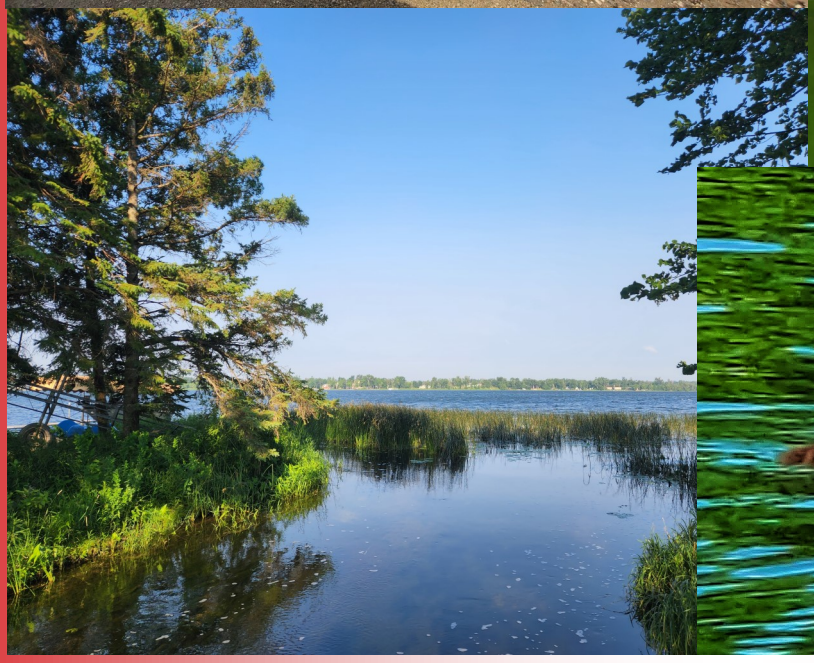
Pelican River
watershed district

2022
Annual Report






2022 Annual Report
Administrator's Letter

After 2020-21 Covid-19 pandemic conditions, 2022 was a welcomed return to "more normal" watershed district activities.

In-school classroom education programs resumed with the 4th grade water festival and 9th Grade Sucker Creek Monitoring. The District provided transportation costs for four environmental field trips to Tamarac Wildlife Refuge, Maplewood State Park, Hamden Slough Refuge, and the Cormorant Sportsman's Club Education Center. The District co-sponsored the MN Aquatic Invasive Species Research Conference held at M-State, Detroit Lakes. In addition, the District assisted with developing a landscaping plan for the South Shore Park which includes a pollinator garden for future use as an outdoor classroom; hosted a booth at the Becker County Fair; and presented reports at lake association meetings.

After almost two years of intense planning, the Otter Tail 1 Watershed 1 Plan, which is a collaboration between Becker and Otter Tail Counties, Becker, East and West Otter Tail Soil and Water Conservation Districts, and Pelican and Cormorant Watershed Districts, was sent to the MN Board of Soil and Water Resources in December of 2022 for approval in January 2023.

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.
The District continues to work on several projects and have been awarded grant funds from various resources including Rice Lake Capital Improvement Project-Phase II, Campbell Creek Project, FEMA Flood Hazard, and Little Floyd Lake structure modification.

The work we accomplished together is only possible with the support of the Pelican River Watershed District Board of Managers, Advisory Committee, and staff; the City of Detroit Lakes, Becker County, community partners, and residents. The commitment to improve water quality in our lakes and the Pelican River is evident throughout the District.

Respectfully,
Tera Guetter, Administrator

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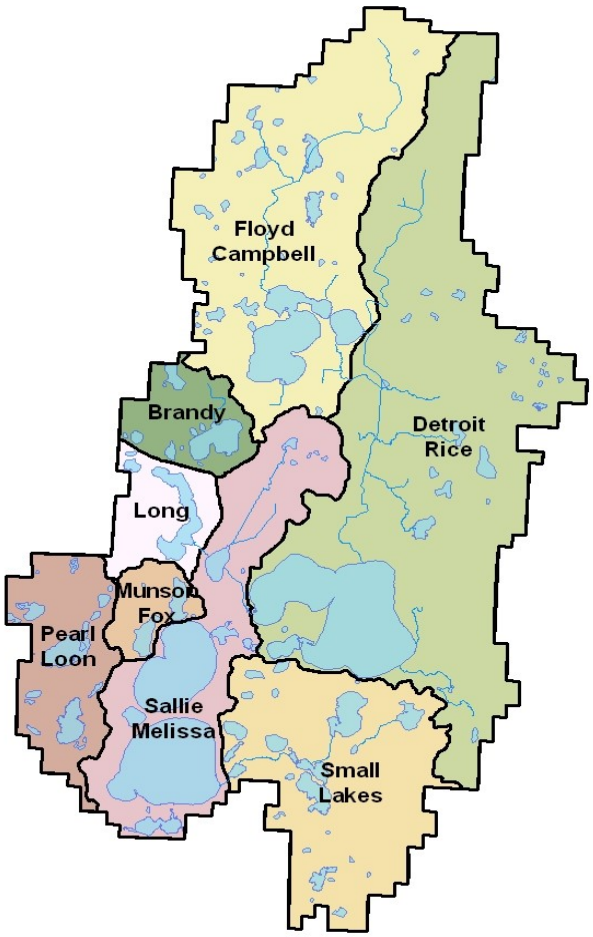
OPERATIONS—About the District



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

E-mail Inquiries:
General: prwdinfo@arvig.net
Permits: prwdpermit@arvig.net
Monitoring: prwdmonitor@arvig.net

District Mission:
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.

Technical & Citizen's & Advisory

MN Pollution Control Agency: Scott Schroeder

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

Becker Soil & Water Conservation District: Bryan Malone

MN Board of Soil & Water Resources: Peter Waller

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

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Becker County Commissioner: John Okeson

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

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

Background

Pelican River Watershed District (PRWD) is one of 45 watershed districts established under MN Statute 103D. The purpose of watershed districts is to conserve the natural resources of the state by land use planning, flood 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.

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 by community and lake association leaders to address poor lake water quality conditions .

Major Lakes: Big & Little Floyd, North Floyd, Big & Little Detroit, Sallie, Melissa, Long, Pearl, Fox, St. Clair, Munson, Abbey, Meadow, Johnson, and Reeves.

OPERATIONS—Board of Managers

The Pelican River Watershed District Board of managers consists of seven members that guide the implementation of projects and objectives outlined in the PRWD Watershed Management Plan. Board Managers are appointed to serve 3-year terms by the Becker County Commissioners. They meet on the third Thursday of the month at the Wells Fargo Bank Building, 2nd Floor Conference Room, Detroit Lakes, MN.

The managers, guided by Manager Kral and Administrator Guetter, monitored the progress of the One Watershed One Plan (1W1P) model, weighing carefully the pros and cons to the District. In November, the board approved the Memorandum of Agreement for Implementation of the Otter Tail River 1W1P.

Janice Haggart

Two managers, Janice Haggart and Ginny Imholte, resigned from the PRWD board due to moving out of the District. Mgr. Haggart served on the Board since 2005 and brought her technical microbiology knowledge to the board. Ginny Imholte was appointed in 1991 and brought her knowledge and commitment to keeping our area lakes clean for recreational use. Their passion for the Disrict's mission is greatly missed and we thank them for their many years of service.

Ginny Imholte

Phil Hansen

Phil Hansen (Sallie/Melissa) was appointed in April to a three-year term (May 2025) . Laurie Olson (Detroit) was appointed to fill the remaining term (May 2023). We welcome Phil and Laurie to the board of managers.

Laurie Olson

Jan. 20, 2022	Regular Meeting
Feb. 17, 2022	Regular Meeting
Feb. 23, 2022	Special Meeting-Roadside pick up program
Mar. 22, 2022	Regular Meeting
Apr. 7, 2022	Special Meeting—Open quotes for Road-side pick up program
Apr. 21, 2022	Regular Meeting
May 19, 2022	Regular Meeting
Jun. 16, 2022	Regular Meeting
July. 21, 2022	Regular Meeting
Aug. 18, 2022	Regular Meeting
Sept. 8, 2022	Public Hearing/ Regular Meeting
Sept. 21, 2022	District Project Tour
Oct. 20,2022	Regular Meeting
Nov. 15, 2022	Regular Meeting
Dec. 15, 2022	Regular Meeting

2022 MANAGERS	POSITION	PHONE NUMBER	TERM EXPIRES	SUBWATERSHED
Dennis Kral	President	218-847-9187	May 2025	Floyd
Orrin Okeson	Vice-President	218-847-7983	May 2024	Campbell
Rick Michaelson	Treasurer	218-847-4951	May 2025	Sallie
Janice Haggart	Secretary		Resigned Jan. 2022	Muskrat
Chris Jasken	Secretary	218-234-3603	May 2023	Long
Charlie Jasken	Manager	218-849-6155	May 2024	Floyd/Small lakes
Phil Hansen	Manager	218-849-8585	May 2025	Melissa
Ginny Imholte	Manager		Resigned July 2022	Detroit
Laurie Olson	Manager	218-234-9346	May 2023	Detroit

OPERATIONS—District Project Tour

On September 21, 2022, the Pelican River Watershed District board of managers and staff toured the northern portion of the District, where projects such as Campbell Creek, a site where erosion control measures have been installed in the past, and study work data indicates that more work needs to be done. They also visited the Rice Lake Nutrient Reduction project where Phase I is complete and a grant application for Phase II has been submitted. They also visited the Little Floyd Lake outlet. The MN DNR has been working with the Watershed District on both Engineering and funding to make needed repairs on this site. The Board of Managers found the tour to be very helpful as they determine what actions they deem necessary and at what cost to the District.

Board managers are pictured above at the Head waters of the Pelican River. PRWD Managers include: Chris Jasken, Charlie Jasken, Dennis Kral, Rick Michaelson, Phil Hansen, Administrator Tera Guetter, and Orrin Okeson.

OPERATIONS—Staff and Advisory

Tera Guetter, Administrator
As Administrator, Tera implements PRWD plans, policies and programs on behalf of the PRWD Board of Managers. She oversees all PRWD operations, including staff, and also manages the annual budget and work plan. She oversees capitol improvement projects, grant programs, plan reviews, project coordination, and watershed restoration planning. Tera joined the District in 1999.

Gina Kemper, Water Resource Coordinator
Gina joined the PRWD staff in the fall of 2021. She oversees the water quality monitoring program, Rules and Permitting program, as well as directing in-lake aquatic plant control treatments. She conducts water data collection, analysis, GIS mapping, reporting and oversees the installation and maintenance of monitoring equipment and assists with education events.

Brenda Moses, Sr. Office Coordinator
Brenda takes care of the District's financials including payroll, accounts payable, budget, grant tracking, and policies. She manages 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, and website and social media updates. She joined District staff in early 2013.

Data Collection, Summer Interns, Beatrice Jaszcazk & Blaine Henderson
The District relies heavily on Summer Interns to collect water samples form area lakes and streams, conduct shoreline and aquatic plant surveys, and update monitoring databases. They also assist with outreach events such as the Becker County Fair held in late July each year. Generally, two college students in an environmental field of study are selected to assist staff with this important work. Student interns work from mid-May to mid-August and may earn college credits while completing the District's work.

District Consultants

Marlon Mackowick, District Engineer
Stantec
3303 Fiechtner Drive, Suite 100
Fargo, ND 58103
Ph: (701) 297-9600

Karen Skoyles, Attorney
Ramstad, Skoyles & Winter, PA
114 West Holmes St.
Detroit Lakes, MN 56501
Ph: (218) 847-5653

Tami Norgard, Attorney
Vogel Law Firm
218 NP Ave. No.
Fargo, ND 58102
Ph: (701) 237-6983

OPERATIONS—Financial Management

District general operations is funded through an ad valorem levy assessed within 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 8, 2022 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 2023 budgets, levies, assessments and fees and this certification was sent to the Becker and Otter Tail County Auditors before the September 15 deadline.

2022 Fiscal Management Activities

- Payroll and bookkeeping activities completed.
- 2021Financial Audit completed by Clasen & Schiessl CPAs, Ltd, Pequot Lakes, MN—www.prwd.org
- 2023 Budget, Levies, Assessments, and Fees—Public Hearing September 8, 2022
- 2022 Revenues and Expenses—Appendix A

Funds of the District

General: The General Fund is used to pay for administrative, operations, and contracted services. In 2022, the District levied $258,800 and had $57,000 of additional income. Expenses incurred totaled $278,490.

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 2022, the District levied $10,000 and had $3,294 in expenses.

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 levied $80,000 in 2022 and $29,697 was transferred to this fund from the Survey and Data Acquisition Fund (SADAF) that was previously used for monitoring programs. In 2022, $67,757 in expenses were incurred.

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). In 2022, $305,202 was collected to undertake projects and construction costs .

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 2022 a special assessment in the amount of $40,000 was levied on riparian properties to undertake the project maintenance costs. The project had $54,975 in expenses in 2022.

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 2022, a special assessment of $45,000 was levied on riparian properties to undertake the project costs. Costs incurred totaled $59,517.

Drainage Systems

Ditch 11-12: Campbell Creek (Moon Lake to Floyd Lake) - No Assessment in 2022.
Ditch 13: Pelican River (Little Floyd Lake to Detroit Lake) - No Assessment in 2022.
Ditch 14: (St. Clair Lake area) - No Assessment in 2022.
Drainage Buffer Enforcement: The District received $3,899 in 2022 from the State of MN to enforce the buffer requirements on Ditches 11, 12, 13, and 14. Expenses in 2022 were $1,000.

