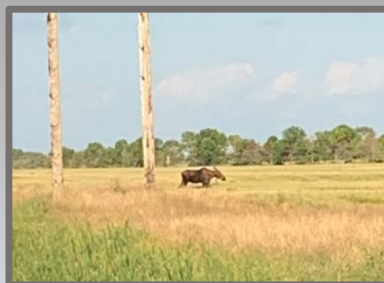




2020

ANNUAL REPORT

RED LAKE WATERSHED DISTRICT



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Letter from the President

Greetings to all the citizens of the Red Lake Watershed District and other interested parties.

Another year has passed and those of us who deal in water resource issues never really know what to expect from one year to the next. Extreme rainfall events in the fall of 2019 left moisture contents in the soil profile very high. Those conditions along with more than average snow fall events in the winter/spring of 2020 caused significant flooding throughout the Red Lake Watershed District. This will be outlined in the impoundment portion of the 2020 Annual Report.

Although there are numerous projects listed in this year report, I would like to feature the Thief River Falls Flood Damage Reduction Project. The project was petitioned by the City of Thief River Falls and Pennington County to divert flows from six square miles, which presently flowed through the city, and directed it along the west side of the city thus outletting into the Red Lake River 2 miles south of town. There were many funding partners on this project which included, State of Minnesota Flood Hazard Mitigation Grant, Minnesota Department of Transportation, City of Thief River Falls, Pennington County, Red River Watershed Management Board, Board of Water and Soil Resource Clean Water Fund and the Red Lake Watershed District.

In 2020, two members of the Red Lake Watershed Board of Managers were re-appointed by their respective counties to serve three-year terms. Brian Dwight, Waskish, was reappointed by the Beltrami County Board of Commissioners and LeRoy Ose, rural Thief River Falls, was reappointed by the Marshall County Board of Commissioners, to each serve three-year terms. The Red Lake Watershed District Board of Managers and staff are looking forward in working with these two fine gentlemen in serving the communities of the Red Lake Watershed District to the best of our ability.

The Watershed District office is located at 1000 Pennington Avenue South, Thief River Falls, MN. Feel free to stop in and have a cup of coffee, but if you do not have time, please go to our website <http://www.redlakewatershed.org> and take a virtual tour of our facility, as well as get updates of projects throughout the year.

Our 2020 Annual Audit is included in this report in an abbreviated form. A complete copy of the Annual Audit may be obtained at the District office at 1000 Pennington Avenue South, Thief River Falls, as well as on our website www.redlakewatershed.org.

In closing, I would like to remind the citizens that the goals of a watershed district are to manage water in the areas of flood control, drainage, and water quality. We continue to hold our meetings on the second and fourth Thursday of each month and welcome public interest and/or attendance at these meetings.

I would like to thank the citizens of the District for being supportive of the Districts missions and it was a pleasure to serve as President of the Board in 2020.

Sincerely,



Dale M. Nelson, President

Board of Managers – 2020



Front Row (left to right): Terry Sorenson, Treasurer; Dale M. Nelson, President; and Gene Tiedemann, Vice President. **Second Row** (left to right): Brian Dwight, Les Torgerson; LeRoy Ose, Secretary; and Allan Page. Brian Dwight, representing Beltrami County; and LeRoy Ose, representing Marshall County, were re-appointed by their respective counties to serve an additional 3-year term for the years 2020-2022.

Staff – 2020



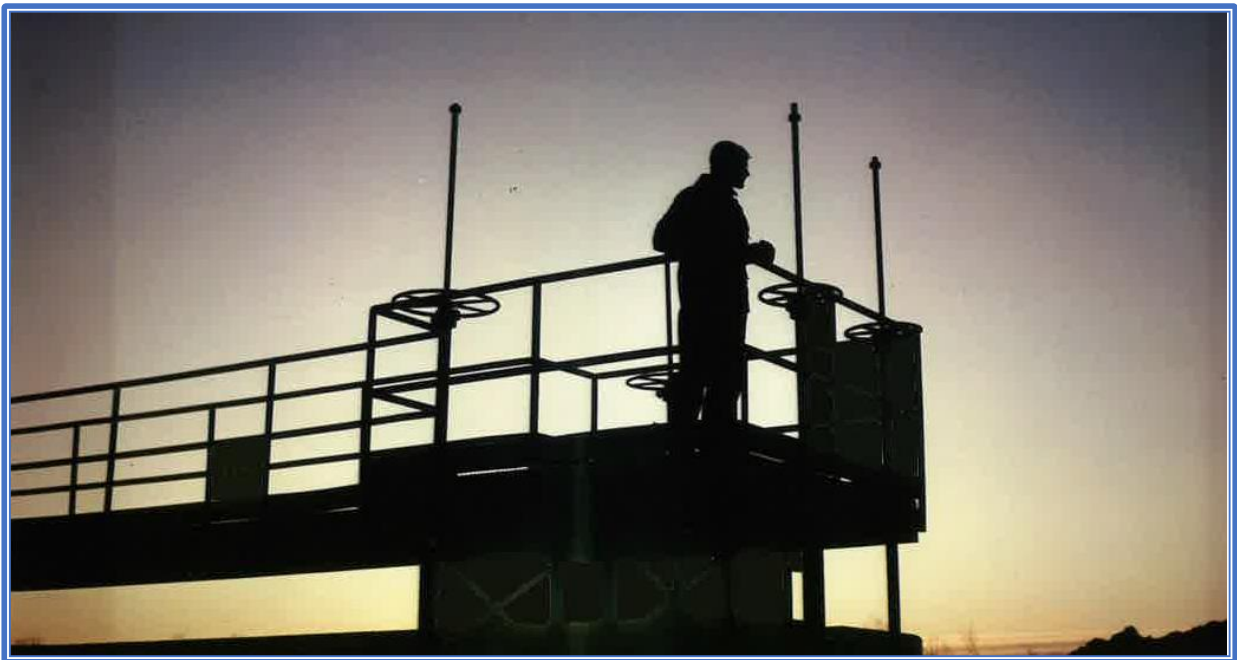
Front Row (left to right): Marisa Newton, Christina Slowinski and Ashley Hitt.
Middle Row: Tammy Audette and Arlene Novak.
Back Row Nick Olson, Myron Jesme, Corey Hanson, and Loren Sanderson

Loren Sanderson Retires after 38 Years with the District



After 38 years of dedicated service to the Red Lake Watershed District, Loren Sanderson retired from full-time employment in October 2019. Loren's career with the District began as an intern while going to college and evolved into his life's career. Loren was instrumental in the construction of the Moose River Impoundment, spending countless days inspecting the construction of the project to completion, followed by many years of operation and maintenance.

Loren took great pride in the positive impacts he worked on following the 1997 Flood. Loren has continued to work part-time, assisting the District when help is needed. The District Board and Staff would like to congratulate Loren on his retirement! His dedication to the mission of the District will be greatly missed, but so well deserved. Best wishes Loren!



Red Lake Watershed District Office

1000 Pennington Avenue South
Thief River Falls, MN 56701
Office Hours: Monday – Friday 8:00 a.m.– 4:30 p.m.
Phone: 218-681-5800 ~ Fax: 218-681-5839
Website: redlakewatershed.org
E-Mail: RLWD@redlakewatershed.org



Meetings

The Board of Managers held twenty-five regularly scheduled board meetings and one Special Meeting in 2020. These regular meetings are normally held the 2nd and 4th Thursday of each month at the District office at 9:00 a.m. One additional meeting was held to allow the Board to participate in the RLWD Advisory Committee meeting. Notice of these meetings are mailed or e-mailed to the Advisory Committees, county auditors, county commissioners, and SWCD/NRCS offices and by request. The agenda, minutes and Board meeting packet from board meetings are available by visiting our website at www.redlakewatershed.org/minutes.

The 2020 General Fund budget was set at \$150,337. The General Fund Budget hearing was held on August 27, 2020. Notice for the General Fund Budget hearing was published in at least one newspaper in each of the 10 counties within the District.

2020 Advisory Committee

Black River

Dan Schmitz, RLF
Curt Beyer, RLF
Greg Dyrdal, TRF

Moose River

Wayne Larson, Middle River
Elroy Aune, Gatzke

Upper Red Lake Area

John Ungerecht, Northome
Wayne Skoe, Northome
Shane Bowe, Red L. Band Chippewa Indians

Thief River Area

Dave Rodahl, TRF
Trent Stanley, Grygla
Steve Holte, Grygla
Jim Sparby, Grygla

Clearwater River Area

Steve Linder, Oklee
John Gunvalson, Gonvick
Mark Larson

Lost River Area

Gary Mathis, Gonvick

Pine Lake Area

Dave Dalager, Gonvick

Red Lake River Area

Hill River Area

Jake Martell, Oklee

Walker Brook Area

John A. Nelson, Clearbrook

Grand Marais/Red Area

Jeep Mattson, EGF
Roger Love, EGF

Burnham Creek Area

Poplar River Area

Clearwater Lake Area

Sportsman Clubs

Jim Counter
Larry Peterson

Members of the local SWCD's offices are also asked to participate on the Advisory Committee.

Members of the Advisory Committees met on March 16, 2020. Twelve advisory members and four individuals from SWCD offices, along with District Board members and staff were in attendance. Staff members from the District gave presentations on projects within the District and answered questions from the Advisory Committee members.

History of the Red Lake Watershed District

The Red Lake Watershed District (District) covers an area of approximately 5,990 square miles in northwestern Minnesota and includes all Red Lake County, most of Pennington County, and parts of Mahnomen, Polk, Itasca, Marshall, Clearwater, Beltrami, Roseau, and Koochiching Counties.

A governmental unit known as the Red Lake Drainage and Conservancy District preceded the District, whose territory included approximately the same land. Under the Conservancy District, three major improvement projects were completed: dredging of the Clearwater, Red Lake, and Lost Rivers.

The Board of Directors of the Red Lake Drainage and Conservancy District felt the District could better function under the Minnesota Watershed Act. The Board petitioned the District Court for the right to operate under Chapter 112, the Minnesota Watershed Act. A hearing was held in Thief River Falls on January 25, 1969, and the Conservancy District was authorized to operate under and exercise all the rights and authorities contained in the Minnesota Watershed Act.

The Board petitioned the Minnesota Water Resources Board (now the Board of Water and Soil Resources) on July 24, 1969, amended January 20, 1970, for a change of name, review of boundary, and distribution of managers of the District. A hearing on the matter was held at Thief River Falls on March 31, 1970, and at Kelliher on April 2, 1970. In their Order, the Water Resources Board stated that the principle place of business shall be at Thief River Falls; that a description of the land within the District be written; specified that the Board of Managers be seven members, the procedure by which county boards shall appoint managers and terms of office for the Managers.

On March 25, 1975, the District adopted the Rules and Regulations pursuant to Minnesota Statutes. They were amended on May 12, 1978; December 14, 1978; August 10, 1989; and reviewed and updated on June 24, 1993, and again in 2015 to be entitled "Permit and Drainage Rules of the Red Lake Watershed District."

In 1977, the District signed a Joint Powers Agreement with other watershed districts in the Red River Basin to form the Lower Red River Watershed Management Board. In 1991, the name was changed to the Red River Watershed Management Board. This organization currently consists of eight watershed districts in the Red River Basin and provides funding to member districts, primarily for floodwater detention structures, which benefit more than one-member district. The levy collected is used for funding the development, construction, and maintenance of projects of common benefit to the Red River Basin.

The District currently is governed by Minnesota Statutes 103D, which provides a broader scope for a local unit of government to manage quantity and quality of water within the hydrological boundaries.

2020 District Projects

Pine Lake Watershed (RLWD Project No. 26)

In 2013, at the request of the Property Owners of Pine Lake Association (POOPLA), the Board of Managers hired HDR Engineering, Inc. to investigate the Pine Lake Watershed, to not only come up with solutions and alternatives that could assist in frequent flooding on Pine Lake, but also investigate the opportunities for distributed storage sites which may assist the District in our long range plan to reduce flooding to the Red River of the North by implementing the Red Lake Watershed 20% Reduction Strategy.

After various hurdles were presented by the Minnesota Department of Natural Resources concerning permitting the proposed Pine Lake Watershed Project the District had been working on over the past two years, the Red Lake Watershed District Board of Managers made a request to the Natural Resource Conservation Service to move forward with a close-out agreement for this project thus canceling the agreement. In August of 2019, the RLWD filed all the paperwork with the NRCS and hope to get final approval of closeout in early 2020. It should be noted that the RLWD is still



working with the Pine Lake Project Team to develop a project that will satisfy the needs of the public as they have requested. After various landowner meetings held in 2014 and 2015, it was apparent that there was interest in looking at areas upstream of Pine Lake to determine if any Flood Damage Reduction (FDR) projects could be developed. This interest led the RLWD in applying for and being approved for a Natural Resource Conservation Service PL566 grant which will assist in a study which could lead to the possibility of engineering and design of Flood Damage Reduction (FDR) projects in the Pine Lake Watershed. It is the hopes of the District that the contracts will be signed and executed in early 2016, with a comprehensive study to be completed which would lead to projects being developed to reduce flood damages in the Red Lake Watershed District.

On January 11, 2016, the District entered into an agreement with the Natural Resource Conservation District to complete a comprehensive watershed plan using the Regional

Conservation Partnership Program (RCPP). This program encourages partners to join in efforts with producers to increase the restoration and sustainable use of soil, water, wildlife and related natural resources on regional or watershed scales. The District proceeded with the RCPP process through 2017 and hoped to complete the required step process in 2018. Due to time and delays in being able to reach a consensus with permitting folks on how to forward with the purpose and need of the project, grant dollars have been exhausted and a decision on how to move forward will have to be made.

In 2019, after various roadblocks were presented by the Minnesota Department of Natural Resources concerning the proposed projects upstream of Pine Lake, the Red Lake Watershed District Board of Managers made a request to the Natural Resource Conservation Service to move forward with a close-out agreement for this project thus canceling the agreement. In August of 2019, the RLWD completed the application requirements to close-out the project. On May 18, 2020, the District received a letter from the USDA/NRCS indicating that after review of the above referenced agreement, they have determined that the terms and conditions were met, and all funds have been expended thus closing out the agreement.

Pine Lake Flood Damage Reduction and Habitat Project (RLWD Project No. 26B)

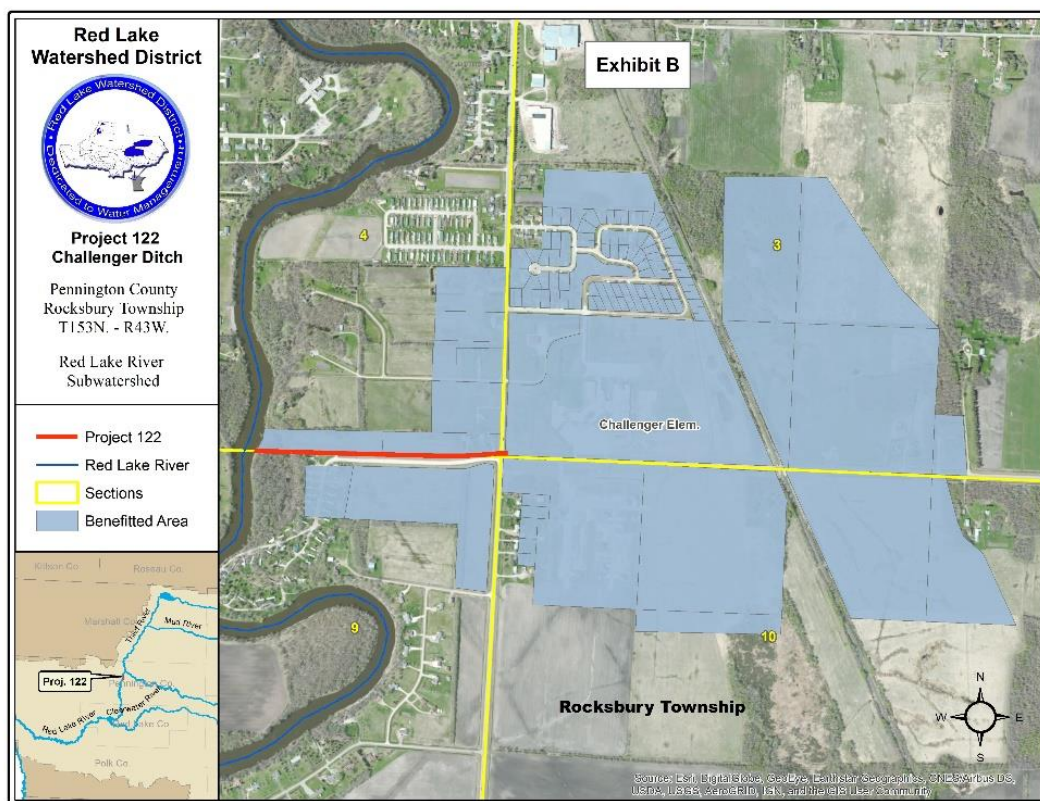
As a result of the work that was completed on the Pine Lake Watershed, RLWD Project No. 26, in part by the grant recently closed by the NRCS, it was determined that a few components of the study could be used to capture a few of the goals in the report. The Project Work Group continued to work on components of the project that we reach a common ground. One portion agreed on was replacing the old sheet piling stoplog structure at the outlet of Pine Lake and replacing it with a more operational structure to better reduce lake elevations in the fall thus capturing additional FDR benefits in the spring. There was also interest in designing a fish passage structure to allow migration of fish to and from Pine Lake. Project was approved by the RLWD Board of Manager and it's the hope of the District that construction could start on this project late fall of 2020 or spring/summer 2021.

December 17, 2019 the District was informed that a grant in the amount of \$168,420 was awarded to this project. September 9, 2020 contract for the construction to replace the outlet structure was awarded to Swingen Construction in the amount of \$148,400.00. Notice to Proceed was given October 6, 2020 which construction continuing into late November. Due to delays in getting stoplogs and catwalk material, construction was suspended until spring of 2021.

Challenger Ditch (RLWD Project No. 122)

On November 8, 2018, Pennington County Highway Department approached the Red Lake Watershed of a project they have which would require the relocation of Challenger Ditch, RLWD Project 122. The project initiated by the County was for the construction of a bridge over the Red Lake River at the proximity of the outlet to Challenger Ditch as well as extending CSAH #8 west to the intersection of TH #32. It was determined that a hearing would have to be held for the project to assure landowners are informed of the change.

On January 10, 2019, a petition was received from Pennington County for the Re-Alignment and Modification of a an Existing Drainageway and Outlet for RLWD Project 122, commonly referred to as Challenger Ditch system. At this meeting, the RLWD Board approved by unanimous motion to set a hearing date for realignment of the drainage system and rename it Red Lake Watershed District 122A for February 28, 2019. Public hearing was held and upon unanimous decision they adopted the Re-Alignment and Modification of a Portion of the Existing Drainageway and Outlet of the Challenger Ditch, RLWD Project No. 122A. Construction of the project was substantially completed in 2020 and will be completed in 2021.



Threat Ring Dike (RLWD Project No. 129AS)

In late September 2019, a request for ring dike funding was received by Athena Threatt located in SW1/4 NW1/4, Section 14 Andover Township, Polk County Minnesota. Due to complexity of the ring dike location near a public water and within a flood plain, the ring dike project went through various designs, cost estimates and agreements. After considerable time and resolve, it appears construction will be completed in 2021.

Red Lake River One Watershed One Plan (RLWD Project No. 149)

Minnesota has a long history of water management by local governments. One Watershed, One Plan is rooted in this history. In work initiated by the Local Government Water Roundtable (Association of Minnesota Counties, Minnesota Association of Watershed Districts, and Minnesota Association of Soil and Water Conservation Districts) in 2011, it was recommended that the local governments charged with water management responsibility should organize and develop focused implementation plans on watershed boundaries. The recommendation was followed by legislation that permits BWSR to adopt methods to allow comprehensive plans, local water management plans, or watershed management plans to serve as substitutes for one another; or to be replaced with one comprehensive watershed management plan. This legislation, and the associated BWSR program, is referred to as One Watershed, One Plan. Further Legislation was passed in 2015, defining purposes and outlining additional structure for the program.

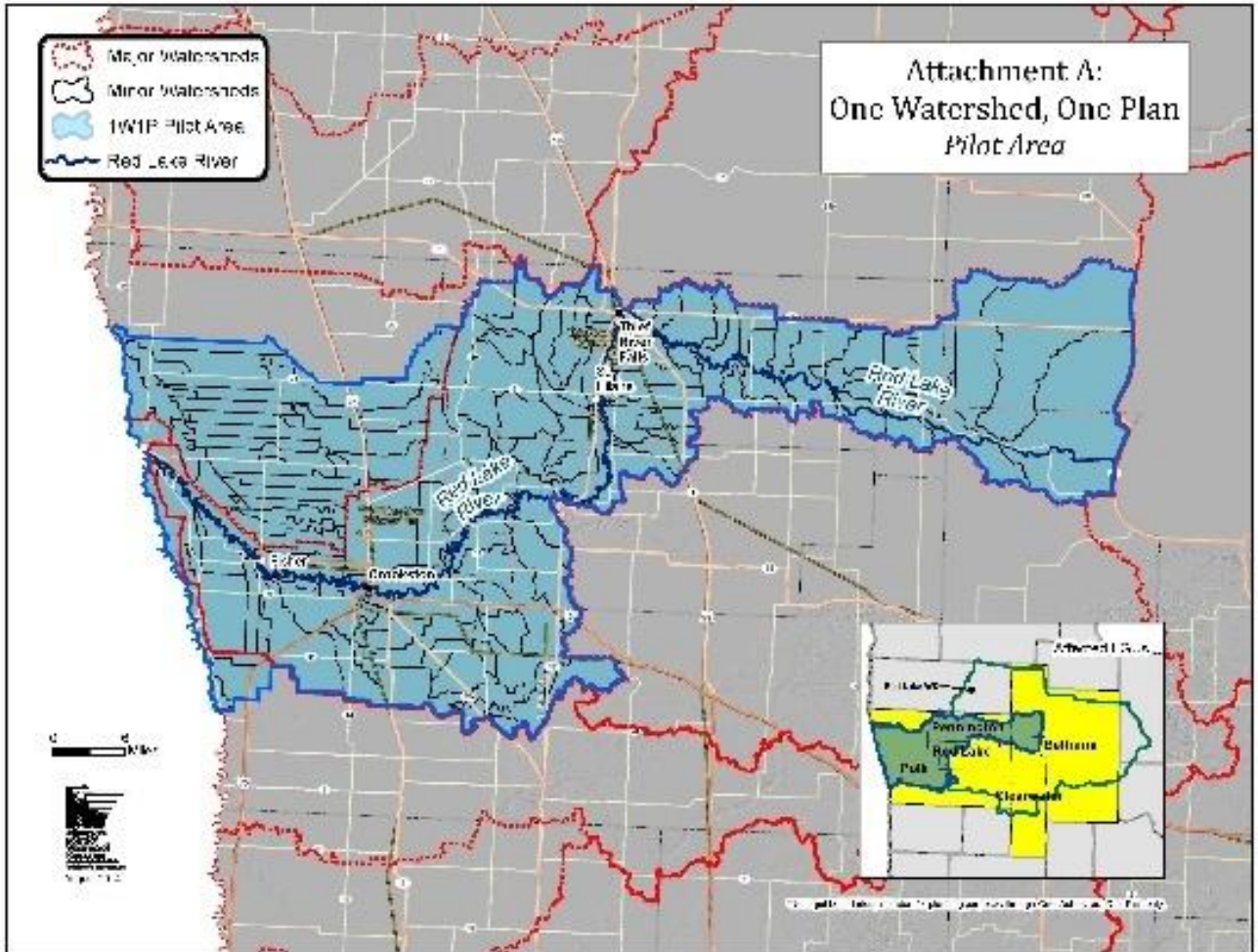
Early 2014, the Red Lake Watershed District, Pennington, Red Lake County and West Polk Soil Conservation Districts, along with their respective Counties, partnered to apply for a grant through the Board of Water Resource One Watershed One Plan Pilot Project, to establish a Comprehensive Water Management Plan for the Red Lake River Watershed. The grant was for five pilot projects that were approved for funding in December of 2014.

In 2015, the project partners started the planning process outlined by the BWSR which ultimately resulted in the approval of the plan in January 2017.

In 2018 the “Planning Work Group” for the Red Lake River One Watershed One Plan completed the required “Work Plan”. Upon completion of the Plan and approval from the Board of Water and Soil Resources, a grant in the amount of \$677,500 was awarded to complete various water quality projects highlighted in the plan.

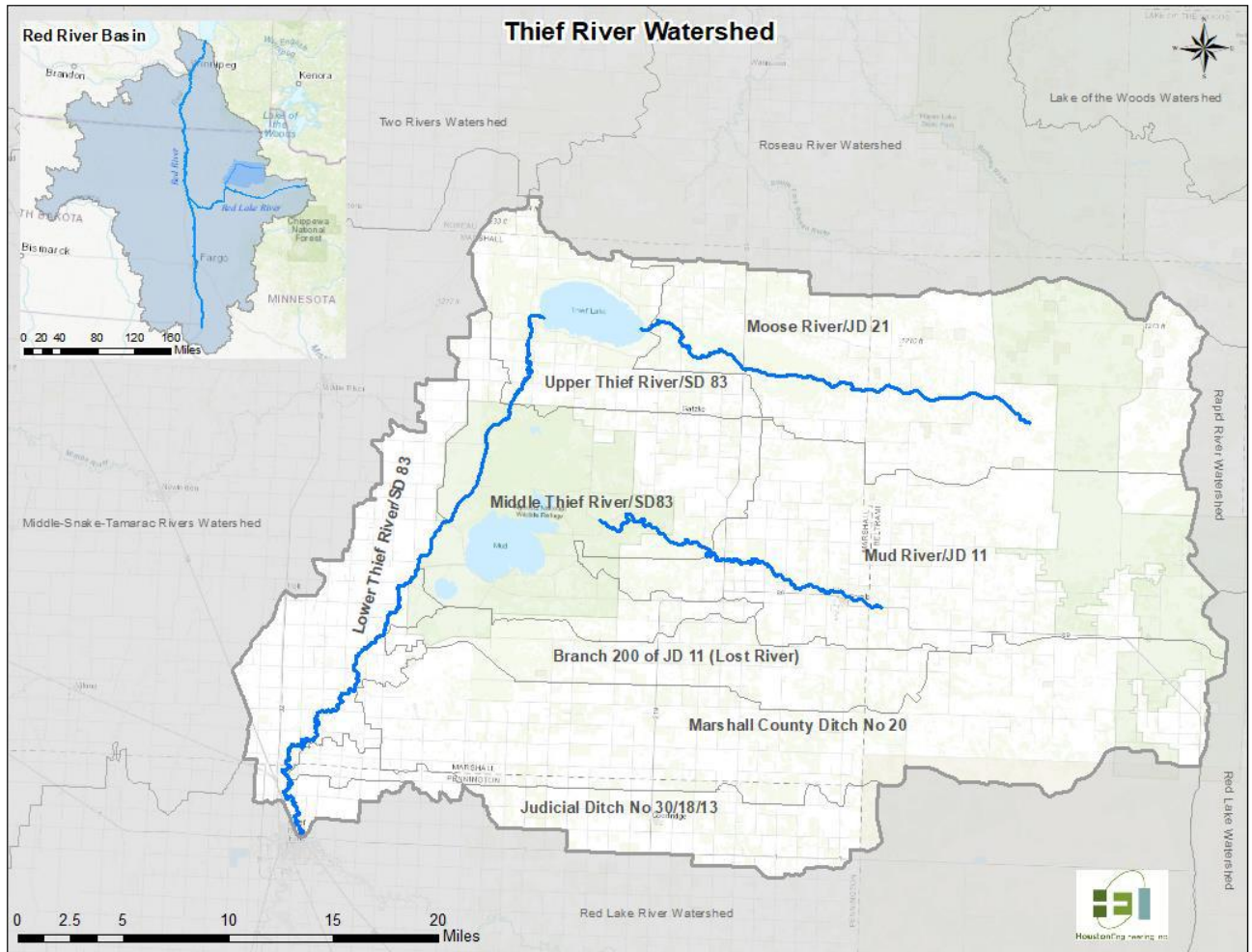
In 2019 the Implementation of the projects in the plan started slowly. For projects in the plan initiated by the RLWD, permitting delays and late rainfall events delayed construction on two projects listed in the workplan. Permits have been received and construction will begin in the spring of 2020. As of November 30, 2019, we have a grant balance of \$592,008.66 remaining from the first appropriation.

