesota Aquatic Invasive Species Research Center in support of Dr. Michael McCartney's zebra mussel research at the University of Minnesota. A similar donation was made last year to this very important research effort.
- 3. Contributions to the Dassel Fire Department totaled \$2,025 from 77 Association members. These funds are forwarded to the Dassel Fire Department.
- 4. On the revenue side, membership this season is 226, generating revenue of \$11,300. Memberships this season were up by 14 over last season.

Our financial position at September 30 is \$124,900.

# **COMMITTEE REPORTS (continued)**

### **Social Committee**

By Sandy Wosmek

As I look out over the lake ----The lake is very quiet.
It is a beautiful fall day.

Hope everyone had a great summer and looking forward to 2019.

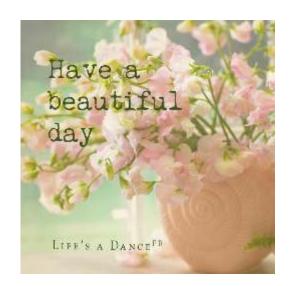
We had good turnouts at both the pork chop dinner and pot luck.

Thanks to all for attending.

Dates to remember for 2019 ----

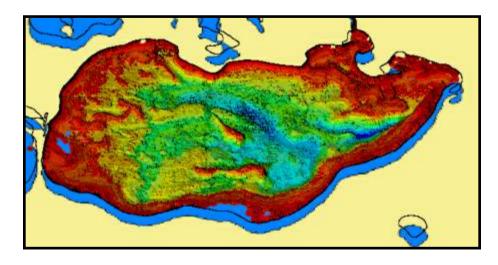
Saturday, May 4 -- Pork Chop Dinner and membership drive. Saturday, August 3 -- Pot Luck.

Have a safe and restful fall and winter. Welcome in 2019.



## LAKE WASHINGTON CONTOURS

By Ron Bubany



Like in the TV show, we have "Drained the Lake". We can now see a visual representation of how the lake bottom appears

More importantly, the Association now has detailed lake contour information as a result of our recent lake soundings. Of interest:

- ●2,400 acres
- ●8.7' average depth
- •18.9' maximum depth

The largest fish we recorded was a massive 54 inches in length. In other words,  $4 \frac{1}{2}$  feet long!! See if you can catch it this winter.

The following pages are hard copy map images of the four lake quadrants. Make use of this during your upcoming winter fishing trips.

Next spring your shoreline captains will be distributing professional, high quality maps to all members signing up with their dues payments. Something to look forward to!!

