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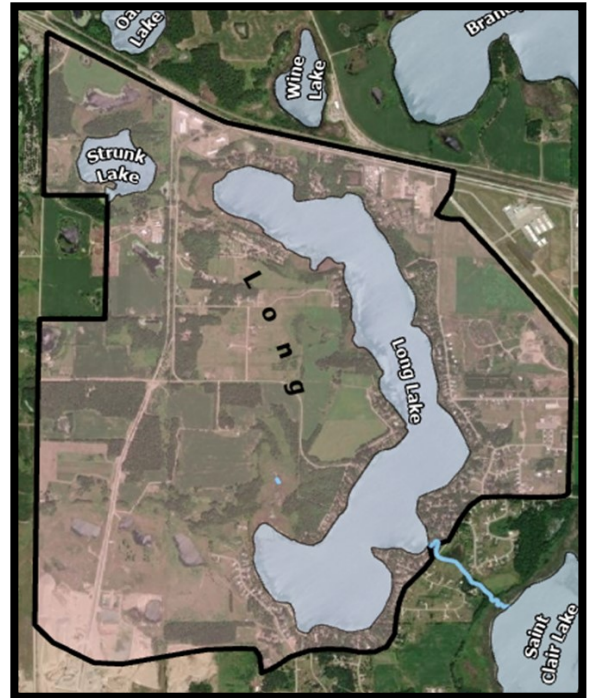
Water Management Area Spring 2022



Long Lake is a 408-acre recreational development lake fed primarily by stormwater runoff and groundwater interactions. It is narrow and deep, with a maximum depth of 61 feet. It outlets via Joy Creek to St. Clair Lake, a lake impaired for excessive nutrients.

Long Lake has good water quality with annual phosphorus levels ranging from 11ppb to 16 ppb, and water clarity between 12 and 19 feet. Watershed nutrient loading is the largest threat to Long Lake's water quality at present. The watershed is becoming more impervious, native shoreline vegetation is being removed, drainage is being altered, etc., all of which promote nutrient runoff.

There is an active gravel mine in the southern portion of the Long Lake watershed. In recent years, there has been interest by the company to expand to the north and west, closer to the lake. In 2018, Becker County denied a conditional use permit to expand the mine.



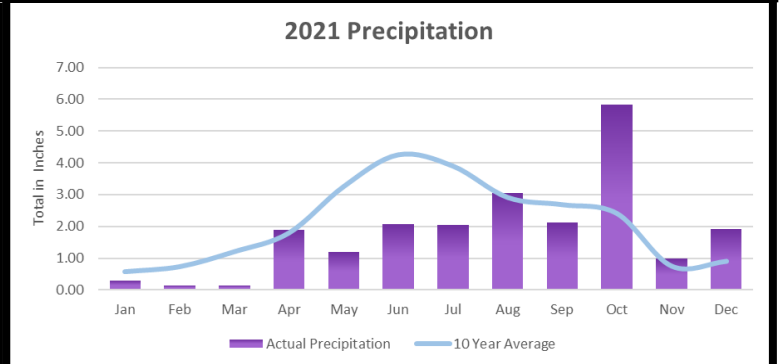
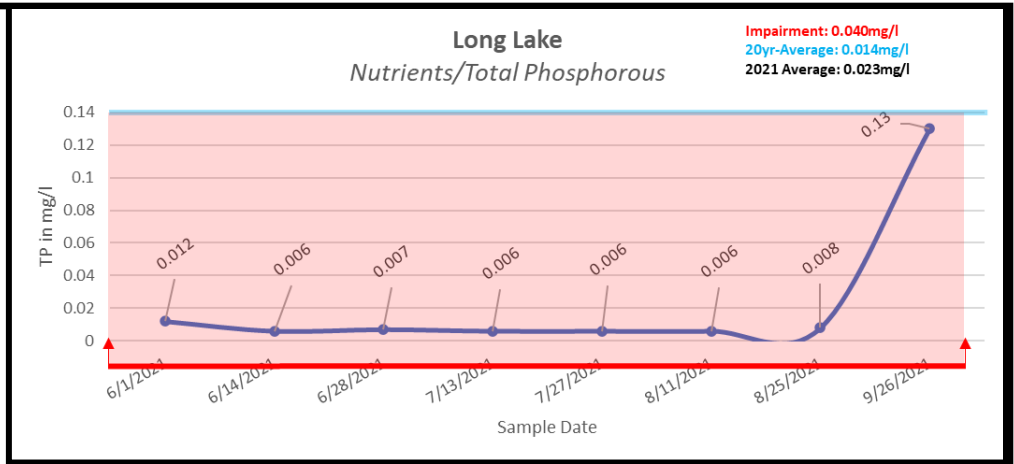
Pelican River Watershed District—Our Work: The Watershed District continues to move forward in many directions with water quality monitoring, capitol improvement projects, rules and permitting, education and One Watershed One Plan (1W1P) planning.