In December of 2019, the Red Lake River 1W1P Biennial Work Plan for 2020-2021 was approved by BWSR. As a result of the approval, an additional \$1,071,149 of Watershed Based Funding was awarded for projects identified in the Work Plan.



Thief River One Watershed One Plan (RLWD Project No. 149A)

In June of 2016, the Red Lake Watershed District, Pennington, Marshall and Beltrami Soil Conservation Districts and their respective counties applied for and were approved to receive a grant from the Board of Water and Soil Resources (BWSR) through their One Watershed One Plan program, to develop a Ten-Year Comprehensive Plan for the Thief River Watershed. On July 11, 2017, the grant was approved and executed by the BWSR. The plan development continued into 2018 and 2019 with the draft plan being approved by the Policy Committee and partners in late 2019. It is the hopes of the District and our partners that the draft plan will be approved by BWSR in early 2020. In anticipation of the plan approval, the Planning Workgroup is moving forward in developing the required work plan with the hope of implementation starting in the fall of 2020.



Erosion Control (RLWD Project No. 164)

This project program was established in 2004 and is used on a yearly basis to provide cost share funding for various erosion control projects usually initiated and developed by local Soil and Water Conservation Districts (SWCD). In 2020, there were six cost share funding requests from three SWCD offices: Red Lake County SWCD, Pennington County SWCD, and Marshall County SWCD. Total requests match for project cost share totaled \$76,783.14.



**Bank Stabilization Project, Outlet of Pennington County Ditch 96
Pennington County SWCD**

Black River Impoundment (RLWD Project No. 176)

November 10, 2016 the RLWD Board of Managers, by Board motion, initiated the Black River Impoundment Project.

On January 12, 2017, the Board appointed two members of their Board to sit on a Project Work Team to assist in the development of a flood damage reduction project near the Black River. To date the RLWD has been progressing in the development and design of the Black River Impoundment as well as securing lands required for construction of the project.

On April 18, 2017, a Step I submittal was presented to the Red River Watershed Management Board with the Step II submittal for funding presented to their board October 17, 2017.

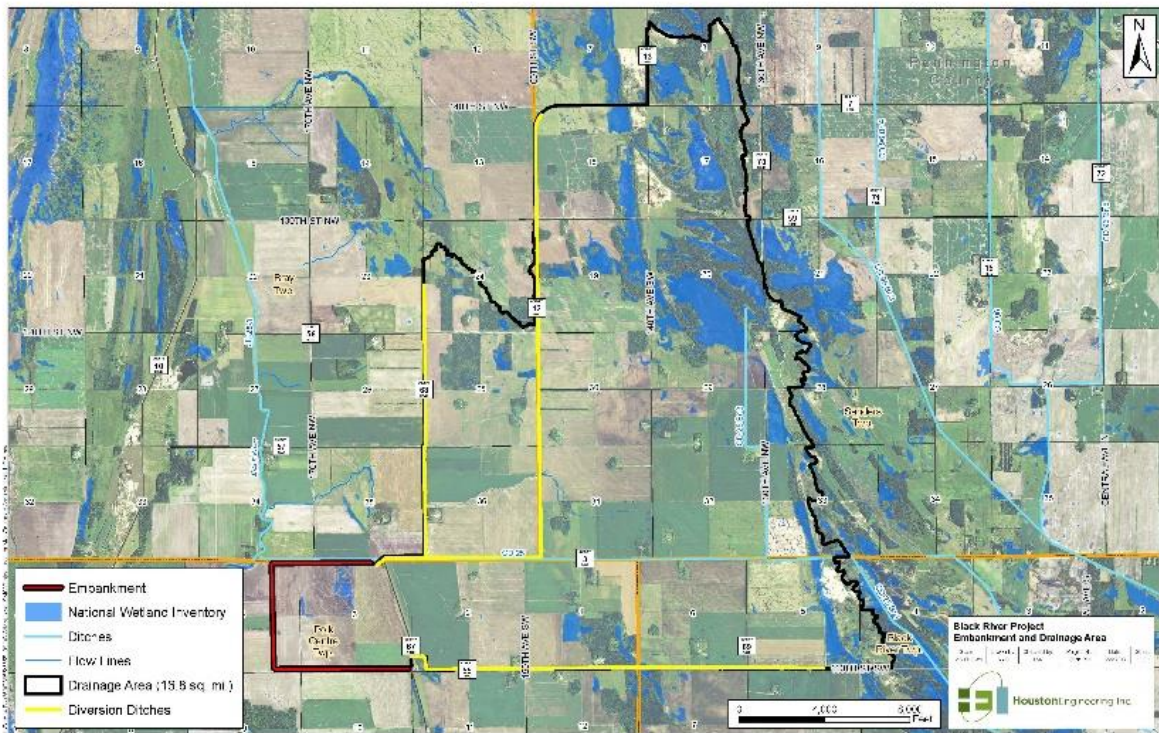
On August 9, 2018, a public hearing was held for the Black River Impoundment with an estimated cost of 7.8 million dollars. Also, in 2018 the District tried to secure funding through Minnesota Flood Hazard Mitigation Funding which was not successful. The District will continue with the development of the project, as well as trying to secure State funding for construction.

In 2019, the District, with the assistance of Houston Engineering Wetland Specialist, continued with the permitting application process with Wetland Conservation Act staff as well as United States Army Corps of Engineers to review wetland impacts to the project. After nearly two years of

meetings and review, the District completed an application for permitting wetland impacts for the project.

On July 21, 2020, the Red Lake WD presented the RRWMB with a Step III Submittal for funding the Black River Impoundment Project with a revised estimated cost of \$8,883,000. Three funding alternatives were presented which included: (A) No outside cost-share from federal or state agencies; (B) Fifty percent funding cost-share from the State of Minnesota Flood Hazard Mitigation Program; and (C) \$3 million cost-share from a grant request through the USDA's Natural Resources Conservation Service (NRCS) FY 2020 Regional Conservation Partnership Program (RCPP) Alternative Funding Arrangements.

At the July 21, 2020 RRWMB meeting and due to the fact, there would be no State Flood Hazard Mitigation funding available for the project, the RRWMB of Managers approved funding the Black River Impoundment Project in the amount of \$5,922,000. It was also agreement between the Red Lake Watershed and the RRWMB to proceed with bids and specifications to start construction on this project as soon as possible. On September 24, 2020, the RLWD Board of Managers awarded the contract for construction to RJ Zavoral & Sons, Inc. in the amount of \$4,374,457.66 with notice to proceed being given on October 22, 2020. Construction started almost immediately and with the great working conditions, nearly half the project was completed in the fall of 2020. It is anticipated that construction will continue in the spring of 2021 with completion of late fall 2021.



Borrow pit excavation for levee construction



Looking east along the north side of the Black River Impoundment





Petition to Establish Red Lake Watershed District No. 16 (RLWD Project No. 177)

On July 27, 2017, at the RLWD regularly scheduled Board meeting, a petition to establish a new drainage system project in Polk County was presented to the RLWD Board of Managers. Upon review of the petition and receipt of the bond, the RLWD Board of Managers, by order, appointed Pribula Engineering to make a preliminary survey.

On April 26, 2018, a preliminary hearing was held for the project. Upon completion of the hearing, the Board of Managers issued the order to proceed. The Board of Managers appointed viewers and directed the engineer to complete a detailed survey report.

On April 4, 2019, the final hearing for this project was held and on April 11, 2019 the Detailed Findings of Facts and Order was approved by the Board of Managers. On June 20, 2019 Notice to Proceed was issued to Burski Excavating, Inc. for their bid in the amount of \$1,454,118.40. Prior to awarding the contract, it was brought to the District's attention that there was an error in the advertising of bids which lead the District and Burski Excavating to reach a settlement agreement in the amount of \$118,078.30, thus changing the awarded bid to \$1,572,196.70.

Construction started in the spring of 2020 and continued into late fall. To date the project is substantially completed with minor excavation and seeding to be completed in spring of 2021.



Ditch along TH #220 looking south



Looking west from TH#220

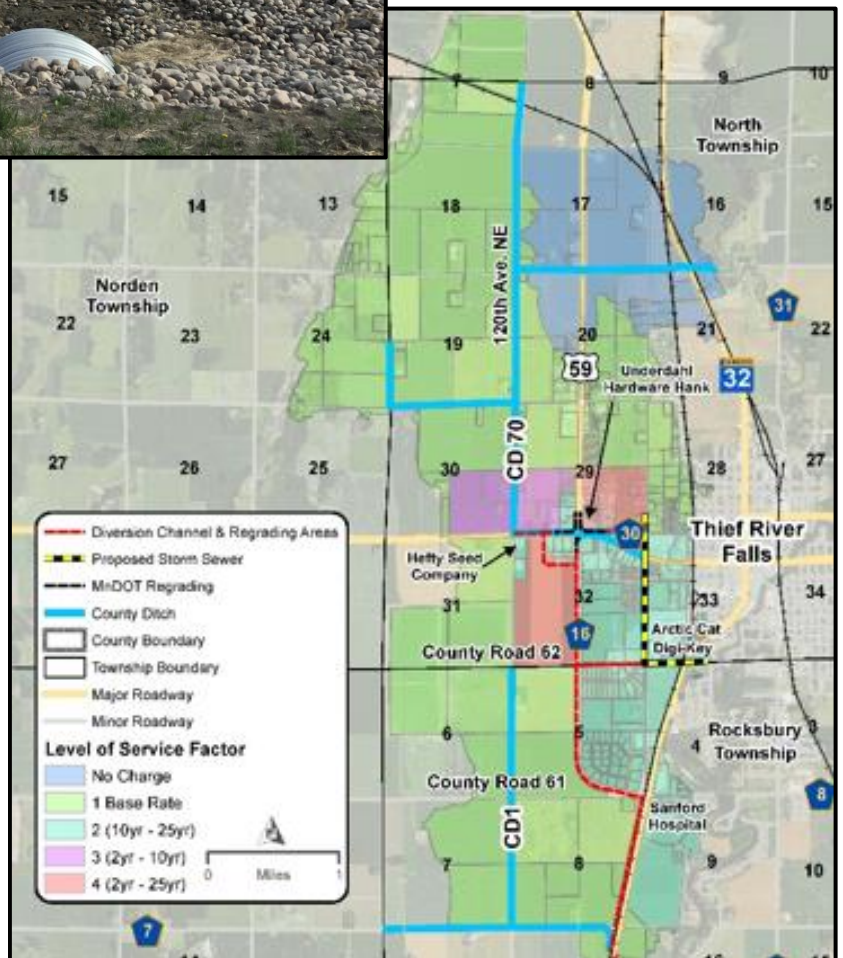
Thief River Falls Westside Flood Damage Reduction Project (RLWD Project No. 178)

October 12, 2017 at their regular scheduled Board meeting, the RLWD Board of Managers received a petition from the City of Thief River Falls and Pennington County Commissioners requesting a project to divert waters, from Pennington County Ditch #70, as it enters from the north and west of the City of Thief River Falls.

In 2018, the Red Lake Watershed District, Minnesota Department of Transportation (MnDOT), City of Thief River Falls and Pennington County developed a partnership to move forward with this project in conjunction with a project MnDOT was designing near the west side of the City. The District retained HDR Engineering Inc. to develop a plan for the proposed project. On February 24, 2018, an application for a \$1,500,000 Flood Hazard Mitigation Grant as applied for through the

Minnesota Department of Natural Resources. In May of 2018, the Red Lake Watershed District was informed that the grant application was approved and on September 7, 2018 the grant agreement in the amount of \$1,500,000 was executed. To assist in the 50% cost share match required by the State, on July 17, 2018 the RRWMB reaffirmed their Step I and II funding in the amount of \$1,000,000.

On March 20, 2020, bids were opened for this project with the low bid being awarded to RJ Zavoral & Sons, Inc. in the amount of \$6,632,761.68. April 8, 2020 Notice to Proceed was given with construction being substantially completed in 2020. It is the hopes of the District to have all punch list items completed in early summer 2021.



Outlet looking east to the Red Lake River



Outlet looking west towards Highway 32



Petition for the Improvement to Polk County Ditch No. 39 (RLWD Project No. 179)

On October 26, 2017, at the RLWD regularly scheduled Board meeting, a petition was received for the improvement to Polk County Ditch #39 in Polk County was presented to the RLWD Board of Managers. Upon review of the petition and receipt of the bond, the RLWD Board of Managers, by order, appointed Pribula Engineering to complete a preliminary survey. April 11, 2019 a Preliminary Hearing for the Improvement of Polk County Ditch #39, RLWD Ditch No. 17, Project 179 was held. Upon completion of the hearing, the Board of Managers by motion, approved moving forward with the appointment of viewers and instructed the engineer to proceed with the final detailed survey report. Final hearing was held July 24, 2020 at the Red Lake Watershed District. At their meeting held August 24, 2020, the Red Lake Watershed District Board of Managers approved the Finding and Order for the improvement petition. This project was appealed by some landowners and we are presently waiting for the legal process to go through the courts.

Flood Control Impoundments

The 2020 spring melt was quite significant, recording the 8th highest crest on the Red River of The North at the East Grand Forks monitoring site.

Impoundments operated by the District are quite diverse and actual project operations are based on available flood storage, outlet structure facilities, and outlet channel capacity. Each impoundment is designed, based on upstream drainage area, topography, and runoff conditions. Some of the flood storage facilities are operated with adjustable stop-logs, adjustable flood gates, and some are non-gated fixed crest weir structures.

Non-gated – Fixed Crest Weir Type Structures

“Fixed crest” structures store water to the specific elevation of a weir. When the water surface raises above the weir elevation, outflows occur automatically. Most of the non-gated projects were constructed in the 1970’s and early 1980’s by the former Soil Conservation Service (SCS), known today as the Natural Resource Conservation Service (NRCS).



Latendresse Dam located in Red Lake Falls
Township, Red Lake County



Odney Flaar Dam located in Onstad
Township, Polk County

Storage Volume & Operations

Water storage is calculated in acre feet, which is a volume measurement that is one acre in area by one foot deep. Storage capacity in impoundments varies depending on the size in acres and depth of the storage area. One foot of water depth in an impoundment can be many thousands of acre feet of storage. Some impoundments are considered “dry” which means that the pool is drained dry after stored flood waters are released. Other impoundments are operated with a small permanent pool throughout the year.

Operation and maintenance vary, depending on the specific project. Some are operated solely by the District, and others are operated cooperatively with the Minnesota Department of Natural Resources, U.S. Fish and Wildlife Service, Natural Resource Conservation Service, and local Soil and Water Conservation Districts.

Routine inspections are performed, and the condition of the embankment and control structures are evaluated. Typical maintenance includes flood damage repairs, debris removal, removal of beaver dams/debris, nuisance beaver, and vegetation control.

Gated /Stop-log Type Structures

Projects with ‘adjustable flood gates and/or stop-logs’ have more flexibility for storage and for controlling outflows from flood events. During large runoff events, flood waters are stored within the impoundments and as downstream conditions allow, the stored water is released in a controlled manner. This is done by operating flood gates or by adjusting stop-logs, depending on the respective flood storage facility. Water levels are typically lowered during the fall season. This ‘fall drawdown’ is performed to create additional flood storage for the next spring’s runoff.



Example of a “Dry” Impoundment. Stored flood water is released as soon as downstream channel conditions are acceptable to pass flows.

Example of an Impoundment with a permanent pool



Euclid East Impoundment (RLWD Project No. 60C)

GENERAL: Construction of the Euclid East Impoundment began on June 15, 2006. Due to excellent working conditions, it was substantially completed by the middle of November. The project became functional for operation in the spring of 2007. This project is funded jointly between the State of Minnesota, Red River Watershed Management Board and the District.

LOCATION: The project is in Section 24, Euclid Township, and Section 19, Belgium Township, Polk County, approximately 12 miles north of Crookston.

PURPOSE: The project stores runoff and reduces flooding on downstream agricultural lands and urban areas by retaining up to approximately 2,443 acre-feet of floodwater. The storage of water in the reservoir will reduce peak discharges on downstream legal ditch systems, Branch C of County Ditch #66, County Ditch #66 (Main), and County Ditch #2.

PROJECT COMPONENTS: The project has a drainage area of 17.1 square miles. The embankment and reservoir are constructed of approximately 3.6 miles of earthen clay embankment (332,681 cubic yards and approximately 12 feet at highest point), a grass lined emergency spillway, 2.4 miles of inlet channels and culvert work, 0.8 mile of outlet channel, and a gated concrete outlet structure. The operable components are the gated structure which releases water from the impoundment into an outlet channel. This water then flows northwesterly through legal ditch systems and eventually to the Red River of the North.

FUNCTIONAL DESIGN DATA

	Elevation (ft.-msl)	Storage
Top of Dam (total Storage)	908.0	2,443 (2.68 in. runoff)
Gated Storage (Secondary Spillway)	905.0	1,878 (2.06 in. runoff)
Ungated Storage to Emergency Spillway	906.0	565 (0.62 in. runoff)

October 13, 2019 was recorded as the highest pool elevation at 905.90



In 2020, District staff and the local gate tender performed gate operation during the spring melt. The pool crested on April 11th at the second highest ever recorded elevation, 905.6’.

Brandt Impoundment (RLWD Project No. 60D)

GENERAL: Construction of the Brandt Impoundment began on July 31, 2006 and was substantially completed by the middle of November and functional for operation in the spring of 2008. The project is funded by the State of Minnesota, Red River Watershed Management Board, and the District.

LOCATION: Section 7, Belgium Township, Polk County, approximately 14 miles north of Crookston, or 1 ½ miles east and 1 mile north of Euclid.

PURPOSE: The project stores runoff and reduces flooding on downstream agricultural lands and urban areas by retaining up to approximately 3,912 acre-feet of floodwater. The storage of water in the reservoir also reduces peak discharges on the downstream “Brandt Channel,” RLWD Ditch 15 and Polk County Ditch #2 system.

PROJECT COMPONENTS:

The project has a drainage area of 23.6 square miles. The embankment and reservoir are constructed of approximately 3.5 miles of earthen clay embankment (492,579 cubic yards & approx. 19 feet at highest point), a grass lined emergency spillway, 2 – lines of 6 x 8 concrete box culverts and a gated concrete outlet structure.

Operable components are the gated structure which releases water from the impoundment into an outlet channel. This water then flows west - northwest through the “Brandt Channel” legal County Ditch #2 system and eventually to the Red River of the North.



FUNCTIONAL DESIGN DATA

	Elevation (ft.-msl)	Storage
Top of Dam (total Storage)	918.0	3,912 (3.1 in. runoff)
Gated Storage (Secondary Spillway)	914.5	3,126 (2.48 in. runoff)
Ungated Storage to Emergency Spillway	916.0	786 (0.62 in. runoff)
October 13, 2019 was recorded as the highest pool elevation at 915.45		

2020 IMPROVEMENTS

In 2020, District staff and the local gate tender performed gate operation during the spring melt. The pool crested on April 13th at the second highest ever recorded elevation, 915.25’.

In the fall of 2020 improvements were made to the inlet and outlet channel adjacent to the impoundment. Work done included levee construction, installation of side water inlet culverts with slide gates, tree clearing, and sediment cleaning of the channel bottom. This was done to better facilitate flood waters into the impoundment and drainage of the impoundment. The emergency spillway was also lowered 0.5’ to the correct planned elevation.

Parnell Impoundment (RLWD Project No. 81)

GENERAL: Construction of the Parnell Impoundment began in 1997 and was completed in 1999. In 2004, modifications were made to the original design by lowering the emergency spillway 1.5 feet, expanding the inter-pool connecting channel, and installing an operable screw gate on the weir structure in the JD #60 outlet. The impoundment is now better utilized to store floodwaters by operating control gates. In 2009, excavation of an east pool interior channel, along with an inter-pool structure, consisting of 2-48” diameter culverts with operable gates was installed. The channel enhances flow conveyance to J.D. #60 and the inter-pool structure will be beneficial in managing west pool water levels and held reduce flooding in County Ditch #126.

LOCATION: Sections 3 and 4, Parnell Township, Polk County, approximately 12 miles northeast of Crookston.

PURPOSE: The project will reduce flooding on downstream agricultural lands and urban areas by retaining up to approximately 4,000 acre-feet of floodwater. The storage of water in the reservoir will also reduce peak discharges on four legal ditch systems, County Ditch #126, Judicial Ditch #60, County Ditch #66, and County Ditch #2.

PROJECT COMPONENTS: The project has a drainage area of 23 square miles. The impoundment incorporates a two-pool design (no permanent pool), with two separate outlets, and an inter-pool connecting channel. The embankment and reservoir are constructed of approximately 5 miles of earthen embankment (approx. 18 feet at highest point), a concrete emergency spillway and two gated concrete outlet structures.

Operable components are the two gated structures which release water from the impoundment into two separate outlet channels. One of these channels is JD #60, which flows south to the Red Lake River and the other is CD #126, which flows west and eventually to the Red River of the North.



FUNCTIONAL DESIGN DATA:

	Elevation (ft.-msl)	Storage
Top of Dam (total Storage)	943.0	4,000 (3.2 in. runoff)
Emergency Spillway	939.5	3,000 (2.4 in. runoff)

April 8, 2020 was recorded as the highest pool elevation at 940.6

In 2020, District staff and the local gate tender performed gate operation during the spring melt. A new record crest was recorded April 8th at elevation 940.6’.

BWSR Flood Storage Easement Pilot Site 1 “Tiedemann Site” (RLWD Project No. 133C)

GENERAL: Construction of the “Tiedemann Site” began in the spring of 2002 and was substantially completed by the summer of 2002 and functional for operation in the spring of 2003. The project is funded by the Minnesota Board of Water & Soil Resources (BWSR) and the District.

LOCATION: The Sections 5, Parnell Township, Polk County, approximately 12 miles northeast of Crookston.

PURPOSE: The project stores runoff and reduces flooding on downstream agricultural lands and urban areas by retaining up to 247 acre-feet of floodwater. The storage of water in the reservoir also reduces peak discharges on the downstream ditches; Polk County Ditch 126 and the Grand Marais.

PROJECT COMPONENTS: The project is directly downstream of the Parnell West Pool outlet and the North Parnell Site 2 outlet. The embankment is constructed of approximately 0.75 miles of earthen clay embankment, 0.63 miles of raised township road, a grass lined emergency spillway, 1 – line of 6 x 5 concrete box culvert with a gated outlet structure.

Operable components are the gated structure which releases water from the impoundment into Polk County Ditch 126. This water then flows west to the Grand Marais Coulee eventually to the Red River of the North.

FUNCTIONAL DESIGN DATA

	Elevation (ft.-msl)	Storage
Top of Dam (total Storage)	925.5	324
Emergency Spillway	924.5	247 (1.6 in. runoff)

North Parnell Site 2 “Gasper Site” (RLWD Project No. 154)

GENERAL: Construction of the “Gasper Site” began in the spring of 2003 and was substantially completed by the summer of 2003 and functional for operation in the spring of 2004. The project is funded by the Minnesota Board of Water & Soil Resources (BWSR), Red River Management Board (RRWMD), and the District.

LOCATION: The Sections 3&4, Parnell Township, Polk County, approximately 12 miles northeast of Crookston.

PURPOSE: The project stores runoff and reduces flooding on downstream agricultural lands and urban areas by retaining up to 324 acre-feet of floodwater. The storage of water in the reservoir also reduces peak discharges on the downstream ditches; Polk County Ditch 126 and the Grand Marais.

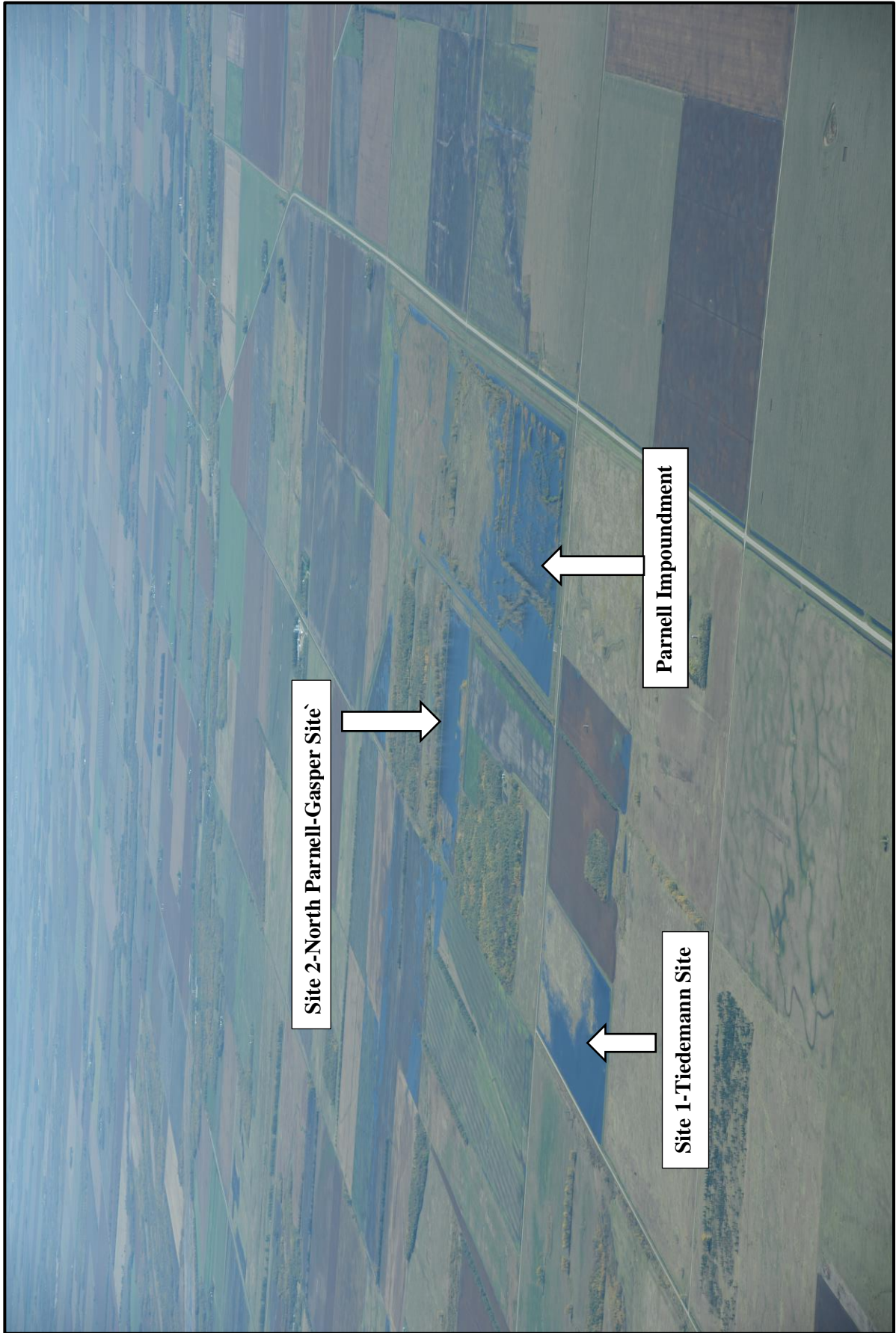
PROJECT COMPONENTS: The project is directly upstream and adjacent to the Parnell Impoundment. The embankment is constructed of approximately 1.0 miles of earthen clay embankment, a grass lined emergency spillway, 1 – line of 36” concrete pipe with a gated outlet structure.

