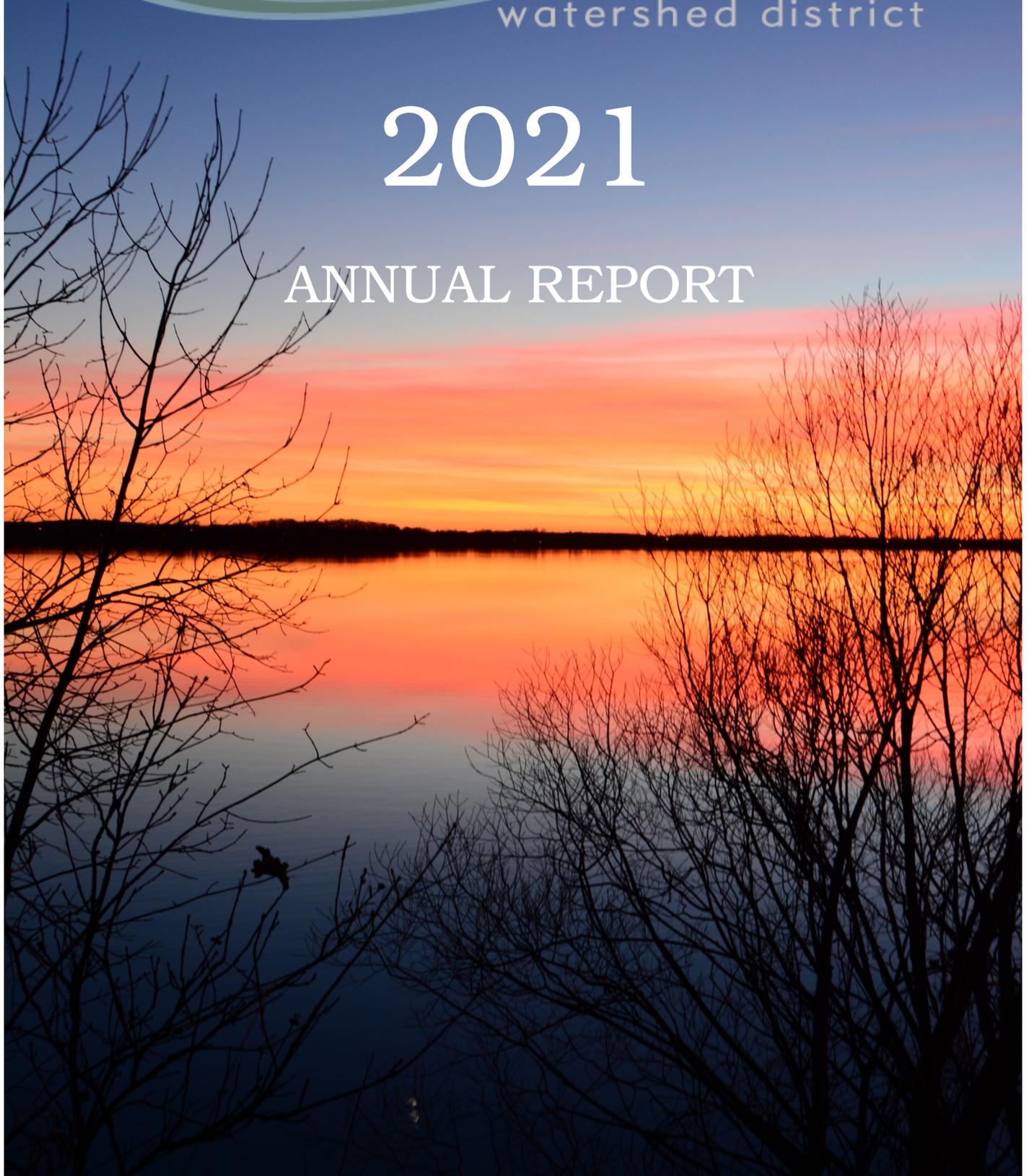


# PELICAN RIVER

watershed district

# 2021

## ANNUAL REPORT



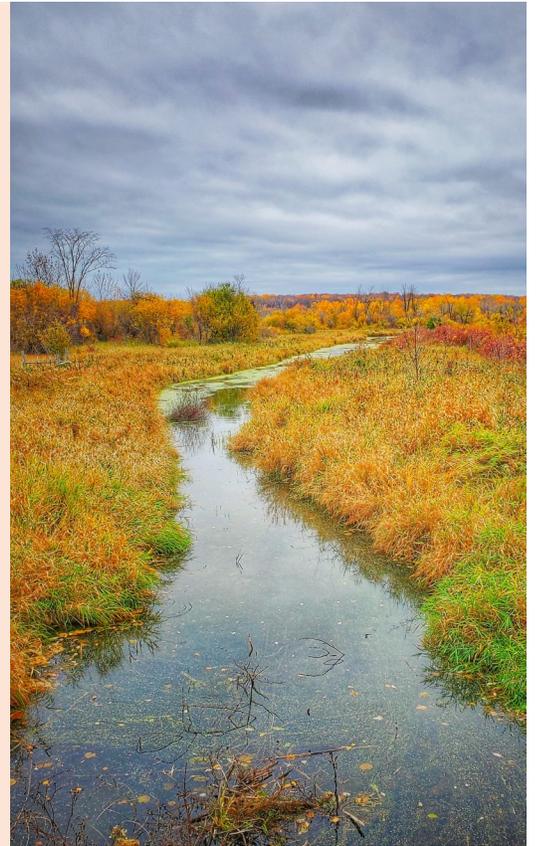
# Administrator's Letter

The District continued to adjust to the COVID-19 ever-changing conditions during 2021 and continued our work to improve the water quality of our lakes and the Pelican River. The District completed a major keystone project – Phase 1—Upper Water Control Structure of the Rice Lake Wetland Restoration Project, which was partially funded by a Clean Water Land and Legacy grant to reduce summer phosphorus loading to Detroit Lake by 600 lbs – 1,000 lbs each year.

We also continued to implement major programs and projects and welcomed a new staff member and a new board manager. Data collection and water quality monitoring programs continued. In-lake herbicide treatments were conducted in May on Detroit and Sallie to target curly-leaf pondweed and in July and August on Detroit, Curfman, Sallie, and Melissa to target Flowering rush, both unwanted invasive aquatic plants. I received a national award from The Aquatic Plant Management Society, recognizing the many years of dedicated Flowering rush control research and collaboration effort.

I am proud of the work we accomplished together and would like to express my appreciation to the Pelican River Watershed District Board of Managers, Advisory Committee, and staff; the City of Detroit Lakes, Becker County, community partners, and residents for your continued support in helping protect and improve water quality in our lakes and the Pelican River.

Respectfully,  
Tera Guetter, Administrator



**PRWD Staff: Brenda Moses, Tera Guetter, and Gina Kemper**



<b>Table of Contents</b>	
About the District.....	3
Operations: Board of Managers/Staff.....	4-5
National Recognition: Guetter.....	6
Operations: Fiscal Management.....	7
2021 Highlights.....	8-9
Education & Outreach.....	10
2021 Project Tour.....	11
District Rules & Permitting.....	12
Drainage Authority.....	13
2021 Climate.....	14-15
2021 Water Quality Summary.....	16
Floyd Campbell WMA.....	17
Detroit Rice WMA/Rice Lake Wetland.....	18-19
Sallie/Melissa WMA.....	20
Long Lake WMA.....	21
Pearl/Loon WMA.....	22
Small Lakes WMA.....	23
Otter Tail 1W1P.....	24
2022 Work Plan.....	25

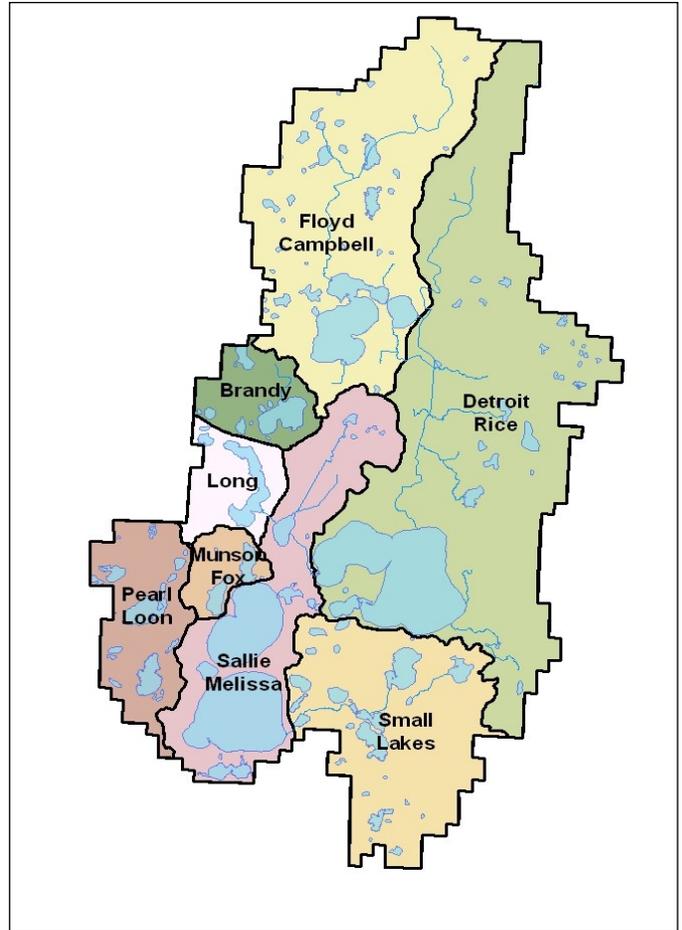
The Pelican River Watershed District is a special unit of government formed under Minnesota Statutes 103D to manage water resources in the watershed. It covers approximately 120 square miles in Becker (95%) and Otter Tail (5%) Counties and includes the upper reaches of the Pelican River which eventually drains to the Otter Tail and Red Rivers. The District was established on May 27, 1966 to address poor lake water quality conditions. It is one of 45 watershed districts in Minnesota.

The purpose of watershed districts is to conserve the natural resources of the state by land use planning, flow control, and other conservation projects utilizing sound scientific principles for the protection of the public health and welfare, and the prudent use of the natural resources.

**District Characteristics**

- District size:** 120 Square miles
- Pelican River:** 8.3 miles
- Ditch Systems:** (4) including Becker, 11, 12, 13 & 14
- Wetlands:** 11957 Acres
- Lakes:** 144
- City:** City of Detroit Lakes
- Townships:** Erie, Richwood, Detroit, Lakeview, Lane Eunice and Holmesville
- Major Lakes:** Big & Little Floyd, North Floyd, Big & Little Detroit, Sallie, Melissa, Long, Pearl, Fox, St. Clair, Munson, Abbey, Meadow, Johnson, and Reeves

## About the District



### District Information

**Office:**

Wells Fargo Bank Building  
211 Holmes St. West, Suite 201  
Detroit Lakes, MN 56501

**Office Hours:**

8:00 AM to 4:30 PM  
Monday—Friday

**Website:**

[www.prwd.org](http://www.prwd.org)

**Email Inquiries:**

General: [prwdinfo@arvig.net](mailto:prwdinfo@arvig.net)  
Permits: [prwdpermit@arvig.net](mailto:prwdpermit@arvig.net)  
Monitoring: [prwdmonitor@arvig.net](mailto:prwdmonitor@arvig.net)

**District Mission:**

*To enhance the quality of water in the lakes within it's jurisdiction. It is understood that to accomplish this, the District must ensure that wise decisions are made concerning the management of streams, wetlands, lakes, groundwater, and related land resources which affect these lakes.*

### Citizen's & Technical Advisory

**Becker County Commissioner:** John Okeson

**MN Pollution Control Agency:** Scott Schroeder

**City of Detroit Lakes:** Kelcey Klemm, Shawn King, Tom Gulon

**Becker Soil and Water Conservation District:** Bryan Malone

**MN Board of Soil and Water Resources:** Darren Mayers, Peter Waller

**MN Department of Natural Resources:** Rodger Hemphill, Rob Baden, Nick Kludt

**Becker County Coalition of Lakes Associations:** Wanda Roden, Dick Hecock, Larry Anderson

**Detroit Lakes Public Schools:** Kellie Wolf, Steve Fode, Shelly Gilson, Renee Kerzman

# Operations—Board of Managers

The PRWD Board of Managers meet at either 3:00 or 5:00 PM on the third Thursday of the month at the Watershed District office located in the Wells Fargo Bank Building, 211 Holmes St. West, 2nd Floor Conference Room, Detroit Lakes, MN.