2022 Highlights January—June

JANUARY

- **Rice Lake CIP**: The District requested the MN Board of Water and Soil Resources amend the Rice Lake grant to include Phase 2 of the wetland restoration project.
- **Education:** Staff from the City of Detroit Lakes, local school districts and PRWD met to organize a downscaled Water Fest event for 5th grade students since they were not able to participate in 2021 due to COVID-19 school closure.
- **Resignation:** Manager Haggart regretfully resigned her manager position due to changing her state of residency. She served as a board manager since 2005 for the Muskrat/Melissa area. We are grateful for her years of service to the District.

FEBRUARY

- **Campbell Creek Project CIP**: Staff is working with MPCA to develop the 319 Grant Work Plan.
- **MN Aquatic Invasive Species Research Center Conference**: Staff has been collaborating with members of Becker, Otter Tail and Hubbard County COLA, as well as AIS Directors from Becker and Otter Tail County to host an AIS seminar in June.
- **Aquatic Roadside Pick up Program**: A special board meeting was held February 23 to review the history, current status and future of the program as presented by Attorney Skoyles, Administrator Guetter, and PRWD Managers. The public was also invited to ask questions or give their input either in person or via IT.

MARCH

- **FEMA Flood Hazard Grant**: Grant agreement documents were submitted to the Minnesota Department of Public Safety, Homeland Security and Emergency Management department.
- **MAWD Legislative Days**: Kral & Guetter attended meetings in St. Paul on March 15 & 16. Kral currently serves on the MAWD Strategic Plan Committee and Guetter was appointed to serve on the Finance and education committees.
- **Aquatic Roadside Pick up Program**: The Managers reviewed the public input from the Feb. 23rd Special Meeting and the Managers agreed to advertise for quotes for the 2022 season to transition this program to the private sector, with a clear understanding the service will permanently terminate upon completion of the 2022 season contract.

APRIL

- **AIS Control Grants**: The District was notified by MN DNR that grants were awarded to Sallie ($9150) and Muskrat ($1,500).
- **Manager Appointments**: The Becker County Commissioners appointed Phil Hansen to the Board of Managers to complete the vacated term of Janice Haggart, plus an additional three-year term. Kral and Michaelson were also re-appointed to three year terms.
- **Aquatic Roadside Pick up Program**: A Special board meeting was held April 7 to review quotes and a contract was awarded to Miller Yard Care & Construction for Detroit, Curfman, Sallie and Melissa for the 2022 season.

MAY

- **Watershed Manager Training**: MN Board of Soil & Water Resources hosted a manager training on May 19 in Detroit Lakes.
- **Interns Hired**: Two college students have been hired to assist with water monitoring for approximately 12 weeks this summer. Beatrice Jaszcazk and Blaine Henderson, students at NDSU and Bemidji State, started with the District in mid-May.
- **Otter Tail 1W1P Partnership**: Guetter, Kemper and Manager Kral continue to be involved in all meetings related to the Plan including Policy, Steering, Technical Advisory, Citizen Advisory and Forest Land Stewardship committee. PRWD managers remain concerned the District's Revised Management Plan will not be included in the 1W1P as they were assured earlier.

JUNE

- **MN Aquatic Invasive Species Research Center Conference.** The Regional event was held at M-State on 6/9/22 with over 100 people in attendance. Feedback from attendees was excellent and MAISRC staff is interested in returning in three years.
- **AIS Chemical Treatment**: Curly-leafed pondweed was treated in early June on lakes Curfman, Detroit and Sallie. There was very little growth this year.
- **Rules & Permitting**: Staff has been extremely busy issuing permits due to shoreline damage from high lake levels this spring.


Intern Henderson


Intern Jaszcazk

2022 Highlights July-December

JULY

- **Resignation**: Manager Imholte resigned her manager position on July 31, 2022. She has represented the Detroit Lake residents since 1991 and we are appreciative of her years of service to the District.
- **Grants:** The District work with three grants continues to move along. (1) Campbell Creek Restoration—The work plan is in progress, (2) FEMA—Comments have been submitted to the MN DNR FEMA study, (3) Rice Lake Restoration— Completion of stabilization measures on sloped areas were completed and the grant interim report has been submitted.
- **Lake Monitoring**: Summer interns are conducting routine lake and stream monitoring and water quality is looking good.

AUGUST

- **Little Floyd Lake Structure Modification**: Guetter is currently working on the MN DNR grant application and will have it completed in the next week for submission.
- **MAWD Summer Tour:** Administrator Guetter and Manager Kral attended the Summer Tour in Grand Forks on August 23-25.
- **AIS Chemical Treatments**: The second Flowering rush treatment was completed on area lakes on August 1.
- **Equipment Sales**: The District Bobcat & trailer, along with the Freightliner truck, were sold using the Gov Deals auction site.

SEPTEMBER

- **Rules/Permitting:** Permit applications are easing somewhat with fall approaching, however, staff continue to spend many hours on remediating violations within the District.
- **Manager Tour:** Board managers toured District sites on Sept. 21 including Campbell Creek, Little Floyd Lake dam outlet and the Rice Lake project.
- **2023 Preliminary Budget, Levies, Assessments, and Fees:** The Board of Managers approved the 2023 Preliminary Budget, Levies, Assessments, and Fees and motions were sent to Becker and Otter Tail Counties.

OCTOBER

- **Campbell Creek Project:** The work plan is nearly complete and Guetter will meet with MPCA this month to review/finalize the draft plan before it is submitted to EPA.
- **Incentive Programs**: Field trips have been taken to Tamarac Wildlife Refuge, Maplewood State Park, Hamden Slough, Cormorant Lakes Sportsman's Club, Dunton Locks County Park and Sucker Creek Preserve by school age children thanks to Environmental Education grants awarded by the District.
- **1W1P:** The Comprehensive Watershed Management Plan for the Otter Tail River Watershed is open for 60 days for public comment on the plan.
- **Monitoring**: Kemper and Guetter zeroed out water level gauges at each monitoring site and pulled the HOBO units to upload information from them. The last lab results have been received from RMB Labs. Data can now be compiled.

NOVEMBER

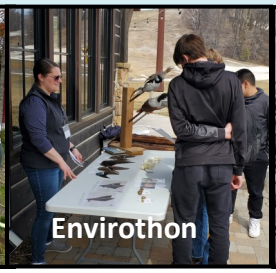
- **AIS Control Grants:** MN DNR grant applications for Flowering rush and Curly-leaf pondweed have been submitted for 2023 treatments.
- **Office Lease:** The District and Wells Fargo have agreed on terms to extend the current office lease until February 28, 2026.
- **1W1P**: The Memorandum of Agreement for Implementation of the Otter Tail River 1W1P, as well as the Otter Tail River Watershed Implementation Team Bylaws for the MOA Implementation of the 1W1P were approved by the Board of Mangers.

DECEMBER

- **Rice Lake Grant:** The district was notified they ranked #1 out of 19 projects and will be awarded a BWSR FY 2023 Clean Water Fund Grant to complete Phase II of the Rice Lake Project.
- **2023:** The LMCIT insurance renewal paperwork has been completed for 2023, Clasen & Schiessl, CPAs have submitted an engagement letter to the District to complete the district audits for 2022, 2023, and 2024, and the District has contacted RMB Labs to confirm pricing and timely test results for the upcoming year.

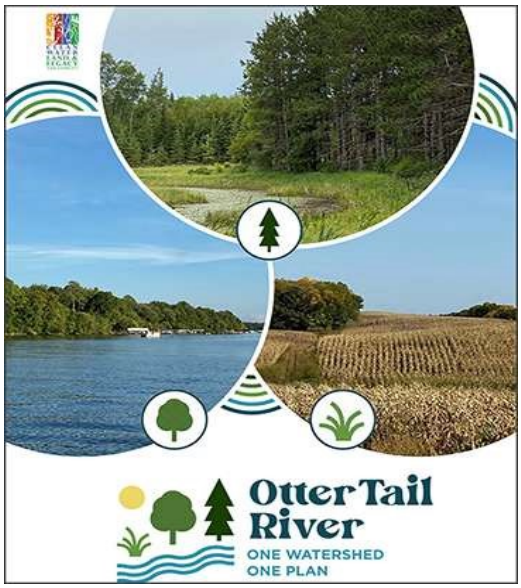

MAISRC Event

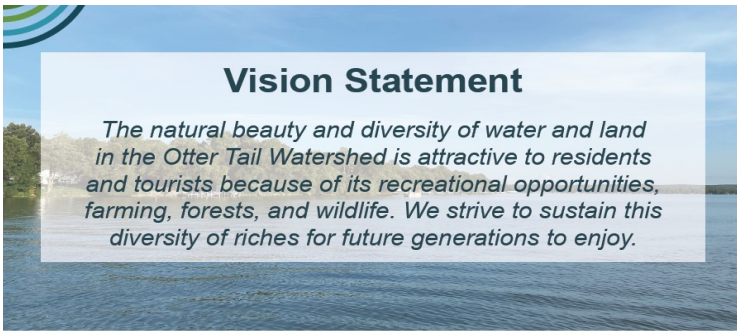

South Shore Park Tree planting


Envirothon


Earth Day Event

Otter Tail River One Watershed One Plan





BWSR

CLEAN WATER LAND & LEGACY AMENDMENT

Otter Tail Watershed Partnership

Becker Soil & Water Conservation District
East Otter Tail Soil & Water Conservation District
West Otter Tail Soil and Water Conservation District
Cormorant Lakes Watershed District
Becker County
Otter Tail County Minnesota
Pelican River watershed district

After almost two years of meetings and discussion, the Otter Tail Watershed Partnership approved the Otter Tail One Watershed, One Plan and submitted it to the MN Board of Water and Soil Resources for final adoption in January 2023. Upon Plan adoption, the Partnership will be eligible to receive State Implementation funds ($1.2 Million) every two years to assist with carrying out the plan's projects and programs throughout the Otter Tail river basin area.

The plan and annual workplan can be viewed at : www.eotswcd.org/one/OT1W1P/

Highlights

- The watershed starts in the White Earth Nation and Tamarac National Wildlife Refuge. Three main rivers, the Pelican, Toad, and Otter Tail, flow through many lakes and eventually join the Red River west of the planning area.
- Transitions from forests in the north to developed lakes and cultivated cropland in the middle, to prairie potholes and cropland in the southwest.
- The majority of land is in two counties: Becker and Otter Tail.
- There are two small lake-based watershed districts: Pelican River Watershed District and Cormorant Lakes Watershed District.
- Primary towns include: Detroit Lakes, Pelican Rapids, Fergus Falls, Perham.
- Implementation of the Otter Tail Comprehensive Watershed Management Plan is voluntary, and outreach and incentives will be used to assist with voluntary implementation on private lands.
- This plan includes both restoration and protection priorities.

Surface Water

Protecting and restoring lakes and streams by reducing sediment, phosphorus, bacteria, and runoff.

How:
- Stormwater management.
- Streambank, lakeshore, and ditch stabilization.
- Agricultural practices.
- AIS prevention and management.

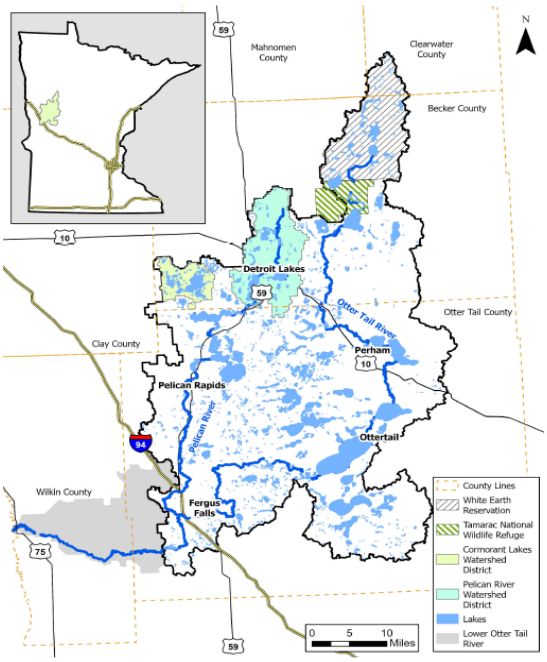
Outcomes:
- Lake and stream water quality protected and improved.
- Runoff from increasing future precipitation is minimized.

Habitat

Protecting forests, prairies, aquatic habitat, and biologically significant species such as wild rice and cisco by protecting the land and riparian areas.

How:
- Forest Stewardship Plans.
- Sustainable Forest Incentive Act.
- Conservation easements.
- Acquisitions.

Outcomes:
- Forest, prairie, and migratory waterfowl habitat is protected.
- Sensitive and unique plant, animal, and fish species are protected



Groundwater

Protecting drinking water, minimizing nitrates, and increasing understanding of sustainable groundwater use.

How:
- Sealing unused wells.
- Nutrient management.
- Irrigation water management.
- Protecting drinking water supply management areas.

Outcomes:
- Safe and plentiful drinking water.
- Groundwater quantity is conserved.

Land Stewardship

Increasing soil health practices on cultivated land and pasture to improve agricultural productivity and minimize erosion impacts to lakes, streams, and ditches.