Operable components are the gated structure which releases water from the impoundment into an outlet ditch which then goes into RLWD project 133C, from there the water flows into Polk County Ditch 126. This water then flows west to the Grand Marais Coulee eventually to the Red River of the North.

FUNCTIONAL DESIGN DATA

	Elevation (ft.-msl)	Storage
Top of Dam (total Storage)	938.0	324
Emergency Spillway	937.0	247 (2.7 in. runoff)

**Parnell Impoundment – Site 1 Tiedemann Site – Site 2 North Parnell Gasper Site
Looking Northeast**



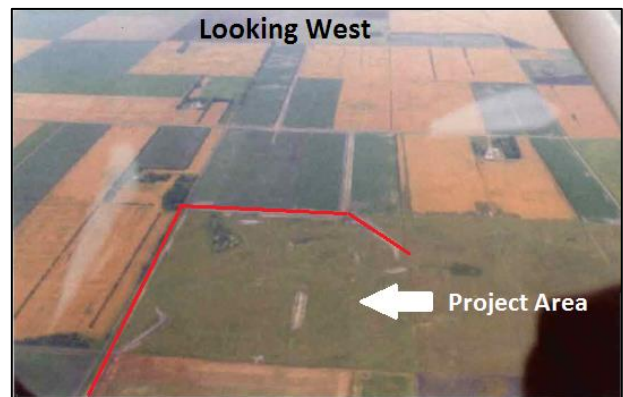
Louisville/Parnell Project (RLWD Project No. 121)

GENERAL: Construction of the Louisville/Parnell Impoundment began in mid-1998 and was substantially completed by the end of July 1998 and functional for operation in the fall of 1998. The District and HDR Engineering of Thief River Falls jointly performed construction surveying and inspection duties. The project is funded by the Red River Watershed Management Board, Department of Natural Resources, Minnesota Department of Transportation, and the District.

LOCATION: The project is located, approximately 12 miles north east of Crookston, in Section 13 and 14 of Parnell Township in Polk County and Section 18 of Louisville Township in Red Lake County, Minnesota.

PURPOSE: The project will store runoff and reduce flooding on downstream agricultural lands and urban areas by retaining up to ten percent more storage (400 acre-ft) to the JD-60 Watershed. The storage of water will reduce peak discharges by .2 % in Crookston and .02% East Grand Forks. The project also created 37 acres of wetland banking.

PROJECT COMPONENTS: The drainage area above (upstream) of the impoundment is 5.1 square miles. The project controls break out flows from Lateral 2 of JD-60. It is designed to provide up to 25-yr flow control to the immediate drainage systems downstream of the project. The embankment is approximately 2,900 ft long along the west edge of the southeast quarter of Section 13. The project utilizes four gated outlet structures consisting of one principal outlet (STA 19+50) and three secondary outlets. Each control structure and storage site are designed to operate using passive detention. The sluice gates are 18-inch diameter, Waterman Model C-20-C-Y and operated through a gate wheel. As well as providing local and regional flood mitigation, this project provides wetland banking for the Minnesota Department of Transportation. The project consists of five pools each designed to provide specific functions and benefits.



**Louisville/Parnell Impoundment and Wetland Bank
100 Year 30 Hour Summer Flood
Stage and Storage Summary**

Storage Site	Peak Elevation (ft-MSL)	Total Storage at Peak (ac-ft)	100-Year Bounce (ft)	Gated Storage Available (ac-ft)
A	965.19	89.9	2.8	15
B	954.16	24.2	2.2	0
D	952.21	47.6	1.7	47.6
C/E	949.21	207	5.3 (C) 1.3 (E)	190

FUNCTIONAL DESIGN DATA

	Elevation (ft.-msl)
Top of earthen embankment	951.0/952.0
Top of Spillway	949.0

Gate operation will be the responsibility of the Red Lake Watershed District. Gate operation will be coordinated with operation of the Schirrick Dam, RWLD #25.

Pine Lake (RLWD Project No. 35)

GENERAL: In 1980, the Clearwater County Board of Commissioners petitioned the District for an improvement of the Pine Lake outlet. Constructed in 1981, a sheet pile dam with two adjustable stop log bays was built about 800 feet north of the lake on the Lost River.

LOCATION: The site is near the south center of section 21, Pine Lake Township, Clearwater County.

PURPOSE: This multi-purpose project is designed to provide the public with flood control and wildlife benefits. The Gonvick Area Lions Club has donated hundreds of man-hours and when necessary, members operate the aeration system, install and maintain aeration signage.

FUNCTIONAL DESIGN DATA:

	Elevation (ft.-msl)
2 nd Stage-top of dam	1284.5
1 st Stage-top of dam	1284.0
Typical summer-top of stop logs	1283.5
Typical winter	1282.5
April 11, 2009 was recorded as the highest pool elevation at 1286.0	

The Pine Lake control structure is a sheet pile dam with two – 4’ wide adjustable stop-log bays. The stop-logs can be adjusted between elevations 1281.5 to 1283.5. There is also 26 feet of fixed crest weir at elevation 1284.0, and 65 feet of fixed crest weir at elevation 1284.5. The project has a drainage area of 45 square miles.

Based primarily on lake elevation, stop-logs may be removed from the dam to allow additional outflow until the lake recedes, and then they are replaced to the typical summer or winter elevation. The dam is also designed with a small, fixed crest weir at elevation 1282.5, which is one foot lower than the normal summer stop-log elevation. This was an innovative design in the early 1980’s and allows for minor outflows that provides stream flow maintenance. This is very important for keeping some flow in the Lost River especially during periods of low flow. Factors to consider when adjusting the stop-logs are monitoring “inflows” to the lake, existing lake elevation, downstream conditions, and predicted runoff. Staff personnel at the Sportsman’s Lodge are very helpful in reading the lake elevation gauge located inside the business and a local resident records rainfall data at the lake.

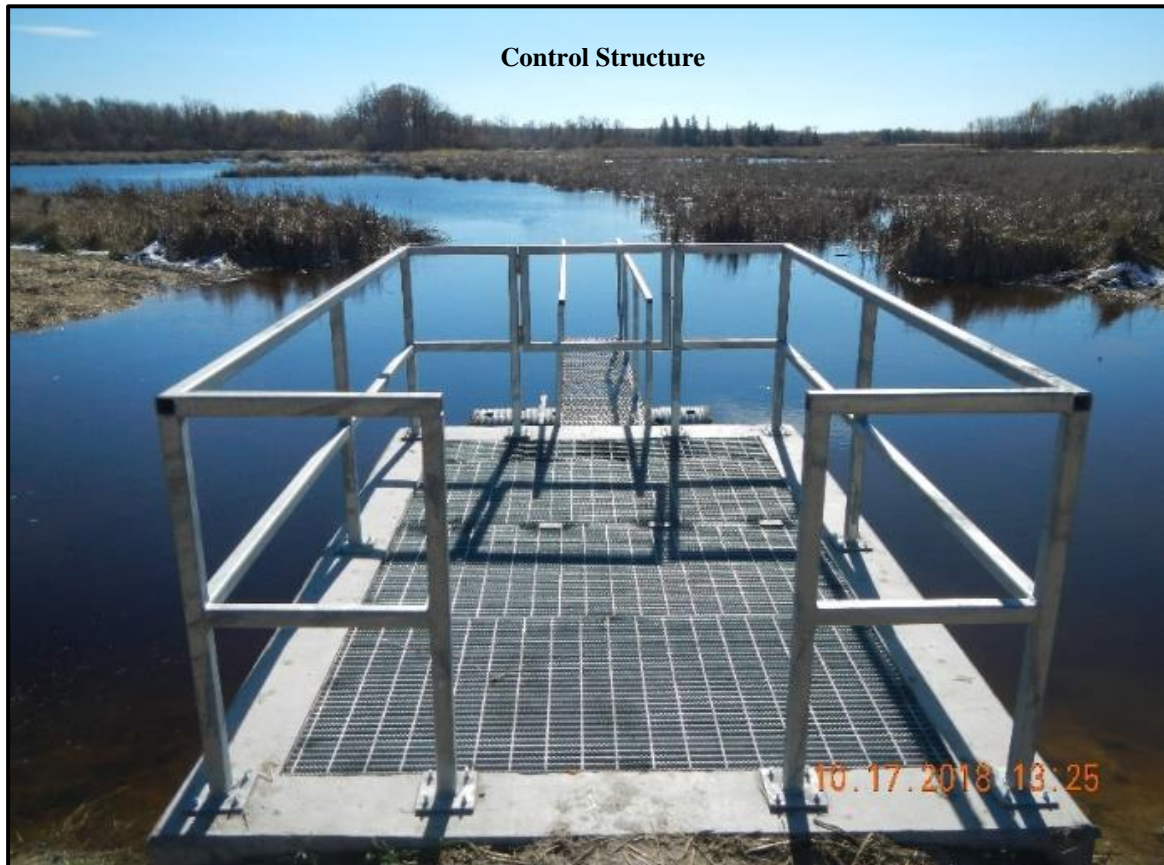


**Typical fall drawdown
with stoplogs removed**

In 2020, the local Sportsman’s Club operated the aeration system from January 19th to April 1st. Stoplogs were installed on May 1st to the typical summer elevation of 1283.5. Pine Lake crested at elevation 1285.15 on April 8th. On October 1st, stop-logs were removed to begin the normal fall drawdown and continued until November 30th at which time two stop-logs were installed in each of the two stop-log bays to elevation 1282.5. This installation is to be done by December 1st of every year, as per the Minnesota Department of Natural Resources requirements.

Little Pine Lake (RLWD Project No. 26A)

As a result of the RCPP Project Work Team meetings for Pine Lake, it was identified that the Minnesota Department of Natural Resources agreed to store an additional 250 acre-feet of water on Little Pine Wildlife Management Area (WMA) to assist in reducing flood flows to Pine Lake during flood events. Upon further discussion with the RLWD Board of Managers, the District agreed to construct a new outlet structure on the WMA to allow better operation for regulating water surface elevations. The District and MnDNR entered into a Joint Powers Agreement as well as drafting an operating plan which gives the MnDNR the responsibility for all operation and maintenance of the water control structure. Quotes for the project were opened at the District office on June 14, 2018, with the low quote awarded to Red Lake Builders in the amount of \$119,220. Project construction was completed November 14, 2018.



Elm Lake-Farmes Pool (RLWD Project No. 52)

GENERAL: Elm Lake was drained around 1920 by the construction of Branch #200 of Judicial Ditch #11. The Elm Lake project is a cooperative effort of the U.S. Fish and Wildlife Service, MN Department of Natural Resources, Red Lake Watershed District, and Ducks Unlimited. Majority of funding for the project was provided by Ducks Unlimited and at the time Elm Lake was created, it was the largest Ducks Unlimited project in the lower 48 states.

LOCATION: Marshall County, approximately 17 miles northeast of Thief River Falls. The drainage area of Ditch 200 above Elm Lake is 63 square miles.

PURPOSE: Multi-purpose – designed to meet three major objectives: Flood control, increase wildlife values, and upstream drainage improvement.

PROJECT COMPONENTS: Approximately 9 miles of earthen embankment, an outlet control structure, rock lined emergency spillway, and an enlargement of a portion of Ditch 200.

FUNCTIONAL DESIGN DATA:

	Elevation (ft.-msl)	Storage (ac.ft.)
Top of Dam	1145.0	19,700
Emergency Spillway	1142.0	11,000 (8.9 in. runoff)
Max Summer	1141.0	7,500 (6.11 in. runoff)
Typical Summer	1140.0	5,500 (4.48 in. runoff)
Typical Winter	1139.0	3,500
Project Drainage Area 63.0 sq.mi.		
*Highest recorded pool elevation was 1143.30 on April 23, 1997		

OPERATIONAL: 1991

In 2009, repairs were made to the principal outlet structure. Work consisted of repairing stop-log bays and channels, removal of corroded stop-logs, and installation of new handrails and safety grates.

Agassiz National Wildlife Refuge staff performs the actual operation of the outlet structure with cooperation from the District.



Lost River Impoundment (RLWD Project No. 17)

GENERAL: In the mid-1970’s, the project was constructed by the Minnesota Department of Natural Resources to improve waterfowl habitat. On December 14, 1978, the District entered into a formal agreement with the Minnesota Department of Natural Resources to modify the original impoundment by raising the elevation of the dike and emergency spillway. Four - 48” diameter gated pipes and a spillway from Ditch 200 of JD #11 supply water to the impoundment which is an “off channel” reservoir.

LOCATION: Marshall County, Grand Plain Township, proximately 20 miles northeast of Thief River Falls. The drainage area above the impoundment is 53 square miles.

PURPOSE: Multi-purpose – designed to increase wildlife values and provide flood control.

PROJECT COMPONENTS:

Approximately 10 miles of earthen embankment, an outlet control structure, and an emergency spillway into Ditch 200.



FUNCTIONAL DESIGN DATA:

	Elevation (ft.msl)	Storage
Top of Dam	1150.2	14,600
Emergency Spillway	1148.2	10,000 (4.7 in.runoff)
Typical Summer	1146.2	5,500 2.6 in. runoff)
Typical Winter	1145.2	3700
Drainage Area 53.0 sq.mi.		
Highest recorded pool elevation (RLWD) was 1147.80 on April 14, 1999		

OPERATIONAL: 1978

In 2014, the MnDNR obtained funding to make repairs on the outlet end of the control structure. Most of the work consisted of sediment removal, re-shaping of the plunge pool and ditch banks, plus installing rock riprap. The Watershed District helped with the design, cost estimate, and partial funding. The work was completed late in the year.

The Minnesota Department of Natural Resources (MnDNR) staff perform the actual operation of the outlet structure with cooperation from the District.



Good Lake Impoundment (RLWD Project No. 67)

GENERAL: The Good Lake Project was a cooperative effort between the Red Lake Band of Chippewa Indians and the District.

LOCATION: The project area lies entirely within the Red Lake Indian Reservation. The impoundment is approximately 30 miles east of Thief River Falls, in Clearwater and Beltrami Counties. The drainage area above the dam is 73 square miles.

PURPOSE: Multi-purpose project to provide wetland habitat, flood water retention, and potential irrigation water supply. Enhanced wetland habitat for waterfowl, furbearers, and other wetland species. The reservoir also has the potential for seasonal rearing of northern pike. The project reduces flood peaks on both the Red Lake River and the Red River of the North. The dam stores runoff from the 73 square mile drainage area. Spring storage capacity is 11,300 acre-feet and is equal to 2.6 inches of runoff from the drainage area. The project will also reduce flooding on approximately 4,000 acres of private land immediately west of the project, by intercepting overland flows. The reservoir may be used as a water source for irrigation of wild rice paddies. Paddies have not been built, but there is potential for paddy development in adjacent areas.

PROJECT COMPONENTS: Approximately 9 miles of earthen embankment, 7.5 miles of inlet channels, a reinforced concrete outlet structure, and 2 miles of outlet channel. Water released from the impoundment, enters the Red Lake River approximately 2.5 miles downstream (south easterly) from the outlet control structure. The project was operational in 1996.

FUNCTIONAL DESIGN DATA:

	Elevation (ft.-msl)	Storage (ac.ft.)
Top of Dam	1178.5	27,500
Flood Pool (Emergency Spillway)	1176.1	13,100 (4.8 in. runoff)
Normal Summer Pool	1173.0	3,250 (1.2 in. runoff)
Normal Winter Pool	1172.0	1,800
Drainage Area – 73 sq.mi.		
Highest recorded pool elevation was 1176.80 on May 25, 1999		

On April 12, 2011, the Red Lake Tribal Council approved a new 5-year Special Land Permit (Resolution No. 61-11) granted to the District. The original permit had expired on January 12, 2010. In part, the permit states “The purpose of this permit is to facilitate cooperative management of the Good Lake Impoundment, where the District and the Red Lake Band will cooperatively inspect, supervise and conduct necessary maintenance at the Good Lake Flood Control project site. Activities will be coordinated with the Red Lake Department of Natural Resources.” Also, as part of the land use permit, the District is granted a right of access to the land described for a period of five years, starting on the date the permit commenced. It was signed by the Tribal Chairman and Secretary on April 13, 2011 and expired on April 13, 2016.

On July 12, 2016, two District Board Managers and two Staff members met before the Red Lake Tribal Council to discuss and ask for a renewal of the Special Land Permit. On August 24, 2016, the office received a new 2-year Special Land Permit (Resolution No. 138-16) signed by the Tribal Chairman and Secretary and dated July 12, 2016 (expires on July 12, 2018). The Special Land Permit (Resolution No. 138-16) with the Red Lake Nation expired on July 12, 2018. RLWD personnel have not been able to access the project since that time.



Moose River Impoundment (RLWD Project No. 13)

GENERAL: The project, which is a two-pool design, is the largest impoundment operated by the District. It was a cooperative effort of the District, Red River Watershed Management Board, and the Minnesota Department of Natural Resources for flood control and wildlife management. Flood damages will be reduced by storing floodwaters in the upper reaches of the watershed. Wildlife and associated recreational benefits will be enhanced by water retained in the two pools. The project is constructed on lands managed by the Minnesota Department of Natural Resources.

LOCATION: The project is located at the headwaters of the Moose and Mud Rivers in northwestern Beltrami County, approximately 15 miles northeast of Grygla, MN.

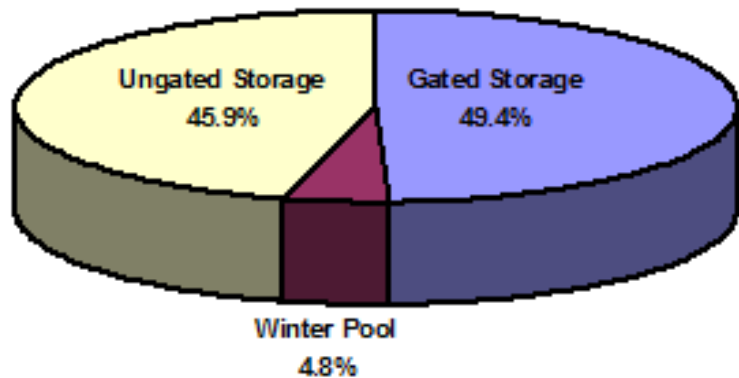
PURPOSE: Multi-purpose; designed to provide flood control, streamflow maintenance, increase wildlife values, and benefit fire control.

OPERATIONAL: 1988

FUNCTIONAL DESIGN DATA:

	North Pool	South Pool	Total
Top of Dam Elevation (ft.msl.)	1218.0	1220.0	
Freeboard Flood Elevation (ft.-msl)	1217.2	1219.3	
Freeboard Flood Storage (ac.ft.)	16,250	38,250	54,500
Emergency Spillway Elevation (ft.-msl)	1216.0	1218.0	
Emergency Spillway Storage (ac.ft.)	12,000	24,250	36,250 (5.4 in. runoff)
Gated Pool Elevation (ft.-msl)	1215.3	1217.4	
Gated Pool Storage (ac.ft.)	9,750	19,750	29,500 (4.4 in. runoff)
Typical Summer Elevation (ft.-msl)	1211.7	1213.6	
Typical Summer Storage (ac.ft.)	2,000	4,000	6,000 (2.1 in. runoff)
Typical Winter Elevation (ft.-msl)	1210.5	1212.4	
Typical Winter Storage (ac.ft.)	800	1,800	2,600
Max No-Flood Elevation (ft.-msl)	1212.5	1214.5	
Max No-Flood Storage (ac.ft.)	3,000	6,000	9,000
Project Drainage Area (sq.mi.)	41.7	83.3	125.0
*Highest Recorded Pool Elevation May 16, 1999	*1215.90	*1218.05	

This impoundment has a small permanent winter pool to allow for maximum storage capacity as indicated on the graph shown to the right.



Moose River Impoundment – North Pool

The North Pool outlets into the Moose River (JD #21). The major components of the north pool are: 5 miles of diversion ditch, 4 miles of earthen dike with a top elevation of 1218.0, one gated outlet structure, one rock lined emergency spillway at an elevation of 1216.0. Approximately 1/3 (41.7 sq. mi.) of the total project drainage area (125.0 sq. mi.) drains to the Moose River.

2020 Operation: The maximum North Pool elevation for 2020 was 1214.40' (6,939 ac/ft) which occurred on April 16th. Various summer rain events required gate operation. Fall releases began October 19th, drawdown was complete October 22nd.

The Minnesota Department of Natural Resources (MnDNR) performed spotted knapweed control at various locations of the project. The watershed performed other routine maintenance (dike mowing, stream gage repair, and debris removal). The pool was drawn down completely and an inspection was performed on the outlet structure. Houston Engineering Inc. found that “Generally, structural conditions of the north structure are fair to good.”



Moose River Impoundment – South Pool

The South Pool outlets into the Mud River (JD #11 Main Branch). The major components of the south pool are: 3 miles of diversion ditch, 9 miles of earthen dike with a top elevation of 1220.0, 4 miles of earthen dike between the north and south pools, one gated outlet structure, two rock lined emergency spillways at an elevation of 1218.0. Between the North and South pools is an inter-pool structure which may be used to pass water between the pools. Approximately 2/3 (83.3 sq. mi.) of the total project drainage area (125.0 sq. mi.) drains to the Mud River.

2020 Operation: The maximum South Pool elevation for 2020 was 1216.05 (11,989 ac/ft) which occurred on April 15th. Various summer rain events required gate operation. Fall releases began September 15th and drawdown was complete October 21st. This year the annual fall draw down began early, the pool was drained via the inter-pool structure, which sent the water into the North Pool. This was done to give protection to Agassiz NWR & their project that was on going at the time downstream.



The Minnesota Department of Natural Resources performed spotted knapweed control at various locations of the project. The watershed performed other routine maintenance (dike mowing, stream gage repair, and debris removal). Three miles of the inlet channel in-slope was mechanically brushed this year, then herbicide was applied aeriially to suppress re-growth.

Schirrick Dam (RLWD Project No. 25)

GENERAL: The Schirrick Dam Project was constructed on the Black River in 1984 and was operational in 1985.

LOCATION: Section 35, Wylie Township, Red Lake County, approximately 20 miles northeast of Crookston. The drainage area above the dam is 107.7 square miles.

PURPOSE: The primary purpose is to provide flood relief on the Red Lake River and the Red River of the North by controlling the flow contribution from the Black River. A small permanent pool is also provided.

PROJECT COMPONENTS: An earthen embankment (38 feet at highest point) and a gated concrete outlet structure. The reservoir has the capacity to detain up to 4,800 acre-feet of water. Operable components are stop-log bays to control the elevation of the permanent pool and hydraulic flood gates to control the flow contribution of the Black River during floods. The gates will normally be open and will only close in the event of severe mainstem flooding.

FUNCTIONAL DESIGN DATA:



	Elevation (ft.-msl)	Storage (ac.ft.)
Top of Dam	992.5	6,000
Gated Storage	987.0	4,000
Emergency Spillway	989.3	4,800
Permanent Pool	962.0	70
Drainage Area 107.7 sq.mi.		
Highest recorded pool elevation was 988.75 on April 17, 1997		

In 2020, the spring runoff event was large enough to raise downstream river levels to the operating plan “trigger point” elevations, therefore gate operation was required. When operating the gates this spring, one of the gate stem covers broke, exposing the stem to the elements. Both stem covers were replaced in the spring of 2020. In early December, annual gate operation occurred. Both hydraulic gates were test operated (closed and opened) to make sure that they function properly. This is done to be prepared in the event of a severe 2021 spring flood which would require closure. This dam and the timing of closure are vitally important for the flood protection for city of Crookston.



**April 7, 2020
Water Elevation - 987.0'**

Gate stem covers after replacement.



Water Quality Program



The District and other local organizations are working to protect and restore water quality in rivers, streams and lakes in the five major watersheds within the District's boundary. To protect water quality, it is important to have a confident understanding of current water quality conditions. District staff monitor water quality and flow conditions. Monitoring involves regular sample collection, investigative sampling, and event monitoring with autonomous sensors. The data is used to assess water quality conditions by comparing statistics to water quality standards that are established by the State of Minnesota. The results of data assessment and analysis are used to identify problem areas and trends. Sampling activities can also be conducted to find the locations of pollutant sources.

Thanks to the Clean Water Land and Legacy Act, the Minnesota Pollution Control Agency (MPCA) has been able to provide the District with funding for four watershed restoration and protection strategy (WRAPS) projects ([Thief River](#), [Red Lake River](#), [Grand Marais Creek](#), and [Clearwater River](#) watersheds). Another WRAPS project, for the Upper/Lower Red Lakes Watershed, is being completed by the Red Lake Department of Natural Resources. In 2020, final revisions were completed for the Clearwater River [WRAPS](#) and Total Maximum Daily Load ([TMDL](#)) reports. In addition to the District's long-term monitoring program, water quality staff deployed and maintained dissolved oxygen and water level loggers. Progress was made on attaining funding for implementation projects that will improve water quality and implementing projects with watershed-based funding (One Watershed One Plan implementation).

An important part of the District's water quality program is public education. The District supports River Watch programs at schools that monitor water quality in streams within its boundaries. The information that the District collects needs to be interpreted and shared for it to be most beneficial. Therefore, the District generates regular (monthly and annual) water quality reports, holds open house events (when there are no pandemics occurring), and participates in other educational events like water festivals. Information is shared online. The creation of informative maps using GIS software is also used to attain a better understanding of water resources and watersheds.

The knowledge that is gained through the District's water quality program is also used for the planning of projects that will improve water quality conditions and comprehensive watershed planning efforts (1W1P). The District has identified sources of pollutants that can be addressed through large and small projects. The Board of Managers has approved financial support to projects and programs that will improve water quality. The success of those projects can also be monitored through the District's water quality program.

