

South Shore Public Access Restoration

PRWD staff contacted the MN DNR regarding the poor state of the shoreline on the south public access of Detroit Lake in the spring of 2020. MN DNR agreed to move/place existing rock to form a sloped toe along the shoreline and provide seed mixture. The District applied for a CWF grant from Becker SWCD and agreed to cost share with Lake Detroiters Association 25% of the project for plans, plantings/plugs, and 1-2 years of maintenance work.

Thank you to Lake Detroiters for both the monetary donation and to the members who assisted with planting.



BEFORE



DURING



DURING



AFTER

Public Access Shoreline And Website Update

North Shore Public Access Update

In the fall of 2020, District and MN DNR staff met with adjacent landowners to review the MN DNR site plan and suggest changes. The District followed up with a letter to the MN DNR in December 2020, requesting the agency follow recommended MN state standards and practices as well as landowner plan changes for development of new public water accesses including; (1) protecting the existing natural vegetation shoreline from human disturbance in no-mow buffer zones from the upland area to the shoreline with additional plantings (shrubs, grasses, trees), split rail fencing, and posting signage to discourage trampling; (2) designate an area near the Holiday Inn for boat day-mooring and pedestrian crossing from the west side of the parking lot to the Spitfire/Northshore Plaza business area.

As of spring 2021, there is no final resolution with the recommended plan changes from the MN DNR. The District staff will continue to reach out to MN DNR to see if a compromise can be reached.

Website. www.prwd.org.

Check out the new site! District staff has worked very hard through the winter months with a website designer to update the website. We launched the new page on May 1, and will continue to update the information in the coming months. You are able to go into the *Our Water* section and click on your lake to see the latest information. We hope you find it user friendly and informative. The section titled *Our Work*, is loaded with information on current projects and programs and the *Resources* section, contains both current and historical reports and data regarding District activities. We welcome any and all feedback on the new site.

Facebook. If you aren't seeing our posts on your Facebook feed, you may need to "like" or "follow" us to see current information. Due to difficulties with the old District Facebook page, we closed it down and started up a new page in early 2021. In the Process, we lost some of our followers. Check it out for current PRWD updates.

Detroit/Rice

Water Management Area—Spring 2021

Detroit Lake is part of the Detroit/Rice Watershed Management area. Detroit's lake shed is 25,000 acres and includes the Pelican River, the nutrient-rich Rice Lake Wetland, pockets of heavy urban and industrial development, and the Sucker Creek (trout stream).

The District's administrative operations were adjusted somewhat in 2020 due to Covid-19 restrictions. Activities such as project permitting and monitoring continued with little impact. However, outreach and education events were largely cancelled or held using interactive technology. Staff took advantage of the office time by writing for project grants and updating the District's website.

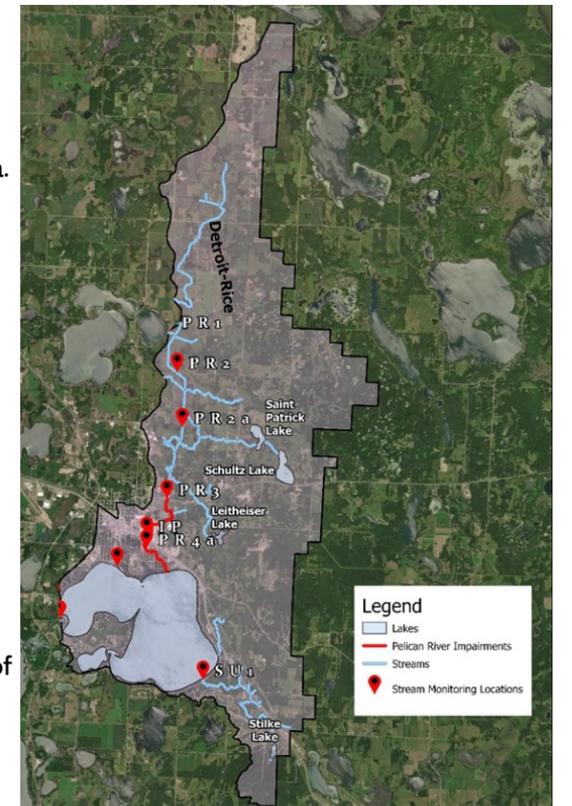
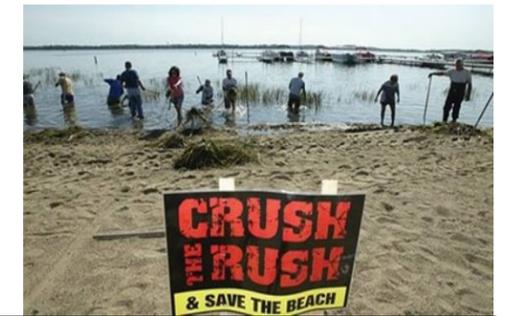


Minnesota Association of Watershed District's 2020 Project of the Year

The Pelican River Watershed District was honored to receive the MN Association of Watershed District's Project of the Year award for their accomplishments with Coordinated Research and Adaptive Management of Flowering Rush. Our thanks for the letters of support for this award to Laker Detroiters Association and the City of Detroit Lakes.