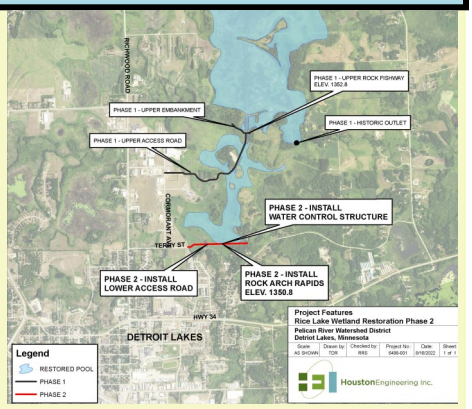
How:
- Cover crops.
- No till.
- Pasture management.
- Water and sediment control basins.

Outcomes:
- Soil health improved.
- Nutrients, sediment, and bacteria entering lakes and streams is reduced.

Capital Improvement Projects

Rice Lake Wetland Restoration Lower Structure Phase 2

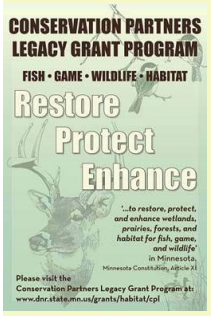
With the completion of the Upper Structure in 2021, the District applied for grant funds to assist with completing the construction of the lower structure. The District was notified in December 2022 the Phase 2 project was awarded $640,000 and was the highest ranked funded project. The project will start in 2023.



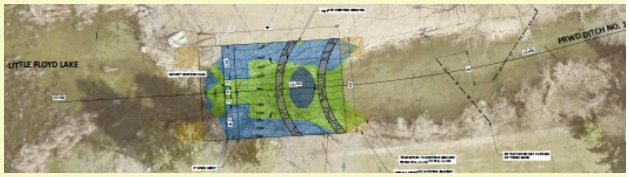
Clean Water Act Section 319 Small Watersheds Grant

The District was awarded a Federal 319 Small Watersheds Grant to provide a long-term plan to implement projects and practices to address the sediment impairment in Campbell Creek. The Floyd and Detroit sub-watershed areas are the targeted areas. MPCA staff with some assistance from district staff developed a detailed nine-element workplan following the EPA's "Handbook for developing watershed plans to restore and protect our waters ". The workplan was submitted to EPA for review and approval in early 2023. Through this program, the District will receive four, four-year grant awards that will span a total of 16 years. These funds will be used to: implement a series of projects identified in the nine-element plan, provide a steady source of funding, focus implementation efforts, and achieve measurable water quality improvements on a specific waterbody.

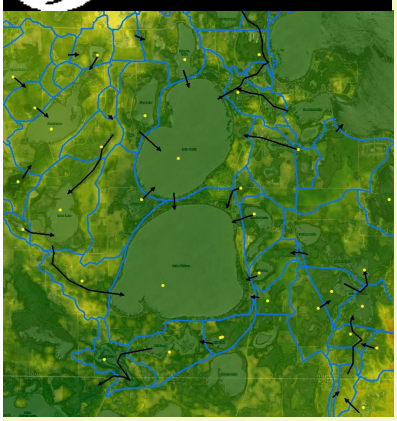
Little Floyd Lake Dam modification/Rock Arch Rapids Project



The District was awarded a MN DNR Conservation Partners Legacy Grant to modify the current Little Floyd Lake dam into a rock arch fishway to provide a long-term fix to the aging dam/fish barrier which will improve the functionality of the outlet, provide easier dispersal for river species upstream and downstream, and provide spawning substrate for sturgeon and other fish species.



FEMA Flood Hazard Mitigation



The District received a FEMA Flood Hazard Mitigation grant to complete a hydrologic & hydraulic (H&H) model to map flood prone areas, guide floodplain management ordinances and rules, assess conveyance capacity, preserve floodplain storage, aid in the development of hydraulic infrastructure design standards, and to assist in water quality and restoration studies. The study will also be a valuable tool to assist in future water quality and restoration studies. Community engagement will be incorporated through the project to document local knowledge of problem areas. The H&H model will include surveying, inventory of structures and conveyance, and asset management. Modeling will include the 24-hour, 2-, 10-, 100-and 500-year NOAA Atlas 14 precipitation events. The stormwater model will refine targeted locations for scaled resiliency and potential mitigation projects. The stormwater plan will describe the problem areas and include potential mitigation alternatives. Mitigation solutions will be scaled with basic design concepts, preliminary cost estimates and implementation schedules by projects. The study results/ information will assist with future FEMA grant funding applications for projects.

2022 Education & Outreach

Education & Outreach: District staff was excited that Education and Outreach was more "normal" in 2022 after two sluggish years due to Covid-19 in 2020 or 2021. The monthly radio spot "Hodge Podge" on the third Friday of the month, along with the District website and Facebook page, continue to be excellent tools to communicate with the public all year long.

WaterFest: Early in the year, staff collaborated with the City of Detroit Lakes and the Detroit Lakes School District in planning a scaled down version of the annual Water Fest event for 5th graders since they did not have the opportunity to attend as 4th graders. It was originally scheduled for January, but was actually postponed until February due to a high number of COVID cases in the school early in the year. The Annual 4th grade WaterFest was held in April at the Boys & Girls Club.

MAISRC: Planning also began for a MN Aquatic Invasive Species Research Center (MAISRC) Regional Conference in January for an event to be held in Detroit Lakes in June with representatives from Becker, Hubbard, and Otter Tail COLA, as well as the AIS Directors from Becker and Otter Tail Counties and staff from the research center in Minneapolis. A similar event was held in June of 2018, and because it was well attended, it was determined that the event should be duplicated every 2-3 years. After several months of planning, the event was held June 9 at M-State in Detroit Lakes with over 100 in attendance. And again, since the event was so successful, the Director of MAISRC has decided to work with organizations in other parts of the state to duplicate the event.

South Shore Park: District Staff also worked in collaboration with the City of Detroit Lakes in compiling a planting plan for the new South Shore Park. Other agencies involved were US Fish and Wildlife and the MN DNR, as well as representatives from the Lake Detroiters Association and the Izaak Walton League. A community planting day was held on Saturday, May 21, and included staff from various service organizations, government agencies, landscapers, and local people who wanted to get their hands dirty and plant trees and shrubs. The "Educational Pollinator" area will be seeded in early 2023 with a flagstone path for children to walk and observe various plants and pollinators. A grand opening was held at the Park on June 15 and it has become a beautiful outdoor space to gather, play, and relax for all ages.

Becker County Fair: On July 27-30 people of all ages came out to enjoy the Fair. The Watershed District had a booth set up in the MN DNR building and staff and interns were kept very busy making environmental buttons for children and engaging with adults on local water quality.

Other Events: In April, Moses participated in an Earth Day Event held at the Library with other environmental agencies and in May, Kemper presented and judged at the high school Envirothon. Student Interns, Henderson and Jaszcazk, assisted 9th grader students at the Sucker Creek water monitoring event, and in June, Guetter attended the Lake Detroiters Association meeting. The Sallie/Melissa Lake Association also met in June with two board managers in attendance.

Lake Handouts: District staff developed Lake handouts for the District's four largest Lake Management Areas: (1) Detroit/Rice, (2) Floyd/Campbell, (3) Sallie/Melissa, and (4) Long. These were available to distribute at the various Lake Association meetings and contained information such as lake monitoring results from the previous year, upcoming aquatic invasive species treatments, shoreline permit requirements, District projects and grants, shoreline surveys, weather influences, and upcoming events.

2022 Environmental Education/BMP Grants

2022 was the first year that Environmental Education grants were funded by the District. Student field trips to local sites such as Hamden Slough, Tamarac Wildlife Refuge, Sucker Creek and the Cormorant Conservation Center provided the setting for "hands-on" outdoor education and were paid for by PRWD grants.

Classroom grants were also available to teachers to order needed scientific supplies and were awarded for microscopes, water monitoring kits and compasses.

Pollinator planting areas were rated high by local educators as needed spaces for schools and community groups. Holy Rosary Catholic School was awarded a grant for a pollinator area near their school and Boy Scout Troop 674 was awarded funds to remove aging shrubs and plant over 500 pollinator plants around the American Legion Club in Detroit Lakes. The District also worked with a local supplier to purchase pollinator seed for the new City of Detroit Lakes South Shore Park where there is a designated pollinator area that will be planted in spring 2023.

Funds were also budgeted to support water related events held annually such as the 4th Grade Water Fest hosted by the City of Detroit Lakes, and the Sucker Creek Water Watch event for 9th grade students.

The photos shown were taken as students enjoyed learning in the great outdoors at Hamden Slough and the Cormorant Sportman's Club, and while taking water samples at Sucker Creek.

The feedback the District has received from teachers and government agency staff who are involved in teaching has been tremendous on the values that students are learning by connecting with nature first hand.

Grant Recipient	Grant Purpose	$ Amount
Holy Rosary Catholic School	Plants for Pollinator garden	$360
City of Detroit Lakes—South Shore Park	Pollinator Seed Mix	$2880
Detroit Lakes School—Roosevelt Elementary	Portable microscopes	$450
Detroit Lakes High School	Sucker Creek Water Watch Event	$496
Holy Rosary Catholic School	Water monitoring kits	$288
Boy Scout Troup 674	Pollinator plants at American Legion, Detroit Lakes	$500
Davidson Trust	Shoreline Planting	$500
Detroit Lakes School—Roosevelt Elementary	Compasses	$470

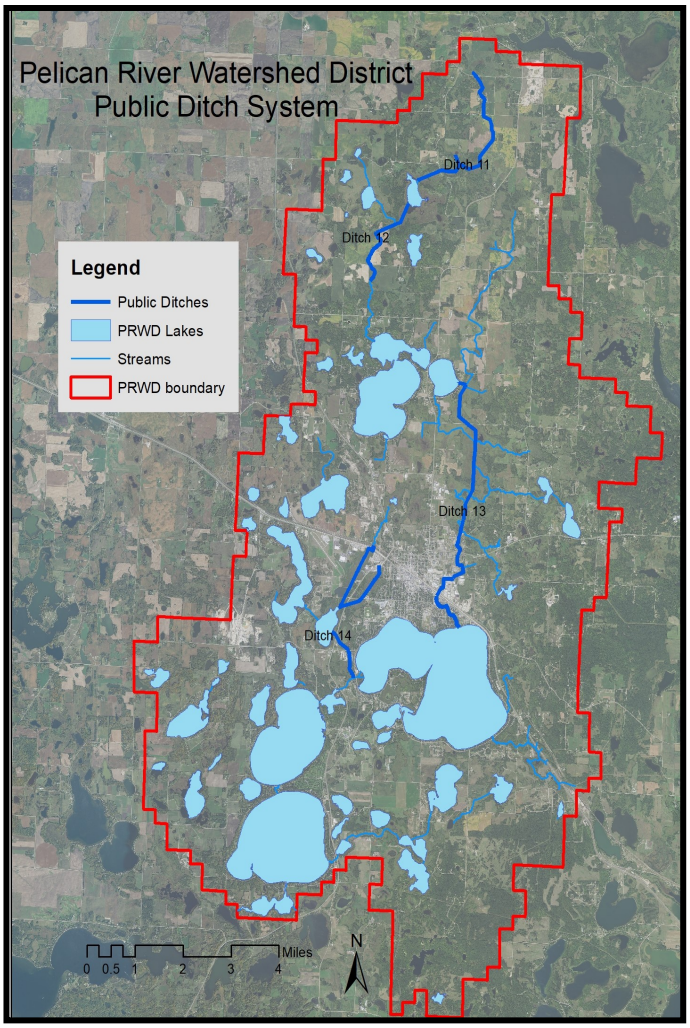
Drainage Authority

Becker County Ditch Systems 11-12, 13 & 14

Beaver trapping in the area has been ongoing since the 1800's, and beavers continue to be a nuisance today in the drainage systems managed by the Watershed District.

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 between 1913 and 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. Local trappers are hired to remove the beaver and small dams. If needed, excavators or explosives are used to remove large blockages, sediment, or tree snags.



2022 Ditch Maintenance

Work in the ditch systems was minimal until late summer, when reports were received about beaver activity on Ditch 11-12 and Ditch 13. In September, October, and early November, 26 beaver were trapped and eight dams were broken up by a District contractor.

Ditch 11– During mid to late September, 4 beaver were trapped in the Whiskey Creek Drive area and a beaver dam was destroyed.
Total Ditch Expense: $425

Ditch 12—In late October, a dam was destroyed after 6 beaver were trapped near Campbell Lake.
Total Ditch Expense: $700

Ditch 13—In September, October and November, a total of 23 beaver were trapped in the 8th Street area, the Rice Lake area, and in the Little Floyd Lake Rd culvert. It was necessary to remove 5 dams out of Ditch 13 during this period of time.
Total Ditch Expense: $2600

District Rules/Permitting

The Pelican River Watershed District's Water Management Rules and permitting program had a very active year in 2022 issuing 92 permits. Through the permitting process, PRWD works with property owners and local government units to protect our waters by maintaining or increasing water quality within the District. Once a permit application and fee is received, District staff will inspect the permit site and evaluate the proposed work to be done. PRWD staff works closely with homeowners and project supervisors to discuss project goals and expectations. In some cases, the staff solicits input from professional engineers. The ultimate goal is to permit and monitor the land use within the District to ensure the surrounding water resources are not degraded in any way.

Shore Impact Zone (SIZ) permits continue to be the most common form of permit issued by the Pelican River Watershed District. It is the intent of the district to convince applicants of the merits behind shoreline vegetation. During the 2022 season, many shorelines were damaged due to high water levels in the spring. Homeowners were encouraged to add deep rooted native vegetation to the shoreline to protect from ice push, wind erosion, and overland runoff. These features will protect the lakeshore as well as provide habitat for beneficial species, discourage nuisance geese, and attract important pollinators.