Long-Term Water Quality Monitoring Program

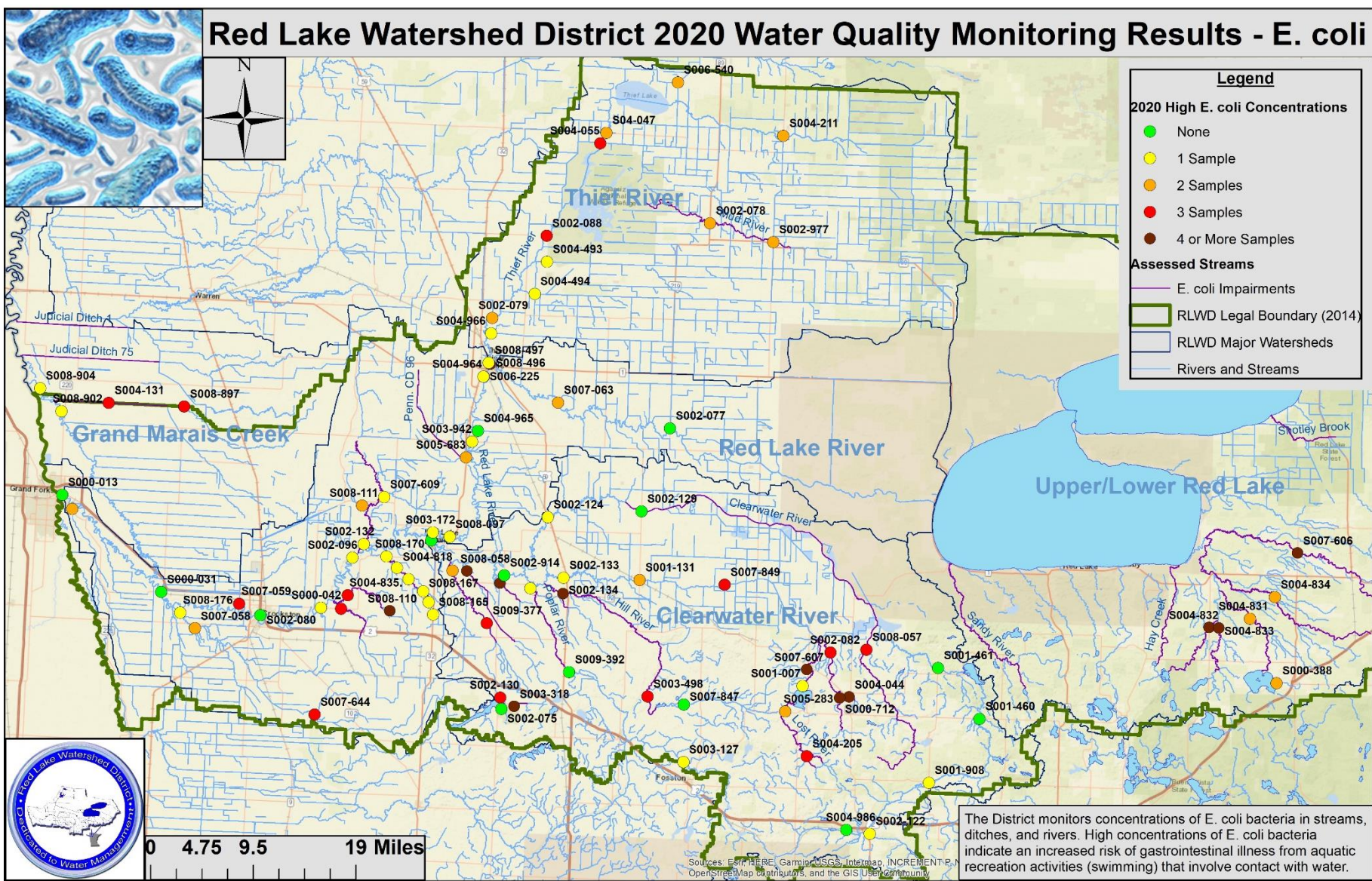
The District's long-term district monitoring program has collected water quality data throughout the district since 1980. Water quality monitoring was conducted at 74 stream crossings and one lake as part of the District's regular monitoring program in 2020. The District partnered with other local organizations to collect additional lake and stream data. Monitoring sites were selected so that data could be strategically collected from as many assessment units (reaches of rivers, streams, and ditches – delineated by the MPCA for assessment purposes) as possible. Generally, monitoring sites are located near the pour points (downstream ends) of rivers, streams, and ditches. Monitoring station locations are changed to adapt to changes in MPCA assessment units. The four 2020 rounds of sampling occurred in June, July, August, and September. Locations of long-term monitoring stations are shown on the map on the following page.

Field measurements of dissolved oxygen, temperature, turbidity, specific conductivity, pH, and stage were collected during each site visit if there was flowing water. Four rounds of samples were also collected and analyzed for total phosphorus, orthophosphorus, total suspended solids, total Kjeldahl nitrogen, ammonia nitrogen, nitrates + nitrites, and *E. coli*. Biochemical oxygen demand analysis was performed on samples from rivers and streams that were impaired by low dissolved oxygen levels or have high total phosphorus concentrations.

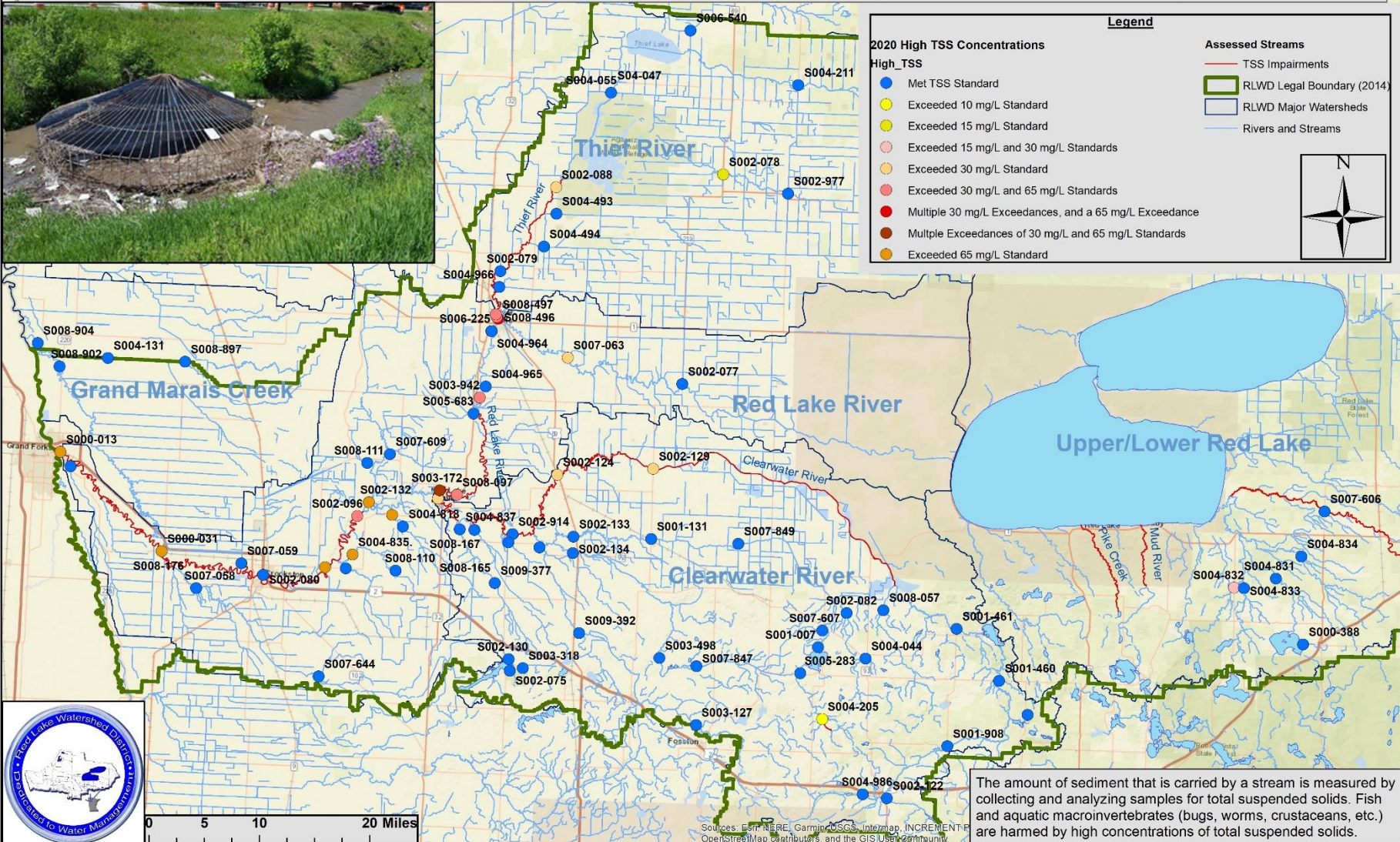
The first round of sampling in 2020 for the District's long-term monitoring program was completed in June. Large rainfall events led to high concentrations of pollutants at many of the District's rivers, streams, and ditches. A total of 9.05 inches of rainfall were recorded at the District office during the month of June 2020. The June and July runoff events led to high concentrations of pollutants in many of the District's streams and rivers. Data from the District's long-term monitoring program sites, East Polk SWCD monitoring sites, and dissolved oxygen deployments were compared to state water quality standards to create the following maps.

Field measurement data from 2020 water quality monitoring was entered into the District's database, transferred to an EQUIS submittal template, reviewed for accuracy, then submitted to the MPCA for storage in the EQUIS database. Data from RMB Environmental Laboratories was electronically submitted directly to the MPCA. A total of 649 records were submitted to the MPCA. Of those records, 402 involved the collection of water quality samples. Data collected by the East Polk SWCD staff from additional locations within eastern Polk County were and submitted to the MPCA along with data collected by District staff.

Red Lake Watershed District 2020 Water Quality Monitoring Results - E. coli

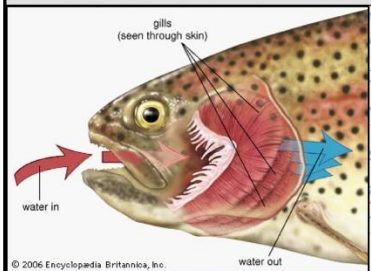


Red Lake Watershed District 2020 Water Quality Monitoring Results - Total Suspended Solids



Red Lake Watershed District 2020 Water Quality Monitoring Results - Dissolved Oxygen

This map shows the number of low dissolved oxygen levels that were recorded by the RLWD long-term monitoring program (4 site visits per year), investigative sampling, dissolved oxygen logger deployments (approximately 4 weeks at each site), and the East Polk SWCD monitoring effort (16 measurements/site in 2020).




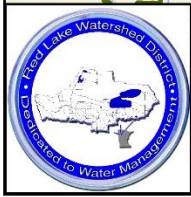
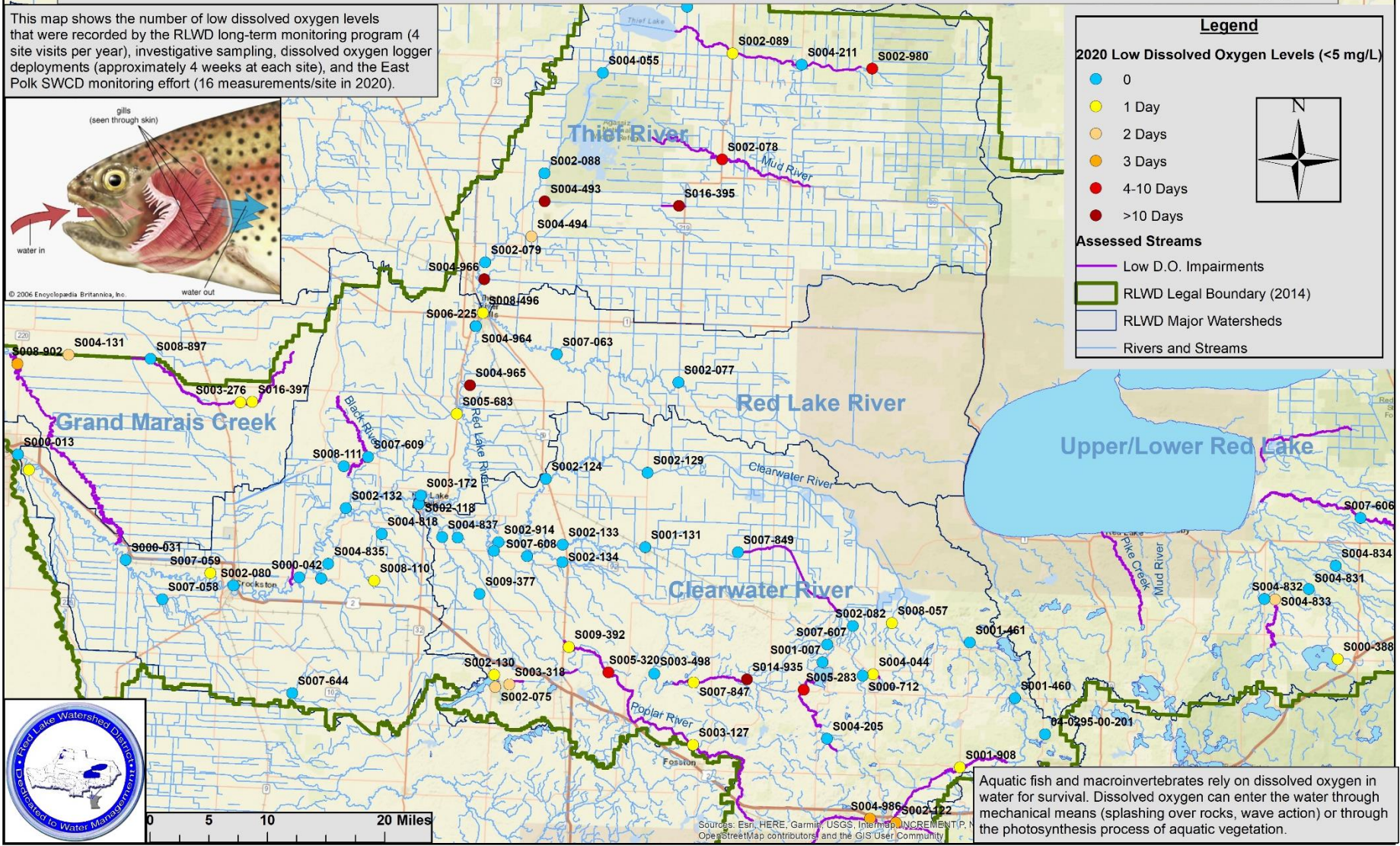
Legend

2020 Low Dissolved Oxygen Levels (<5 mg/L)

- 0
- 1 Day
- 2 Days
- 3 Days
- 4-10 Days
- >10 Days

Assessed Streams

- Low D.O. Impairments
- RLWD Legal Boundary (2014)
- RLWD Major Watersheds
- Rivers and Streams

Aquatic fish and macroinvertebrates rely on dissolved oxygen in water for survival. Dissolved oxygen can enter the water through mechanical means (splashing over rocks, wave action) or through the photosynthesis process of aquatic vegetation.

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, OpenStreetMap contributors, and the GIS User Community

The highest concentration of *E. coli* bacteria recorded in the District in 2020 was >2,419.6 MPN/100ml (more than the lab could accurately measure) and that level was recorded at multiple locations.

1. Chief's Coulee at Dewey Ave
2. Cyr Creek at 110th Ave SW
3. Darrigan's Creek at CSAH 23
4. Hill River at CSAH 35
5. Kripple Creek at CSAH 53
6. Pennington County Ditch 70 outlet near the Greenwood Street Bridge
7. Silver Creek at 159th Ave, west of Clearbrook

The lowest concentration of *E. coli* bacteria recorded in the District in 2018 was <1 MPN/100ml (less than the lab could accurately measure) and that level was recorded at multiple locations

1. Beau Gerlot Creek at CR 114
2. Clearwater River at the Klondike Bridge in Red Lake Falls
3. Mud River at CSAH 89
4. Polk County Ditch 2 at County Road 62
5. Red Lake River at Greenwood Street in Thief River Falls

High biochemical oxygen demand (BOD) concentrations (>3.5 in the South or more than the laboratory's 2 mg/L minimum reporting limit in the Central or North River Nutrient Regions) were found in the following streams.

- Chiefs Coulee at Dewey Ave in Thief River Falls
- Mud River at State Highway 89
- Silver Creek at County Road 111

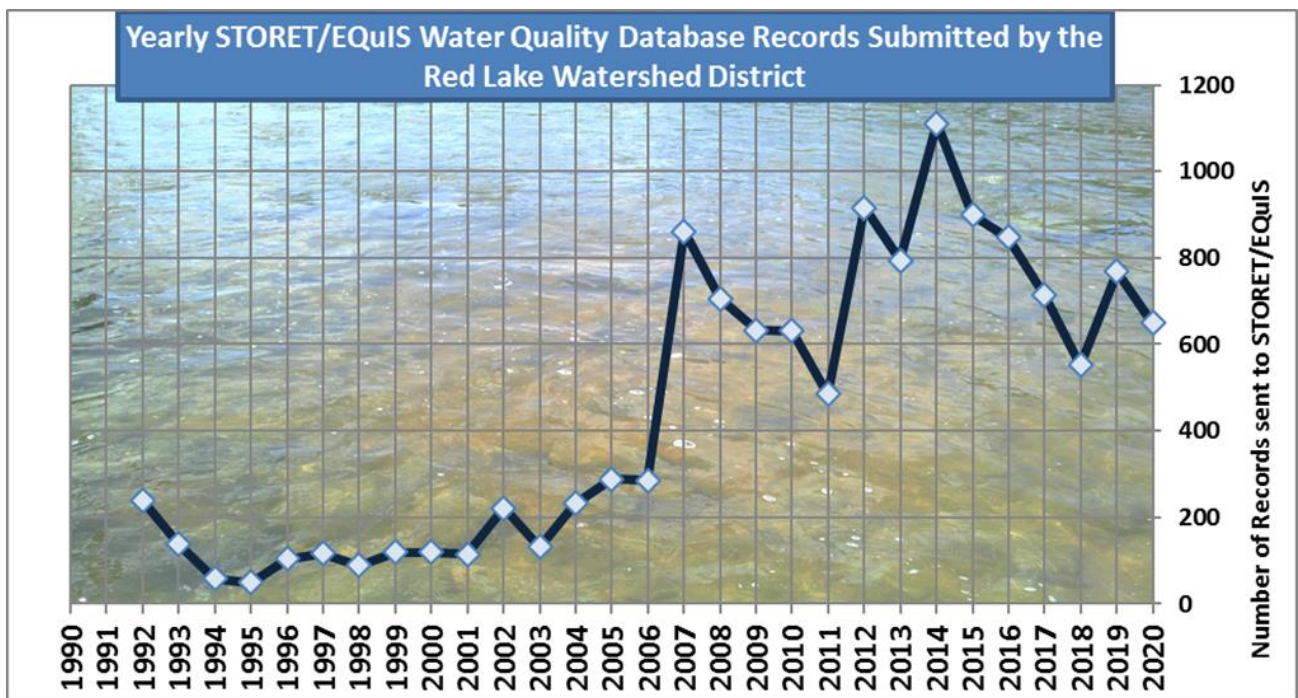
The majority of nitrate and nitrite concentrations measured in 2020 were lower than the laboratory's minimum reporting limit of 0.03 mg/L, a lower limit that is based on the accuracy of the laboratory method/equipment. Relatively high nitrate and nitrite concentrations (>5 mg/L) were recorded tributary streams in the Red Lake Falls area in June and July: Beau Gerlot Creek, Terrebonne Creek, Lower Badger Creek, and Cyr Creek. Chief's Coulee, where high concentrations have been found for nearly all conventional pollutants, also had high nitrate and nitrite concentrations. The nitrate and nitrite concentration in Cyr Creek, Chief's Coulee exceeded the 10 mg/L drinking water quality standard.

District staff collected samples Long Lake (04-0295-00 near Pinewood) during the summer of 2020. Previously collected data (2011-12) resulted in the lake being listed as impaired during the 2016 MPCA water quality assessment. Exploration of the lake found few sources of pollution and recent samples show better water quality conditions than what was indicated by the previous sampling effort. Though there have been a few high concentrations of chlorophyll-a (>9 µg/L) and total phosphorus (>0.030 mg/L), the average sampling results for total phosphorus (nutrients), chlorophyll-a (algae), and Secchi disk (clarity) met the stringent water quality standards for lakes in the Northern Lakes and Forest ecoregion. The lake has met the state's water quality standards during the District's sampling effort that began in September 2018. Though water quality statistics have improved with the addition of 2018-20 data, the 10-year summer averages (basis for the state's water quality standards) for chlorophyll-a and total phosphorus still exceed the standards due to high concentrations that were recorded in 2011 and 2012. If the District could sample through another summer, water quality conditions remain similar to 2018-2020 conditions, and the 2011 data is cycled out of the assessment period, the lake could be recommended for delisting from the 303(D) List of Impaired Waters.

The district partnered with the East Polk SWCD and the Maple Lake Improvement District to collect water quality samples from lakes in the Clearwater River watershed. Those organizations collect samples and send them to RMB Environmental Laboratories, and the District reimburses them for the laboratory analysis expenses. This was the third year of sampling for the East Polk SWCD partnership with watershed districts for

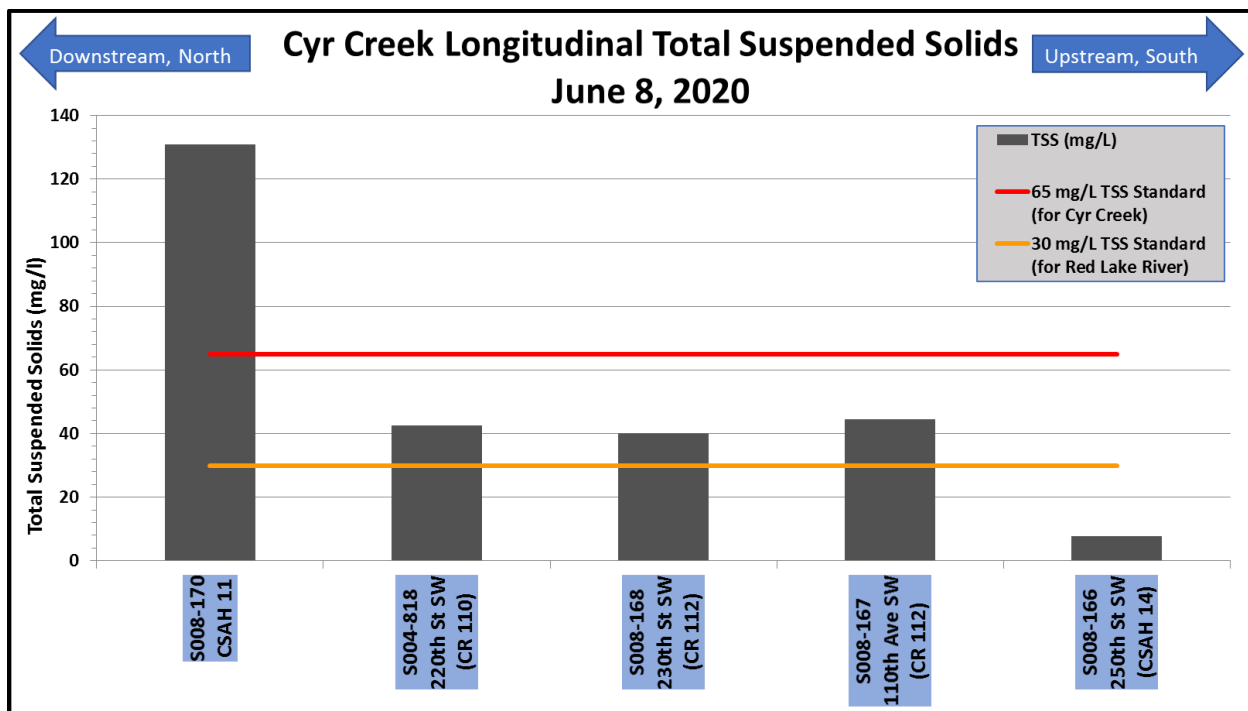
lake monitoring (the SWCD also samples some lakes for the Sand Hill Watershed District). Some of the newly sampled lakes now meet data requirements for water quality assessment for the first time. The East Polk Soil and Water Conservation District's sampling effort has discovered very high total phosphorus concentrations in Oak Lake, Hill River Lake and Turtle Lake. Those lakes will likely be listed as new impairments on the 2028 List of Impaired Waters. Water quality in Cameron Lake has improved a little since the 2016 assessment. Severe impairments have been identified in Hill River Lake and Oak Lake. Several lakes are near the impairment thresholds for total phosphorus and/or chlorophyll-a. The nearly/barely impaired statuses of Badger Lake, Turtle Lake, Cross Lake, and Whitefish Lake could potentially make those lakes' watersheds high priority areas for implementation of water quality improvement projects. The water quality in Poplar Lake and Spring Lake comfortably met water quality standards.

2011-2020 Assessment Statistics for Lakes Sampled in 2020: June through September Summer Averages						
Lake	Summer Average Total Phosphorus (µg/L)	Summer Average Chlorophyll-a (µg/L)	Summer Average Secchi Depth (m)	Applicable Total Phosphorus Standard (µg/L)	Applicable Chlorophyll-a Standard (µg/L)	Applicable Secchi Transparency Standard (m)
Maple Lake	35.84	13.11	1.29	<60	<20	<1
Cameron Lake	71.11	39.51	0.67	<60	<20	<1
Badger Lake	66.57	13.14	2.22	<60	<20	<1
Oak Lake	127.83	47.72	0.97	<60	<20	<1
Poplar Lake	26.25	6.38	2.39	<40	<14	<1.4
Hill River Lake	108.50	29.19	1.4	<40	<14	<1.4
Cross Lake	41.69	17.50	1.28	<40	<14	<1.4
Whitefish Lake	43.24	22.17	1.39	<40	<14	<1.4
Spring Lake	27.41	9.37	2.03	<40	<14	<1.4
Turtle Lake	51.74	28.02	1.43	<60	<20	<1
Long Lake	33.02	12.11	2.62	<30	<9	<2.0

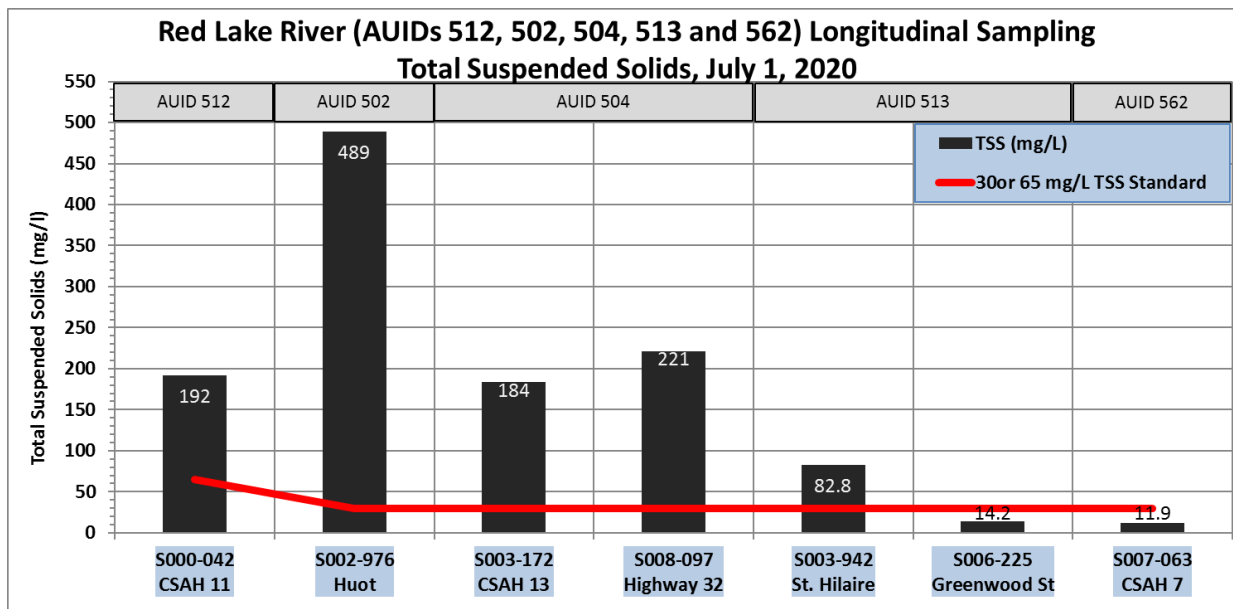


Investigative and Longitudinal Sampling

Longitudinal samples were collected along Cyr Creek after a large rainfall event. *E. coli* and total phosphorus concentrations were high throughout the watershed. An interesting finding was that there was a large increase in total suspended solids concentrations between the last two crossings. For the sake of safety, the creek is typically monitored at second-to-last crossing at 220th Street Southwest rather than furthest downstream crossing at CSAH 11 (a bridge at the bottom of a relatively steep valley that is not visible to oncoming traffic until it crests the top of the valley on either side). By monitoring further from the pour point, some significant sources of sediment are not captured by long-term monitoring. There is visible evidence of extensive erosion downstream of the regular monitoring station and the PTMApp model identifies sediment runoff “hot spots” in the lower portion of the Cyr Creek watershed. The longitudinal sampling results confirmed concerns that water quality conditions at CSAH 11 may be worse than conditions at upstream crossings. The longitudinal sampling results, visual evidence, and PTMApp data indicate that the drainage area downstream of the 220th Street Southwest crossing should be targeted, along with the direct drainage area of the Red Lake River, as a priority for reducing sediment loading within the Red Lake River. Other water quality issues found revealed by the longitudinal monitoring included relatively low dissolved oxygen levels at the 220th St. SW and 230th St. SW crossings. *E. coli* concentrations were high at all sampled crossings.