<b>Jan. 21, 2021</b>	Regular meeting/teleconference only
<b>Feb. 18, 2021</b>	Regular meeting/teleconference only
<b>Mar. 18, 2021</b>	Regular meeting/teleconference only
<b>Apr. 8, 2021</b>	Special meeting/hybrid meeting-attend remotely or in person with social distancing
<b>Apr. 22, 2021</b>	Regular meeting/hybrid-attend remotely or in person with social distancing
<b>May 20, 2021</b>	Regular meeting/hybrid-attend remotely or in person with social distancing
<b>June 17, 2021</b>	Regular meeting/virtual option
<b>July 15, 2021</b>	Public Hearing—DCM-01 Project followed by Regular meeting/virtual option
<b>Aug. 19, 2021</b>	Regular meeting/virtual option
<b>Sep. 9, 2021</b>	Public hearing followed by Regular meeting
<b>Oct. 21, 2021</b>	Regular meeting followed by District project tour
<b>Nov. 18, 2021</b>	Regular meeting/virtual option
<b>Dec. 16, 2021</b>	Regular meeting/virtual option

**The Pelican River Board of Managers** consists of seven members that guide the implementation of the goals and objectives outlined in the PRWD Watershed Management Plan. Board Mangers are appointed by the Becker County Commissioners and serve a 3-year term and may be re-appointed to serve additional terms.

Due to COVID-19, the Board met both in person and virtually in 2021. There were two Public Hearings held, the first in July to allow public comment on the proposed establishment of a Data Collection and Monitoring fund (DCM-01), and the second in September to allow comment on the proposed 2022 Budget, Levies, Assessments and Fees.

A project tour was held October 21 and included visits to the Detroit Lakes High School, the city beach, South Shore Park, Bucks Mill Dam and the Rice Lake Upper Structure. Further details found in in this report.



<b>2021 Managers</b>	<b>Position</b>	<b>Phone Number</b>	<b>E mail Address</b>	<b>Term Expires</b>	<b>Subwatershed</b>
Dennis Kral	President	218-847-9187	dskral@arvig.net	May 2022	Big Floyd
Orrin Okeson	Vice-President	218-847-7983	okesonov@q.com	May 2024	Campbell
Rick Michaelson	Treasurer	218-847-4951	Rickathy@arvig.net	May 2022	Sallie
Janice Haggart	Secretary	218-846-1168	Janice.haggart@gmail.com	May 2022	Muskrat
Ginny Imholte	Manager	218-847-4236	imholtegl@gmail.com	May 2023	Detroit
Chris Jasken	Manager	218-234-3603	jaskenbuilt@gmail.com	May 2023	Long
Charlie Jasken	Manager	218-849-6155	jasken7@gmail.com	May 2024	Floyd/small lakes
Lowell Deede	Manager	218-847-2067	lowelldeede@q.com	May 2021*	Floyd/Small lakes

# Operations—District Staff

## Full-time Staff

### **Tera Guetter, Administrator (1999-present)**

Tera implements PRWD plans, policies and programs on behalf of the PRWD Board of Managers. She oversees all PRWD operations, including staff, the annual work plan and budget along with capitol improvement projects, grant programs, plan reviews, project coordination, and watershed restoration planning.

### **Adam Mortenson, Water Resource Coordinator (Nov 2019-Aug 2021)**

Adam manages the PRWD’s water quality monitoring program, Rules and permitting program, as well as directing in-lake aquatic plant control treatments. He conducts water data collection, analysis, GIS mapping, reporting and oversees the installation and maintenance of monitoring equipment. Adam resigned his position September 3, 2021.

### **Gina Kemper, Water Resource Coordinator (Oct 2021-present)**

Gina joined the PRWD staff in mid-October and assumed all the duties of the Water Resource Coordinator including water quality monitoring, Rules and Permitting, in-lake aquatic plant control treatments, as well as reporting. Gina has extensive experience in water quality monitoring, supervising and training volunteers and seasonal staff, habitat and forest management.

### **Brenda Moses, Sr. Office Coordinator (2013-present)**

Brenda manages the District’s financials including payroll, accounts payable, budget, grant tracking, and policies. She oversees the District’s outreach and education program including developing education materials and working with school-age children. She also assists with the Rules permitting program, contracts, board packets, website and social media updates, and keeps the office running smoothly.

## Seasonal Staff

### **Data Collection, Summer Interns—Meagan Powers & Isaac Cuchna**

The District relies heavily on Summer interns to collect water samples from area lakes and streams, conduct shoreline and aquatic plant surveys, and update monitoring databases. Generally, two college students in an environmental field of study are selected to assist staff with this very important work. Student interns work from mid-May to mid-August and may earn college credits while completing the District’s work.



### **Special Assessment Projects 1B (Melissa/Sallie) and 1C (Detroit/Curfman) Roadside pickup-Terry Anderson & Gary Gunderson**



The District has two special assessment projects to manage aquatic plants on Melissa, Sallie, Detroit, and Curfman. The projects provide both in-lake aquatic plant treatments and a seasonal aquatic plant roadside pickup service running from after Memorial weekend through September. This District hires two part-time workers for 2-3 days/week during the summer season.

After 30+ years of both full-time and seasonal employment, Terry Anderson has decided that 2021 would be his last summer season working for the District. His expertise with the equipment and knowledge of the shoreline properties will be greatly missed.

<b>District Consultants</b>		
<b>Marlon Mackowick-District Engineer Wenck Associates (Stantec)</b>	3303 Fiechtner Drive, Suite 100 Fargo, ND 58103	Ph: (701) 297-9600 Marlon.mackowick@stantec.com
<b>Karen Skoyles—Attorney Ramstad, Skoyles &amp; Winter, PA</b>	114 West Holmes St. Detroit Lakes, MN 56501	Ph: (218) 847-5653 Skoyles@arvig.net
<b>Tami Norgard-Attorney Vogel Law Firm</b>	218 NP Ave. No. Fargo, ND 58102	Ph: (701) 237-6983 tnorgard@vogellaw.com

# Administrator Guetter Receives National Recognition

In July 2021, The Aquatic Plant Management Society presented Administrator Tera Guetter, with the “Outstanding Technical Contribution Award”. This award recognizes an individual or group for completion of a research project or technical contribution related to aquatic plant management that constitutes a significant advancement to the field. She was nominated for the award by Dr. John Madsen, “Tera’s work on flowering rush in the Detroit lakes resulted in an effective management plan that benefited the native biota and user groups alike. Well done, Tera!! “ The plaque she was presented with reads:

*“Through her dedication, organization, and hard work, you organized a collaborative program of research on flowering rush in the Detroit Lakes and followed through with a management program that turned a long-term nuisance problem into an operational success for the lake users and the lake resource.”*



## The Journal of Aquatic Plant Management

Dr. Gray Turnage submitted a scientific paper to the Journal of Aquatic Plant Management in December of 2021, “Adaptive Management of Flowering rush in the Detroit Lakes, MN”. Dr. Turnage developed protocols for the long-term management of Flowering rush that minimizes herbicide use and potential future chemical resistance as well as maintains native plant abundance and diversity.



# Operations—Financial Management

District general operations is funded through an ad valorem levy assessed withing the watershed district. These funds, along with special assessments, basic water management fees, and grants are used to fund the District’s water management projects and programs. The District’s regulatory program is funded through a combination of permit review fees, basic water management fees, and through the general administration fund.

A public hearing was held September 9, 2021 in order to adopt a preliminary budget, levies, assessments and fees for the following year. After the public hearing was closed, the Board of Managers approved the 2022 budgets, levies, assessments and fees and this certification was sent to the Becker and Otter Tail County Auditors before the September 15th deadline.

## 2021 Fiscal Management Activities

- Payroll and bookkeeping activities completed
- 2020 Financial Audit completed by Clasen & Schiessl CPAs, Ltd., Pequot Lakes, MN—[www.prwd.org](http://www.prwd.org)
- 2022 Budget, Levies, Assessments, and Fees—Public Hearing September 9, 2021
- 2021 Revenues and Expenses—Appendix A

## Funds of the District

**General:** The General Fund is used to pay for administrative, operations, and contracted services, In 2021, the District levies \$257,000 and had \$74,500 of additional income. Expenses incurred totaled \$353,713.

**LMP-01:** The LMP-01 project was established on July 15, 2010 by a petition from the City of Detroit Lakes to undertake Aquatic Invasive Species (AIS) research, education, treatments, and management. In 2021, the District levied \$10,000 and had \$20,000 in expenses (\$10,000 was paid from previous year fund balance).

**Survey and Data Acquisition:** The District levies once every five years to pay for monitoring, surveys, and data collection work. The District did not levy in 2021 but had income of \$7,000 and had \$26,400 in expenses which were paid from the previous year fund balance.

**DCM-01:** The DCM-01 project was established on July 15, 2021 by petition from the City of Detroit Lakes for data collection and monitoring work. The District will begin levying taxes annually beginning in 2022.

**Stormwater Treatment Facility Project (UTILITY):** On February 16, 2000, the Stormwater Treatment Project (MS 103D.730) was established to implement water quality projects, stormwater management programs, and capital improvement projects to provide recreational benefits, navigational benefits, and preservation and improvement of water quality within the District. The costs of the Stormwater Treatment Facility Project are funded by district-wide Water Management District (MS 103D.729, MS 444.075, Subde.2a). The District constructed the Rice Lake Water Quality Improvement project in 2021 (\$695,000) and will continue to investigate nutrient reductions in St. Clair Lake, North Floyd Lake, and Ditch 14. In 2021, \$310,000 was collected to undertake projects and construction costs. In 2021, \$269,000 of expenses were incurred for these activities.

**Project 1B:** Project 1B was established by landowner petition on October 8, 1984 for control and management of aquatic vegetation in lakes Sallie and Melissa. IN 2021 a special assessment in the amount of \$35,000 was levied on riparian properties to undertake the project maintenance costs. The project had \$41,620 in expenses in 2021.

**Project 1C:** Project 1C was established by landowner petition on September 21, 1989 for the control of aquatic vegetation in Detroit and Curfman lake. In 2021, a special assessment of \$45,000 was levied on riparian properties to undertake the project costs. Costs incurred totaled \$41,840.

## Drainage Systems

**Ditch 11-12:** Campbell Creek (Moon Lake to Floyd Lake) - No Assessment in 2021.

**Ditch 13:** Pelican River (Little Floyd Lake to Detroit Lake) - No Assessment in 2021.

**Ditch 14:** (St. Clair Lake area) - No Assessment in 2021.

**Drainage Buffer Enforcement:** The District received \$3,902 in 2021 from the State of MN to enforce the buffer requirements on Ditches 11,12,13 and 14. Expenses in 2021 were \$1,000.

See Appendix A: 2021 Revenues & Expenses

# 2021 Highlights January–June

## JANUARY

- **Work Plans:** The Board reviewed the 2020 Work Plan noting most activities were completed, except COVID-19 impacted items. 2021 activities include Otter Tail 1W1P planning process and associated time and costs to the District.
- **Rice Lake CIP:** A work plan for the Rice Lake CIP will be developed in January and the grant agreement will be executed.
- **2021 Education Plan:** The plan is being developed and will be presented to Managers in February.
- **DCM-01 Project-Data Collection and Monitoring:** Guetter is working with Stantec to complete the Engineer Report.