The battle began in 1976 when the first infestation was documented in Curfman Lake and then spread through the Pelican River chain into Detroit, Muskrat, Sallie, Melissa, Mill Pond and Buck Lakes. Flowering rush was taking over our area lakes and in 2008, members of the Lake Detroiters and business owners started the "Crush the Rush" movement. Responding to this public outcry, in January 2010, PRWD met with research scientists and agency representatives from both state and federal governments and formed a research effort to control Flowering rush. In-tank chemical application studies, and in-lake Ecology and Phenology studies were conducted from 2010-11. In-Lake treatment pilot studies began in 2011 with larger operational scale pilot study treatments from 2012-13. In 2013, 250 acres of FR was treated on Lakes Sallie, Melissa, Detroit and Curfman.

The District uses an "Adaptive Management Plan" to guide its annual treatment protocols for Flowering rush where the number of treatments are based on plant density. The most notable change in Flowering rush populations has been in Detroit Lake where 170 acres were treated in 2013 and only 23 acres required treatment in 2020.



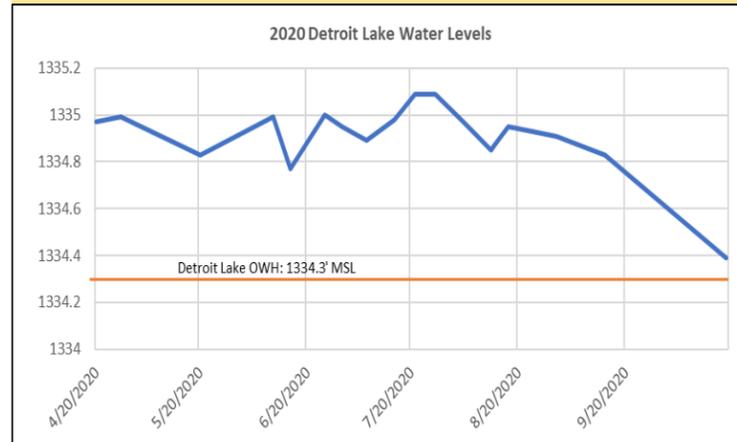
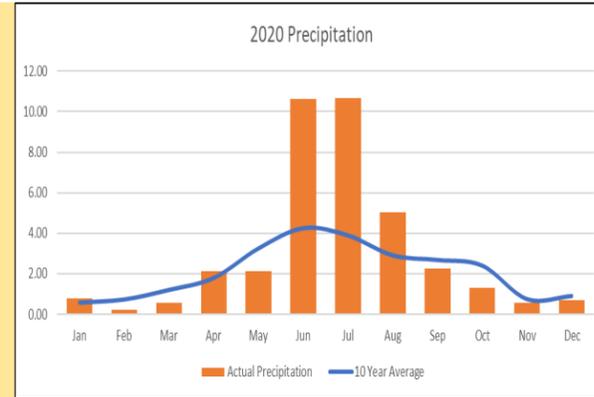
AIS Treatments in 2020 were greatly reduced from previous years. Densities of flowering rush were barely enough to warrant treatment. Staff will re-assess in 2021 and possibly forego treatments for a year. Curly-leaf pondweed (CLP) growth was also very sparse compared with past years, but these populations can fluctuate greatly from year to year. Each year the District conducts plant surveys and updates its treatment plans based upon plant densities.

Treated	CLP Acres 6/2/2020	CLP Cost	FR Acres 7/7/20	FR Cost	Totals Per Lake
Detroit	25.3	\$15,683.32	11.8	\$3280.88	\$18,964.20
Curfman	1.5	\$1,305.94			\$1,305.94

Roadside Pick Up Program for Detroit and Curfman begins the Tuesday following Memorial Day through September. Aquatic vegetation must be placed on your private property and not on the road surface. If the vegetation is not in compliance with Lakeview Township Yard Waste Site Regulations, it will not be picked up. Please note that this program is for vegetation only and that piles of Chinese Mystery Snails or Zebra Mussels will not be transported.

2020 Weather, Monitoring & Stormwater Mgmt.

Precipitation. 2020 was a wet year, with 36.66" of precipitation. The wettest months of the year were June and July, with 10.63" of rain in June and 10.66" in July. This is 6.38" and 6.76" over the June and July 10-year average for Becker County (MN DNR Climate Data). There were 11 events with >1" of rain, with the largest event on June 8th and 9th precipitating a total of 4.41" However, snowfall between October 2020—April 2021 was 38.9", well below the annual average of 48.27". An anomaly occurred in October with 9.4" of snow falling, however, warmer temperatures quickly melted the snow.