Longitudinal samples were collected at crossings along the Red Lake River on July 1 after a rainfall event, beginning at the CSAH 7 (Smiley) Bridge and progressing downstream to the CSAH 11 (Gentilly) Bridge. High total suspended solids concentrations were found along the river downstream of Thief River Falls, but samples within Thief River Falls and upstream of the city met total suspended solids standards. Total suspended solids concentrations peaked near Huot. High *E. coli* concentrations were found at all the sampling sites and peaked at the Red Lake Falls crossings. Total phosphorus concentrations were high at all the sites, peaking at Huot.



A set of stormwater samples were collected from stormwater outlets in the City of Thief River Falls after an early morning rainfall event on July 1, 2020. Project planning for the Thief River Falls Oxbow Restoration Project revealed a need for additional stormwater runoff water quality data, especially in that project area. Much of the runoff had already passed by the time samples were collected, but there was still enough flow to sample. High concentrations of *E. coli* bacteria were found at all the sampling locations. Chloride concentrations were very high in the water that was trickling into the storm drain at the city’s snow disposal site. Samples were collected upstream (Pennington Avenue) and downstream (Columbia Avenue) of potential Thief River Falls Oxbow Restoration Project location. There was evidence of significant runoff and some erosion where water flows from Columbia Avenue into the oxbow wetland. Total phosphorus was very high at most of the stormwater outlets. Total suspended solids concentrations were very high at the Pennington County Ditch 70 outlet. The water in Chief’s Coulee was very muddy and the rate of flow was still high in that drainage system. The sampling results confirmed that the channel had very high total suspended solids, very high total phosphorus, and a higher concentration of *E. coli* than what the lab could measure and report. The muddy water was traced upstream to where the Chief’s Coulee channel begins at Highway 32. The muddy water was initially coming from a private field drainage ditch that drains to Chief’s Coulee.



District staff collected weekly water quality samples before, during, and after an excavation project along Judicial Ditch 11 within Agassiz Pool. Samples were collected from the Thief River at CSAH 7 (downstream of the excavation work), Mud River at Highway 89 (upstream of the excavation) and Thief River at CSAH 6 (upstream of the excavation). In general, water was very clear at the upstream sites and cloudier at the downstream crossing of the Thief River. Though the water was typically cloudy in the Thief River at CSAH 7, most of the total suspended solids concentrations at that location fell under the 30 mg/L impairment threshold. One of the six samples collected at the CSAH 7 of the Thief River, near the end of the excavation work (October 19, 2020), exceeded the total suspended solids water quality standard (37.8 mg/L).

Date	Upstream		Downstream
	Thief River at CSAH 6 Total Suspended Solids (mg/L)	Mud River at Hwy. 89 Total Suspended Solids (mg/L)	Thief River at CSAH 7 Total Suspended Solids (mg/L)
9/30/2020	1.6	2.8	15
10/7/2020	1.3	2.5	5.5
10/14/2020	<1	2.1	7.8
10/19/2020	<1	2.3	37.8

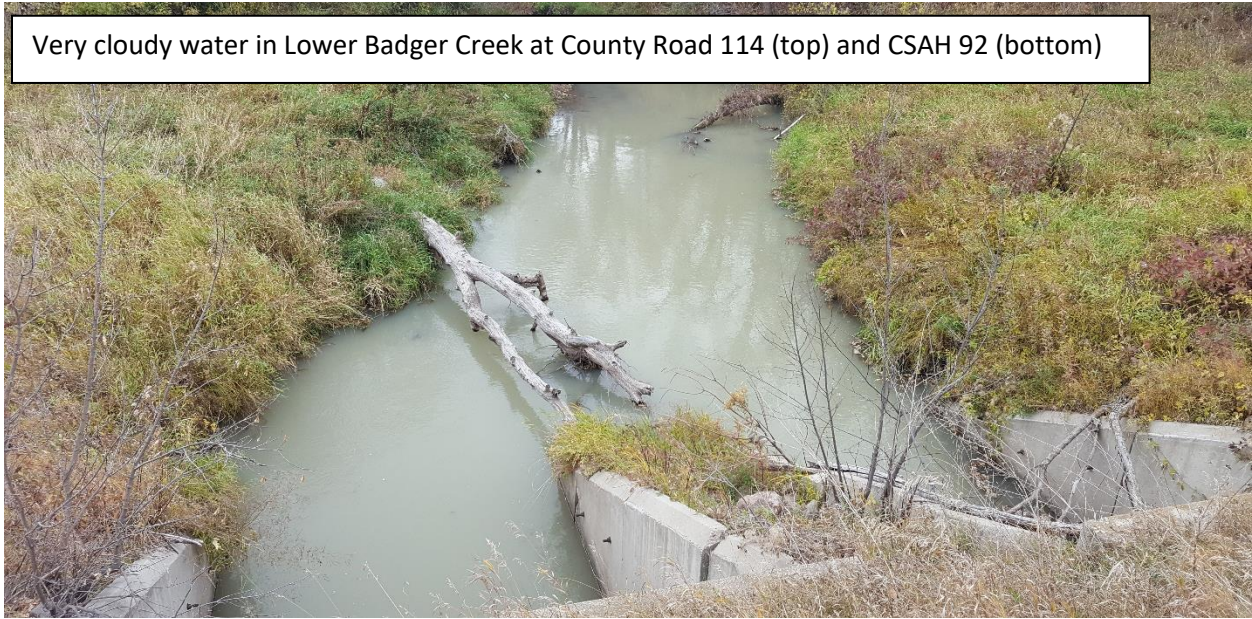


District staff investigated a report of red-colored water within a ditch on the west side of Thief River Falls, along CSAH 1. The red colored water originated at a tile outlet, located near the western edge of a gas station and car wash property. Though water turning red is on par for the year 2020, it is not something we should be seeing and indicates the presence of an illicit discharge. District staff sampled water from the tile outlet. In addition to the red color, the discharge also had a strong septic smell. Information about the discharge and sample results were shared with MPCA staff. The sample had extremely high concentrations of ammonia

nitrogen (188 mg/L), biochemical oxygen demand (236 mg/L), total Kjeldahl nitrogen (264 mg/L), total phosphorus (70.6 mg/L), and orthophosphorus (58.3 mg/L) compared to what should be found in surface waters. The sample also had a high concentration of total suspended solids (66 mg/L). Another cause for concern was the discovery of volatile organic compounds (chemicals that can vaporize into the air and dissolve in water). Measurable concentrations of the solvents 4-Methyl-2 pentanone (8.23 µg/L), acetone (146 µg/L), and tetrachloroethene (71.2 µg/L) were found in the sample.

District staff investigated a complaint about grayish green water in Lower Badger Creek in October 2020. The water was indeed very cloudy with a strange, milky gray/green color. The cloudy water was traced upstream to a section of the river that included the confluence with County Ditch 64. Very cloudy water was found in Polk/Red Lake County Ditch 64 (CD 64) at County Road 14. The cloudy water in CD 64 was then traced upstream to discharge from a gravel pit near Highway 2. Samples were collected the next day. Though the rate of discharge from the gravel pit had decreased, the total suspended solids concentration was still very high (188 mg/L). The results of the sampling and photographic investigation were shared with MPCA permitting staff.

Very cloudy water in Lower Badger Creek at County Road 114 (top) and CSAH 92 (bottom)



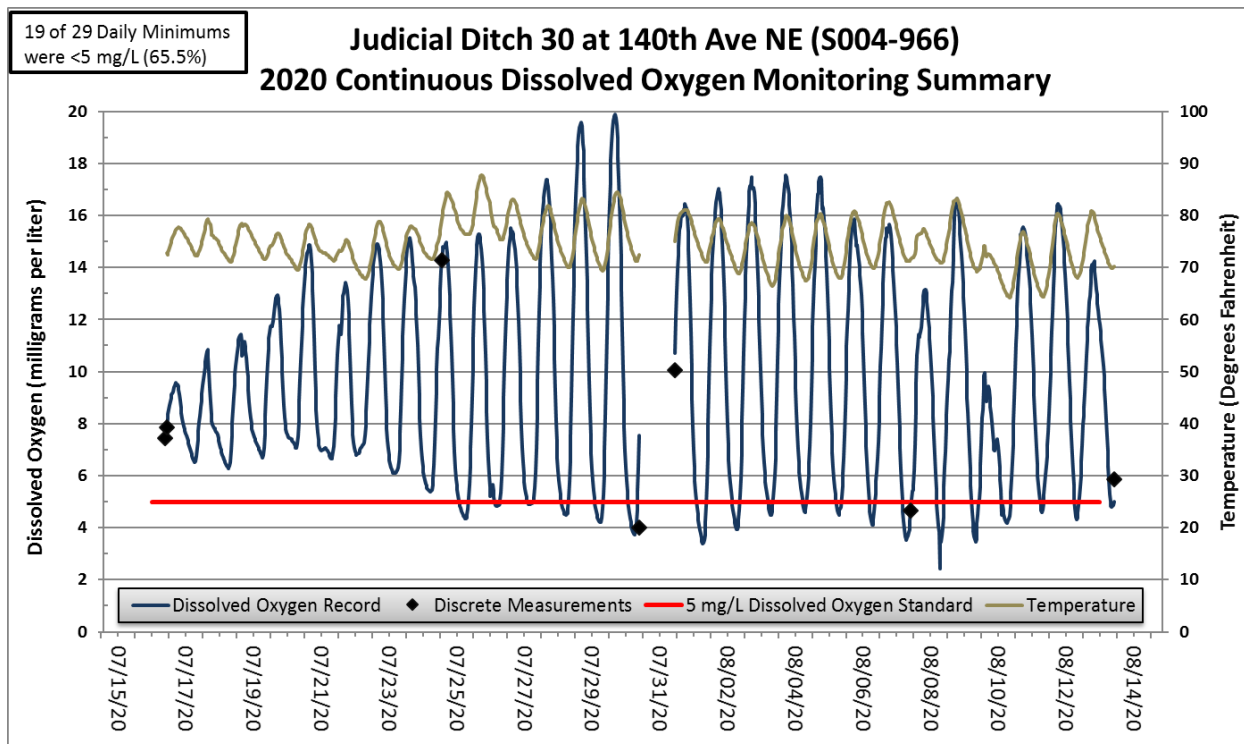
Discharge into Polk County Ditch 64 from a gravel pit



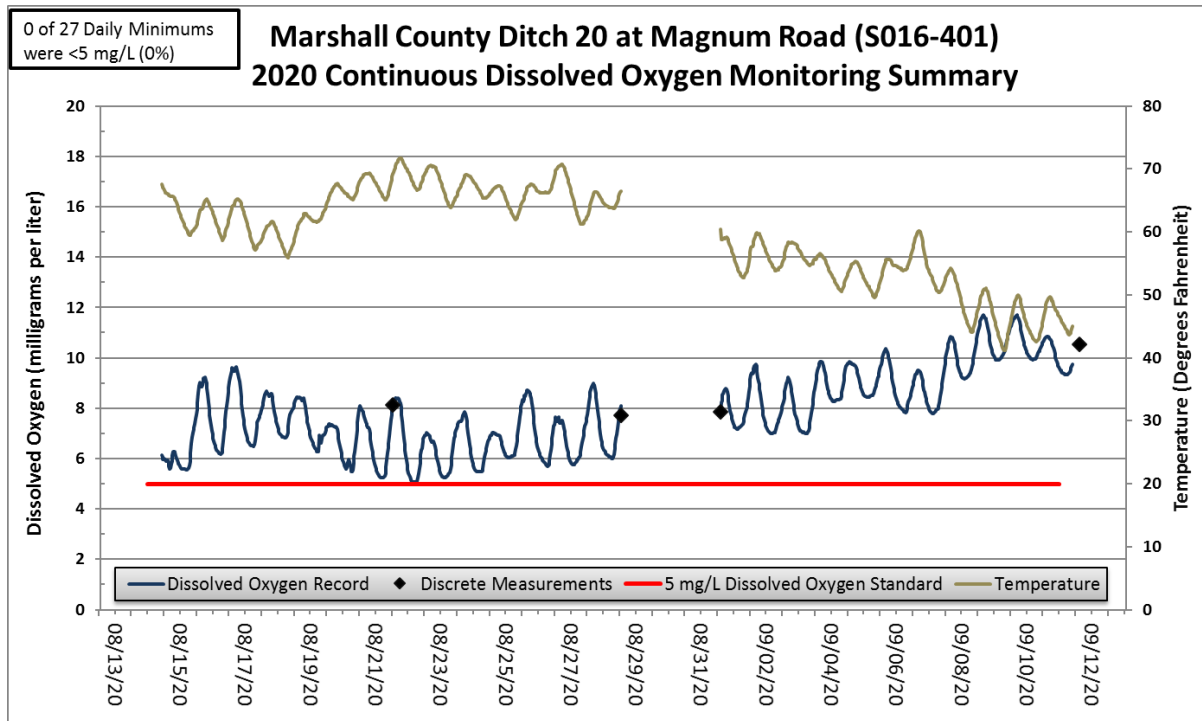
Dissolved Oxygen Logger Deployments

Dissolved oxygen loggers were deployed at 10 sites throughout the District in 2020. These sites were monitored to provide a better understanding of conditions in streams that were impaired by low dissolved oxygen, learn more about the conditions for aquatic life, measure the amount of daily fluctuation in dissolved oxygen levels, and have more confidence in dissolved oxygen data assessments. The sites selections for 2020 deployments were based on a 10-year schedule for dissolved oxygen logger deployments throughout the District. The schedule was created to plan the collection of continuous dissolved oxygen data in preparation for future formal water quality assessments. The Thief River Watershed was the primary focus for the effort, as it will be the next District watershed to be assessed by the MPCA (in 2024). Discrete field measurements (dissolved oxygen, temperature, pH, specific conductivity, and stage) were recorded near the midpoint of each deployment to aid the data review and correction process. The DO loggers were retrieved, cleaned, re-calibrated, and re-deployed after each two-week deployment.

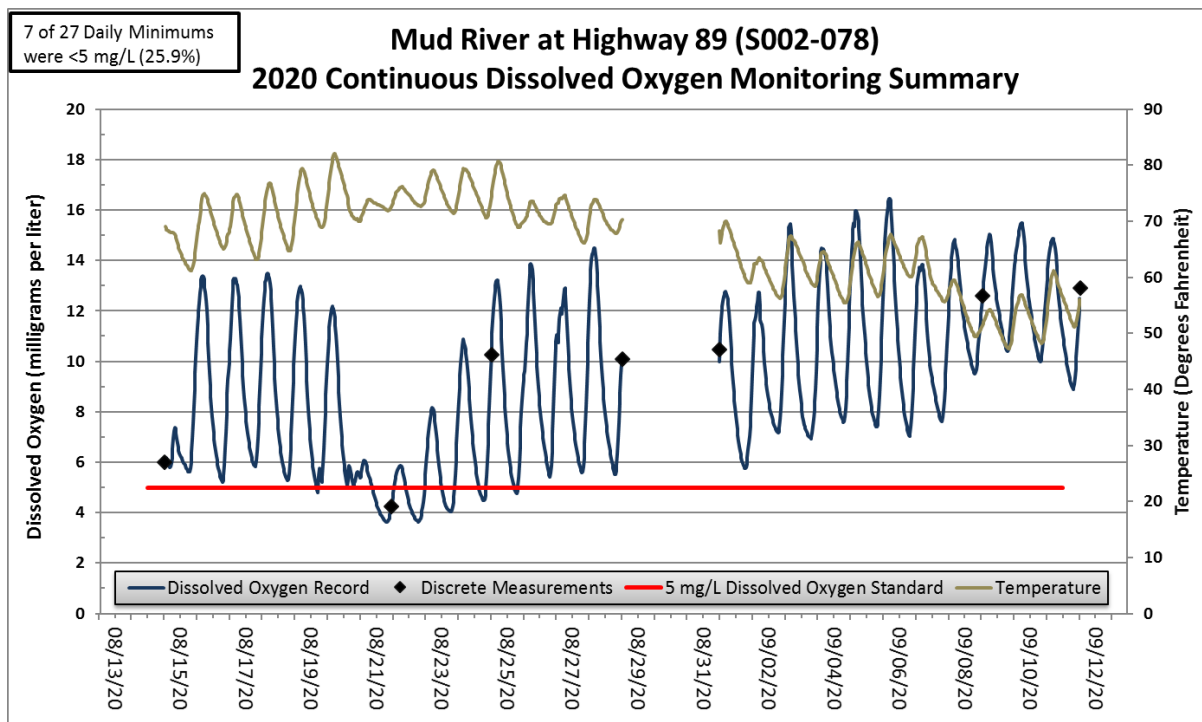
Judicial Ditch 30, at 140th Ave NE (S004-966 on Assessment Unit 09020304-509) This site had high levels of daily dissolved oxygen fluctuation. Dissolved oxygen levels dipped below the 5 mg/L threshold almost daily in late July and early August. High levels of daily dissolved oxygen fluctuation may be associated with elevated total phosphorus concentrations (river eutrophication). Though summer average phosphorus concentrations in Judicial Ditch 30 have met the 0.1 mg/L total phosphorus (river eutrophication) standard in the past, July and August 2020 total phosphorus samples exceeded the state's water quality standard.



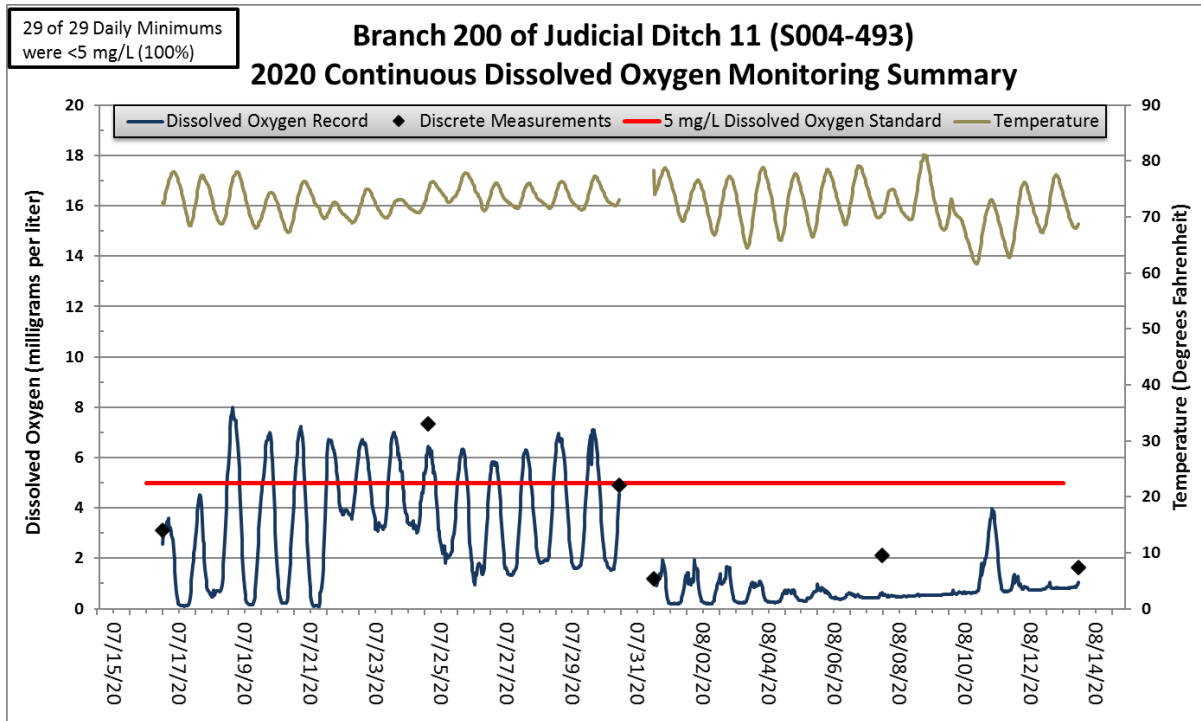
Marshall County Ditch 20, at Magnum Road (Station S016-401 on Assessment Unit 09020304-548): This location met the 5 mg/L dissolved oxygen standard throughout both of the two-week deployments. Another indication of good water quality and suitability for aquatic life was the relatively low daily fluctuation in dissolved oxygen concentrations.



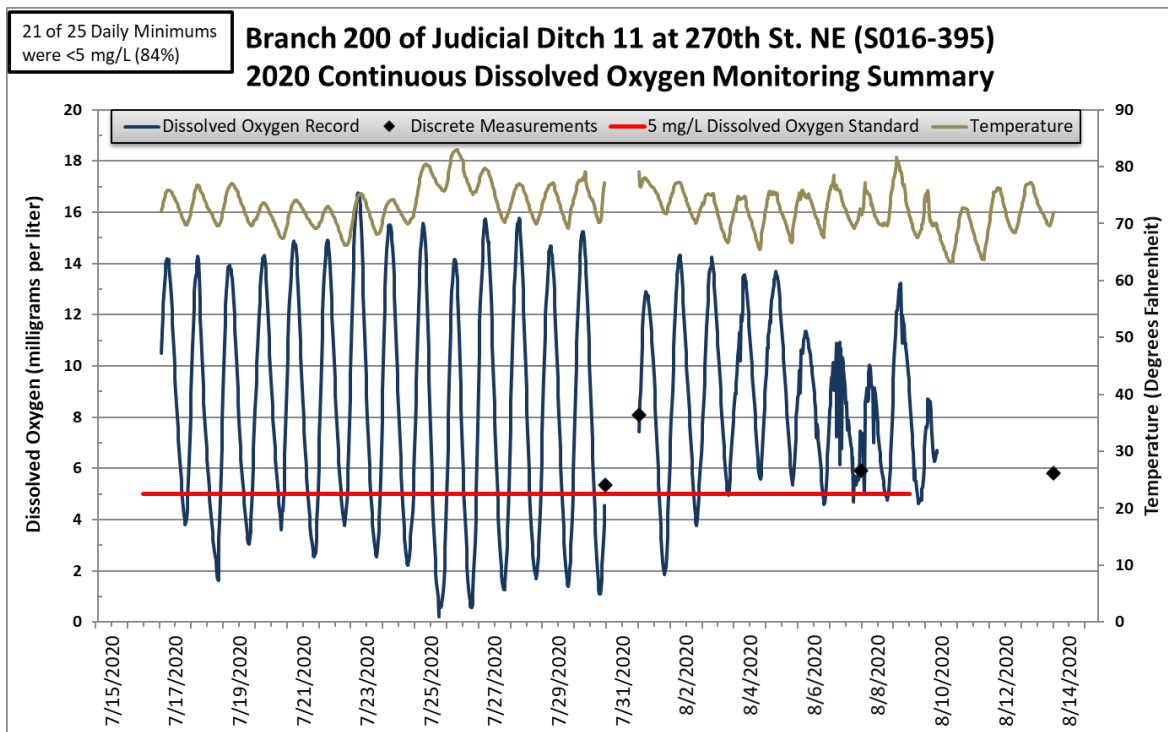
Mud River at State Highway 89 (Station S002-078 on Assessment Unit 09020304-568): The dissolved oxygen levels in the Mud River remained above the 5 mg/L threshold throughout the most of days in the 2020 deployment periods. However, runoff from a large August 20, 2020 rain event depressed dissolved oxygen levels. Dissolved oxygen levels gradually recovered, but it took several days.



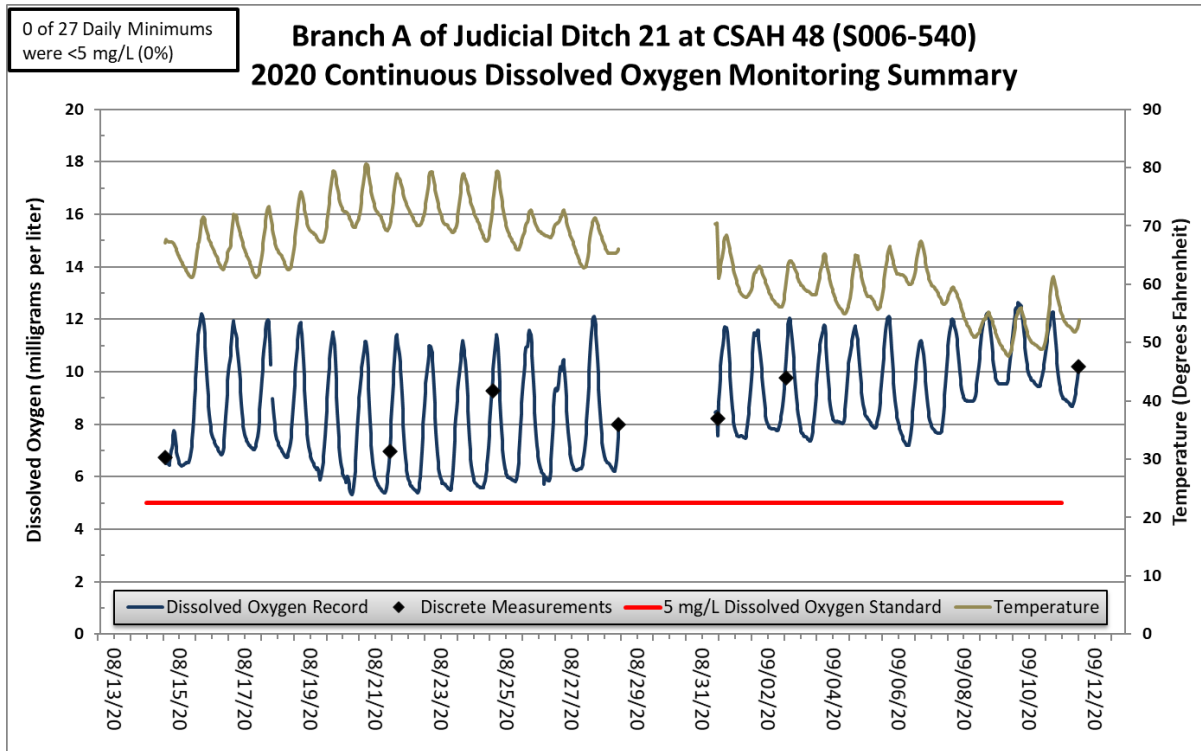
Branch 200 of Judicial Ditch 11 at 190th Ave NE (Station S004-493 on Assessment Unit 09020304-511):
 The relatively stagnant water within Branch 200 of Judicial Ditch 11 created a situation in which dissolved oxygen levels recorded by a deployed logger and by a portable sonde were extremely low.



