

Permitting, Plantings and Pollinators

Planting for clean water is part of the solution of water pollution!

Stormwater runoff is the number one threat to our water quality according to the U.S. Environmental Protection Agency. Pollutants from our lawns and streets—vehicle emissions, oil residue, grass clippings, pesticides, leaves and pet waste—are swept away by rainwater runoff to our lakes and streams. Using water-friendly landscaping like native plants, raingardens and shoreline stabilization helps minimize runoff, keeps our water clean, and creates pollinator habitat.

As native vegetation is replaced by roadways and manicured lawns, pollinators lose the food and nesting sites that are necessary for their survival. When deciding what to do with your shoreline, consider the following:

- ◆ Choose your plants so that there are different flowers blooming from spring to fall.
- ◆ Avoid pesticides and avoid purchasing plants that have been treated with pesticides. Ask your garden store for pesticide free plants.
- ◆ Choose plants of different heights.
- ◆ Choose plants that provide food for butterfly caterpillars. For example, monarch caterpillars can only eat milkweed.



Before you begin any work on the shoreline **remember to contact the Watershed District for a PERMIT.** Permits and other supporting documents can be found on our web page at www.prwd.org. Through the permitting process, the watershed district works with property owners and local government units to protect our waters to maintain or increase water quality within the District. The District issued 64 permits in 2019, with small sites accounting for 66% of permits issued. This includes work done in the shore impact zone, such as rip rap, sand blankets or tree and vegetation removal. The District works closely with property owners to help them meet their desired goals while maintaining or enhancing shoreline integrity and water quality.



The District staff also began preparing for a Permit Rule update in the spring of 2019 and met with local contractors, landscape architects and engineers to receive their input before beginning a draft. Evaluating District Rules is an on-going process and it is our intention to begin a draft update in 2020.



Consider our Cost Share Program

The District continues to encourage those living on District lakes to use Best Management Practices (BMPs) when considering ways to enhance their property and to take advantage of our Cost Share Program. Shoreline buffers, raingardens or vegetated swales are all eligible options that will help manage stormwater on your property.

This District pays 75% of eligible expenses, up to \$500 for single family homes, \$1,000 for condo and apartment complexes and \$1,500 for not-for-profit religious organizations, public and private schools, local government agencies and private businesses. Contact our office for more details and assistance.



Contact Information:

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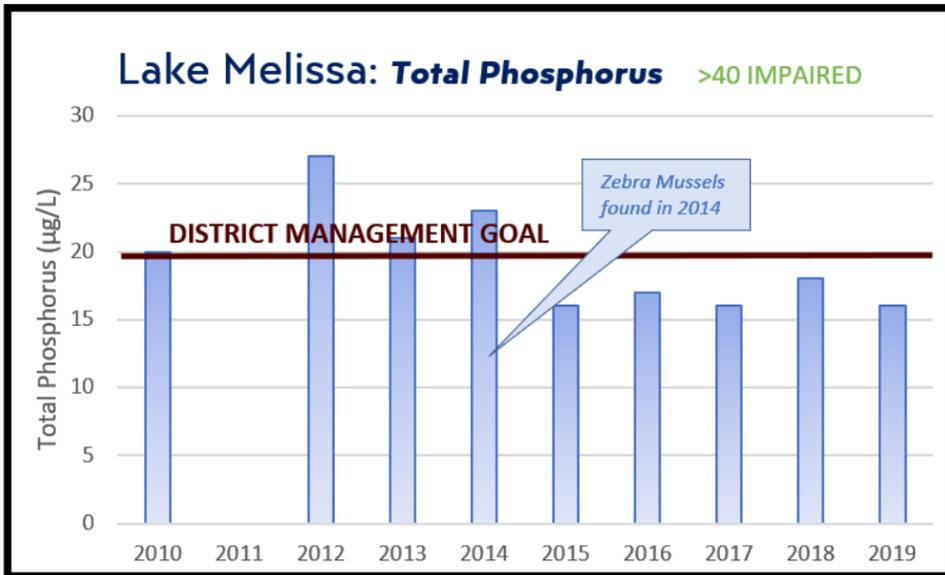


Although 2020 has been full of challenges and we have all had to change the way we go about our daily lives, we wanted to reach out and let you know that the Watershed District office is open. Although we can't say "business as usual", we can say we are here if you need us. We are always only a phone call away, (218) 846-0436 and would be happy to set up an appointment for a site visit or any other issue. We hope that you are all well and enjoying the lake life as much as possible.