- ◆ July 2021: A new funding project, Data Collection and Monitoring (DCM-01), was established to better serve the District with water quality monitoring needs.
- ◆ Summer 2021: PRWD staff began actively collaborating with the City of Detroit Lakes, and various individuals and agencies, developing the South Shore Park planting plan, which will include a pollinator area with a handicap accessible path and educational signs, approximately 1 acre in size.
- ◆ Fall 2021: Phase I of the Rice Lake Capitol Improvement Project was completed, and barring any setbacks, our hope is to complete Phase II of the project in 2023.
- ◆ Fall 2021: Staff is collaborating with Becker, Hubbard and Ottertail County COLA groups to host a Minnesota Aquatic Invasive Research (MAISRC) update to be held at M State on June 9, 2022.
- ◆ Spring 2022: District resumed classroom education with local students for the first time since COVID-19 reared its ugly head.
- ◆ 1W1P: Administrator Guetter and Water Resource Coordinator, Kemper, have been involved in all aspects of planning including technical advisory, policy, and landscape stewardship.
- ◆ Grants: District staff continue to work with MPCA to develop the 319 Grant Work Plan for the Campbell Creek area. Grant Agreement documents have been submitted to the Minnesota Department of Public Safety, Homeland Security and Emergency Management for the FEMA Flood Hazard Grant. Grant documents were also completed for the MN DNR and Becker SWCD to help offset the cost of AIS treatments in District lakes.

Water Quality – Long Lake

In 2021, Long Lake’s average Total Phosphorus (TP) was 0.023 mg/L higher than the 20-year average of 0.14 mg/L. However, CHL-A (algae) was significantly lower at 3.68 ppb (20-year – 4.05 ppb) and water clarity (secchi depths) averaged 16.9 feet, 2.8 feet better than the 20-year average of 14.1 feet. The drought weather conditions

had a positive water clarity impact due to the lack of nutrients entering the lake from rainfall events. After the mid-August water “turnover” event, water quality seemed to spike for TP and CHL-a, however the secchi readings only lowered slightly.



District Rules & Permitting

Please check with us before doing any work on your property.

The Watershed District works in cooperation with property owners, contractors and engineers, and local government units to maintain or increase the water quality in our district through the rules and permitting process. PRWD has a Memorandum of Understanding with both the City of Detroit Lakes and Becker County to oversee permits.

Permit Type	2021 Issued
Shore Impact Zone Alterations (sand blanket, rip rap, vegetation changes)	35
Subdivisions/PUD	2
Stormwater Management Commercial	15
Residential	6
Roads, Parking Lot, Bridges, Culverts, Storm Sewer	5

2021 Weather

The year 2021 will be remembered for widespread summer drought, the June Heat Wave, the two-week Arctic Cold Wave of February, the record number of air quality alerts during the summer (mostly due to smoke from wildfires in the west and in Canada), and the tornadoes in December.

2021 will go down as the 5th warmest year in state history. On a statewide basis, only one month was cooler than normal. February was 7 to 9°F below normal. In contrast, June was 5°F warmer than normal, making it the 3rd warmest June in state history.

Precipitation was less than normal in 2021, but only the 31st driest year in state history. May, June, and July were all drier than normal, putting most of the state landscape into drought. Statewide average precipitation for 2021 was under 24 inches, marking the driest full year since 2006.

Precipitation finally came during the month of October with 5.84” of much needed rain, which was well above the historical average of 2.41”. To end the year, we received 25.45” of snow. This was above the historical average of 13.29”.