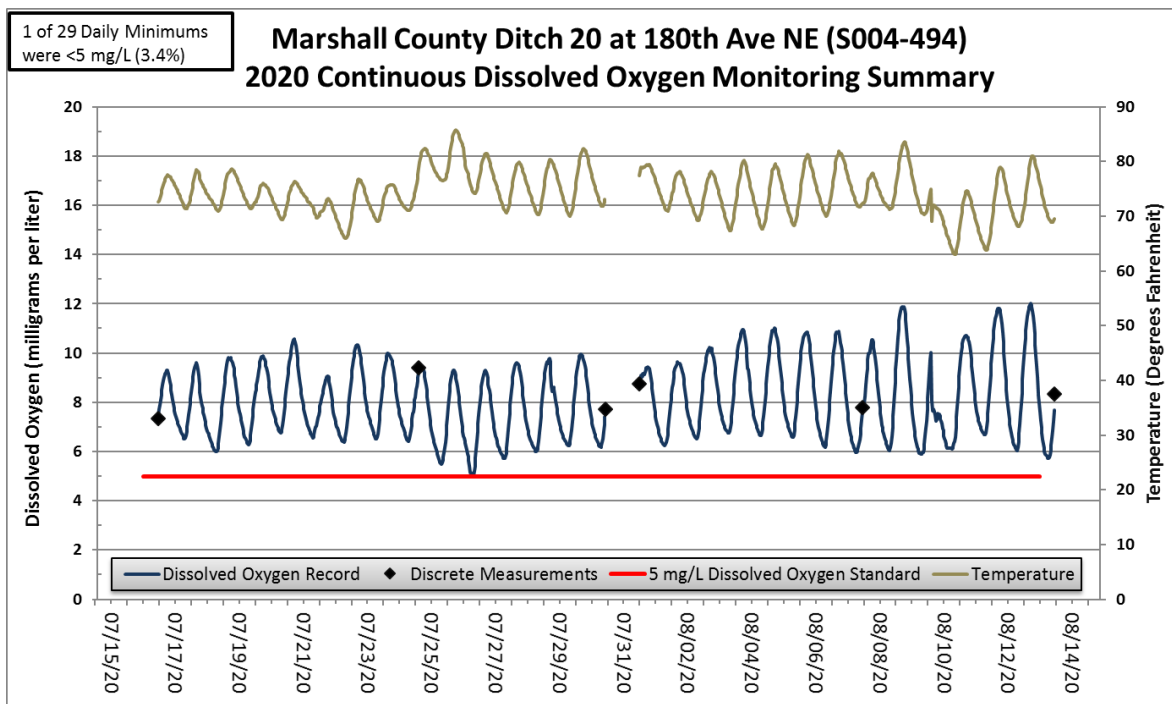
Branch 200 of Judicial Ditch 11 at 270th St NE (Station S016-395 on Assessment Unit 09020304-534):
 Dissolved oxygen was also monitored in an upstream reach that was less stagnant. Dissolved oxygen levels at the 270th St. NE crossing fluctuated greatly during each day and fell below the 5 mg/L throughout most of the days in which the dissolved oxygen logger was deployed.



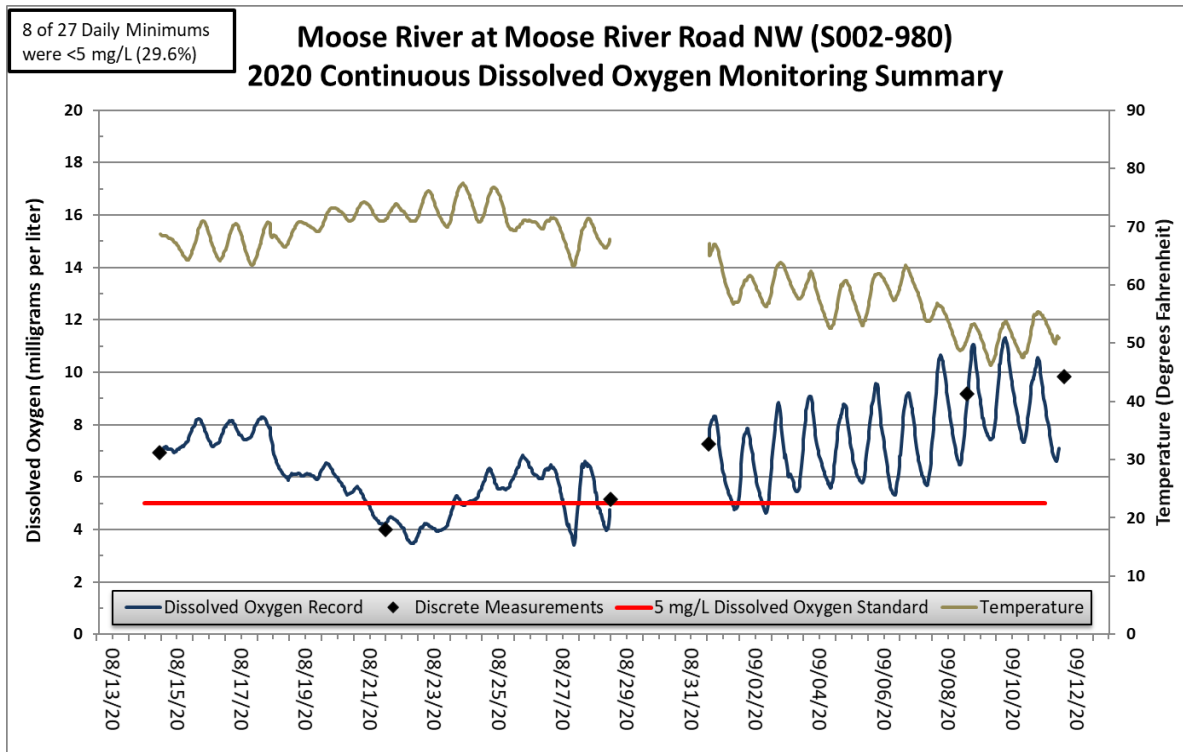
Branch A of Judicial Ditch 21 at CSAH 48 (Station S006-540 on Assessment Unit 09020304-556): As in the monitoring completed for prior assessments, dissolved oxygen levels in Branch A of Judicial Ditch 21 continued to meet the 5 mg/L water quality standard.



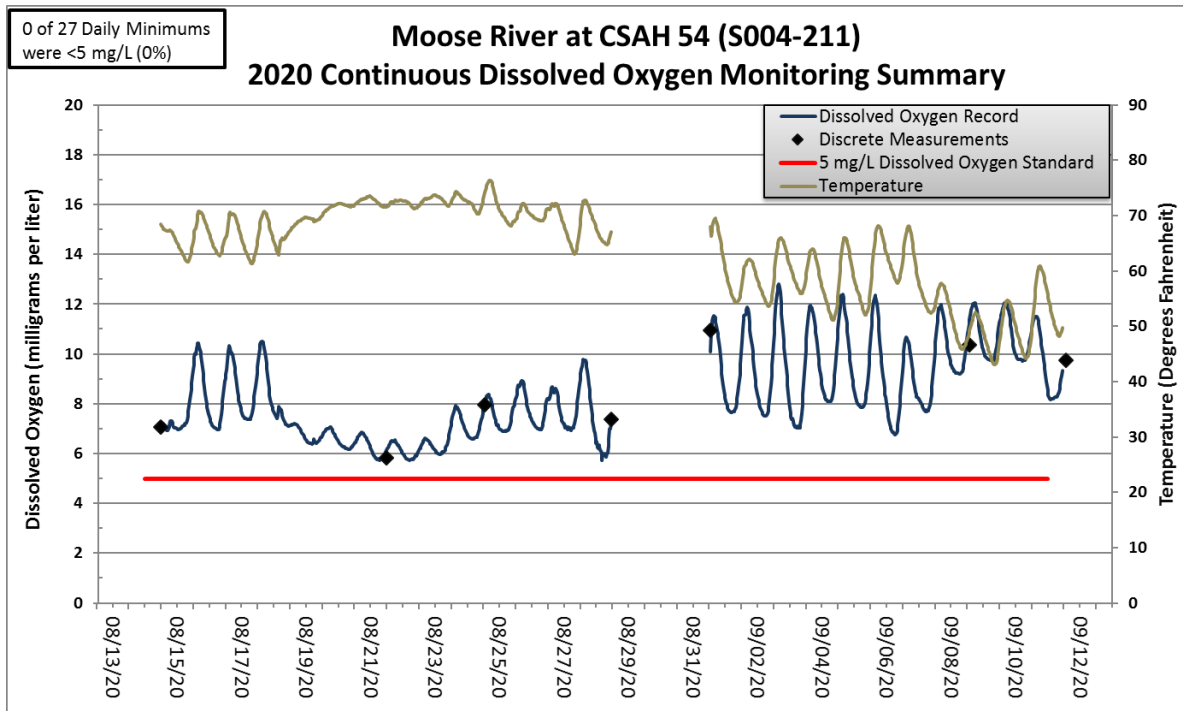
Marshall County Ditch 20 at 180th Ave NE (Station S004-494 on Assessment Unit 09020304-519): The dissolved oxygen concentrations in Marshall County Ditch 20 met the 5 mg/L standard.



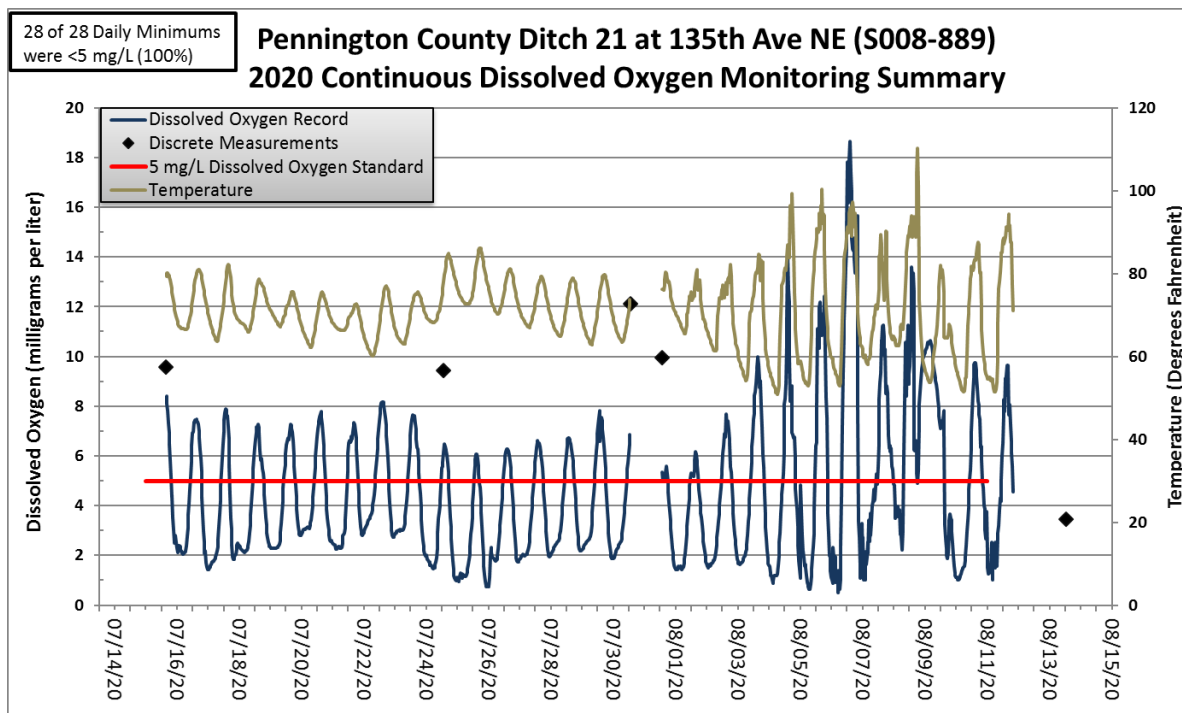
Moose River at Moose River Road NW (Station S002-980 on Assessment Unit 09020304-565): The dissolved oxygen levels near the upstream end of the Moose River, at Moose River Road NW, were lower than expected. Dissolved oxygen levels were depressed after an August runoff event and improved with cooler temperatures in September.



Moose River at CSAH 54 (S004-211 on Assessment Unit 09020304-566): The dissolved oxygen levels in the Moose River were much better at CSAH 54 than they were at Moose River Road. Dissolved oxygen levels met the 5 mg/L standard throughout the deployments.



Pennington County Ditch 21 at 135th Ave NE (Station S008-889 on Assessment Unit 09020303-541): Flow in Pennington County Ditch 21 was very low in July and August 2020 and the ditch stopped flowing before mid-August. There daily fluctuation of dissolved oxygen levels was high.



Blue Green Algae Sampling

The District began testing water in the Mud River and other lakes/streams for blue-green algal toxins (microcystins and cyanotoxins) in response to dog deaths that were caused by ingesting blue-green algae. The District uses Abraxis kits to test the water for algal toxins. Previous blooms have been connected to high water temperatures and high concentrations of nutrients.

The Mud River at the Grygla city park and water has been tested for blue-green algae during periods of high temperatures and low flow during the months of July through September. No positive test results for blue-green algae have been discovered in the Mud River since regular monitoring began.

Since the discovery of blue-green algae or algal toxins in lakes and reservoirs during the summer of 2018, regular sampling and monitoring has been conducted to discover algal blooms/toxins and learn more about the conditions that may lead to algal blooms. District staff regularly sampled for algal toxins in Maple Lake (once every two weeks at the public beach) because that was location of the highest concentration of algal toxins that the District had previously measured within a lake sample. If measurable concentrations are found in Maple Lake, the district is prepared to sample other shallow eutrophic lakes to find other cases of measurable or high algal toxins.

In 2020, the nutrient influx to lakes from the June and July 2020 runoff events, combined with high water temperatures, contributed to blue-green algae blooms that began to appear in late July and early August. An algal toxin sample was collected from the Maple Lake beach on July 2, 2020, in which no algal toxins were detected. An algal toxin sample was also collected from the Mud River in Grygla on July 30, 2020. No algal toxins were found in the Mud River sample, either. On July 31, 2020, District staff were contacted by DNR staff and the owner of a campground on Lake Sarah (in the Sand Hill River Watershed District but very close to Maple Lake) about a severe blue-green algae bloom. District staff tested a sample that was brought to the

District office because confirmation of a potentially harmful blue-green algal bloom in Lake Sarah would indicate that similar blooms were possible in nearby District lakes like Maple Lake and other lakes that are shallow, eutrophic, or both. The concentration of algal toxins in the Lake Sarah sample exceeded the 10 parts per billion (ppb) maximum concentration that could be measured with the Abraxis test kit.

In response to the July 31, 2020 confirmation of an algal bloom in Lake Sarah, approximately 5 miles southeast of Maple Lake, samples were collected from nearby lakes in the District (Maple Lake, Cameron Lake, Oak Lake, Badger Lake, and Hill River Lake) on August 3, 2020 and tested for the presence of algal toxins. The samples collected from Maple Lake (east shore public swimming beach), Badger Lake (at the public access), and Hill River Lake (at the public access) all clearly had 0 ppb algal toxins. The Cameron Lake test result was difficult to discern between a clear 0 parts per billion (ppb) and a 1 ppb blue-green algal toxin concentration, so it was assumed to be somewhere between those two values (<1 ppb).

Oak Lake (by Erskine) had visual evidence of a blue-green algae bloom along the shoreline and throughout the open water. The sample, collected from the open water, contained algal toxins at a concentration of at least 5 ppb. The concentration of toxins could have been higher where it had been accumulating along the shoreline (where a pet might drink). The results of the August 3, 2020 sampling effort were shared with DNR staff, county staff, SWCD staff, on the District's Facebook page, and Maple Lake groups (Maple Lake Improvement District members and a Maple Lake, Mentor Facebook group). District staff answered questions from the public about the blooms and about the appropriate level of concern. To help answer questions and inform the public about the identification of blue-green algae blooms, District staff shared a link to an [MPCA presentation](#) with excellent information about harmful blue-green algae blooms (what they are, how can they be identified, and how can they be reported). The MPCA's description of an easy, [no-cost test for the presence of blue-green algae](#) was also shared. The following photos show the unnaturally bright green and blue coloration of blue-green algae in Oak Lake and along the lake's shoreline.



Blue green algae blooms in Maple Lake were reported by a resident on the southwest end of the lake and by someone at the Polk County Park on 8/5/2020. District staff visited the lake and confirmed both reported blue-green algae blooms (they were quite obvious and had started to turn a blue-green color). Only one algal toxin test kit was available that day to test one of three samples that were collected from the public beach on the northeast end of the lake, the extreme bloom at a residence at the southwest end of the lake, and from a dock near the Polk County Park bloom. To (momentarily) answer questions about whether the open water is safe, the water sample collected at a dock at Polk County Park was selected for testing. It was near a visually verifiable bloom, but the presence of blue-green algae was less obvious near the dock (though some particles did appear to be present if someone was looking for them). It represented a “worst case scenario” for potential algal toxins in open water (open water adjacent to a visible bloom) that could affect unsuspecting swimmers. The Abraxis algal toxin test kit showed that the concentration of toxins in the water at the dock was not

measurable as of the afternoon of 8/5/2020. The test did not indicate that the open water was hazardous at the time of the sample, but communication with the public cautiously noted that there was no way to predict when/if the bloom might become more toxic or if that will affect the open water areas of the lake. Examination of other, publicly viewable shoreline along the lake on August 5, 2020 did not yield much additional evidence. There seemed to be more wave action near the northeast end of the lake that would have kept the blue-green algae from accumulating. One additional landowner near the southwest end of the lake shared a photo of a blue-green algae bloom near their dock.



The test results from Maple Lake on August 5, 2020 did not show that there was a measurable risk for open water recreation, but the presence of visible algae blooms meant that there was some risk to pets and small children in shallow and sheltered areas where blue-green algae could accumulate. The general advice/slogan for dealing with harmful algal blooms is "when in doubt, stay out." When potentially harmful algal blooms are identified, it is best that pets and small children are kept out of the shallow water, especially areas where blue-green algae can accumulate. Blue-green algae thrive on excess nutrients (we had a lot of runoff from storms earlier this summer), heat, and stagnant water. The conditions in the bays where the blooms were found likely meet that criteria.

Water from the east shore swimming beach was tested on August 14, 2020 and the test returned a result of zero algal toxins. Another sample from a Maple Lake beach was collected and tested for algal toxins on August 21, 2020. Though a jar test indicated that some blue-green algae was present in the sample, the algal toxin concentration was 0 parts per billion (no measurable algal toxins). The blue-green algae bloom in the Polk County Park Marina has cleared-up significantly (the bluish-colored scum was gone), but there was still a significant amount of fluorescent green colored blue-green algae in the innermost, shallowest, most stagnant portion of the marina (confirmed by a jar test).

With the arrival of cooler temperatures in late August and September, the blue-green algae bloom at the Polk County Park boat launch eventually disappeared. No (0 parts per billion) algal toxins were detectable in water sampled from the beach at the Polk County Park in September.

Available information from the EPA and WHO indicates that concentrations above 8-10 ppb create a moderate risk during recreational exposure. Measurable concentrations below that level would be classified as "low risk." It is advisable to recommend keeping animals away from the water with a measurable concentration

because they could drink from an area where the blue-green algae may accumulate along the shoreline and they could also end up licking blue-green algae from their fur. Nutrients, light intensity, and temperature are the drivers behind blue-green algae blooms. There is more to learn about how to predict blue-green algae blooms in our area, since they are a relatively recently documented problem in the Red Lake Watershed District. A guess/hypothesis about what triggered the 2020 blooms would be that there was excess nutrient runoff during storms that occurred early in the summer. In late July and early August, the high temperatures (>75 Degrees Fahrenheit water temperatures), along with excess nutrients, likely created conditions in which the blue-green algae could proliferate and cause problems.



The collage of photos to the left is a comparison of jar test results and corresponding algal toxin test results, and risk levels. Though they only represent conditions in local lakes during a short period of time, they provide some insight on how to judge the level of risk based on the appearance of the water in a jar test. A jar test is performed by collecting a sample in a jar and storing the jar in a refrigerator overnight. Blue-green algae floats to the top of the jar. Sediment and green algae floats to the bottom.

The toxicity of blue-green algae can be unpredictable, though. A visible bloom can have a 0 ppb algal toxin concentration. In 2018, samples of water with no visible algae blooms (like the two photos on the right-hand side of the collage) contained low, but measurable, concentrations of algal toxins (up to 5 ppb).

District staff shared information about the confirmed blue-green algae blooms with MPCA staff that track Harmful Algal Blooms (HAB). The MPCA staff asked us to share their water quality hotline number (651-757-2822) and MnMPCA algae inbox (algae.mPCA@state.mn.us) contact information to help other report blue-green algae blooms. The MPCA staff also provided some advice/recommendations on how to communicate the level of risk to the public so that they can make informed choices about recreation. Results of the algal toxin tests are shared with the Maple Lake Improvement District and a Maple Lake, Mentor MN Facebook Group.

Bartlett Lake

Bartlett Lake is a shallow lake by Northome that has been affected by historical pollution from sanitary sewer discharge into the lake, logging operations along the shore, and pollution from a creamery that operated from 1916 to 1974. Excess nutrients have caused the lake to become eutrophic. The lake is impaired and has suffered from high levels of nutrients, high concentrations of chlorophyll-a, low water clarity, and winter fish kills. Sediment cores were collected from the lake and analyzed for geochemical and biological clues that provide information about the lake and its history. The lake has been slowly recovering since the creamery was closed and a new wastewater treatment system was constructed.

The District began working with local staff from the City of Northome, local residents, MN DNR staff, MPCA staff, Koochiching SWCD staff, Koochiching County staff and others to create a management plan for the lake in 2019. Monthly meetings were held in late 2019 and early 2020. The most recent meeting, on February 20, 2020, was well attended, had lots of discussion, and concluded with a dot voting exercise in which attendees voted for the goals/action that they felt were most important. MPCA staff gathered and shared information from an alum treatment workshop that will be reviewed by District staff and summarized at the next meeting. BWSR staff shared information about the type of feasibility study that is required for alum treatment grant applications. Using the information and prioritization input from the meetings, a draft plan was nearly completed at the time that pandemic-related restrictions on in-person meetings began. Some additional comments and edits were completed over email, but the process was put on hold until the group could safely meet again. Planning will hopefully resume in 2021 to finalize the plan and begin implementing portions of the plan (like water quality sample collection).

Fishing pier on Bartlett Lake



Investigation of Polluted Discharge to the Hill River near Brooks, Pipe Removal and Capping

Since 2005 or perhaps earlier, a septic-smelling discharge has occasionally trickled from an underground source along the south bank of the Hill River, near the west side of County Road 119 near Brooks. The seepage was first noticed by District staff in 2005. Occurrences of the discharge, over the years, were photographed and shared with county staff that would have the ability to check for septic compliance. Red Lake County took some steps to reduce potential sources of the seepage. A nearby home's septic system had been upgraded and located too far away from the seepage to be the source. The county had also worked with a

nearby trucking company to upgrade its truck wash. Nevertheless, polluted seepage continued to flow into the Hill River.

While sampling macroinvertebrates in the Hill River in October 2018, the Red Lake County Central River Watch Group documented a very significant amount of polluted seepage into the river. The seepage also had a diesel smell, which indicated that the truck wash was still contributing to the polluted seepage. Some exploratory digging revealed the presence of an underground tile pipe from which the septic-smelling (with an occasional diesel odor) seepage was flowing. It was suspected that, in addition to the drainage from the truck wash, the pipe likely contained some residual septic sludge from an unknown source. The River Watch group, Red Lake County staff, and Red Lake Watershed District staff met to discuss the [issue and possible solutions](#). The group discussed removal of the effluent-filled pipe and/or capping the pipe to prevent future conveyance of polluted water to the river.

In June 2020, excavation was completed to remove the pipe. Approximately 560 feet of corrugated plastic pipe was removed. There was effluent coming out of the pipe and covering the bottom of the trench during the entire excavation and pipe removal effort.