## FEBRUARY

- **Red River Watershed Management Board:** Rob Sip presented to the Managers the history of the RRWMB, member watershed districts and the benefits of membership.
- **Otter Tail 1W1P MOA:** PRWD managers do not want the 1W1P to replace the District's 10-year Revised Water Management Plan (adopted in March 2020). Managers approved the MOA noting changes regarding segregation of duties and the 1W1P would not replace the District's RMP.
- **Social Media:** Staff continues to work with Woolly Mammoth on website updates.
- **Monitoring Equipment:** A new YSI Pro DSS Sonde and new Sontek Flowtracker 2 (both made by Xylem) have been purchased to replace the outdated monitoring equipment.



## MARCH

- **Rice Lake CIP:** Bid opening was held March 23 at the District office. The low bidder was Williams Excavation and Seeding, Ashby, MN for \$501,499.27. A pre-construction meeting will be held in April.
- **Citizen's Advisory Committee Meeting:** Moses met with a group of teachers and community leaders on March 10 seeking input on PRWD education/action grants. The Managers were favorable to education grants and staff will prepare a proposal for April Manager's meeting.
- **Staff Training:** Staff attended BWSR on-line training 3/30/21, and Guetter attended a Drainage Inspectors meeting on 3/15.
- **Summer Interns:** Meagan Powers will be returning for a second year and Isaac Cuchna, an NDSU student studying Natural Resource Management, has also been hired as a summer intern.

## APRIL

- **Social Media Updates:** A new Facebook page was created due to issues with the old page. Staff continues to work on the new website page and is making great progress.
- **Lake Reports:** Lake reports are being developed for Detroit/Rice, Sallie/Melissa, Floyd/Campbell and Long Lake in anticipation of upcoming lake association meetings.
- **Aquatic Plant Management:** All treatment permits have been obtained from the MN DNR.
- **2021 Ice out:** Ice-out occurred on Big Detroit and other area lakes on April 4, 2021.



## MAY

- **Rice Lake CIP:** Williams Excavating has executed the construction contracts and obtained the required bonding. A pre-construction meeting is scheduled for May 13 with the City of Detroit lakes, MN DNR, and BWSR.
- **Sucker Creek Education Event:** The event was held on May 19 & 20. Mortenson and the summer interns taught students how to collect water samples, take flow measurements, and assess biological conditions.
- **DCM-01 Project:** The Managers approved the Engineer's Report for the Project and it will be forwarded to BWSR and the MN DNR who have 30 days to review and comment.
- **North Country MN Association of Watershed Districts (MAWD-Region 1):** Region 1 administrators met and are working on setting up a June meeting with the intent to meet on a quarterly basis. There will be no MAWD Summer Tour in 2021.

## JUNE

- **Outreach & Education:** Guetter attended the Sallie/Melissa Lake Association meeting, and Mortenson attended the Long Lake meeting on June 19. Guetter discussed the District's AIS Readiness Response Plan with Becker COLA on June 24 and was also the program guest at Kiwanis on June 29.
- **Aquatic Plant Management:** Flowering rush was chemically treated on Detroit, Curfman, Sallie and Melissa on 6/28/21.
- **Oath of Office:** Orrin Okeson was reappointed and Charles Jasken was appointed to his first three-year terms by the Becker County Commissioners. Both were sworn in at the June 17 board meeting.
- **Bylaws & Policy Update:** The Managers approved an update to the Bylaws, which have not been updated since 2001. The Interactive Technology Meeting Policy was also updated and approved.



# 2021 Highlights July–December

## JULY

- **DCM-01 Project:** A public hearing was held 7/15/21 and a Resolution Ordering the Establishment of Lake Management Project DCM-01 was unanimously approved by the Board of Managers following the hearing.
- **1W1P Meetings:** Steering Team meeting, Policy Committee meeting, and Technical Advisory Committee meetings have involved both staff and managers.
- **South Shore Park:** Staff has been working on a planting plan with Tom Gulon, City of Detroit Lakes, and Bill & Nancy Henke. The plan was finalized and presented to the City of Detroit Lakes Park Board on July 7. The plan was approved as presented.
- **Dry Conditions:** July 2021 was the 3rd warmest and the 3rd driest in Minnesota history. Lake levels are low throughout the District and lake water surface temperatures reached 80 degrees, however, lake water quality remains very good.



## AUGUST

- **Position Opening:** Water Resource Coordinator, Adam Mortenson, has resigned his position with the District as of Sept. 3. On-line advertisements to fill the position have been created.
- **Rice Lake CIP:** Ted Rud, Houston Engineering, gave a project update at the August Board meeting. The upper structure access road, staging area, and berm are almost completed.
- **Monitoring:** Lake water quality continues to be high throughout the District. Staff has discontinued monitoring streams as most are very low with little flow.
- **Seasonal Staff:** Terry Anderson, a long-time seasonal staff person with aquatic vegetation projects, has notified the District he will not be returning in the spring. He will be greatly missed.

## SEPTEMBER

- **Aquatic Vegetation Roadside Pick Up Program:** Due to low water levels, increased vegetation growth, and recent high winds, shorelines have been hit with excessive native plant blow-ins, resulting in extra days for seasonal staff picking up aquatic vegetation.
- **Education Grants:** Moses continues to meet with Detroit Lakes school and US Fish and Wildlife staff to explore grant activities to assist students in reaching science standards.
- **Hiring WRC:** Seven first round interviews and three second round interviews were conducted by Manager Haggart, Guetter and Moses to fill the Water Resource Coordinator position vacancy. Applicants were well qualified, making the decision difficult.
- **1W1P kick off meetings:** Meetings were held in Detroit Lakes on Sept. 20 and in Fergus Falls on Sept. 28 to receive community input on the 1W1P process.



## OCTOBER

- **Rice Lake CIP:** The concrete water control structure was installed and Nick Kludt, MN DNR, is overseeing the final construction of the rock fishway. Final site construction is on schedule, pending favorable weather conditions.
- **BWSR Media:** Ann Wessel, Information Officer with the Board of Soil and Water Resources (BWSR) was here October 12 and interviewed Managers Kral & Imholte, Administrator Guetter, and Rob Baden, MN DNR, about the Rice Lake Project. The Project will be featured on numerous communication/social media platforms.
- **Water Resource Coordinator Hired:** Gina Kemper joined the District on October 11. She is a graduate of Bemidji State in Biology and has several years of water quality monitoring experience. She is originally from the Mahnommen area and a welcome addition to the staff.

## NOVEMBER

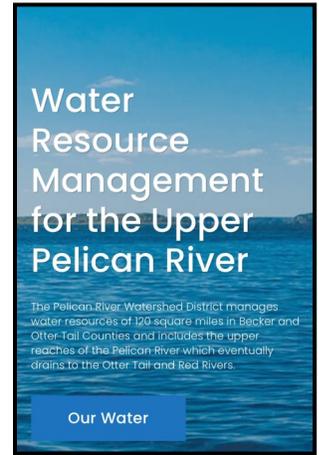
- **Rice Lake CIP:** On November 1 a project walkthrough was completed with Ted Rud (HEI), Victor Gronvold (HEI), Guetter (PRWD), Bryan Erickson (Williams Excavating), Rob Baden (MN DNR), and Nick Kludt (MN DNR). The upper structure access drive, structure/rock fishway, and Anchor Road/Ditch 13 improvement areas were reviewed. A “punch list” of items to be completed was created and a follow up has been done to be sure all items were satisfactory.
- **Campbell Creek (319 MPCA/Federal Program):** Guetter met with MPCA staff to review the work plan requirements and Guetter is writing the project work plan.

## DECEMBER

- **Roadside Pick up Program:** Manager’s Michaelson and Imholte met with Terry Anderson and District staff to discuss the future of the Roadside Pick up program for aquatic vegetation.
- **Rice Lake CIP:** A request was sent to BWSR for a grant amendment to expand the scope of the project to include Phase 2 of the wetland restoration project. Project status updates will be reported in E Link at year-end.

# 2021 Education & Outreach

**Education and Outreach.** 2021 events had a slow start as many local residents and area schools were still reeling from the effects of the world-wide COVID-19 pandemic. However, as the vaccine became more available in the spring of the year, people began to plan summer activities and events. District staff communicated with the public through their new Facebook page and the updated website (launched in May), and through their monthly radio spot on “Hodge Podge”.



**Sucker Creek Education Event:** This annual spring event for 9th grade students was held on May 19 & 20. Mortenson and the summer interns assisted by teaching students how to collect water samples, take flow measurements, and assess biological conditions. Students were taught the importance of good water quality and the importance of the Sucker Creek Preserve. Due to poor weather conditions, the Sucker Creek fall event was cancelled.



**Lake Association Meetings:** On June 19, Mortenson attended the Long Lake meeting, while Guetter spoke to the Sallie-Melissa Lake Association. Mortenson also attend the Floyd Shore meeting held August 14. Attendance was high at the meetings in 2021 as people were happy to gather again and hear the latest updates for their lake including water trends, AIS management progress, and District projects

**Lake Handouts:** District staff prepared lake handouts for lake association groups that included water quality monitoring data as well as permitting information and other District news.

**Becker County Fair:** The Fair was held July 28-31, 2021 and was well attended after being cancelled in 2020. The Summer Interns were responsible for manning the PRWD table in the MN DNR building. Children heard about the importance of quality drinking water and were able to make an environmental button to bring home. Adults helped themselves to various literature provided and interacted with the PRWD interns.

**Service Groups:** Guetter spoke with the Kiwanis group on June 29 and presented the District’s 2020 Annual Report. She was also the guest speaker for the Becker Coalition of Lakes Associations via interactive technology on June 24. The District’s AIS Readiness Response Plan that was finalized in June 2020 was the topic of discussion.

**Cormorant Education Event:** Water Resource Coordinator, Gina Kemper, spent part of her first week (Oct. 14 & 15) with the District at the Cormorant Sportsman’s club educating local 4th grade students. Her station introduced the students to the workings of a compass and how it can guide you in the wilderness.



**Incentive Programs– Grants for Education:** In March 2021, Sr. Office Coordinator, Brenda Moses, held a Citizen’s Advisory meeting consisting of leaders of various service groups and local educators to hear their wants and needs regarding youth environmental education, in particular water resources. Surfacing to the top of the discussion was 1) classroom materials such as microscopes and “science kits”; 2) funds for environmental field trips; 3) pollinator gardens; and 4) reimbursement for environmental projects around the community.

A proposal and a budget was prepared for the Board of Managers, who were favorable to the idea of supporting local science education. Moses continues to work with educators in developing a program that includes environmental field trips in our area including Sucker Creek, Hamden Slough, and Tamarac National Wildlife Refuge; along with needed classroom supplies that will enhance science education.

# District Project Tour

On October 21, 2021, the PRWD managers and staff headed out of the board room and hit the road to view current projects around the District. The first stop was the **Detroit Lakes High School** to see the newly installed stormwater management practices. The second stop was the **Detroit Lakes City Beach** to check out the inlet. From there, the group drove to **South Shore Park** to view the progress, walk the site, and hear proposed plans for the park.



DL High School



South Shore Park



DL City Beach

On the fourth stop, **Bucks Mill Dam**, the group was joined by Dr. Nick Kludt of the MN DNR, who gave a brief history of the dam, pointed out the structural failures and danger of the current structure, and the discussed the proposed changes.

The tour concluded at **Rice Lake**, a wetland restoration nutrient reduction project that took over 20 years to become a reality. Phase I of the project was nearly complete at the time of the tour. Dr. Kludt explained to the group how the fish passage was constructed and how it would function. The District plans to move forward with Phase II to complete the project in fall 2022 or spring 2023.



Rice Lake—concrete control structure



Bucks Mill Dam



Rice Lake—rock fish passage



Bucks Mill Dam

# Engineer Report: Projects & Permitting

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 relating to shoreline alterations and impervious surface requirements.

