A Project Tour

On August 8, 2019 Watershed District staff hosted a tour in the northern part of the District. Members of the Detroit Lake City Council and Becker County Commissioners along with City and County staff, lake association members, and area legislators were invited to view the Rice Lake Project site, commercial and residential development projects in the Floyd Lakes area, and enjoy a pontoon tour of Floyd Lake with discussion regarding Campbell Creek, internal loading, and alum treatment.

PRWD Intern, Connor Haugrud, demonstrated how zooplankton samples are collected on District lakes before being evaluated to determine how zebra mussel infestations may be impacting our local lakes.

Mike Mathia spoke on the Par Place development and the group continued on to look at storage condo complex.

It turned out to be a beautiful and informative afternoon that concluded with dining at the Sunlite restaurant on the shores of Little Floyd. Including PRWD Managers and staff, approximately 25 people took part in the event.





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. The improper use of pesticides can also negatively impact pollinators and their habitats. Pesticides such as weed killers and insecticides are used in nearly every home, business, farm and park in the United States and are found almost everywhere in our environment.



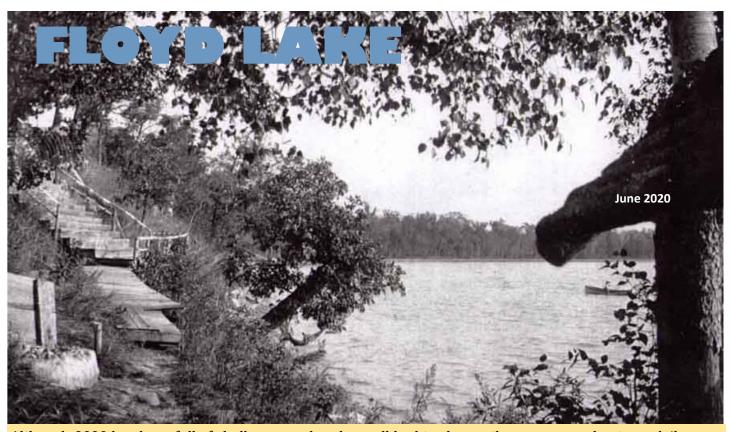


Before you begin any work on the shoreline remember to contact the Watershed District for a PERMIT. We would be happy to discuss our Cost Share Program and environmentally friendly ways to enhance your property. Permits can be found on our web page at www.prwd.org.



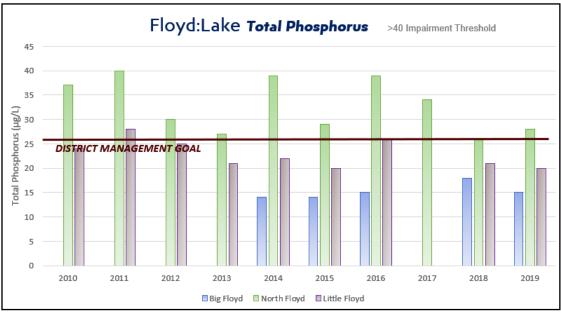
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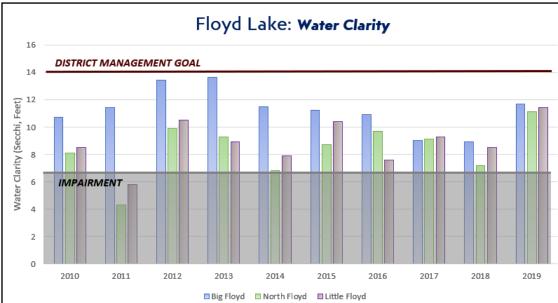
Wells Fargo Bank Building 211 Holmes St. West, Suite 201, Detroit Lakes, MN 56501 (218) 846-0436 * prwdinfo@arvig.net * www.prwd.org