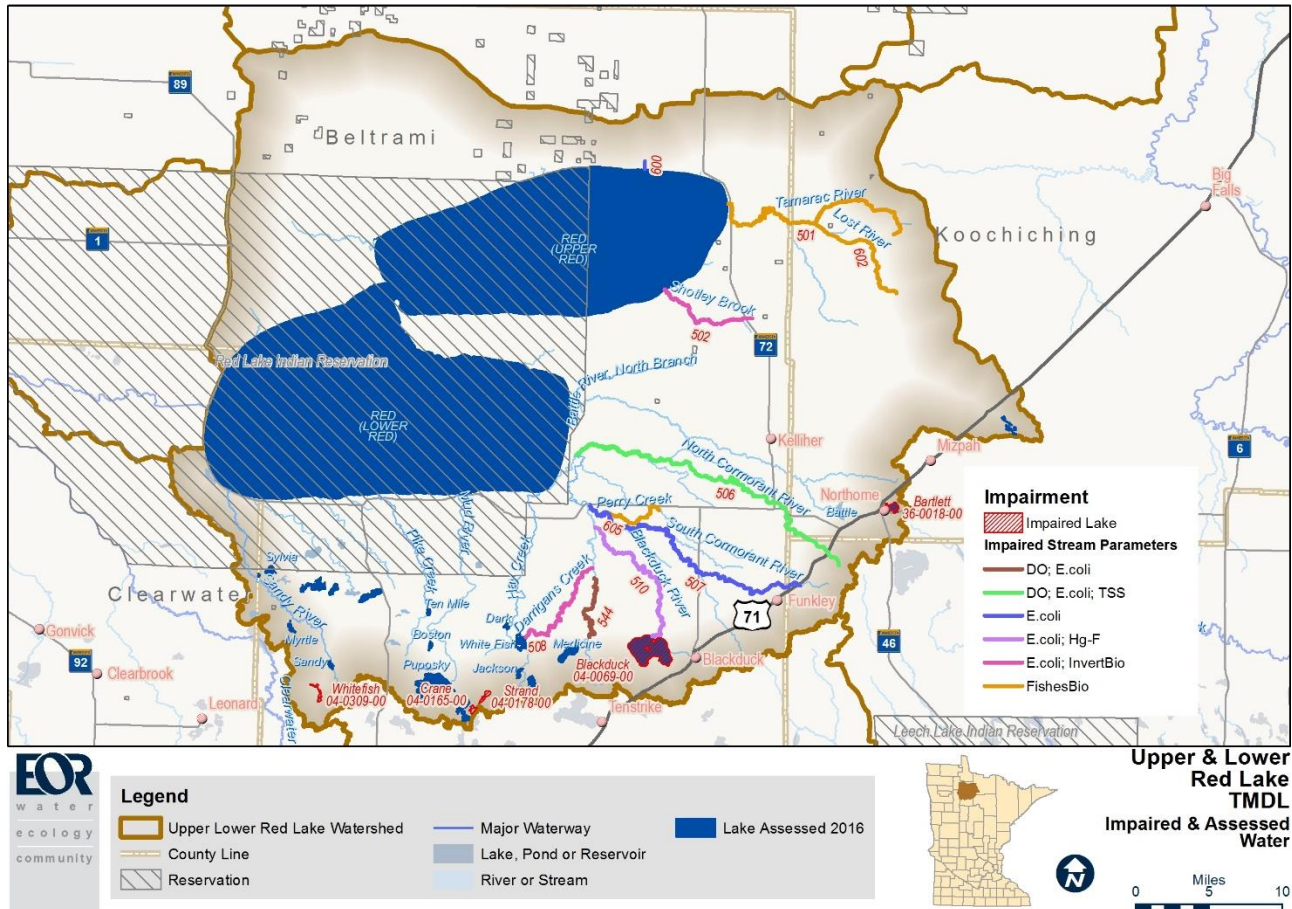


Watershed Restoration and Protection Strategy (WRAPS) Projects

The Federal Clean Water Act (1972) required each State to develop plans for the identification and restoration of waterbodies that were deemed impaired by state regulations. A TMDL was required by the U.S. Environmental Protection Agency (USEPA) to address water quality impairments as a stipulation of the Clean Water Act. A TMDL identifies the pollutant sources causing the impairment. It is a calculation of the maximum amount of pollutant that can enter a waterbody without causing the concentration of the pollutant within the waterbody to exceed water quality standards.

The State of Minnesota adopted a “watershed approach” to address the state’s 80 major watersheds (denoted by 8-digit hydrologic unit code or HUC). This watershed approach incorporated water quality assessment, watershed analysis, civic engagement, planning, implementation, and measurement of results into a 10-year cycle that addressed both restoration and protection. The watershed-based strategy recognized the connectivity of the watershed better than the reach-by-reach system. An impairment may extend over multiple assessment units. Impairments for different parameters may be linked by common stressors and/or pollutants. There was an increased emphasis on civic engagement to engage stakeholders and the watershed-based process also reduced redundancy that could occur when addressing TMDLs with a reach-by-reach strategy. The watershed-based, comprehensive implementation plan addressed pollutant sources and stressors throughout each major

Upper/Lower Red Lakes Watershed Restoration and Protection Strategy (WRAPS)



The effort to complete a WRAPS project for the Upper and Lower Red Lakes major watershed is being led by the Red Lake Department of Natural Resources. They have been collecting flow data, sampling data, and continuous dissolved oxygen data. A Draft Upper/Lower Red Lakes WRAPS report was shared with project partners for review in early 2020. District staff reviewed the draft WRAPS and provided comments. A public comment period for the WRAPS and TMDL documents is anticipated for spring 2021.

Updates on the WRAPS project and links to completed reports can be found on the Red Lake DNR's website: <http://www.redlakednr.org/wraps>

The MPCA has completed a watershed monitoring assessment report and a stressor identification report for the watershed. A fluvial geomorphology report has also been completed for the watershed.

- <https://www.pca.state.mn.us/water/watersheds/upperlower-red-lake>
- The Upper/Lower Red Lakes Fluvial Geomorphology Report is now available online at <https://wrl.mnpals.net/islandora/object/WRLrepository%3A2957>. Some highlights and recommendations from the report include.
- The Upper/Lower Red Lake Watershed Monitoring and Assessment Report is available online at <https://wrl.mnpals.net/islandora/object/WRLrepository%3A740>.

Zebra Mussels Found

Zebra mussels have been found in Upper and Lower Red Lakes and Lake Lomond in Bagley. Area SWCDs have been actively monitoring for the presence of zebra mussels in lakes and streams. The Red Lake DNR is investigating the zebra mussel problem in the Upper/Lower Red Lakes. The District and the Pennington SWCD deployed stationary zebra mussel samplers in the Red Lake River upstream of Thief River Falls. No zebra mussels were found on the zebra mussel samplers that were deployed in the Red Lake river east of Thief River Falls by either organization. The District also collected an early detection sample from the Red Lake River in eastern Pennington County in 2020, which did not contain any zebra mussels or veligers.

Public Education

- District staff helped judge the Franklin Middle School Science Fair in January 2020. One of the projects that District staff judged was recommended to the Pennington SWCD and won their [annual award](#).
- District staff presented on standard operating procedures for water quality monitoring at the Annual [Red River Basin Water Quality Monitoring Training Session](#) on March 3, 2020.
- The District continued to support the [River Watch](#) program, which is described in more detail in its own section of this report.
- District staff participate in annual Northwest Minnesota Water Festivals (Warren and Fertile)
- Information about the [Red Lake Watershed District](#), programs, and contacts is available on the District's website.
- [Monthly water quality reports](#) are available on the District's website.
 - [January 2020](#)
 - [February 2020](#)
 - [March 2020](#)
 - [April 2020](#)
 - [May 2020](#)
 - [June 2020](#)
 - [July 2020](#)
 - [August 2020](#)
 - [September 2020](#)
 - [October 2020](#)
 - [November 2020](#)
 - [December 2020](#)
- Watershed-based information (reports, photos, projects, contacts) for the Red Lake River, Upper/Lower Red Lakes, Clearwater River, Thief River, and Grand Marais Creek major watersheds can be found online at: www.rlwdwatersheds.org.
- The District maintains and posts to a [Facebook page](#).

Normally, water resource professionals from northwest Minnesota collaborate on two Northwest Minnesota Water Festival events in mid-to-late September. Many fourth-grade students from the area take part in the events, which are typically held in Warren and Fertile. Students travel from station to station to learn from presenters about water quality, watersheds, groundwater, aquatic invasive species. Most of the stations have activities for the kids, like fish painting and casting, so that they can have fun while learning.

The COVID-19 pandemic forced a change of plans for 2020. Instead of canceling the festival and missing the opportunity to provide this educational event to many students in this year's fourth-grade class, the festival has gone virtual. To allow more time to develop lessons, activities, and videos, the virtual water festival will take place around one month later than usual (in late October, or whenever it works well for the teacher).



Teachers and students will receive [packets with information and activities](#). The packets and activities will be accompanied by educational videos. Existing videos were available in some cases (groundwater model demonstrations, for example). Some of the presenters were able to make their own videos for the festival. Some of the activities were modified so that they could be easily done in a classroom or at home.

Red Lake Watershed District water quality staff created a [video](#) based on the introductory presentation and activities that are typically part of the Water Quality Station at the Northwest Minnesota Water Festivals. District staff also created a worksheet for the water quality station with a crossword puzzle and an activity that students can try in their own homes or classrooms.

An [article](#) written by the West Polk Soil and Water Conservation District about the 2020 Northwest Minnesota Water Festival is available on their website and was printed in local newspapers.

Red Lake River Watershed One Plan (1W1P)

Minnesota has a long history of water management by local governments. One Watershed, One Plan is rooted in this history. In work initiated by the Local Government Water Roundtable (Association of Minnesota Counties, Minnesota Association of Watershed Districts, and Minnesota Association of Soil and Water Conservation Districts) in 2011, it was recommended that the local governments charged with water management responsibility should organize and develop focused implementation plans on watershed boundaries. The recommendation was followed by legislation that permits BWSR to adopt

methods to allow comprehensive plans, local water management plans, or watershed management plans to serve as substitutes for one another; or to be replaced with one comprehensive watershed management plan. This legislation, and the associated BWSR program, is referred to as One Watershed, One Plan. Further Legislation was passed in 2015, defining purposes and outlining additional structure for the program.

Early 2014, the Red Lake Watershed District, Pennington, Red Lake County and West Polk Soil Conservation Districts, along with their respective Counties, partnered to apply for a grant through the Board of Water Resource One Watershed One Plan Pilot Project, to establish a Comprehensive Water Management Plan for the Red Lake River Watershed. The grant was for five pilot projects that were approved for funding in December of 2014. In 2015, the project partners started the planning process outlined by the BWSR which ultimately resulted in the approval of the plan in January 2017. Houston Engineering, Inc. was hired as the consultant to help facilitate the planning process and help with the creation of the plan document. The plan was developed through the intensive efforts of the Planning Work Group (resource professionals from local government units, or LGUs), official approval of plan components by the Policy Committee (representatives appointed by participating LGUs), and an Advisory Committee (citizens and experts from state agencies). In 2018 the Planning Work Group for the Red Lake River One Watershed One Plan completed the comprehensive water management plan. Upon completion of the Plan and approval from the Board of Water and Soil Resources, a grant in the amount of \$677,500 was awarded to complete various water quality projects highlighted in the 2018-19 annual work plan.

In early 2020, the Red Lake River 1W1P Planning Work Group (PWG) completed a 2020-21 work plan. BWSR approved the funding request for the 2020 Watershed Based Funding submitted on January 22nd. The Red Lake River watershed is receiving \$1,071,149 in watershed-based funding from the Minnesota Board of Water and Soil Resources (BWSR). With the required matching funds, its work plan has a total budget of \$1,178,264. Priority projects and actions in the plan include.

- Three grade stabilization projects in the Black River subwatershed
- Stabilization of the RLWD Ditch 10 outlet
- Grade stabilization in the Burnham Creek subwatershed
- Grade stabilization structure or WASCOB in the Browns Creek drainage area
- Grade stabilization near the Red Lake River, north of Red Lake Falls
- Exclusion fencing and grazing management in multiple subwatersheds
- Stabilization of the CD 96 outlet
- Grade stabilization of a large erosion problem near the Red Lake River west of Red Lake Falls
- Cover crops in priority management areas
- Agricultural practices in areas that were prioritized by PTMApp

Under the current annual work plans, the District will stabilize the outlet of the Thief River Falls Westside Flood Damage Reduction project, install side water inlets along RLWD Ditch 16, stabilize the RLWD Ditch 10 outlet, install side water inlets in the Black River Impoundment drainage area, and complete a feasibility study of a large gully (Demarais-Hanson project) west of Red Lake Falls. [Construction](#) began on the [Thief River Falls Westside Flood Damage Reduction Project](#) in April 2020, including the stabilization of the outlet downstream of Highway 32 that was partially funded by the Red Lake River 1W1P watershed-based funding. The outlet stabilization construction work was completed in November 2020.

Stabilization of the Thief River Falls Westside Flood Damage Reduction Project outlet was nearing completion in October.



The water flowing through the outlet was still muddy from upstream construction/excavation



The repair of the Ditch 10 outlet is one of the Red Lake River 1W1P projects that will be implemented by the District. Houston Engineering presented design alternatives to the Board. The Board decided to proceed with Alternative 3, which would require the installation of a pipe that would outlet into the existing plunge pool. With this option, the current in-place rock and concrete would be used as a secondary outlet for high flows. Construction of this project is planned for 2021.

The RLWD Ditch 16 construction occurred in 2020 and side water inlets were installed with funding assistance from the Red Lake River 1W1P and Red River Watershed Management Board.

Red Lake River 1W1P funds were used to help pay for the installation of side water inlets along RLWD Ditch 16.



The Red Lake County SWCD was able to bring in additional funding sources to pay for some of their work and make room in the 1W1P budget for additional side water inlet installations in the Black River subwatershed.

Project partners are tracking progress with ArcOnline map in which project locations can be mapped and corresponding information (load reductions, costs, funding sources, etc.) can be recorded.

The Red Lake County SWCD found and shared an old survey of the Demarais-Hanson gully. The RLWD Board of Managers approved the hiring of a consultant to conduct a survey and feasibility assessment of the Demarais-Hanson erosion problem. The RLWD Board of Managers approved the hiring of an engineering firm to complete the surveying and other work that would be necessary to evaluate the feasibility of a project to stabilize the gully.

Red Lake River Small Watersheds Focus 319 Grant

In November 2018, ten watersheds were selected to be prioritized for funding in federal fiscal year 2020. The selections were part of the transition in the federal Clean Water Act Section 319 program from one-time grants to more reliable funding focused on small watersheds. The goal of the program is to help local governments make measurable changes toward water quality improvements. Based on input from many local governments, the program is designed to provide a reliable and longer-term funding source to address all pollutants in small watersheds.

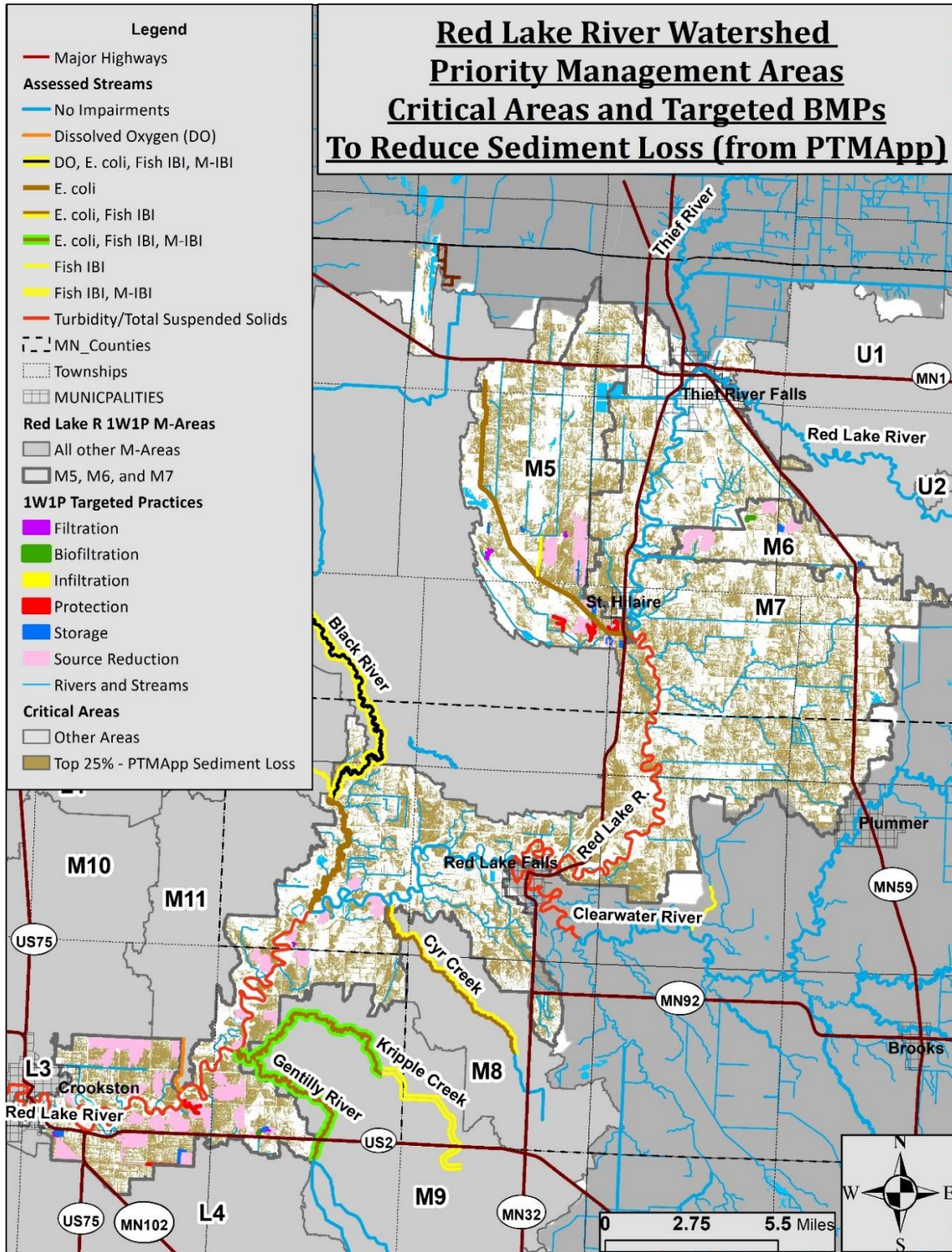
Red Lake River watershed was chosen to be one of the first 10 watersheds (Group A) to be eligible for this funding after the West Polk Soil and Water Conservation District (SWCD) successfully submitted a request for participation and MPCA (MPCA) staff met with local project partners. After the watershed was selected, the first step toward receiving the funding was to create a work plan. Grant applicants were required to have a nine-key-element (NKE) plan, approved by United States Environmental Protection Agency (EPA), to be eligible for funding. Group A watershed partners worked with the MPCA to develop a highly detailed plan for each watershed that, if implemented as written, will sufficiently reduce non-

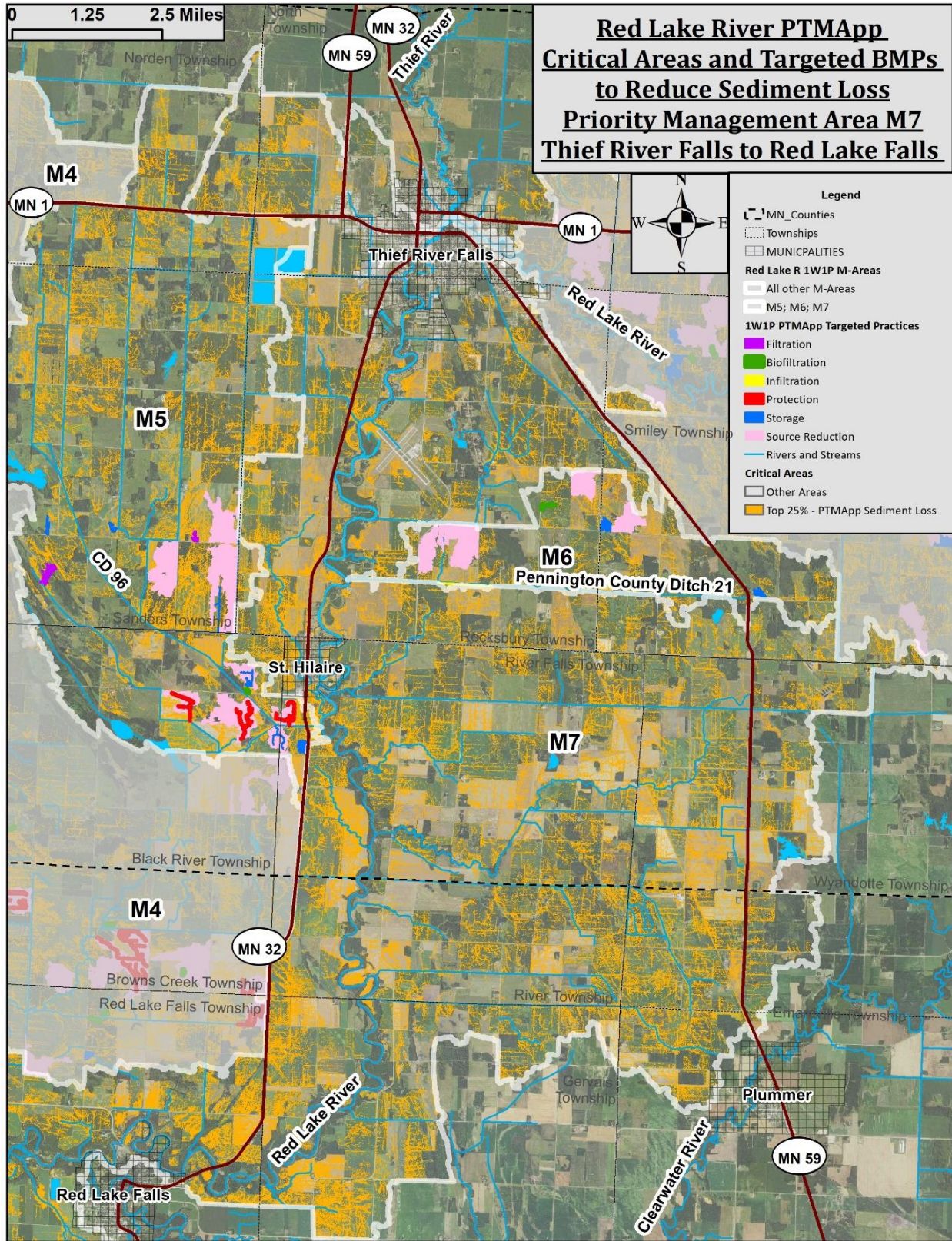
point source pollution so that the prioritized waterbodies will reach water quality standards in ten years. The Red Lake River (Thief River Falls – Crookston) and Black River Nine Key Element Plan was created using input from the Red Lake River One Watershed One Plan (1W1P) and the 1W1P Planning Work Group.

During the summer of 2020, the MPCA sought applications for the Fiscal Year 2020 round of funding for projects that will reduce nonpoint source pollution within the Group A watersheds. The Red Lake River 1W1P Planning Work Group developed a work plan and proposal for the funding that was allotted to the Red Lake River watershed. Peter Nelson, Pennington SWCD Water Plan Coordinator and Red Lake River 1W1P Coordinator, took the lead in writing the proposal. The proposal was officially submitted on July 16, 2020, by the Red Lake Watershed District (Red Lake River 1W1P Fiscal Agent). On August 6, 2020, MPCA staff announced that the Red Lake River proposal for a Fiscal Year 2020 Section 319 Small Watersheds Focus grant was approved for funding in the amount for \$284,275.

The projects and activities of the Red Lake River (Thief River Falls-Crookston) and Black River EPA NKE Plan will be targeted within priority management areas of CD 96, Black River, and the middle reach of the Red Lake River between Thief River Falls and Crookston. The projects will reduce the transport of eroded sediment (sediment loading) to the Red Lake River by an estimated 1,148 tons/year. Some of the projects will also reduce E. coli concentrations in the Red Lake River and its tributaries (especially the Black River and Pennington County Ditch 96). The \$284,275 in EPA grant funding, along with at least \$189,517 in matching state/local funds, will implement:

- Grade stabilization structures (including side water inlets)
- Water and Sediment Control Basins (WASCOBs)
- Streambank stabilization or meander cutoff stabilization along the Red Lake River
- Cover crops, nutrient management, and other non-structural source reduction projects
- Riparian buffers
- Riparian forest buffers
- Field borders
- Grazing management plans
- Cattle exclusion or access control plans





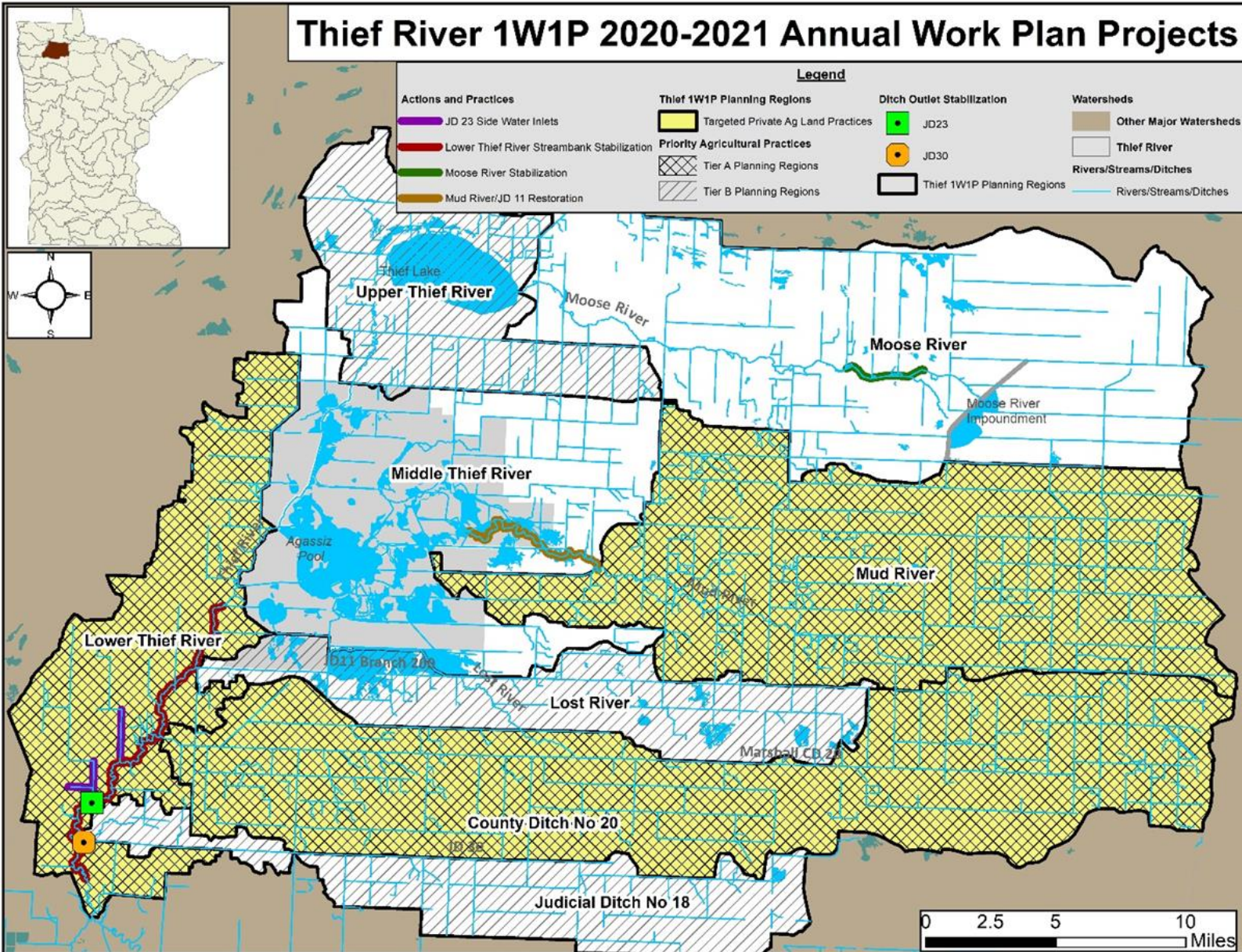
Thief River One Watershed One Plan (1W1P)

In June of 2016, the Red Lake Watershed District, Pennington, Marshall and Beltrami Soil Conservation Districts and their respective counties applied for and were approved to receive a grant from the Board of Water and Soil Resources (BWSR) through their One Watershed One Plan program, to develop a Ten-Year Comprehensive Plan for the Thief River Watershed. On July 11, 2017, the grant was approved and executed by the BWSR. Houston Engineering, Inc. was hired as the consultant to help facilitate the planning process and help with the creation of the plan document. The plan was developed through the intensive efforts of the Planning Work Group (resource professionals from local government units, or LGUs), official approval of plan components by the Policy Committee (representatives appointed by participating LGUs), and an Advisory Committee (citizens and experts from state agencies). The plan development continued into 2018 and 2019 with the draft plan being approved by the Policy Committee and partners in late 2019. The Thief River 1W1P Comprehensive Watershed Management Plan was approved by all the Local Governmental Units and submitted for final review by the agencies. The plan was reviewed and approved by the BWSR Northern Regional Committee meeting on March 4, 2020. A Memorandum of Agreement was approved by the seven local government units (LGUs).