Ice in/Ice Out. In 2020, there were 206 days of open water, from April 25—Nov. 17th. The ice out date in 2021 was on April 4 (5th earliest date on record in the past 30 years) on Big Detroit, however, Little Detroit was ice free a couple of days earlier.

Water Levels. Higher than normal lake levels were maintained in Detroit throughout the summer from ice out to freeze up. It is the only time in the past 36 years that water levels have remained entirely above the ordinary high water level (OHW) for two consecutive years.

Data Collection. The District hires two student interns who collect the majority of water quality samples for the District during the summer months. From the sampling conducted on Big & Little Detroit, water quality was improved in 2020. Total phosphorous on Big Detroit was improved at 17 ppb compared to the 20-year average of 25 ppb, and Little Detroit was 15 ppb compared to the 20 year-average of 19.5 ppb. Water clarity secchi disk readings for both lakes averaged 15 ft over the summer season, almost 4 ft better than the 20-year average. In collaboration with the MN DNR, the District collected zooplankton samples to study the effects of zebra mussels on the in-lake food chain. This is a multi-year research effort. The Pelican River flowing into Big Detroit is nutrient rich carrying over 3,747 lbs of phosphorus into the lake annually. The largest source of these nutrients is the Rice Lake Wetland located a few miles upstream of Lake Detroit and the District is constructing a project in 2021 to greatly reduce the nutrients entering into Big Detroit (see Rice Lake Project). Fortunately, sediment loading is very low and is not considered a nutrient source. However, an emerging pollutant of concern is E. coli. Monitoring of Pelican River from HWY 34 to Detroit Lake has identified this stream segment as "E. Coli impaired" and was placed in 2021 on the MPCA 303(d) Impaired Waters list. Further investigative work is planned for this year to try and identify the sources. **For more information [www.prwd.org/Our Waters](http://www.prwd.org/OurWaters)**

Stormwater Management/Permitting

The District was active with stormwater management projects directly affecting water quality of Detroit Lake in 2020. The Holiday Inn east parking lot stormwater improvements were completed in 2020 and the west parking lot is scheduled for completion this year. This will greatly reduce untreated stormwater from entering directly into Detroit Lake from this site. The new Police Department building and parking lot stormwater runoff is captured and infiltrated underground. The District has permitted the stormwater management plans for the West Lake Drive project, the South Shore Dr. City Park, Phase 2 of the Long Pine Estates addition near Long Lake, and finally, two roundabouts constructed on Washington Ave. The Detroit Lakes school building improvements are nearing completion and all sites have comprehensive stormwater management plans. The Trinity Lutheran improvements scheduled for 2020 were delayed until 2021 and their permit has been extended.

A total of 70 permits were issued throughout the District in 2020. Please remember to contact District staff before beginning any projects on your property.

This wetland restoration nutrient reduction project is ready for on-the-ground construction in 2021, with an anticipated annual phosphorus reduction of between 800—1,200 lbs to Big Detroit Lake. The District has targeted the Rice Lake Wetland project as the primary source of phosphorous loading to Detroit Lake through its monitoring network, studied the alternatives, effects, and benefits of the Rice Lake Wetland Restoration through multiple studies including 2 Graduate Thesis Studies, NRCS PL-566 study, completed an EAW, obtained land rights and easements on affected lands, signed Joint Powers Agreement/Operations and Maintenance Plan, held public hearings and obtained authorization to impound water on Becker County Ditch 13 under MN Statue 103E.227, developed construction plans which include fish passage, submitted permit applications including: MN DNR Public Waters Work and Dam Safety permits; MN Wetland Conservation Act approvals; and, Army Corps of Engineers 404 Permit approvals.

Over the past three years, the District engaged the services of Houston Engineering Inc., to design the project's features including an upper embankment structure and a rock fishway water control structure (46-ft width X 190-ft length X 4.5-ft runout depth) which incorporates a 15ft wide low-water crossing and drawn-down capability; upper access road improvement to the existing access; installing a road terminus and removal of 2 large road culverts on the vacated Anchor township road segment ; and replacing the Rice Lake Wetland historic outlet channel culverts with a rock weir grade control structure to improve fish passage.

The project construction plan is widely supported by permitting agencies and MNDNR public waters construction and dam safety permits have been approved. The District also worked with Detroit Township in 2019 to partially vacate a ½ mile segment of a road within the project area, significantly reducing project costs.

Rice Lake Project Moving Forward in 2021



Several contractors were on hand to witness the Rice Lake Project Bid Opening on March 23, 2021.



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