District staff was kept very busy immediately after the ice came off the lakes, assisting homeowners with SIZ permits to repair damaged shorelines. This continued into November, as the warm fall temperatures allowed contractors to continue their work. All totaled, 64 SIZ permits were issued, up from 35 issued in 2021. Commercial stormwater management permits were down slightly from 15 to 11, while residential stormwater increased from six to nine.

Permit Type	2022 Permits 92 Issued
Shore Impact Zone Alterations (sand blanket, rip rap, vegetation changes)	64
Bluff Impact Zone Alterations	2
Subdivision/PUD	1
Stormwater Management Commercial Residential	 11 9
Roads, Parking Lots, Bridges, Culverts, Storm Sewer	2
Cables buried in Shoreland District	3

The above image is a shoreline damaged by high waters. The portion that was not re-enforced with native plants has washed away, however, the portion with native plantings is in tact.

The shoreline pictured above suffered damage from high waters. The image to the right is the proposed permit site plan following district rules and allowing residents a desired sand blanket.

VIOLATION—Do not cut trees on the shoreline without a permit.

2022 Climate

First Quarter 2022 – Winter Months: January – March

Average temperatures for the first quarter of 2022 were slightly below the historical averages for the highs and well below the averages for the lows. The lowest recorded temperatures were on January 1st, 2nd, and February 3rd with a low of -31°F, and the highest temperature during this period was on March 21st with 50°F. Fluctuations are not uncommon in the first quarter of the year.

First quarter started with below average precipitation, with total rainfall being 1.92", 0.06" less than historic average and snowfall being 33.43", 7.52" above average.

Third Quarter 2022 – Summer Months: July – September

Third quarter temperatures trended closer to historical average temperatures. The average highs and lows for July were 80°F and 62°F. The hottest day in July was on the 19th with a reading of 91°F and the coolest day in July was on the 25th with a reading of 50°F.

The average highs and lows for the month of August were 78°F and 60°F. The highest temperature recorded for August this year was also 90°F, which was on the 5th. The lowest temperature for August was on the 8th and the 26th, with both days having the same temperature of 52°F.

In September the high was recorded at 84°F on the 1st and the lowest was recorded at 36°F on the 28th.

Precipitation greatly varied between July through September. In July, rainfall was well below the historical average totaling only 2.66 inches (1.59 inches below the 10-year average monthly rainfall of 4.25 inches). August trended closer to normal rainfall, with 2.98 inches, just above the 10-year monthly rainfall average by 0.07 inches. September trended drier with a total of 1.72 inches, 0.97 inches below the ten-year monthly average of 2.69 inches.

Second Quarter 2022 – Spring Months: April – June

Second quarter temperatures were slightly below the historical average for the first half of the quarter, but were more in sync the second half of the quarter with the historical average. The lows, however, remained slightly lower than average. Average highs and lows for April were 39°F and 27°F, with the second quarter lowest temp being 10°F on April 19th. May average highs and lows were 64°F and 46°F. June's average high was 78°F and average low was 57°F. June had the highest recorded temperature of the quarter with 99°F on the 19th.

Second quarter rainfall had a total of 3.93 inches falling in April, 3.82 inches in May, and 2.66 inches in June. This was a grand total of 10.41 inches of rainfall in the second quarter. This was 1.11 inches higher than the 10-year average total second quarter rainfall.

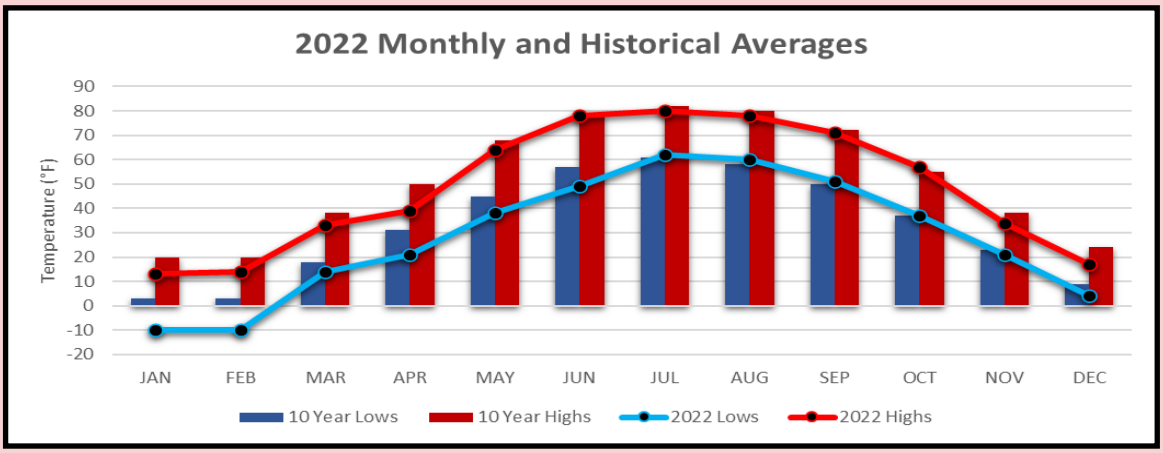
Fourth Quarter 2022 – Fall Months: October – December

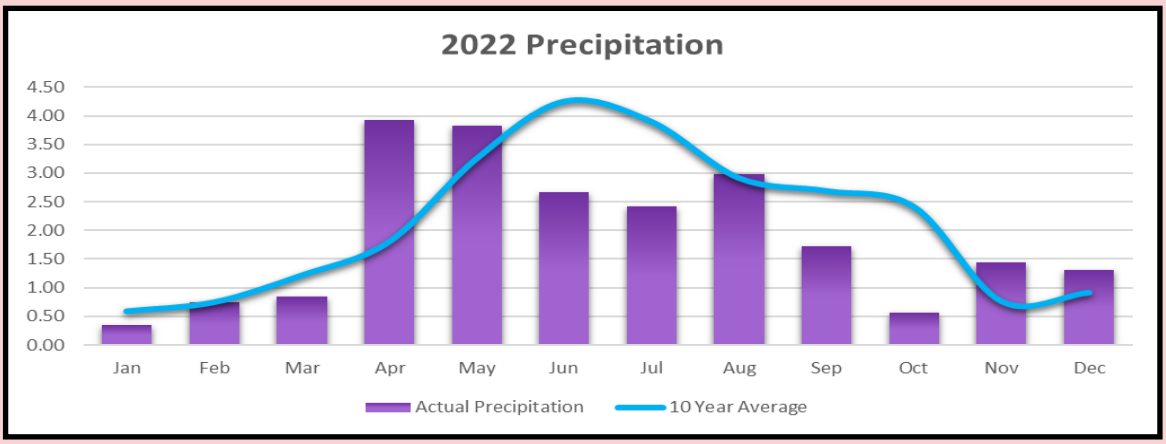
Fourth quarter high temperatures followed the historical average temperatures early in the quarter but then trended below the 10-year historical average towards the second half. The October average high temperature for the year was 57°F, which was 13 degrees cooler than the 10-year historical average of 70°F. The warmest day was on October 11th with a temperature of 77°F. The average low for October was 37°F, which was same as the 10-year historical average of 37°F; with the lowest temp on October 18th at 14°F.

During November, the average highs of 34°F is 6 degrees lower than historical average high temps of 40°F. The average lows for November was 21°F, which was 2 degrees cooler than the historical average of 23°F. The highest temperature for November was 70°F on the 1st and 2nd, and the lowest was 3°F on the 18th and 30th. During of December, the average highs were 17°F and the lows were 5°F. The historic average high and low were 23°F and 7°F, so it was slightly cooler. The highest temperature for December was 32°F on the 6, and the lowest was -24°F on the 20th.

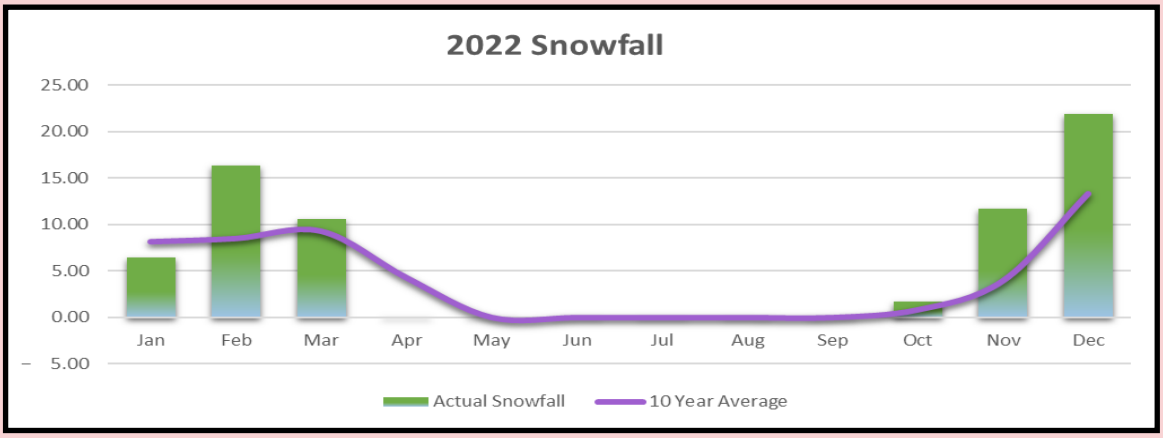
October was the second driest month of the year, with a total of 0.57 inches of rainfall, well below the 10-year historical average of 2.41 inches. We did, however, get 1.70 inches of snow, which was .86 inches more than the 10-year average of 0.84 inches. During November, there was 1.44 inches of precipitation recorded, with 11.70 inches of snowfall which is well above the 10-year historical average of 7.75 inches of snowfall. During the month of December, we received 1.31 inches of precipitation and 21.90 inches of snow. This was well above the historical average for both precipitation (0.91 inches) and snow (13.29 inches).

2022 Climate





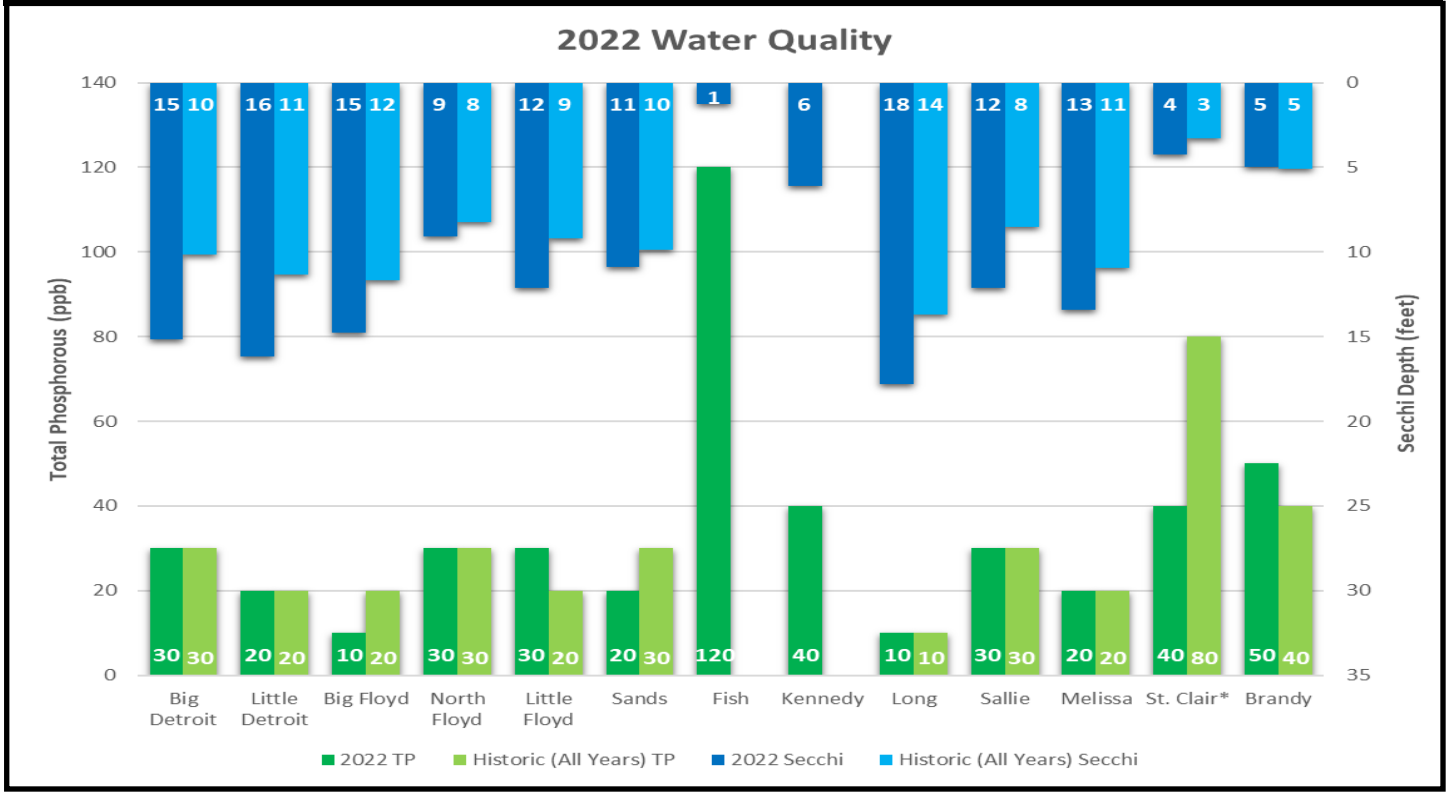
Rainfall events in Detroit Lakes >0.5" April-October 2022.					
Date	Inches	Date	Inches	Date	Inches
4/11/2022	1.14	5/12/2022	0.74	8/6/2022	0.52
4/30/2022	1.67	6/21/2022	0.62	8/19/2022	1.40
5/1/2022	0.55	6/24/2022	1.54	9/15/2022	0.70
5/9/2022	1.02	7/17/2022	0.62		
5/10/2022	0.72	7/27/2022	0.75		