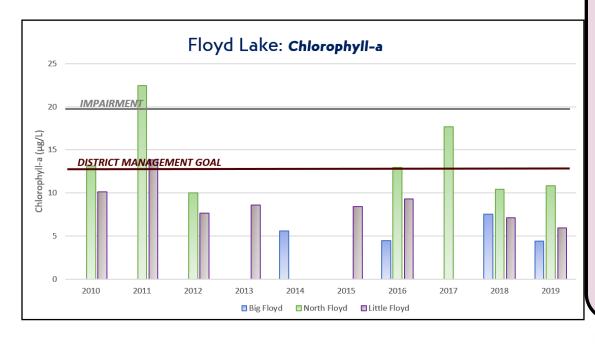


Although 2020 has been full of challenges and we have all had to change the way we go about our daily lives, we wanted to reach out and let you know that the Watershed District office is open. Although we can't say "business as usual", we can say we are here if you need us. We are always only a phone 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	Big Floyd: 862 Acres North Floyd: 298 Acres Little Floyd: 214.28 Acres	ASALIN SA	
Littoral Area (Less	Big/North Floyd: 861 Acres		
than 15ft)	Little Floyd: 95 Acres		1000
Watershed Size	9769.6 Acres		DE TROIT
Inlets	Campbell Creek	30 24	
Outlet	Becker County Ditch 13 at	1355 Tamarac.	Little Wibo
	Historic Outlet	1000	Floyd Lake
Shoreline Length	Big Floyd: 5.5 Miles North Floyd: 3.6 Miles Little Floyd: 2.2 Miles	1365	Little Floyd Lake
Ordinary High water	1354.8 ft.	99	10 Trailen Park 1360
Common Fish	Black Crappie, Bluegill, Large-	arox.	Gravet Profession
	mouth bass, Northern Pike,	77	100
	Walleye, Muskellunge		1354
Invasive Species	Zebra Mussels	Grave 1832	360







10 Year Monitoring Plan

In-Lake—every year

Vegetation survey— 2020, 2025

Shoreline Survey— 2021, 2026

Zoo plankton—2019-

Raina & Warren 2019 District Interns



Bee Friendly

Invite pollinators to your neighborhood by planting a pollinator friendly habitat in your garden.

At <u>www.pollinator.org</u> you will be able to

you will be able to find a planting guide for our region so that you can attract birds, bees, butterflies and other small mammals that pollinate plants.



INTO THE DEPTHS...

Water Quality

District lakes experienced better than average water quality in 2019. Because of the above average precipitation throughout the spring and summer, water levels in District lakes and streams were also higher than average. High water levels can also bring erosion to sensitive areas of the shoreline and allow ice pushes to cause damage to the shoreline.

The Campbell Creek area was channelized in the early 1900's and this has taken its toll on water quality in North and Little Floyd Lakes as a result of bank erosion and sediment loss from fields. Due to the wet summer and upstream field tile, increases in water volume from Campbell Creek (about 125% greater volume than 2018) carried increased loads of sediment and phosphorus to North Floyd Lake. Average phosphorus levels in all three lakes were slightly elevated from 2018, but water clarity greatly increased in 2019—almost double in clarity! This increase in clarity is attributable to zebra mussels stripping out the plankton in the water column. See www.prwd.org for more monitoring information.

MPCA Study

A watershed study in 2018 and 2019 identified an impairment due to high sediment loads on Campbell Creek. PRWD has suspected this for several years, but felt it was due to erosion on agricultural land in the Campbell Creek drainage area. However, after further sampling and study, it was determined sediment was coming from bank erosion due to high water velocity entering a natural meandered section of the stream after leaving ditched areas in the upper drainage.

The MPCA will develop a TMDL (Total Maximum Daily Load) for Campbell Creek and work with the District to correct this issue. A TMDL is a document which outlines the source of pollution and what the goal is for the reduction of the pollutant.





Zooplankton Study in Floyd Lakes

In coordination with Concordia College in Moorhead, a study of the effects of Zebra Mussels on the populations of zooplankton communities was started on the Floyd chain of lakes in 2019 and will continue for 5+ years to identify any trends.

PRWD Summer Intern, Connor Haugrud, is shown using a specialized net collecting a sample from the water column. Samples are taken from June—September and analyzed by Concordia College students.

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 ice-off event in area lakes.

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-29th. With several smaller events during this period, the year-end total amounted to 31.39".