Although more permits are issued each year for Shore Impact Zone Alterations than any other category, a larger quantity of staff time is spent on the sites requiring a stormwater management plan. These applications often need one or more revisions to meet all the necessary requirements, and likewise, the construction of the larger sites, such as the City of Detroit Lakes South Shore Park project and the Police Department, continue from one calendar year to the next before they are completed.

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



The two photos above show different views of South Shore Park, including the playground area and the new shelter. To the left is the Police Station as it was nearing completion. The storm water pond to the right is located on the west side of the Trinity Lutheran church addition and the photo on the lower right shows a functioning stormwater pond on the west side of the Detroit Lakes High School.



The effectiveness of the stormwater practices that are incorporated into these large

building sites around the City of Detroit Lakes is very evident during large storm events. Flooding streets are rare and with that comes less stormwater running into our lakes.

# Drainage Authority

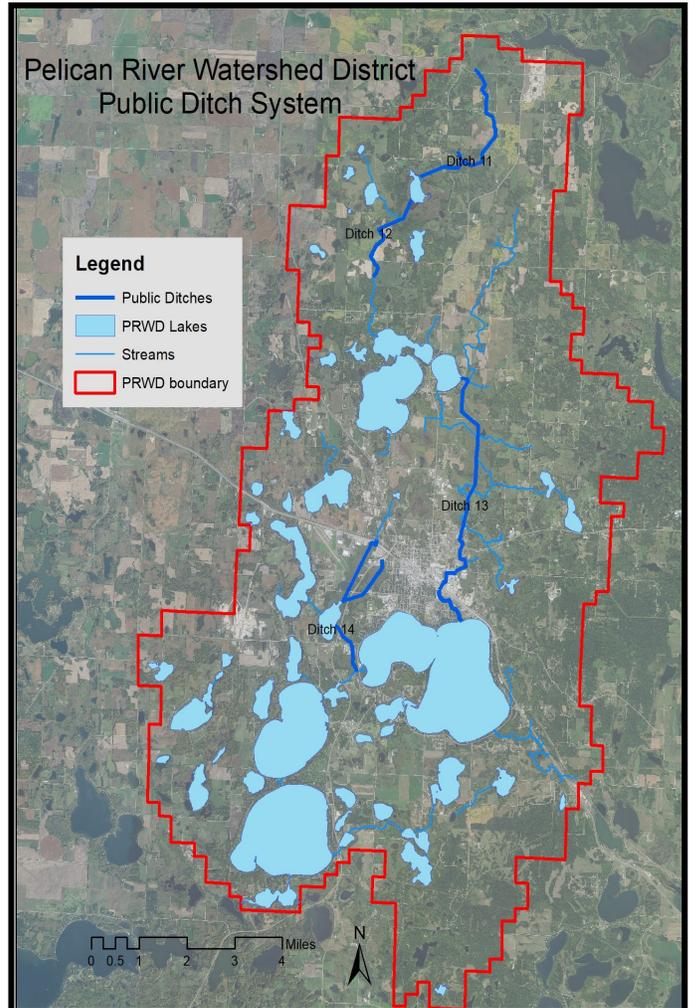
## Becker County Systems 11-12, 13, & 14

In the late 1990's, Becker County Commissioners transferred the drainage authority responsibilities of Becker County Ditch 11/12 (Campbell Lake/Creek area), 13 (Floyd Lake, Rice Lake, City of Detroit Lakes area), and 14 (St. Clair Lake, City of Detroit Lakes area) to the Pelican River Watershed District.

These drainage systems were constructed from 1913 to 1918 for agricultural improvements. The management of these systems follows MN Statute 103E and the costs associated with the drainage systems are paid for by the benefitting properties.

The District annually inspects the ditch systems condition, noting vegetative buffers, erosion, blockages, tree snags, or beaver activity. The District has adopted a Drainage Policy to guide maintenance activities. The District contracts with local trappers to remove the beaver and remove small dams. It is sometimes necessary to hire contractors who operate excavators or use explosives to remove larger blockages, sediment, or tree snags.

The District submitted the 2021 annual buffer compliance report to BWSR in January 2022.



### 2021 Ditch Maintenance

In 2021, there were 15 beaver trapped out of the four ditch systems, which is considerably fewer than the two previous years. In 2019 there were 36 beaver trapped and in 2020 there were 45 beaver trapped.

**Ditch 11**— In early April to early May, 6 beaver were trapped near Whiskey Creek Drive. In later June, 2 more beaver were removed from the same area.

**Total Ditch Expense: \$800**

**Ditch 13**—In July, 3 beaver were removed from the Pelican River at 8th St. and a dam was partially removed by hand, however it was necessary to hire a backhoe to break up the dam and remove the debris. In the same area, 4 more beaver were trapped out in November and it was again necessary to hire a backhoe for dam removal.

**Total Ditch Expense: \$1975**

**Ditch 14**—No maintenance was needed in 2021.

# 2021 Climate

## First Qtr 2021 – Winter Months: Jan – March

Average temperatures for the first quarter of 2021 were mostly above historical averages, except in February, where a cold snap had temperatures below zero for almost 12 consecutive days. This broke the 1995-96 previous historical record for Detroit Lakes of 7 consecutive days of below zero temperatures. The lowest recorded temperature was on February 13<sup>th</sup> with a low of -32.8°F, and the highest temperature during this period was on March 28<sup>th</sup> with 73.4°F. Fluctuations are not uncommon in the first quarter of the year.

First quarter started with below average precipitation, with total rainfall being 0.55", 1.98" less than historic average and snowfall being 12", 13.91" below average.

## Third Qtr 2021 – Summer Months: July – Sept.

Third quarter temperatures in July and part of August trended close to historical average temperatures, but in the second half of the quarter, the low temperatures started to dip down below the historical average temps. The average highs and lows for July were 83°F and 63°F. The hottest day in July was on the 23<sup>rd</sup> with a reading of 93.2°F and the coolest day in July was on the 9<sup>th</sup> with a reading of 53.6°F. The average highs and lows for the month of August were 81°F and 62°F. The highest temperature recorded for August was also 93.2°F, on the 18<sup>th</sup>. The lowest temperature for August was on the 1<sup>st</sup>, 13<sup>th</sup> and 30<sup>th</sup>, with all three days having the same temperature of 51.8°F. In September the high was recorded at 86°F on the 28<sup>th</sup> and the lowest was recorded at 42.8°F on the 18<sup>th</sup>.

Precipitation greatly varied between July through September. In July, rainfall was well below the historical average totaling only 2.04 inches (1.85 inches below the average monthly rainfall of 3.89 inches). August trended closer to normal rainfall, with 3.06 inches, just above the historical rainfall average by 0.15 inches. September trended drier with a total of 2.12 inches, 0.57 inches below the monthly average of 2.69 inches. According to the Minnesota State Drought Index, this precipitation was still not enough to bring us out of a severe drought status.

## Second Qtr 2021 – Spring Months: April – June

Second quarter temperatures largely trended below the historical average for the first half of the quarter, with exceptions at the beginning of April and May. Average highs and lows for April were 52°F and 31.4°F, with the second quarter low being 15°F on April 1<sup>st</sup>. May average highs and lows were 68.8°F and 45.5°F. Starting mid-May, temperatures trended higher than average, and continued into June, with exceptions at the end of May and June, where temperatures dipped below average for a few days. June average high was 83.3°F and average low was 59°F. June had the highest recorded temperature of the quarter with 96.8°F. 2021's June was also the second warmest on record, only behind 1933.

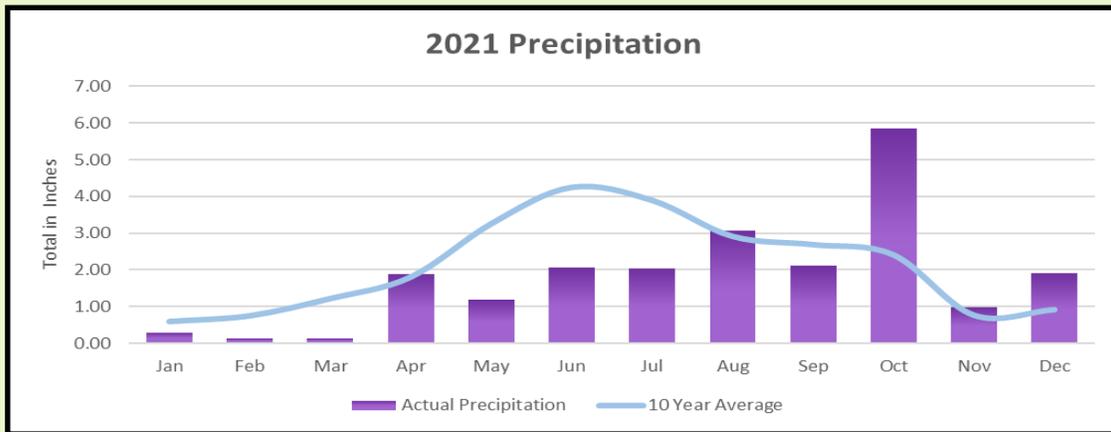
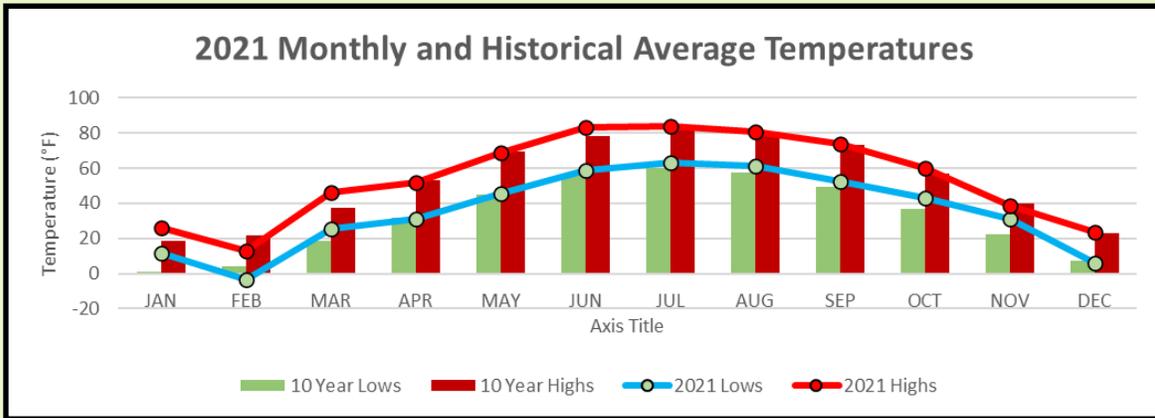
Second quarter rainfall started out promising, with 1.8" falling in April, but May and June trended well below average. May had only one storm event which was in spotty in areas ranging from 1" to 2", with 1.19" being recorded at the Detroit Lakes Wething Airport. The dry spell continued in June with 2.07" being recorded, which is 2.18" less than the monthly average of 4.25 inches.

## Fourth Qtr 2021 – Fall Months: October – December

Fourth quarter high temperatures followed the historical average temperatures, but the lows were greatly above the historical average. For the month of October, the average high temperature for the year was 60°F which was 3 degrees warmer than the historical average of 57°F. The warmest days were on October 4<sup>th</sup> and 5<sup>th</sup> with both recording a temperature of 78.8°F. The average low for the month of October was 43°F, which was 6 degrees warmer than the historical average of 37°F; with the lowest temp for October 2021 being on the 21<sup>st</sup> with a temperature of 24.8°F. The November average highs of 38°F were slightly lower than the historical average high temps of 40°F. The lows for November were 31°F, which was 8 degrees warmer than the historical average of 23°F. The highest temperature for November was 58.6°F on the 6<sup>th</sup> and the lowest was 10.7°F on the 25<sup>th</sup>. In the month of December, the average highs were 24°F and the lows were 6°F. The historic average high and low are 23°F and 7°F, so only 1 degree variation. The highest temperature for December was 50°F on the 1<sup>st</sup> and the lowest was -24°F on the 31<sup>st</sup>.