2022 Water Quality Summary

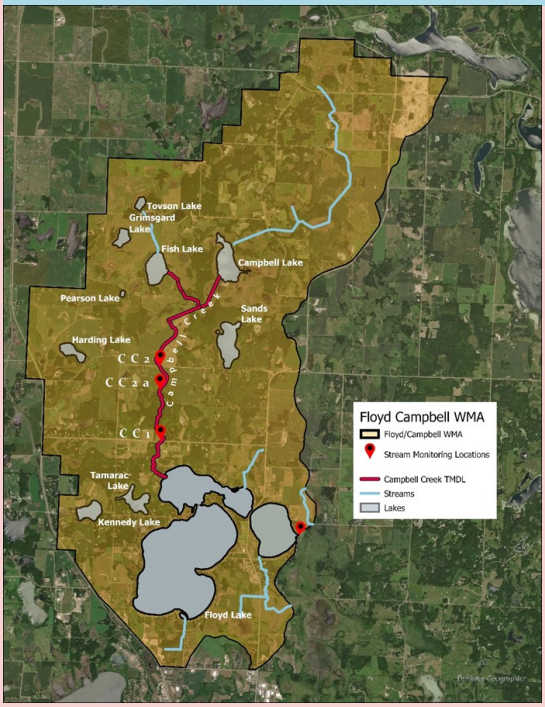
Water Management Area	Lake	2022 Average			Historical Averages (2001 -2021)			MNPCA Lake Standards		
		TP (ppb)	Chl-a (ppb)	Secchi (feet)	TP (ppb)	Chl-a (ppb)	Secchi (feet)	TP (ppb)	Chl-a (ppb)	Secchi (feet)
Detroit/Rice	St. Patrick**				--	--	--	<40	<14	>4.6
	Big Detroit	30/18 ***	3.11	15	20	7.86	10	<40	<14	>4.6
	Little Detroit	20	2.81	16	20	4.45	11	<40	<14	>4.6
Floyd/ Campbell	Big Floyd	10	3.23	15	20	5.09	12	<40	<14	>4.6
	North Floyd	30	11.03	9	30	13.26	8	<40	<14	>4.6
	Little Floyd	30	8.64	12	20	8.58	9	<40	<14	>4.6
	Sands	20	2.86	11	20	2.86	10	<40	<14	>4.6
	Fish	120	92.71	1	--	--	--	<40	<14	>4.6
	Kennedy	40	17.93	6	--	--	--	<40	<14	>4.6
Long	Long	10	2.89	18	30	38.87	14	<40	<14	<4.6
Sallie/Melissa	Sallie	30	5.95	12	20	11.66	8	<40	<14	>4.6
	Melissa	20	4.06	13	10	6.52	11	<40	<14	>4.6
	St. Clair*	40	14.01	4	40	7.19	3	<60	<20	>3.3
Brandy	Brandy	50	7.19	5	40	7.19	5	<60	<20	>3.3

Shallow Lake** ****Only 1 testing day available** ** see Big Detroit Water Quality section**



Floyd—Campbell Creek Water Management Area

2022 Activity Summary



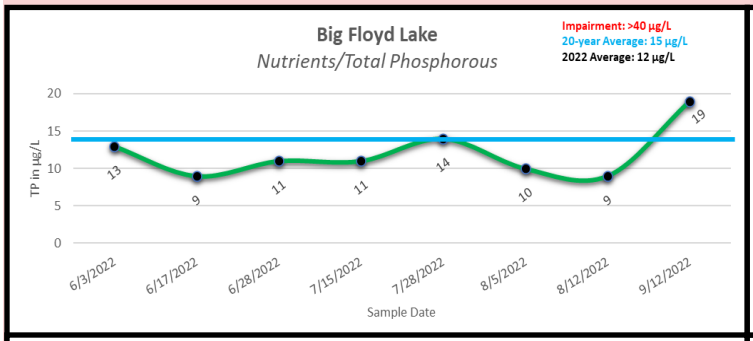
The Floyd /Campbell Water Management area

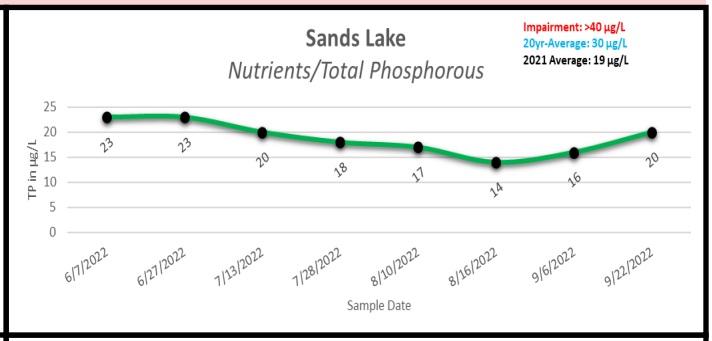
In 2022, the District performed water quality surveys for the Floyd Chain of Lakes including Sands Lake, Fish Lake and Kennedy Lake.

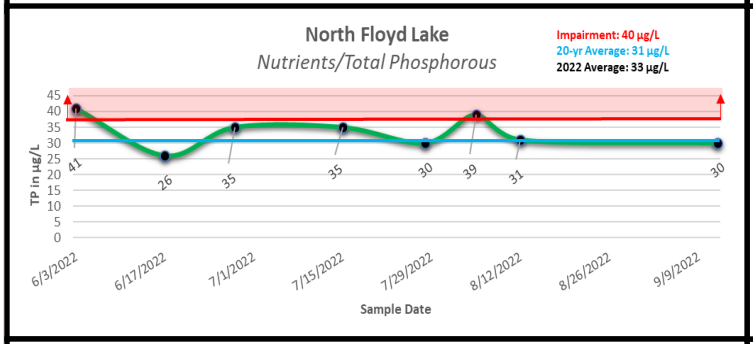
The 2022 average Total Phosphorus (TP) on Big Floyd Lake was 12 µg/L, slightly better than the 20-year average of 15µg/L. North Floyd Lake's TP was 33 µg/L , slightly worse than the 20-year average of 31 µg/L. Little Floyd Lake's average TP was 26 µg/L , a decline over the 20-year average of 23 mg/L.

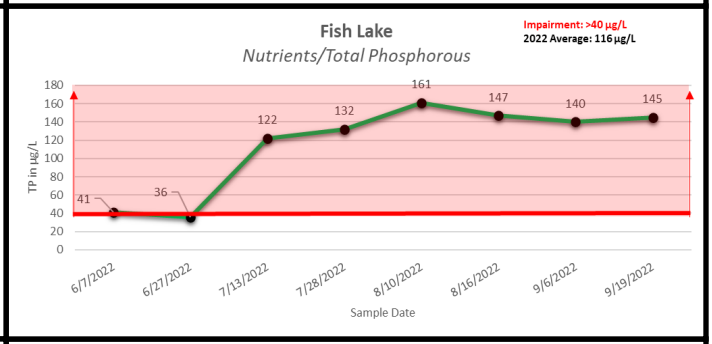
The 2022 average TP for Sands Lake was 19 µg/L, an improvement from the 20-year average of 30µg/L. The District added to new lakes for testing in 2022 Fish Lake and Kennedy. Fish Lake's TP was 116 µg/L , which is considered an impairment to MPCA water quality Standards and Kennedy Lake's average TP was 42 µg/L , Also considered impaired to MPCA's Standards . We will continue to monitor these lakes.

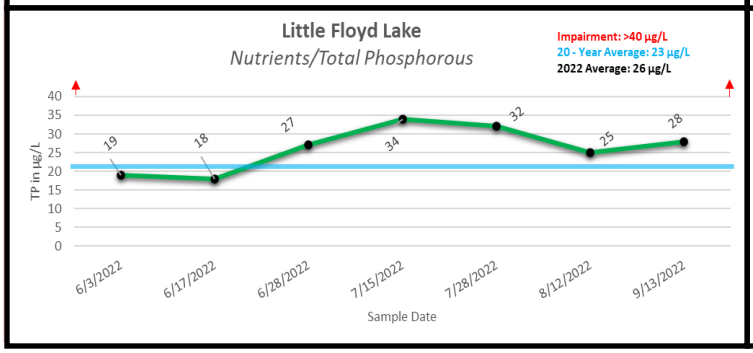
More information is in the *"2022 Pelican River Watershed District Monitoring Report"* on the District's website at www.prwd.org

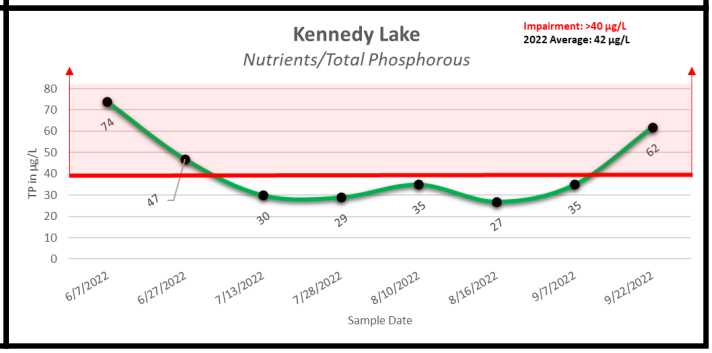












Detroit/Rice Water Management Area

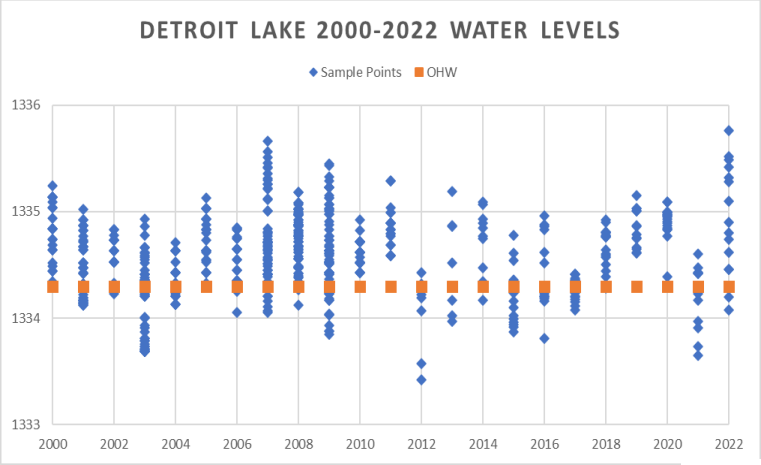
2022 Activity Summary

In 2022, 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.

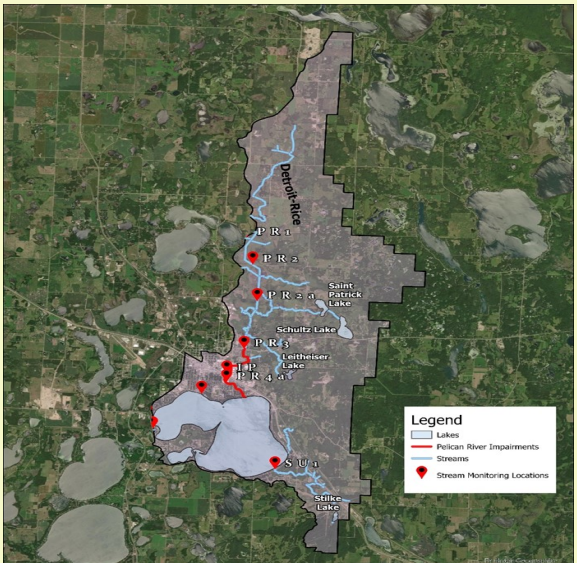
The 2022 average Total Phosphorus (TP) on Big Detroit Lake was 18 µg/L, slightly better than the 20-year average of 24µg/L. Little Detroit Lake's TP was 16 µg/L, also a slight improvement from the 20-year average of 19 µg/L.

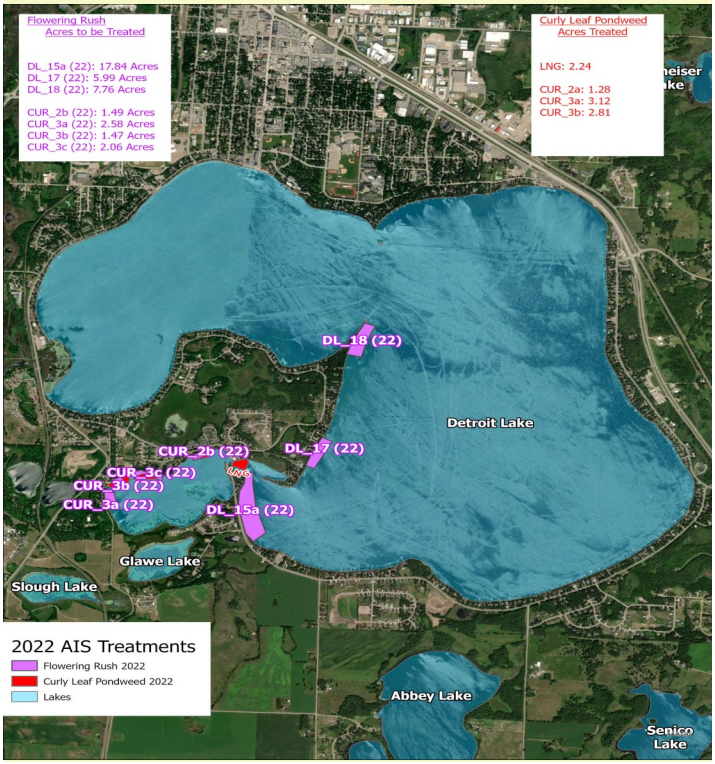
Big and Little Detroit do share a common outlet and OHW. The water level is measured at the outlet under County HWY 6/West Lake Drive. The 2022 monitoring season started out with water levels 0.04 inches from the all time high. Water levels remained high through the beginning of September. Water levels fell below the OHW in September and continued to recede through the end of the year. The last reading the District took was on November 1st, at an elevation of 1334.08 (NGVD 29).