Size	1846 Acres
Litoral Area (Less than 15ft)	934 Acres/ 51%
Watershed Size	3509 Acres
Inlets	2- Pelican River and stream from Lind Lake
Outlet	Pelican River
Shoreline Length	7.3 miles
Ordinary High water	1328.7 ft.
Common Fish	Black Crappie, Bluegill, Sunfish, Large-mouth bass, rock bass, Northern Pike, Walleye
Invasive Species	Curlyleaf pondweed, Flowering Rush, Zebra Mussels



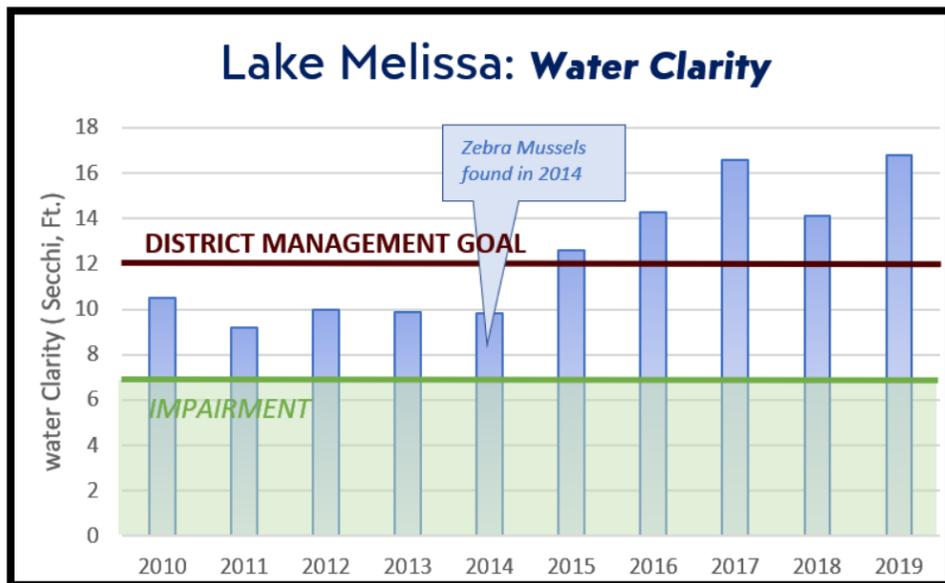
INTO THE DEPTHS...