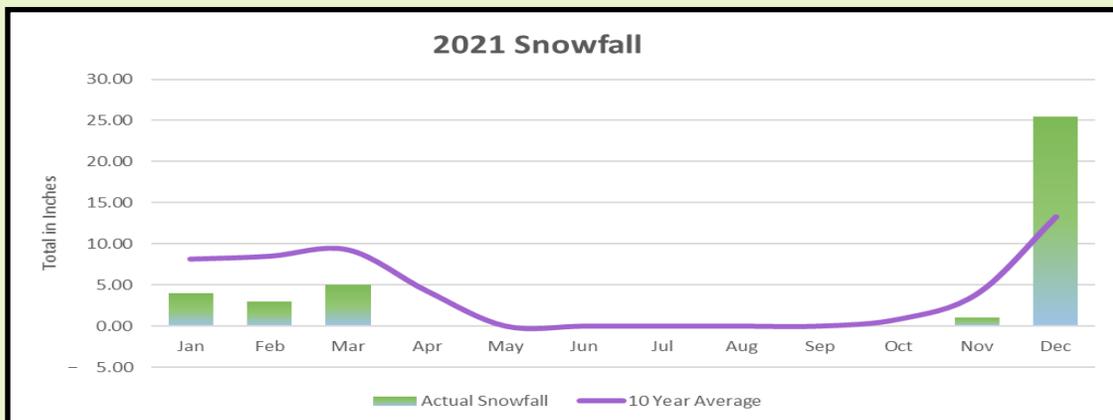
October brought some relief from the drought conditions, with a total of 5.84 inches of rainfall, which was well above the historical average of 2.41 inches. In November, 0.76 inches of precipitation was recorded with the first snowfall of 0.99 inches, well below the historical average of 3.95 inches. During December, we received 1.91 inches of precipitation and 25.45 inches of snow. This was well above the historical average for both precipitation (0.91 inches) and snow (13.29 inches).

# 2021 Climate



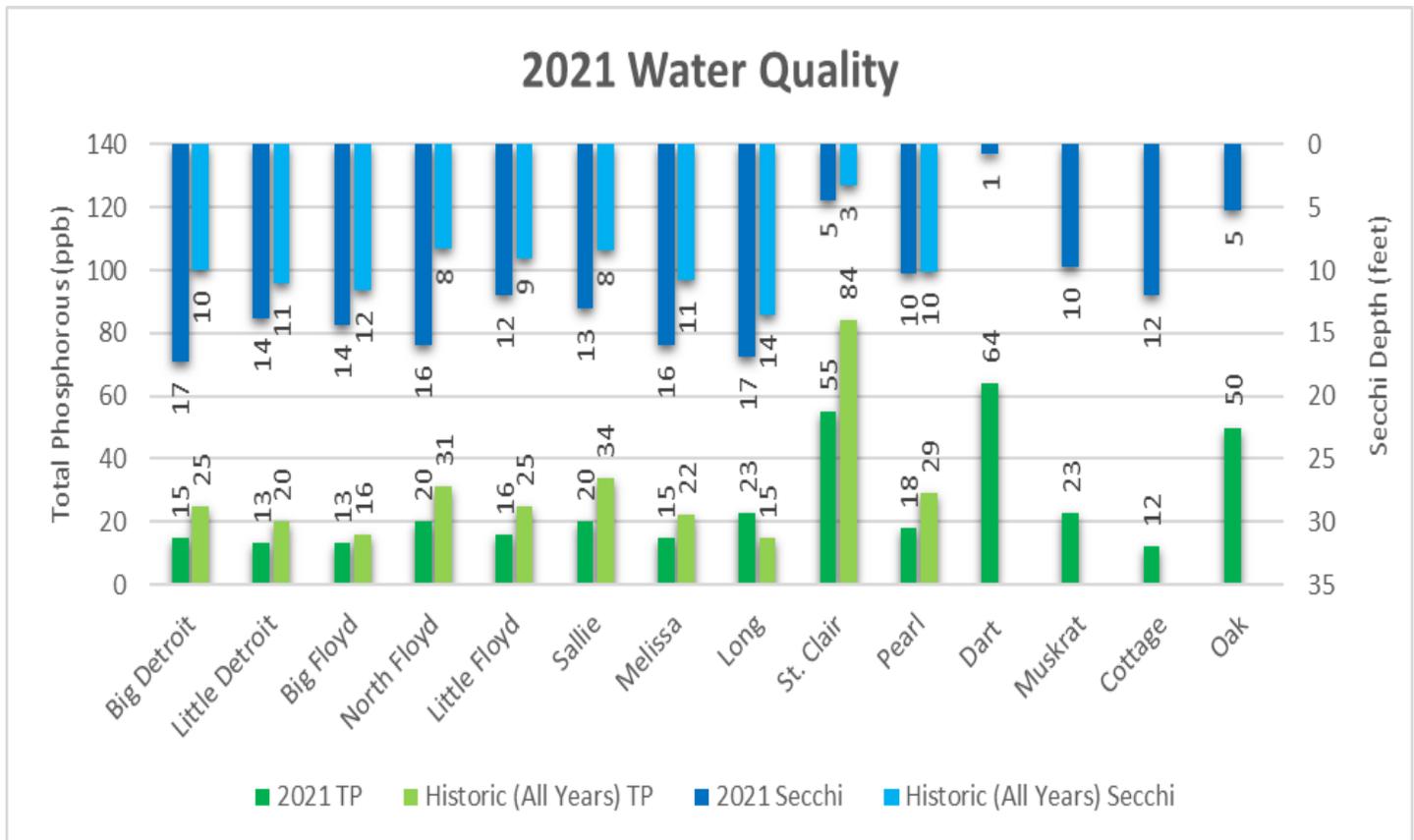
### Rainfall events in Detroit Lakes >0.5" April-October 2021.

Date	Inches	Date	Inches	Date	Inches
4/7/2021	1.06	7/24/2021	1.36	10/10/2021	2.43
4/8/2021	0.59	8/20/2021	1.12	10/13/2021	0.96
5/20/2021	1.19	8/26/2021	0.56	10/14/2021	0.76
6/8/2021	0.54	8/29/2021	0.51	10/27/2021	0.83
6/11/2021	0.75	9/2/2021	1.12	10/28/2021	0.51



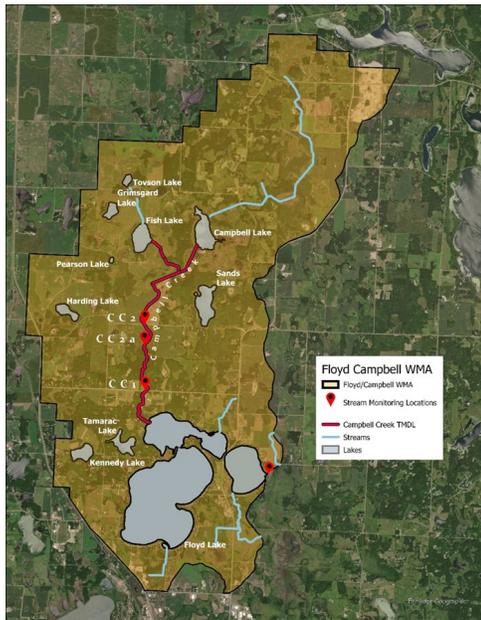
# 2021 Water Quality Summary

Water Management Area	Lake	2021 Average			Historical Averages (2001-2020)			MNPCA Lake Standards		
		TP (ppb)	Chl-a (ppb)	Secchi (feet)	TP (ppb)	Chl-a (ppb)	Secchi (feet)	TP (ppb)	Chl-a (ppb)	Secchi (feet)
Detroit/Rice	Big Detroit	15	3.85	17	25	8.26	10	<40	<14	>4.6
	Little Detroit	13	2.24	14	19	4.68	12	<40	<14	>4.6
Floyd/Campbell	Big Floyd	13	3.91	14	15	5.24	12	<40	<14	>4.6
	North Floyd	20	5.29	16	31	13.98	8	<40	<14	>4.6
	Little Floyd	16	4.58	12	24	8.91	9	<40	<14	>4.6
Long	Long	23	3.68	17	13	4.08	14	<40	<14	>4.6
Sallie/Melissa	Sallie	20	4.73	13	32	12.35	9	<40	<14	>4.6
	Melissa	15	4.83	16	20	6.69	11	<40	<14	>4.6
	St. Clair*	55	19.03	5	86	40.67	3	<60	<20	>3.3
	Muskrat	23	5.98	10	--	--	--	<40	<14	>4.6
Brandy	Oak	50	44.83	5	--	--	--	<60	<20	>3.3
Pearl/Loon	Pearl	18	3.14	10	29	9.10	10	<60	<20	>3.3
	Dart	64	20.87	1	--	--	--	<60	<20	>3.3
Small Lakes	Cottage	12	6.07	12	--	--	--	<60	<20	>3.3
	*Shallow Lake									



# Floyd-Campbell Water Management Area

## 2021 Activity Summary



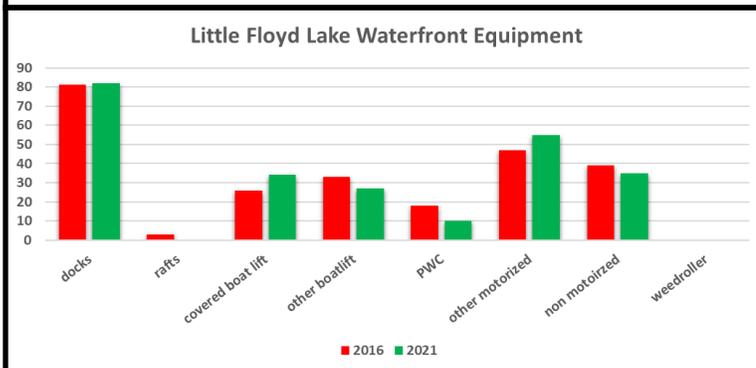
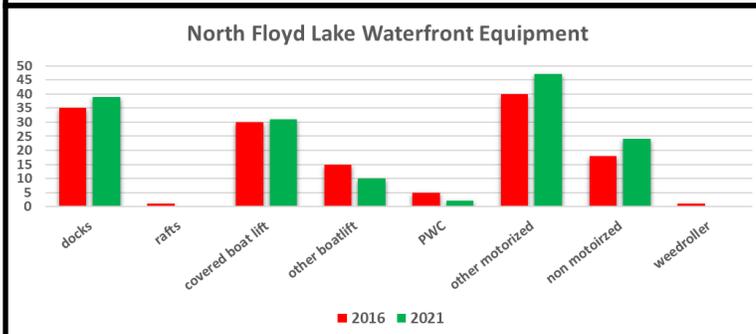
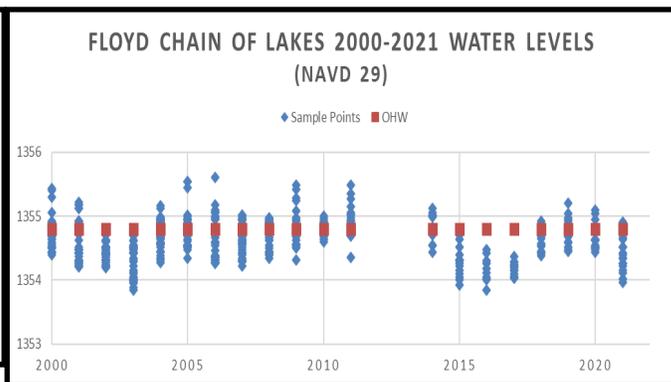
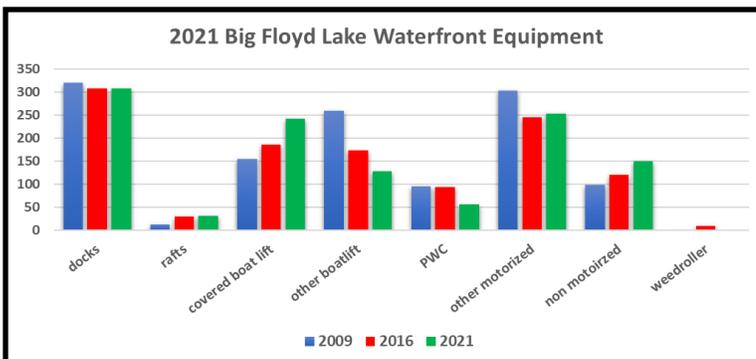
In 2021, the District performed water quality surveys and shoreline surveys for the Floyd Chain of Lakes.