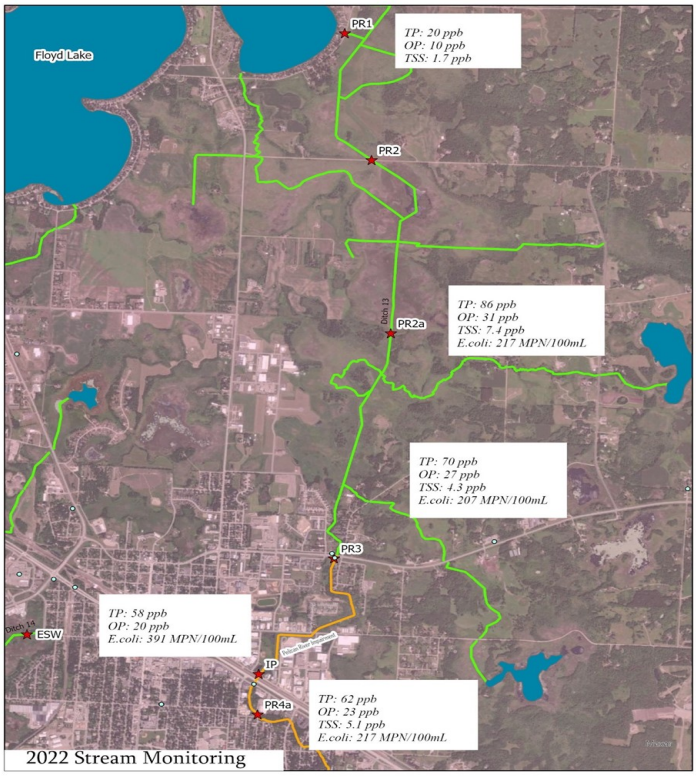
More information is in the *"2022 Pelican River Watershed District Monitoring Report"* on the District's website at



The Detroit /Rice Water Management area

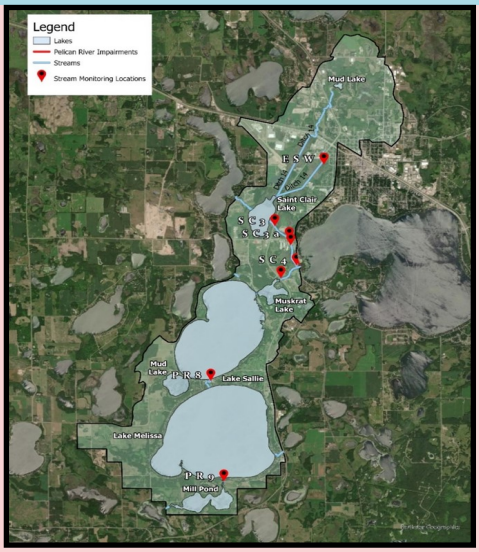






Sallie/Melissa Water Management Area

2022 Activity Summary

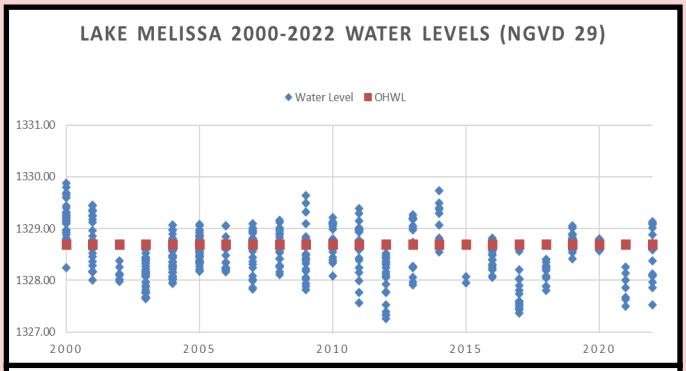


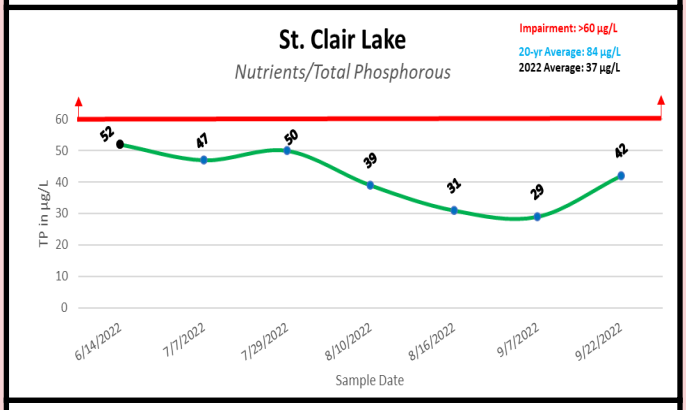
The Sallie/Melissa Water Management area

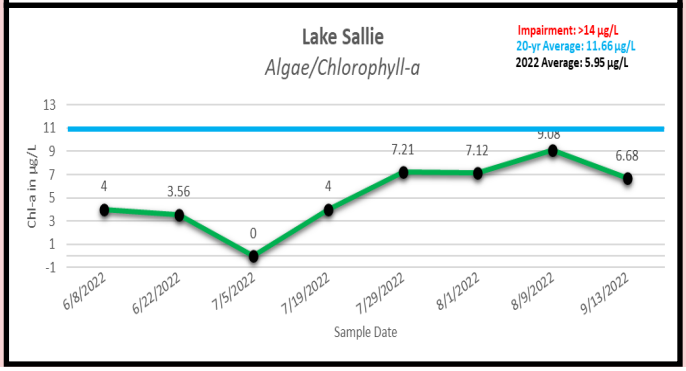
In 2022, the District was very busy in this area performing water quality surveys (Stream/ ditch system, St. Clair, Sallie, and Melissa), and Shoreline surveys (Lake Melissa & Sallie) .

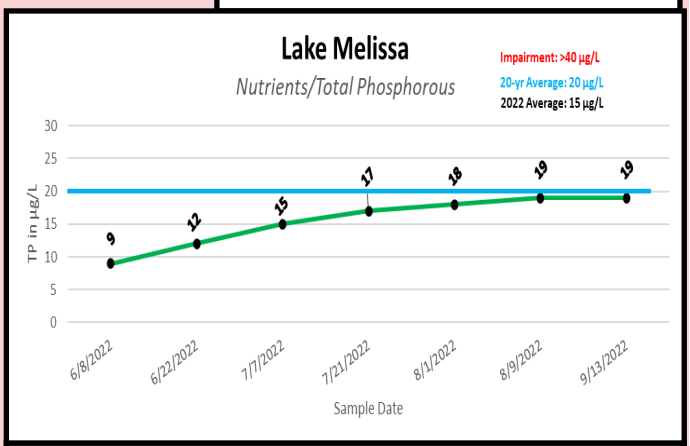
In 2022, average Total Phosphorus (TP) on St. Clair Lake was 37 µg/L , a drastic improvement from the 20-year average of 84 µg/L . Lake Sallie's average TP was 25 µg/L , an improvement over the 20-year average of 32 µg/L . Lake Melissa's average TP was 15µg/L , which is slightly better than the 20-year average of 20 µg/L .

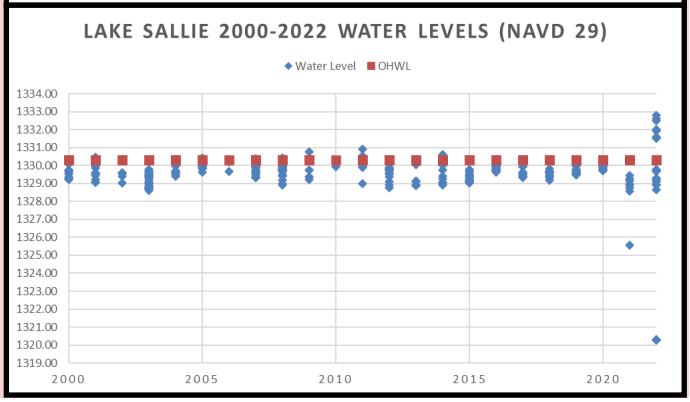
More information is in the *"2022 Pelican River Watershed District Monitoring Report"* on the District's website at www.prwd.org





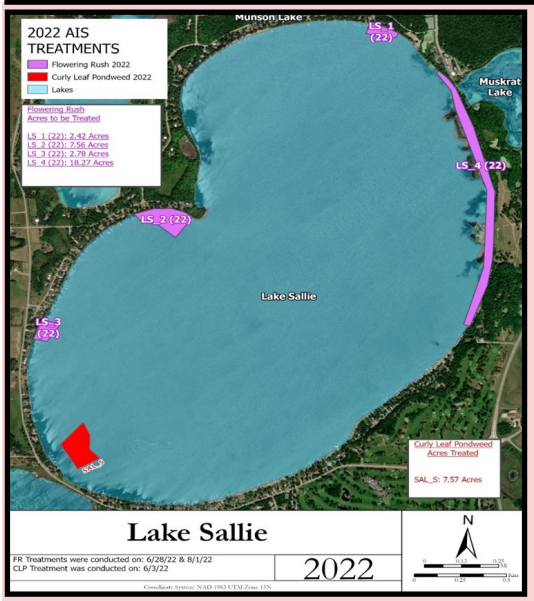






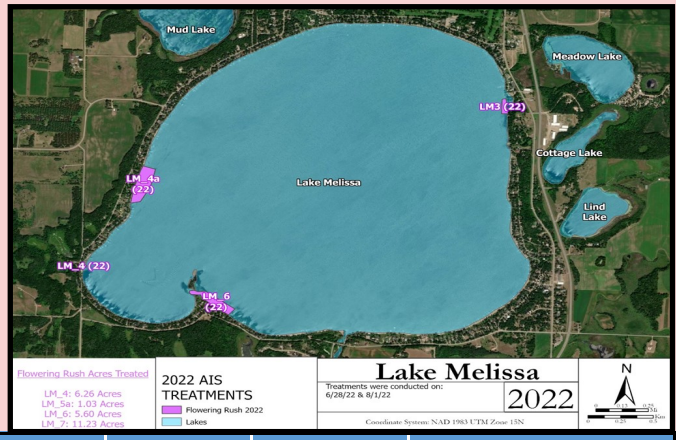
Sallie/Melissa Water Management Area

2022 Activity Summary

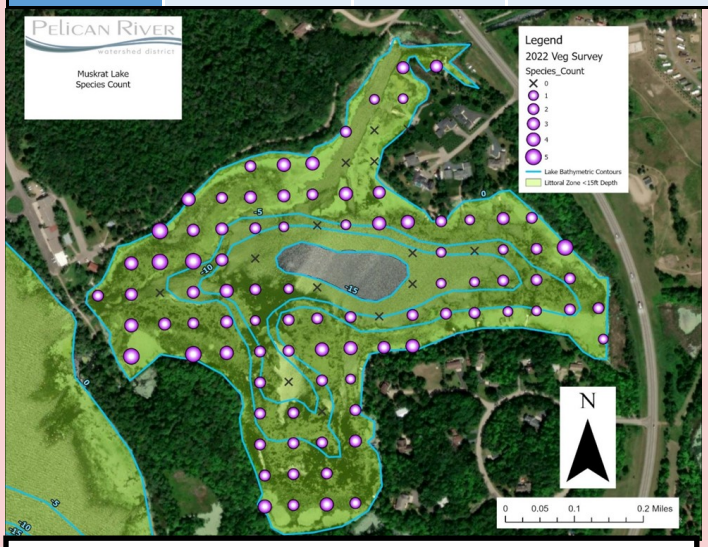


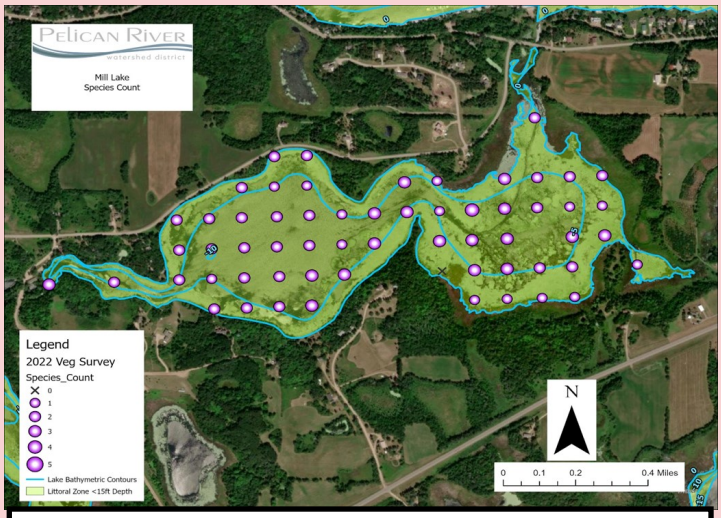
In 2022, vegetation surveys were conducted on Muskrat Lake July 25th and on Mill Pond Aug 11th, and AIS Treatments were conducted on Lake Sallie and Melissa. No Curly-leaf pondweed was detected on Muskrat Lake during delineations in 2022.