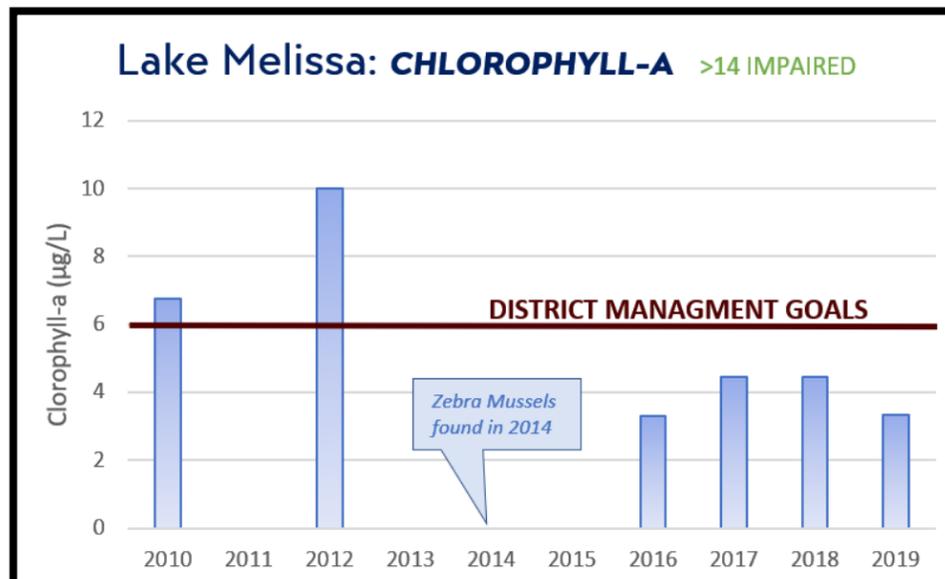
Roadside pick up of Aquatic Vegetation

This program runs from Memorial Day through the end of September and is for aquatic vegetation only. Bring your lake vegetation to the curb and Watershed District staff will pick it up once per week.

Please do not include any yard debris or garbage—only vegetation removed from the lake.



Raina & Warren 2019 District Interns



Lake Melissa 2019 Chemical Treatments	Acres	Costs
Curley Leaf Pondweed 6/5/19	0	\$ 0
Flowering Rush Treatment #1 6/26/19	38.8	\$5,186.01
Flowering Rush Treatment #2 7/30/19	28.5	\$3,809.31
TOTAL TREATMENT COSTS		\$8,995.32

2019 Weather & Lake Water Levels

The first three months of 2019 experienced above normal snowfall with colder than average temperatures. The warmer temperatures in April were very welcome, however, April 12th dumped ten inches of fresh snow in the area, which delayed the 2019 ice-off event.

The previous wet fall of 2018, along with the heavy snowfalls in early 2019, caused high water in the lakes and streams when things opened up in the spring. Heavy summer rains kept the lakes and streams at high levels. In July, 4.72" of rain fell, followed by August with 5.71" and September saw 4.88". Area streams were up to their banks and area lakes stayed as much as 10" above 2018 averages.

October 10th brought the first snowfall dropping 3" on the area. This was the first of multiple snowfall events during the last three months of 2019. On November 30, 8.5" fell with an additional 12" falling on December 28th and 29th. With several smaller events during this period, the year-end total amounted to 31.39".

Water Quality

As with other Zebra mussel infested lakes, the water clarity in Lake Melissa has increased significantly. The average secchi depth for both Sallie and Melissa has increased by as much as 7 ft compared to 2018 averages. The average reading on Lake Melissa was 17', which along with the 2017 average, is the deepest in the past 20 years. Phosphorous in these lakes follows a similar trend, with readings well below the 20 year average.

Lake St. Clair has been listed as an impaired water since 2016, but it also observed improved water quality in 2019. With the new wastewater treatment plant constantly discharging into the lake, there were concerns of mixing and flushing of sediments and high water levels. However, it was determined that the high water levels were due to high precipitation amounts and District sampling showed no evidence of sediment disturbance.

The District will continue monitoring lakes Sallie, Melissa, and St. Clair annually. The aquatic vegetation community of Sallie and Melissa will be assessed in 2021 and 2026, and shoreline development will be surveyed in 2022 and 2023.

2019 Flowering Rush Treatment Areas on Lakes Sallie and Melissa



2019 Curly-leaf Pondweed Treatment Areas on Sallie, Melissa, and Muskrat Lakes



Chemical Treatments of AIS

Curly-Leaved Pondweed—The District generally treats 13.4 acres in the southwest bay, however no plants were found during our survey in 2019. The late spring may have inhibited plant growth.

Flowering Rush—A total of 39 acres was treated in June 2019, a decrease from 46 acres in 2018. Only 28.5 acres required a second treatment.

Zooplankton Study

In cooperation with the MN DNR, the District participated in a study of the effects of Zebra mussels on the populations of zooplankton in several District Lakes, including Lake Sallie and Lake Melissa. Information in this study must be compared to several years of data to determine population trends. After 4-5 years of data, trends will be extrapolated to assess the effects of Zebra mussels. Sampling began in 2017.