The 2021 average Total Phosphorus (TP) on Big Floyd Lake was 0.013mg/L, slightly better than the 20-year average of 0.15mg/L. North Floyd Lake’s TP was 0.020 mg/L, well below the 20-year average of 0.031 mg/L.. Little Floyd Lake’s average TP was 0.016 mg/L, a marked improvement over the 20-year average of 0.023 mg/L.

Campbell Creek continues to negatively impact the Floyd Chain of Lakes due to the heavy sediment loads it receives from streambank erosion. The District has received funding through the 319 Grant and continues its cooperative partnership with the MN DNR staff to address the sediment impairments.

**More information is in the “2021 Pelican River Watershed District Monitoring Report” on the District’s website at [www.prwd.org](http://www.prwd.org)**

The Floyd /Campbell Water Management area



# Detroit/Rice

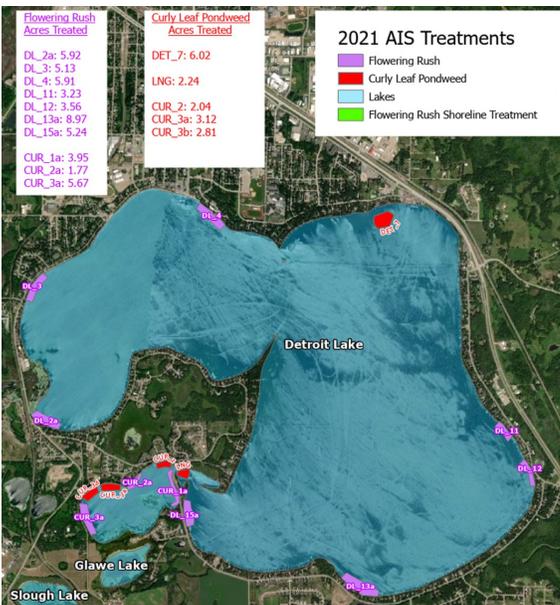
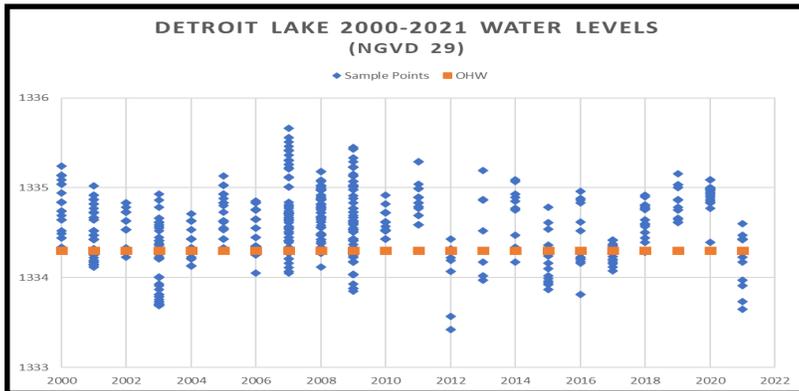
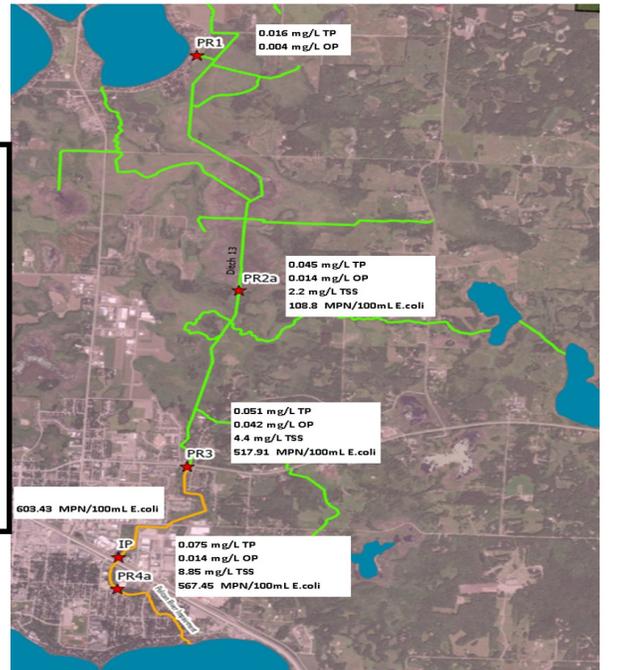
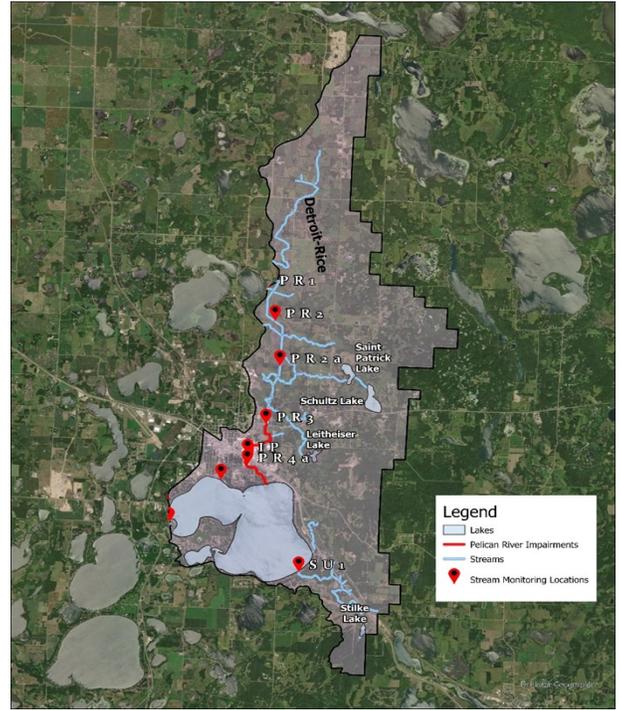
## Water Management Area

In 2021, the District performed water quality surveys on Big and Little Detroit Lake as well as the Rice Lake stream system. AIS chemical treatments were also conducted on Big Detroit and Curfman.

The 2021 average Total Phosphorus (TP) on Big Detroit Lake was 0.015mg/L, slightly better than the 20-year average of 0.024mg/L. Little Detroit Lake's TP was 0.013 mg/L, a slight improvement from the 20-year average of 0.019 mg/L

Big and Little Detroit do share a common outlet and OHW. The water level is measured at the outlet under County HWY 6/West Lake Drive. For 2021, water levels remained high through the month of June. Water levels fell below the OHW in July and remained there through the end of the year. The last reading the District took was on October 25<sup>th</sup>, at an elevation of 1333.65' MSL. The decreased rainfall events, causing a state-wide drought are to blame for the low water levels.

More information is in the "2021 Pelican River Watershed District Monitoring Report" on the District's website at [www.prwd.org](http://www.prwd.org)



## AIS Treatments

	CLP Trmt Acres 5/26/2021	CLP Cost	FR Trmt Acres 6/28/21 8/9/21	FR Trmt Cost	Totals Per Lake
<b>Detroit</b>	8.2	\$10,209.00	37.8 31.1	\$5,412.96 \$4,453.52	\$20,075.48
<b>Curfman</b>	7.9	\$6,972.00	11.3 1.8	\$1,618.16 \$257.76	\$8,847.92

# Detroit/Rice Water Management Area

## Rice Lake Wetland Restoration Project



### Rice Lake Capital Improvement Project (CIP) - Phase 1 Upper Structure Completed!

The District was awarded a MN Clean Water Land and Legacy Trust grant for construction of the Phase 1 Upper Water Control Structure in 2021. The project was advertised for bids and in March 2021, the project was to Williams Excavation and Seeding based out of Ashby, MN in the amount of \$501,499.27.

After the May 13th pre-construction meeting, letters were sent to nearby landowners to let them know the project is finally underway and expectations over the summer construction period. Williams Excavating began construction of the Phase 1- upper structure access road (Industrial Park and along Ditch 13) and Anchor Road Improvements. Anchor Road Improvements included removal of 3 existing culverts in Ditch 13/Pelican River, removal of the road segment to Becker CSAH 21 and re-establishment /seeding of the road slope. On June 3rd, construction started on the Pelican River/Rice Lake Wetland in-channel impoundment section (earthen dam, rock fishway). Project construction schedule was modified as there were ongoing delivery delays with the concrete water control structure until October. However, the contractors, HEI, and MN DNR staff revised an alternative construction method to continue project construction on the rock fishway and historic outlet portions of the project and then install the water control structure and the concrete piping for the waterway bypass in early October and finish final site clean up by November.

This project is projected to reduce summer phosphorus loading to Detroit Lake by 600– 1,000 lbs annually, depending upon weather conditions.

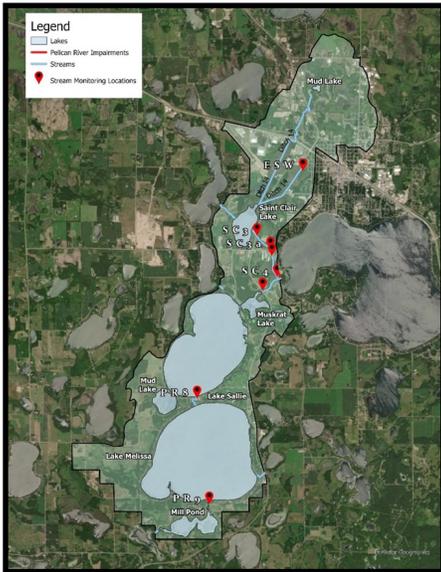


### Project Partners

- Clean Water Legacy Amendment
- Lessard-Sams Outdoor Heritage Funds
- NRCS- USDA University of MN
- MN Pollution Control Agency- Clean Water Partnership
- MN DNR –Landowner
- City of Detroit Lakes– Landowner
- 34 private landowners
- Detroit Township
- Pelican River Watershed District and its residents

# Sallie/Melissa Water Management Area

## 2021 Activity Summary



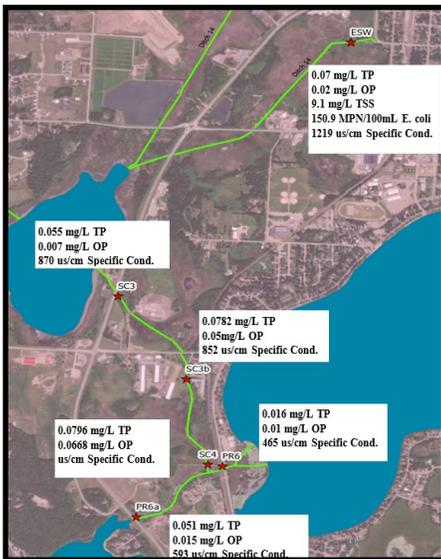
Sallie/ Melissa WMA

In 2021, the District was very busy in this area performing water quality surveys (Stream/ ditch system, St. Clair, Muskrat, Sallie, and Melissa), Vegetation surveys (Lake Sallie and Melissa), and Aquatic Invasive treatments (Muskrat, Lake Sallie and Melissa). In 2021, average Total Phosphorus (TP) on St. Clair Lake was 0.055mg/L, a great improvement from the 20-year average of 0.084mg/L. Muskrat Lake's TP was 0.026 mg/L, below the 20-year average of 0.044 mg/L and Lake Sallie's average TP was 0.020 mg/L, an improvement over the 20-year average of 0.032 mg/L. Lake Melissa's average TP was 0.015mg/L, which is slightly better than the 20-year average of 0.020 mg/L.