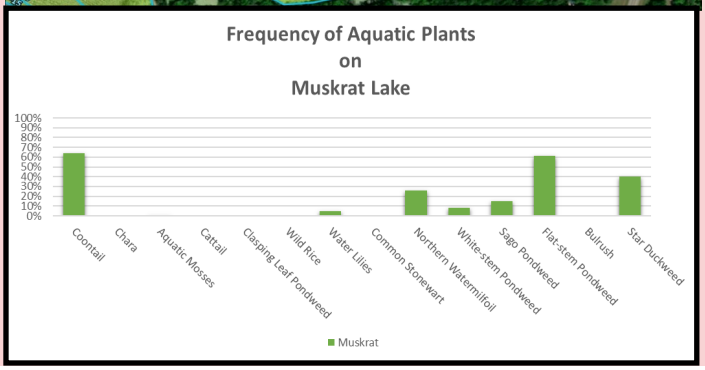
More information is in the *"2022 Pelican River Watershed District Monitoring Report"* on the District's website at www.prwd.org

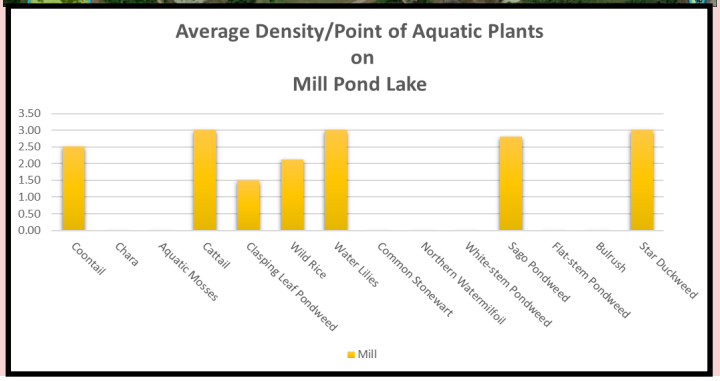


	CLP #1 Trmt Acres 6/3/22	CLP #1 Trmt Cost	FR #1 Trmt Acres 6/28/22	FR #1 Trmt Cost	FR #2 Trmt Acres 8/1/22	FR #2 Trmt Cost	Totals Per Lake
Sallie	7.6	$1273.00	31.1	$5,209.25	31.1	$5,209.25	$11,691.50
Melissa	—-	—-	15.75	$2,638.13	15.75	$2,638.13	$5,276.26









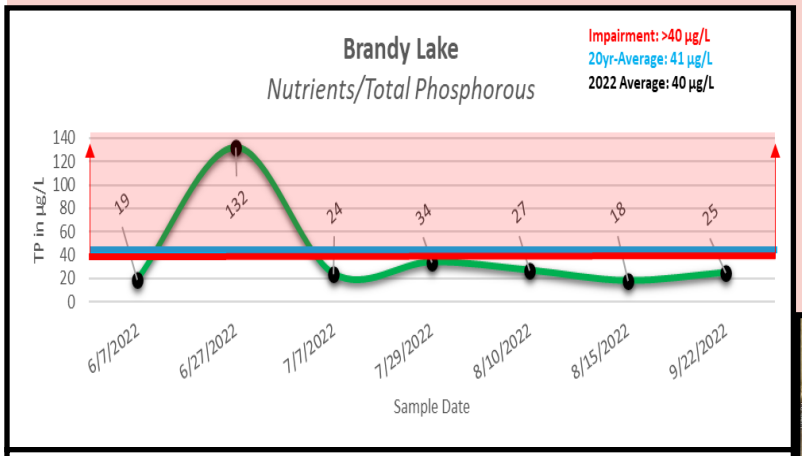
Brandy Water Management Area

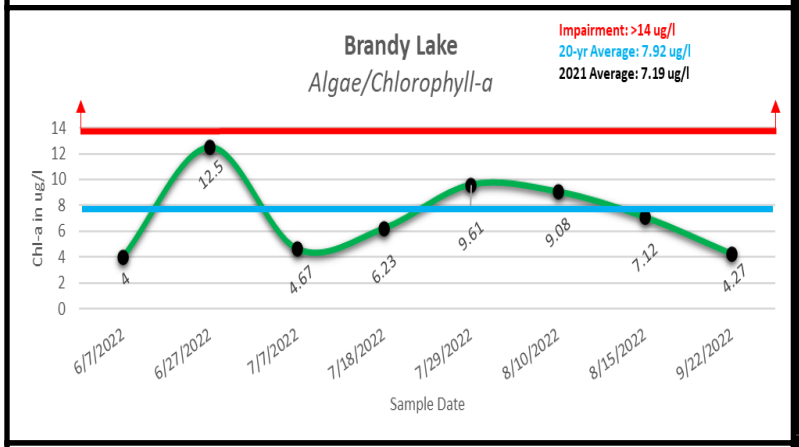
2022 Activity Summary

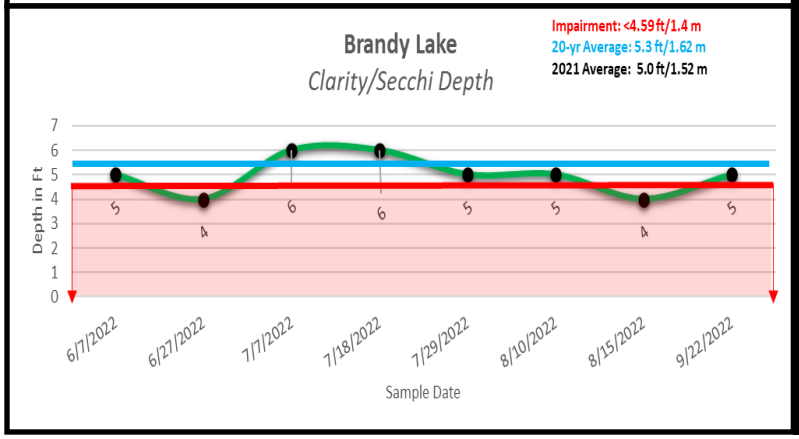
Brandy Lake experienced an "average water quality year" in 2022. The TP averaged 40 µg/L, just under the historic average of 41 µg/L, Chl-a was 7.19 µg/L almost identical to the historic average of 7.95 µg/L and water clarity (secchi) average was 5 feet in comparison with the 20-year historic average of 5.3 feet.

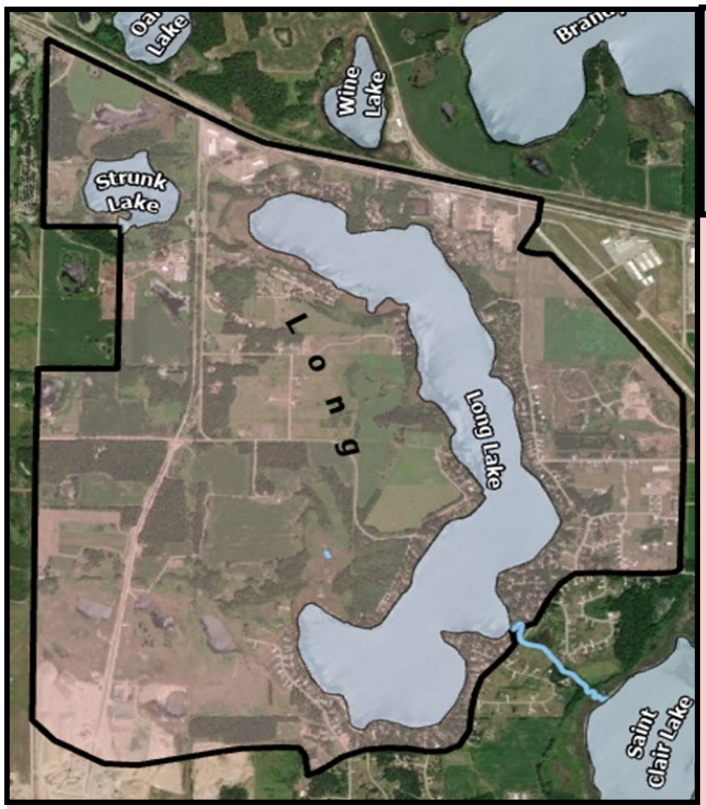
More information is in the *"2022 Pelican River Watershed District Monitoring Report"* on the District's website at www.prwd.org

The Brandy Water Management area









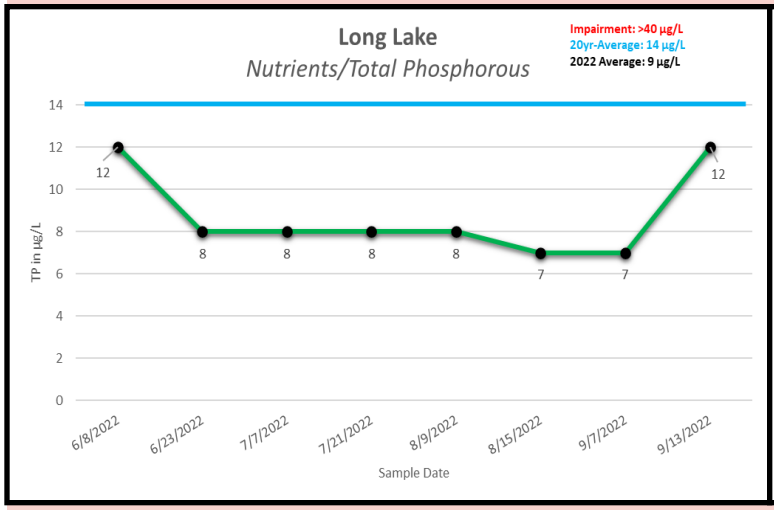
The Long Water Management area

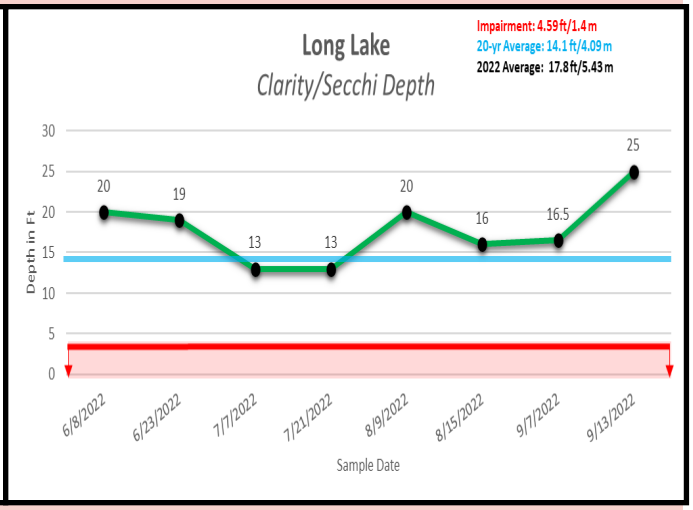
Long Water Management Area

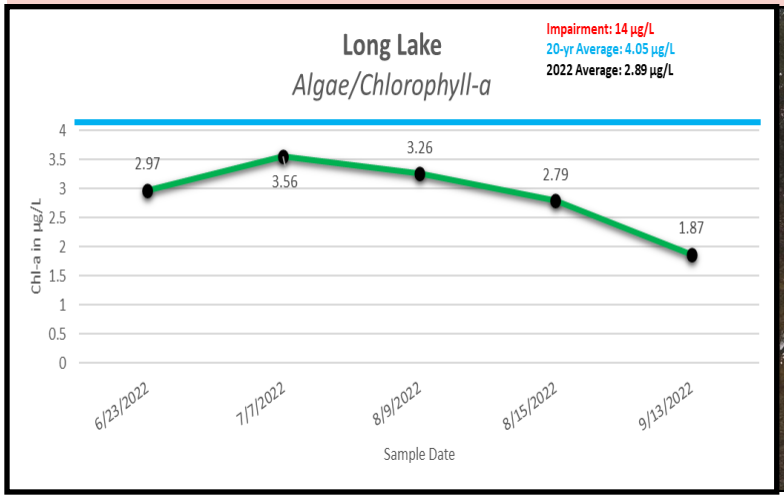
2022 Activity Summary

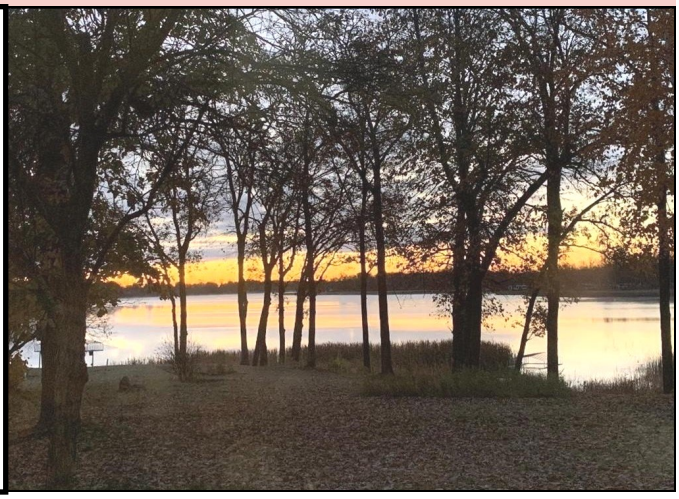
Water quality monitoring was conducted on Long Lake in 2022 and the average Total Phosphorus (TP) was 9 µg/L, greatly improved from the 20-year average of 14 µg/L . The average CHL-a was 2.89 µg/L , which was a slight improvement from the 20 –year average of 4.05 µg/L . The average Secchi (clarity) depth was 17.8eet which is a little over 3.5 feet better than the 20-year average of 14.1 feet.

More information is in the *"2022 Pelican River Watershed District Monitoring Report"* on the District's website at www.prwd.org







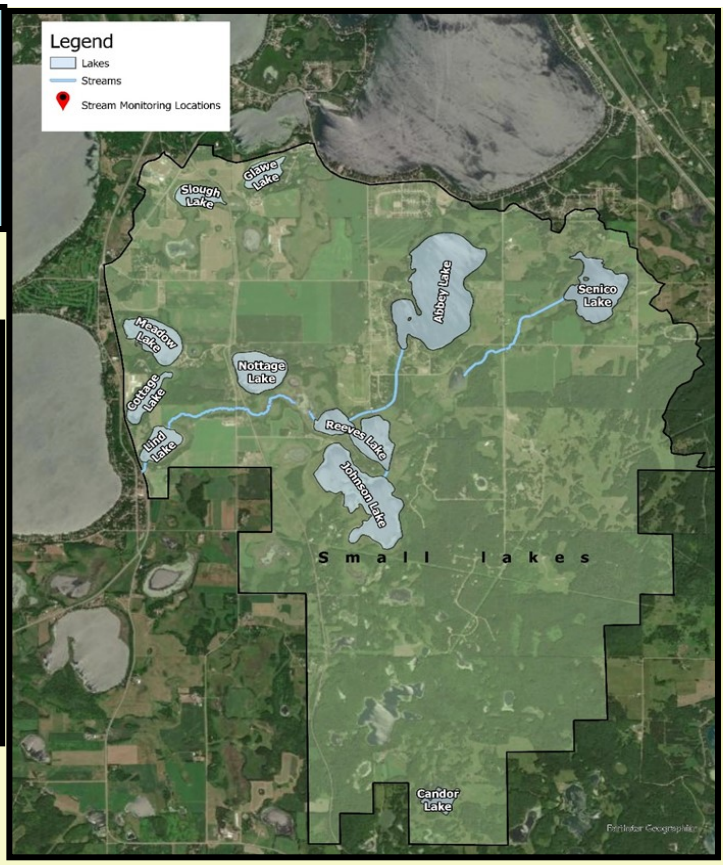


Small Lakes
Water Management Area
2022 Activity Summary

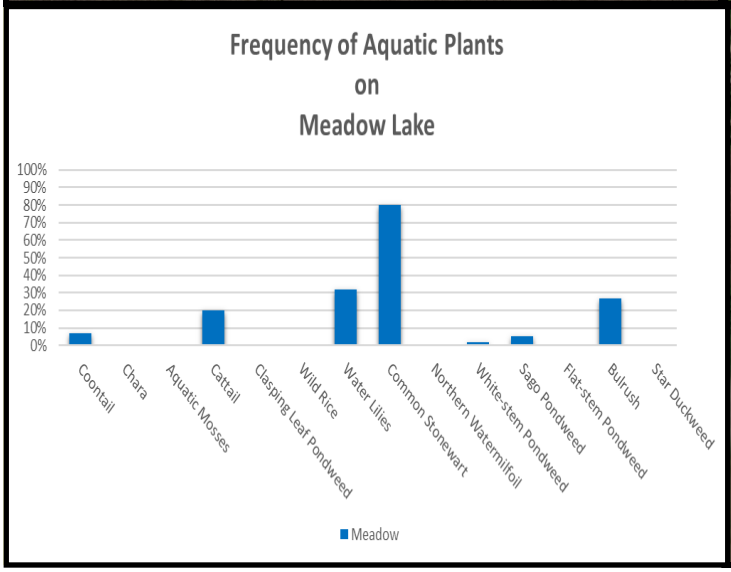
The District performed an aquatic vegetation survey on Meadow Lake for the first time and a shoreline survey on Lind lake.

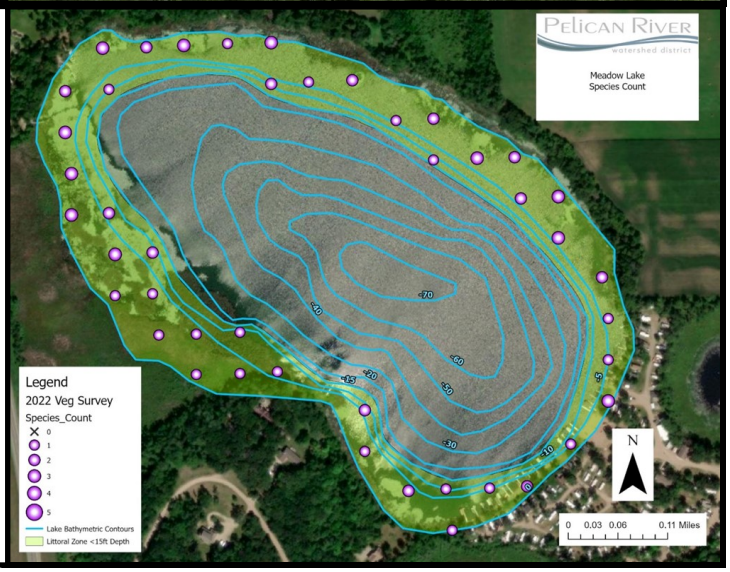
As the chart below indicates, Meadow lake is abundant in Common stonewort.

More information is in the *"2021 Pelican River Watershed District Monitoring Report"* on the District's website at www.prwd.org



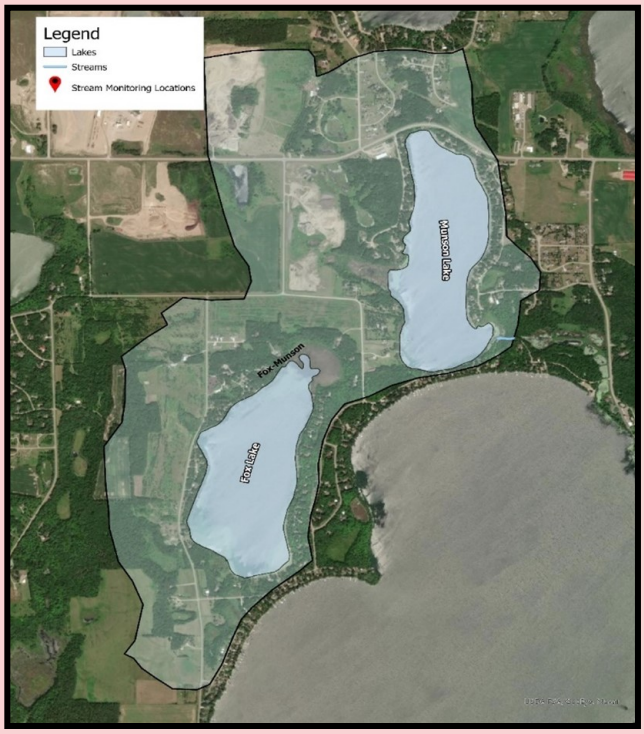
The Small Lakes Water Management area





Munson/Fox Water Management Area

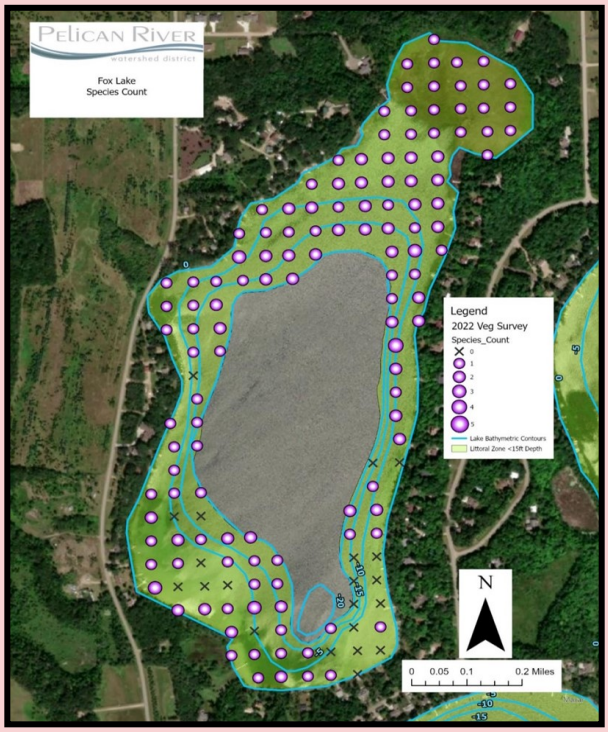
2022 Activity Summary

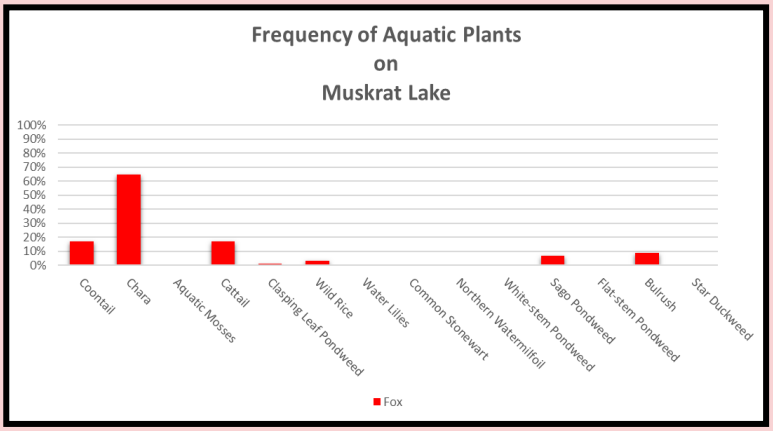


The Munson/ Fox Water Management

The District performed an aquatic vegetation survey on Fox Lake. As the chart below depicts, Fox Lake contains an abundant amount of Chara.

More information is in the *"2022 Pelican River Watershed District Monitoring Report"* on the District's website at www.prwd.org





Aquatic Roadside Pick up Program Sunsets

Since 1968, PRWD has implemented an aquatic vegetation management program beginning with Project 1, on Lake Sallie, which was part of a federally funded research project initially aimed to determine if in-lake aquatic vegetation removal (harvesting) could reduce nutrient loading within the lake. The research concluded harvesting was not a feasible nutrient reduction measure (Neel, 1971). While the nutrient removal goal was not achieved, it was perceived by the lakeshore residents that the harvesting operation resulted in improved recreational quality.

In 1978, Project 1-A was established for lakes Sallie and Melissa for yearly removal, transport and disposal of excessive aquatic vegetation for a five-year period to be paid for by shoreline assessments.

In 1984, Project 1B (Sallie/Melissa), and later in 1991 Project 1-C (Detroit/Curfman), were established to permanently continue the control of aquatic vegetation with mechanical harvesting and chemical herbicide treatments as the primary control methods. Curly-leaf pondweed and Flowering rush (invasive species) became established and proliferated within Detroit, Curfman, Sallie and Melissa. Limited chemical control was tried but had discouraging results. Using funds from the projects, PRWD purchased and operated three harvesters and associated equipment.

By 2001, PRWD noted "extraordinary" increases of Flowering rush in certain areas as well as new infestations. Repeated cutting was not reducing plant densities. By 2003, the Managers determined the use of mechanical harvesting was not managing invasive and excessive aquatic vegetation, but rather, spreading and contributing to the invasive plant growth. In 2006, a major operational shift occurred with PRWD directing more efforts and funding towards chemical control, and less on mechanical harvesting. Lake-wide chemical control of emergent Flowering rush required the decrease of harvesting in order to treat Flowering rush (FR). Harvesting was restricted to the control of Curly-leaf pondweed (CLP) for navigation.

From 2010-2017, the Managers embarked on an aquatic plant management research program where the findings concluded mechanical cutting was definitely contributing to the increased spread and plant density of FR. The research provided a safe and effective technique using chemical treatments to efficiently control targeted invasive aquatic plants without impacting native species. Lake-wide operational herbicide treatments began in 2012, and in 2013 an "Adaptive Management Plan" was adopted and is used today as guidance for annual treatment of FR.

By 2011 harvesting was limited to a few days for management of CLP on Big Detroit. In 2013, PRWD sold two harvesters and a truck; with the remaining harvester sold in 2017 after successful chemical treatments. PRWD will continue to provide large-scale chemical treatments of CLP and FR on Melissa, Sallie, Detroit and Curfman lakes which is paid for by special assessments and grant funds.

In February 2022, the managers held a special meeting to hear public input on the Aquatic Roadside pick up program that originated to help shoreline property owners remove harvested vegetation from affected lakes. Since the District is no longer engaged in large scale mechanical harvesting and is not creating "aquatic plant debris" by its actions, and vegetation removal does not improve water quality and benefit riparian landowners as a whole, it was determined to contract out the program to the private sector for one year to serve as a transition period, after which time the program will sunset (Sept. 30, 2022).

2023 Work Plan for Pelican River Watershed District
2023-2032 Otter Tail River 1W1P

See Appendix A

Primary focus includes:

- **Surface Waters**
- **Habitat Management & Protection**
- **Land Stewardship**
- **Groundwater**