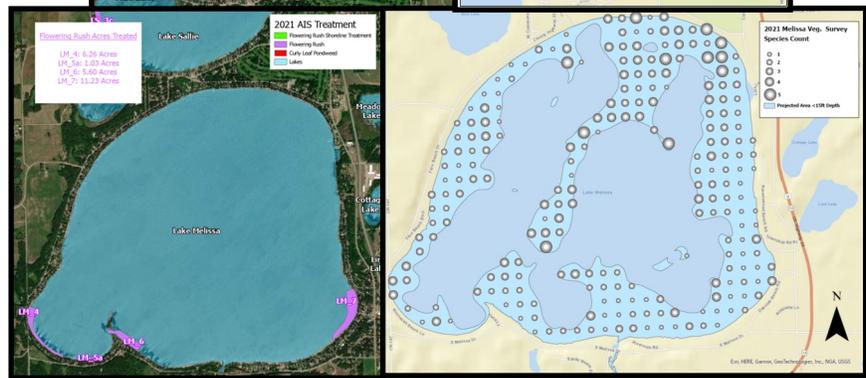
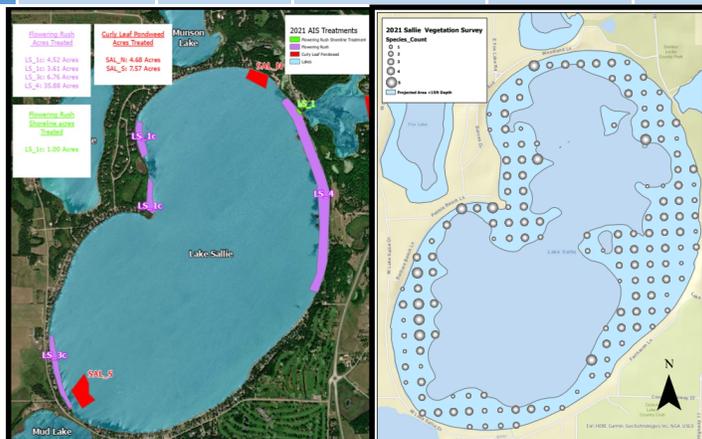
A Vegetation survey was conducted over a 3-week period during July, 2021 on Lake Sallie and Melissa. Both lakes had high star duckweed densities and was a common plant across the lakes.

More information is in the "2021 Pelican River Watershed District Monitoring Report" on the District's website at [www.prwd.org](http://www.prwd.org)

	CLP Acres 5/26/21	CLP Cost	FR Trmt Acres 6/28/21 8/9/21	FR Trmt Cost	Totals Per Lake
Sallie	4.7	\$8,917.50	50.93 37	\$7,245.92 \$5,298.40	\$21,461.82
Melissa			24.0 24.0	\$3,436.80 \$3,436.80	\$6,873.60
Muskrat	8.9	\$1,274.48			\$1,274.48

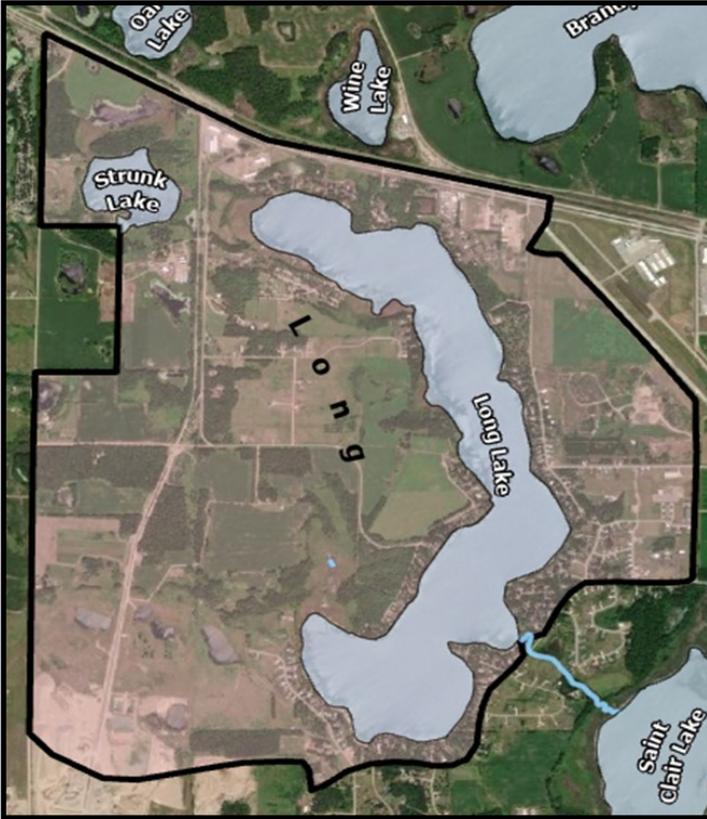


Stream/Ditch system for Sallie/Melissa



# Long Water Management Area

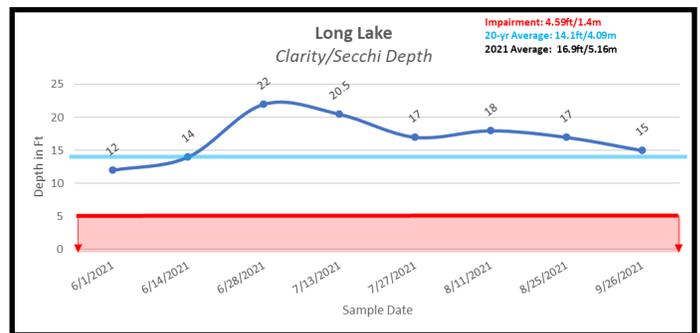
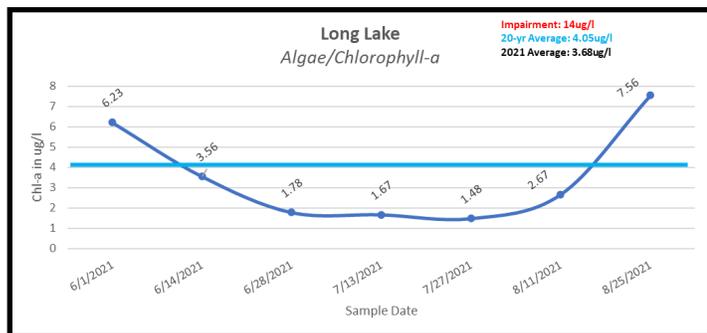
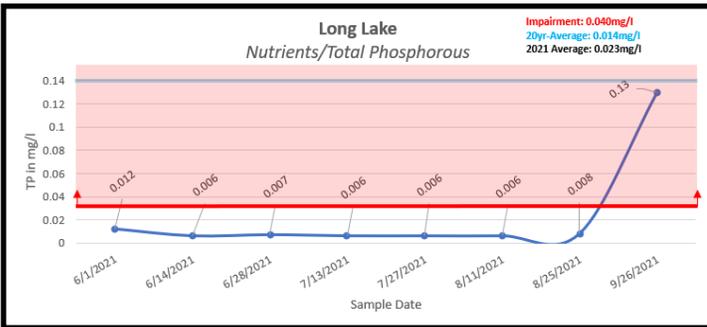
## 2021 Activity Summary



Water quality surveys were completed in 2021 on Long Lake.

The 2021 average Total Phosphorus (TP) on Long Lake was 0.023mg/L, greatly improved from the 20-year average of 0.014mg/L. The average CHL-a was 3.68ug/l, which was a slight decrease from the 20-year average of 4.05ug/l. The average Secchi (clarity) depth was 16.9feet which is a little over 2 feet better than the 20-year average of 14.1 feet.

More information is in the **“2021 Pelican River Watershed District Monitoring Report”** on the District’s website at [www.prwd.org](http://www.prwd.org)



# Pearl/Loon Water Management Area

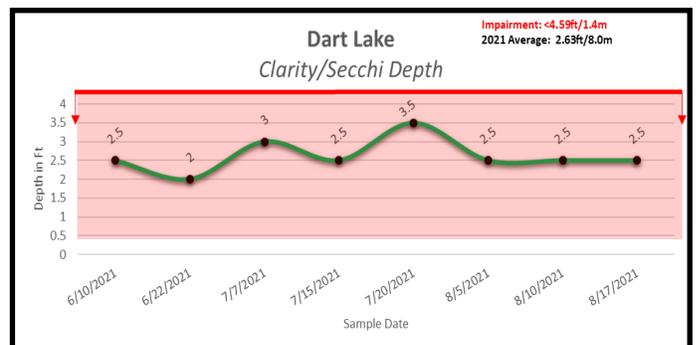
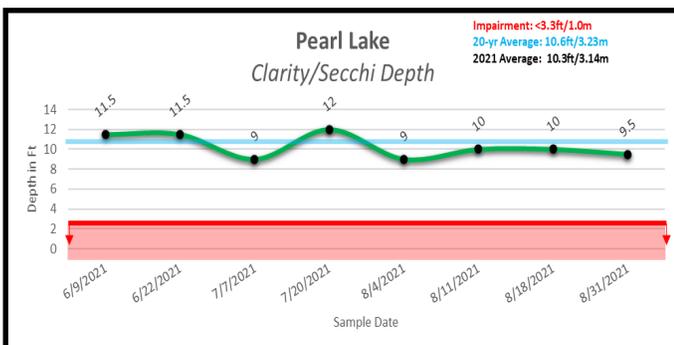
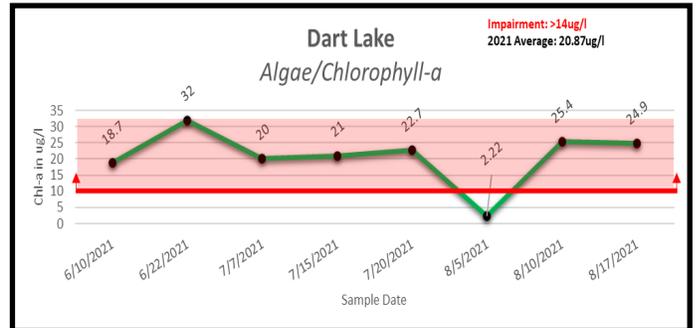
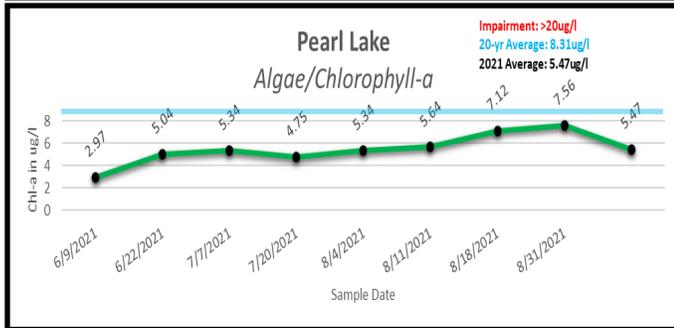
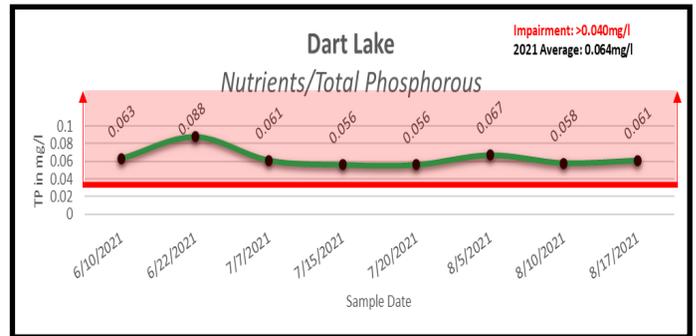
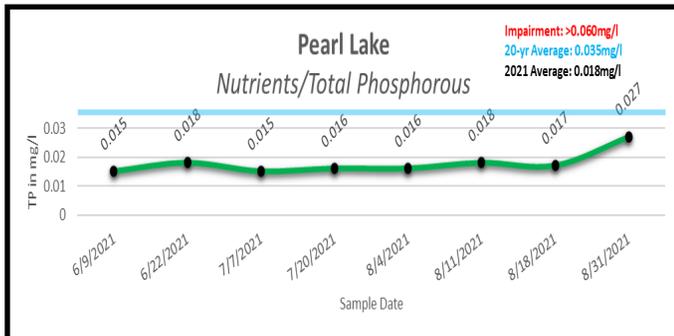
## 2021 Activity Summary

The District completed water quality surveys on Pearl Lake and Dart Lake was surveyed for the first time.

The 2021 average Total Phosphorus (TP) on Pearl Lake was 0.018mg/L, a great improvement from the 20-year average of 0.035mg/L. The average CHL-a was 5.47ug/l, which was a slight improvement from the 20-year average of 8.31ug/l. The average Secchi (clarity) depth was 10.3 feet, which is a slight decrease than the 20-year average of 10.6 feet.

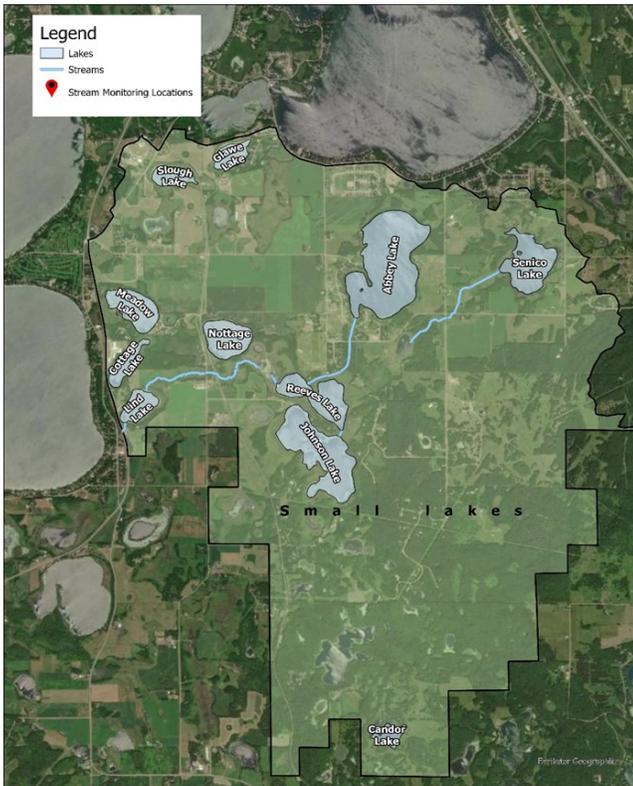
The 2021 average Total Phosphorus (TP) on Dart Lake was 0.064mg/L. The average CHL-a was 20.87ug/l, while the average Secchi (clarity) depth was 2.63 feet

More information is in the **“2021 Pelican River Watershed District Monitoring Report”** on the District’s website at [www.prwd.org](http://www.prwd.org)



# Small Lakes Water Management Area

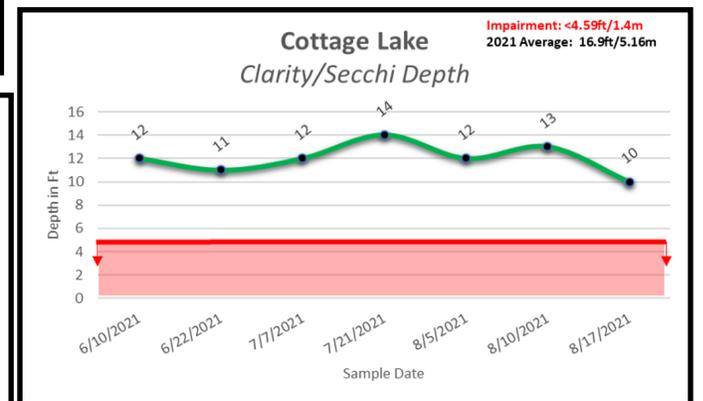
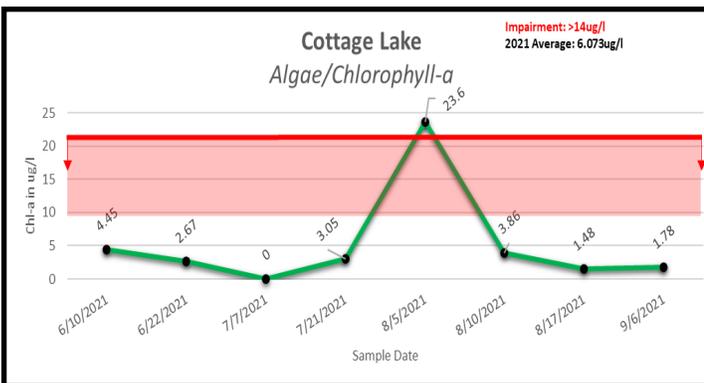
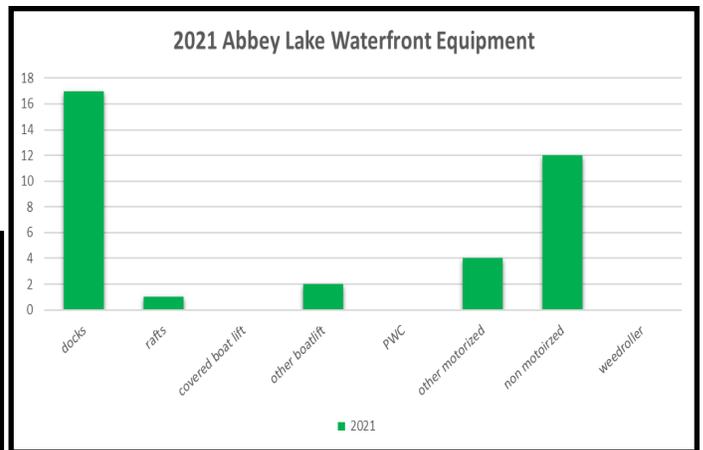
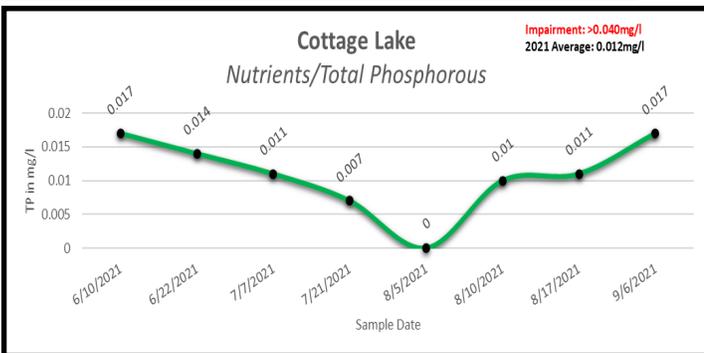
## 2021 Activity Summary



The District performed water quality surveys on Cottage Lake, and shoreline surveys were completed on Abbey Lake for the first time.

The 2021 average Total Phosphorus (TP) on Cottage Lake was 0.012mg/L. The average CHL-a was 6.073ug/l. The average Secchi (clarity) depth was 16.9 feet,

More information is in the **“2021 Pelican River Watershed District Monitoring Report”** on the District’s website at [www.prwd.org](http://www.prwd.org)





## Project Partners

Becker SWCD  
 Becker County  
 East Otter Tail SWCD  
 West Otter Tail SWCD  
 Otter Tail County  
 Pelican River Watershed District  
 Cormorant Lakes Watershed District

## 2021 Accomplishments

- Public Input Open Houses
- Public Survey
- Land & Water Resource Narrative
- Draft Issues

## Next Steps for Plan

- Prioritize Issues & Resources
- Develop Implementation Plan & Budget

## Project Website

<https://www.eotswcd.org/ot1w1p/>

## The Otter Tail River Watershed

The Otter Tail River originates in Elbow Lake in northern Becker County and the White Earth Reservation and flows south through Tamarac National Wildlife Refuge, pine forest, wild rice lakes, and tamarack bogs. It then enters a mosaic of large and small lakes, deciduous forests, and farmland. Major lakes along the river include Big Pine, Rush, and Otter Tail. As the river flows south, lakeshore development and agricultural practices increase.

The Pelican River begins north of Detroit Lakes and flows through the Pelican River Chain of Lakes, including Detroit, Sallie, Melissa, Pelican, Lizzie, and Prairie. The Pelican River then joins the Otter Tail River near Fergus Falls, which then flows west to meet the Bois de Sioux River near Breckenridge, MN and forms the Red River of the North.

The Counties, Soil and Water Conservation Districts, and Watershed Districts in the watershed began a voluntary state-funded planning process in 2021 to prioritize where to work and what to work on in the watershed.

The One Watershed One Plan effort officially began with Public Open houses in Detroit Lakes and Fergus Falls in September 2021. At these meetings, participants learned about the watershed and planning process and had a chance to offer input by discussing potential issues and opportunities for the plan to address.

Issues gathered from the public were compiled and compared to priorities from state agencies and existing county water plans, resulting in a watershed issues list. This information is being used to determine priority issues for the watershed. Pelican River Watershed District is represented by Dennis Kral (Ginny Imholte-Alternate). Tera Guetter and Gina Kemper serve on the Technical Advisory Committee.

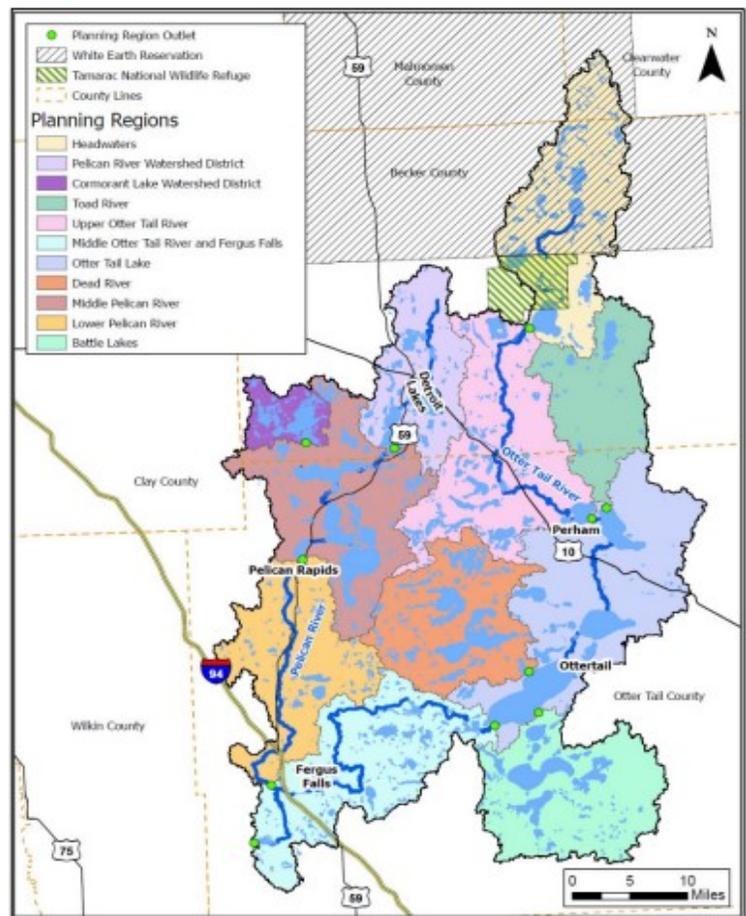


Figure 1. Planning regions in the Otter Tail River Watershed.

# 2022 Work Plan

The complete 2022 Work Plan is attached to this document as **Appendix B**. The Work Plan is based on goals set in the 2020-2029 Revised Management Plan and is divided into the following categories:

- ◇ District Operations/Administration Program
- ◇ Capital Improvement Projects & Programs
- ◇ Regulatory Programs/Rules
- ◇ Incentive Programs
- ◇ Aquatic Invasive Species Management
- ◇ Data Collection
- ◇ Drainage Systems Management
- ◇ Education & Outreach