A Thief River 1W1P Policy Committee meeting was held on March 16, 2020 at the District office. Agenda items included a review of bylaws, deciding on a fiscal agent, deciding on a coordinator, and approving the 2020/2021 Work Plan. The Planning Work Group had put together a 2020-2021 work plan, including load reduction estimates. A map of proposed projects was created by District staff. District staff also helped create a presentation of those projects for the Policy Committee meeting. The policy committee approved the 2020-2021 work plan. The projects identified in the work plan include:

- Stabilization of the JD 23 outlet in Marshall County (\$150,000)
- Install 6 side water inlet grade stabilization structures within the JD 23 portion of the Lower Thief River subwatershed (\$12,000).
- 1000 feet of streambank stabilization along the Lower Thief River (\$128,925).
- Implement 640 acres of cover crop in the Lower Thief River subwatershed (\$20,000).
- Conduct an education and outreach workshop (\$5,000).
- Conduct a watershed-wide inventory for side water inlets and buffers (\$30,000).
- Implement priority agricultural practices within Tier A and Tier B priority planning area subwatersheds (\$75,000).
- Implement grade stabilization and cover crops within the Lower Thief River and JD 30 subwatersheds (a \$256,666 project funded by a Clean Water Fund grant that was awarded to the Pennington SWCD).
- Septic system upgrades, watershed-wide (\$30,000)
- Several Technical and Engineering Projects, as funding allows:
 - Priority 1: Feasibility study, survey, and design work on the Mud River/JD11 – USFWS been looking for money for this project. Most of the project lies within Agassiz National Wildlife Refuge.
 - Priority 2: Survey and design work on the outlet of JD30 with the intent to stabilize the outlet pending future funding.
 - Priority 3: Survey and design work on the outlet of JD30 with the intent to stabilize the outlet pending future funding.

Thief River 1W1P 2020-2021 Annual Work Plan Projects



District staff updated the [Thief River 1W1P website](#) so that it contains all the documents that are required to submit the plan to the Minnesota Board of Water and Soil resources and to announce that the Final Draft Thief River Comprehensive Watershed Management Plan has been completed and prepared for submittal to the Minnesota Board of Water and Soil Resources, along with supporting information.

District staff worked with Houston Engineering, Inc. and Pennington SWCD staff to complete a Targeted Implementation Plan for the watershed and create PTMApp GIS layers that prioritize areas for targeted project implementation in each subwatershed.

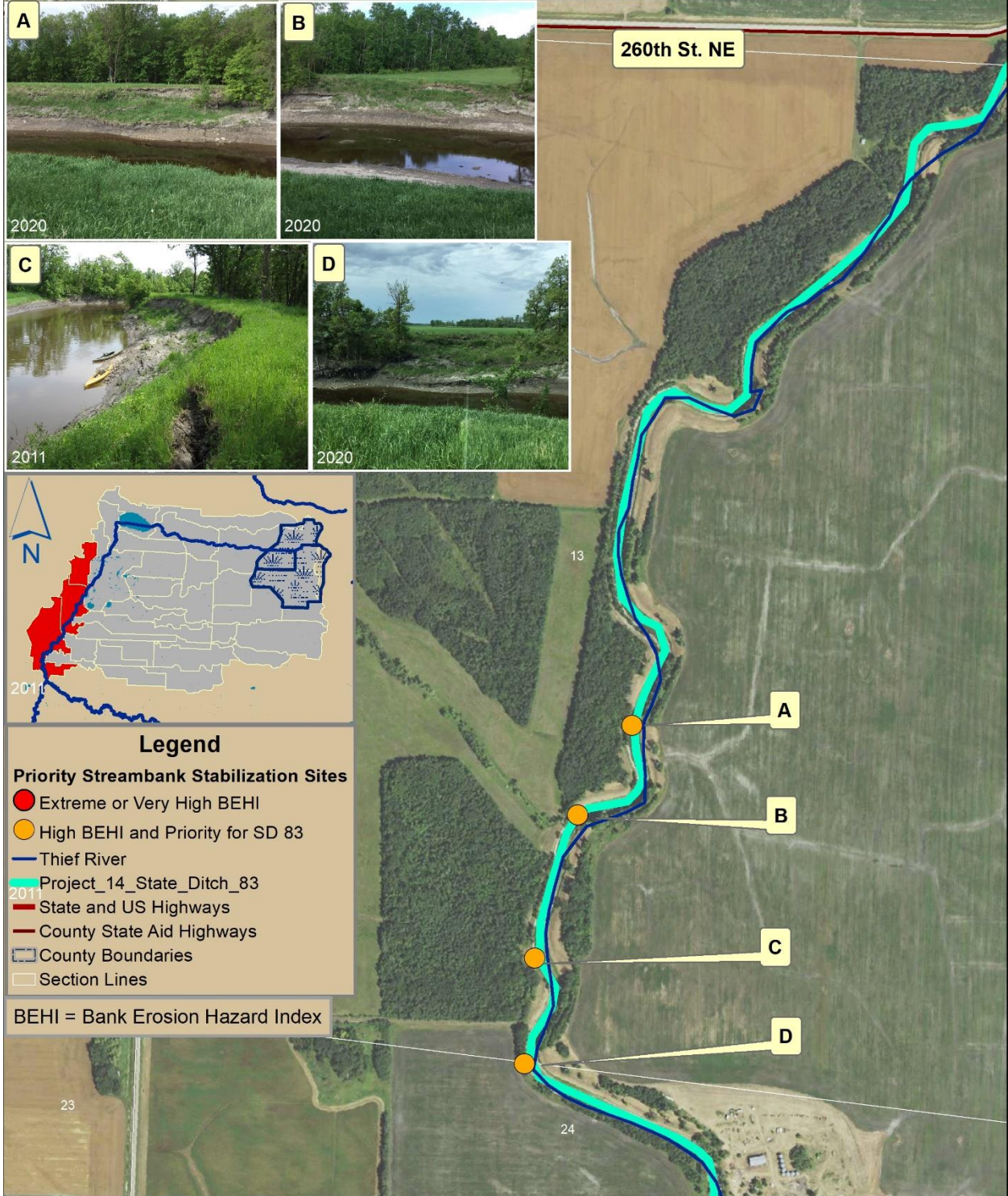
The design work for the outlet of Judicial Ditch 23 (near the 140th Ave NE crossing of the Thief River) will be completed by Widseth, Smith, and Nolting (WSN) to provide some continuity in staff that are familiar with the project.

District staff received Bank Erosion Hazard Index (BEHI) rating data from DNR staff and used that data to create a map of the streambanks along the Lower Thief River that were most susceptible to erosion. The District's Engineering Technician identified erosion problems along the State Ditch 83 (SD 83) portion of the river. The SD 83 erosion sites with relatively high BEHI ratings were prioritized for streambank stabilization projects due to the feasibility of working along the ditch's right of way and potential cost share from the ditch system's maintenance funds.

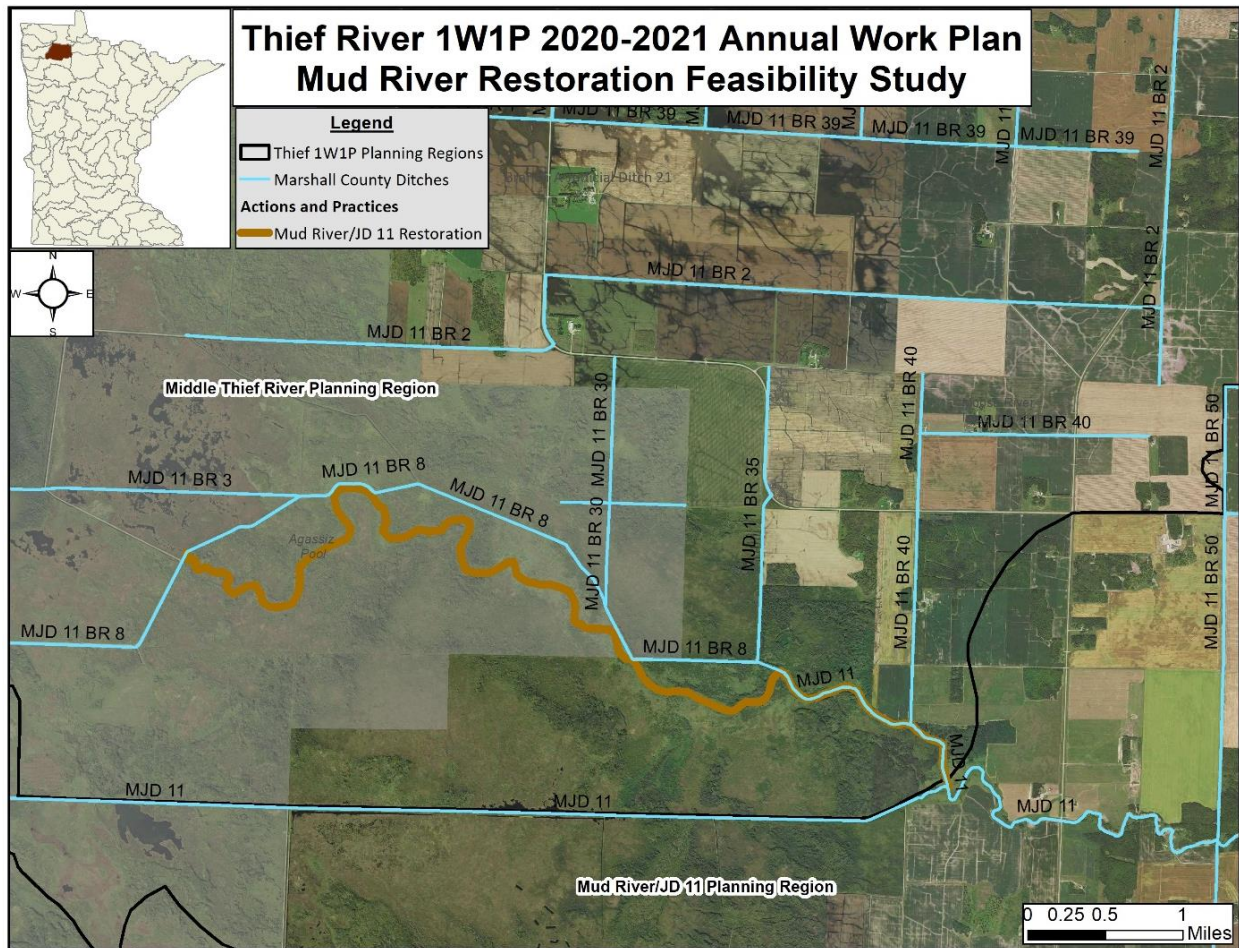
District staff toured priority streambank stabilization sites along the Thief River with an engineer from Houston Engineering, Inc (HEI). One of the banks, Site C, seemed to be trending toward stability. Two of the other banks, Sites A and B, were actively and severely eroding. A severely eroding drainage outlet between 260th Street NE and the Thief River was also examined. District and HEI staff finished the tour by examining an additional bank slump that occurred a short distance upstream of the CSAH 7 bridge. Thanks to the lack of snowfall in the winter of 2020-21, District engineering staff was able to complete surveying work on Site A, Site B, the eroding gully, and Site D in December 2020. Site D was still unstable and eroding, like Site A and Site B. State Ditch 83 plans were found and shared with HEI to help with the design process. Houston Engineering, Inc. developed a proposal to document the scope of their services (preliminary design, final design, and construction management). The proposal was approved by the RLWD Board of Managers during their December 30, 2020 meeting.



Lower Thief River Top Priority Streambank Stabilization Sites - 2020



District staff worked with United States Fish and wildlife staff and HDR Engineering to begin the feasibility study for a potential Mud River Restoration Project. District staff compiled background information about the project into a summary document. USFWS staff created a presentation that was used during a virtual meeting that was held on December 15, 2020. A proposal to the Board of Managers was prepared by HDR Engineering for the creation of a Mud River Restoration Concept Report. This first phase of work will include data collection (survey and data processing), hydrologic analysis, and a concept report. Decisions regarding the feasibility and future of the project will depend upon the findings of this first phase.



Clearwater River One Watershed One Plan (1W1P)

In early 2020, the Clearwater SWCD and project partners began the process of forming an application to acquire funding to begin the Clearwater River 1W1P process. The first conference call meeting of potential Planning Work Group (PWG) partners was held on March 25, 2020. The planning work group (or steering committee) included staff from the RLWD, Clearwater SWCD, East Polk SWCD, Red Lake SWCD, Pennington SWCD, and BWSR. Project partners reviewed a draft Memorandum of Agreement that was drafted by the Clearwater SWCD. The Board voted to approve the signing of the Memorandum of Agreement for the Clearwater River 1W1P, RLWD Project No. 149B. The Clearwater River 1W1P application for Watershed Based Funding for the Clearwater River was submitted on June 12, 2020.

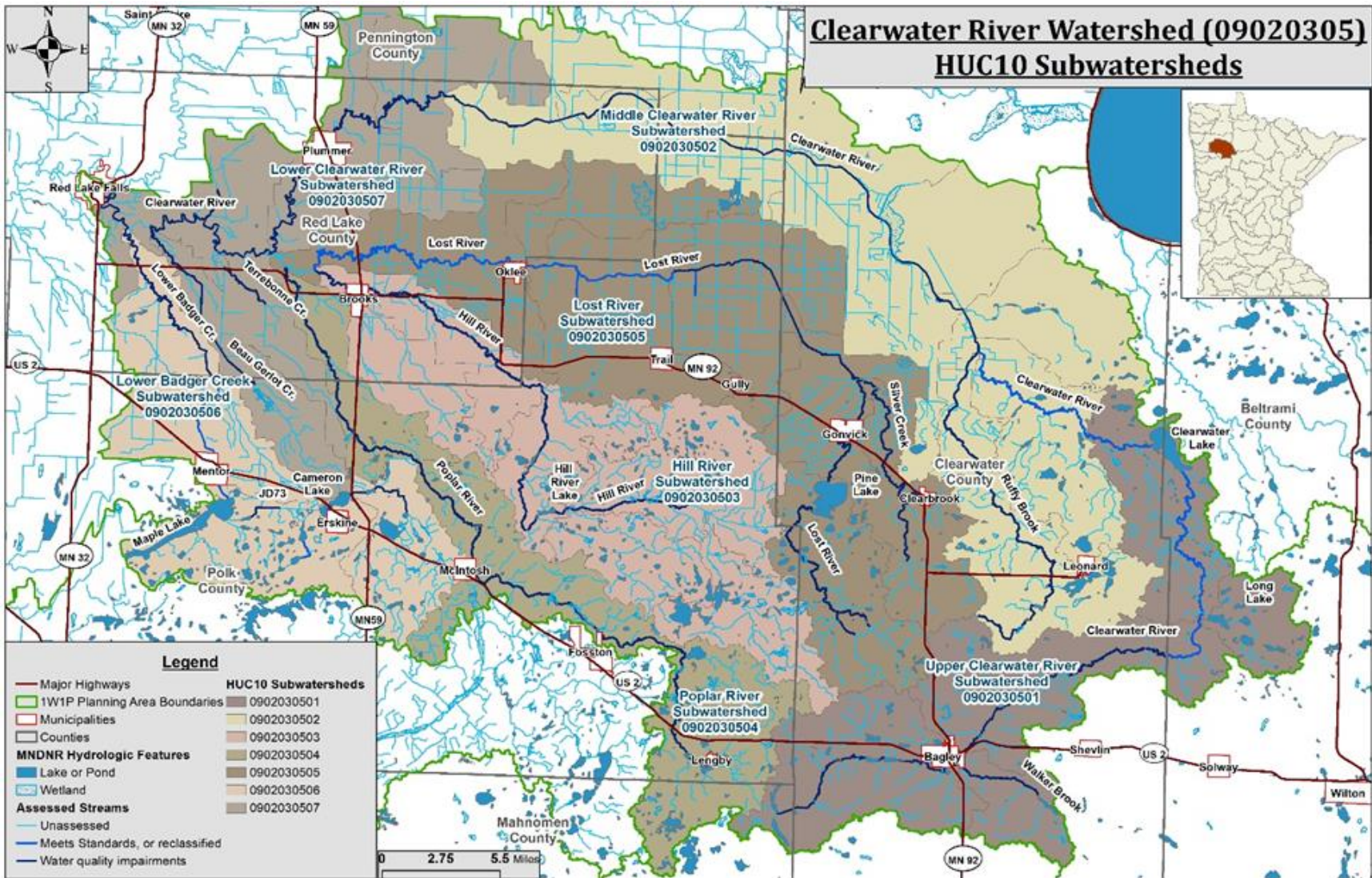
District staff created a [webpage](#) as a location to share Clearwater River One Watershed One Plan information with the public. District staff began a list of potential contacts for committees and public

meetings using contact information compiled during the Clearwater River Watershed Restoration and Protection Strategy and current local government contacts (county boards, SWCD boards, city government, elected leaders, etc.).

The Clearwater County Water Planner (1W1P Coordinator) completed a draft work plan and budget that was reviewed by the Planning Work Group.

District staff worked on the hydrologic conditioning of a LiDAR-based digital elevation model (DEM) for the Clearwater River. An intensive culvert location inventory was conducted throughout the summer of 2020. The culvert locations were necessary to “burn” flow paths through digital dams in the LiDAR surface. Because LiDAR is acquired from the air, bridges and crossings with culverts function as digital dams in raw LiDAR data. The hydrologically conditioned DEM is necessary to run the PTMApp (Prioritize, Target, and Measure Application) model for the watershed.

The Clearwater River 1W1P Planning Work Group (PWG) met on December 10, 2020. The group reviewed the draft work plan for the planning process. Technical Service Area (TSA) staff will likely be able to draft a logo for the Clearwater River 1W1P. To take a lesson from previous 1W1Ps, a rule will be added to the by-laws to limit the addition of committee members (except for specified circumstances) after the process has started. The group discussed the planning of a kickoff meeting and the logistics of holding such a meeting during the COVID pandemic (hybrid meeting, outdoor meeting). A questionnaire will be sent to potential Advisory Committee members to see if they would be able to attend a virtual meeting. TSA staff will also be able to help with the creation of maps. Due to changes in District staff, Houston Engineering will have a larger role in the completion of the Clearwater River PTMApp and Targeted Implementation Plans. The Clearwater SWCD will take on the roles of the Plan Coordinator and Fiscal Agent.



Red River Watershed Management Board Water Quality Funding

The Red River Watershed Management Board (RRWMB) approved funding to encourage and financially support water quality projects implemented by member watershed districts. District staff participated in a Water Quality Monitoring Advisory Committee that assembled the application methods and requirements. The water quality funding was split into two "pots." Each member watershed district could apply for up to \$100,000 of water quality base funding to fund a wide variety of water quality projects. The larger pot of water quality project funding was reserved for competitive applications for implementation (on-the-ground) projects.

The District applied for RRWMB water quality base funding to help fund the installation of side water inlets along RLWD Ditch 16 (\$22,000) as well as side water inlets and rock grade stabilization structures along the diversion ditches that will be constructed for the Black River Impoundment Project (\$78,000).

District staff submitted an application for competitive Red River Watershed Management Board water quality project funding in 2020. This application sought partial funding for a project that will restore an oxbow wetland that has been filled with sediment from Thief River Falls stormwater runoff. The project will also install in-line hydrodynamic separator structures to remove garbage and sediment from stormwater, upstream of the planned pond restoration. A settling pond will also be constructed upstream of the oxbow wetland to reduce sediment runoff from a snow disposal site. The RRWMB approved the application and will contribute 166,000 to the oxbow restoration project.

BWSR Clean Water Fund Grants Awarded to the RLWD and Local SWCDs

"The Minnesota Board of Water and Soil Resources (BWSR) approved [\\$12.3 million in Clean Water Fund grants](#) at the Dec. 17 board meeting. The grants will be used to improve water quality in lakes, rivers, streams and groundwater across the state...The \$12.3 million will fund 37 separate grants that will be awarded to local government entities (soil and water conservation districts, counties, watershed districts, watershed management organizations, and cities)." A total of \$1,034,525 in grant funding out of that \$12.3 million has been awarded to projects within the Red Lake Watershed District.

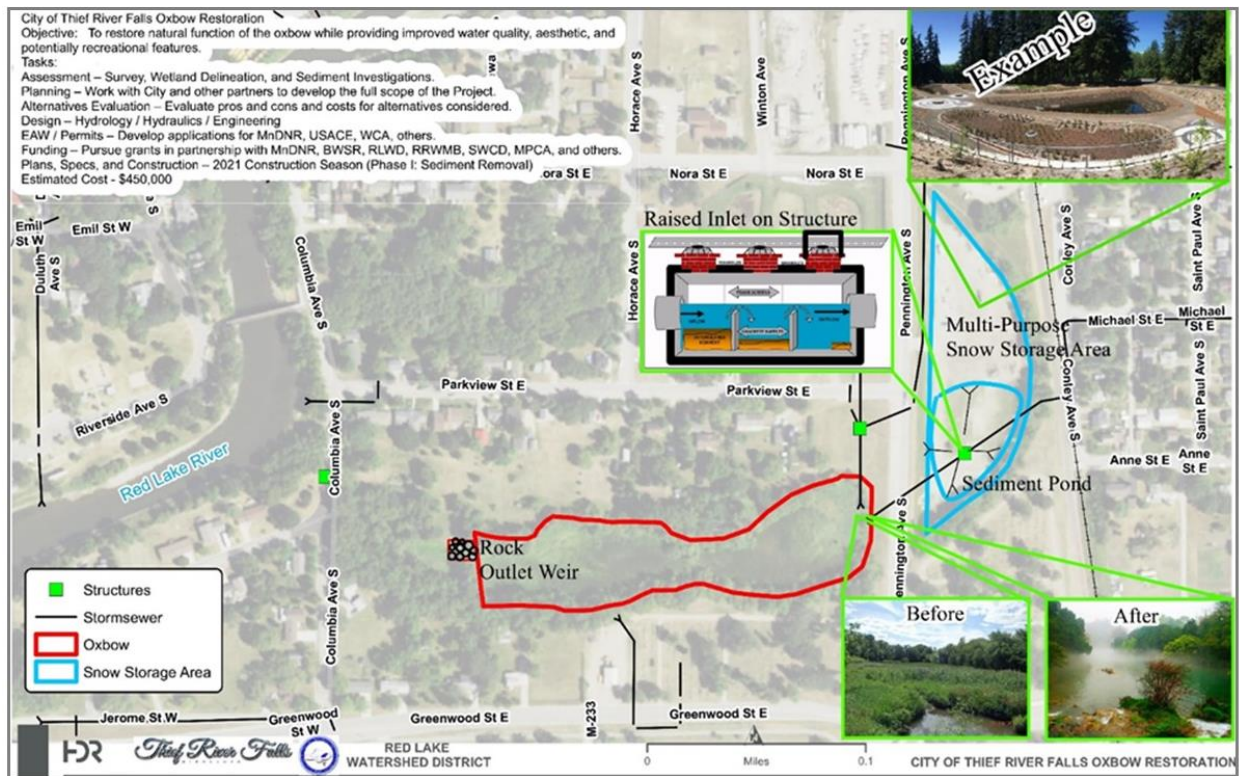
The Red Lake County Soil and Water Conservation District (SWCD) was awarded \$268,525 to fix prioritized erosion problems within the Lower Clearwater River subwatershed. The project will install structural agricultural practices that will include, but are not limited to, grade stabilization structures, grassed waterways, and water and sediment basins. The implementation of these practices is estimated to reduce sediment loading to the Clearwater River by 793 tons/year.

The Pennington SWCD was awarded \$516,000 to stabilize erosion along the south bank of Pennington County Ditch 96, west (upstream) of the Highway 32 crossing near St. Hilaire. This project will reduce sediment loading to an impaired portion of the Red Lake River by an estimated 559 tons/year.

The Red Lake Watershed District (RLWD) was awarded \$250,000 for the Thief River Falls Oxbow Restoration and Stormwater Treatment Project.

Thief River Falls Oxbow Restoration Project

In early 2020, District staff reviewed preliminary plans and information for a project that will clean sediment from stormwater runoff that has accumulated and filled an oxbow wetland in Thief River Falls. The oxbow is located on the west (downstream) side of Pennington Ave, between Greenwood Street East and Parkview Street East.



The project will restore three acres of an oxbow wetland by removing 17,000 cubic yards of accumulated sediment to restore the wetland habitat, filtration, and retention qualities. A rock structure will be constructed at the outlet of the restored wetland to stabilize the outlet, improve detention, and oxygenate water as it flows out of the pond. In-line hydrodynamic separator structures will be installed to trap pollutants and trash from future stormwater runoff before it enters the wetland or the Red Lake River. A settling pond will be constructed to intercept runoff from a portion of the wetland’s drainage area. This project will reduce loading rates for sediment by 4 tons/year and of phosphorus by 28 pounds/year from stormwater runoff as part of a coordinated effort to restore downstream impairments of the Red Lake River. This project is a cooperative effort between the city and the RLWD, with assistance from HDR Engineering. The Thief River Falls Water Quality Study, a stormwater study completed by the Pennington SWCD and Houston Engineering, Inc., provided information that helped with the planning of this project and the successful application.

A later phase of the project should also include stormwater runoff reduction strategies further upstream within the stormwater drainage system conveys runoff from east of the project area. A large source of sediment has been eliminated when the city removed the sludge ponds that were located near the oxbow wetland. Sediment samples revealed that much of the sediment in the wetland was lime sludge that came from those ponds.

The field investigation, concept development, and permitting-related work completed by the city and HDR Engineering, along with the previously completed stormwater study, was likely helpful in showing that the project was supported by local water planning, nearly “shovel-ready,” and a good candidate for grant funding. The District applied for RRWMB water quality project funding and was awarded \$166,000 for the project. The District also successfully applied for a BWSR Projects and Practices Clean Water Fund grant and was awarded \$250,000 for the project. A workplan will be finalized in early 2021 and construction could possibly begin in the summer of 2021.

Water Quality Partnerships

The District provides support to other organizations that are working on projects that will improve water quality and habitat within the District's boundaries. That support can come in the form of one watershed one plan collaboration, technical advice/information, financial support, and project administration support. The District considers collaborations to be very important and encourage local governmental units to continue their request for assistance from the District wherever possible.

- The District continued to support the River Watch program.
- District staff participate in Water Resource Advisory Committee (SWCD water planning) meetings.
- The Red Lake River Corridor Enhancement Joint Powers Group has been revived and has successfully applied for funding to improve and create accesses along the Red Lake River.
- One Watershed One Plan Planning Work Groups meet regularly to discuss progress on the current work plans and plan for the work plans.
- District staff participates in the Polk County AIS Task Force that meets several times each year to discuss appropriation of AIS funds.
- The Board approved the reimbursement of analysis expenses for water quality samples that were collected in Maple Lake by the Maple Lake Improvement District.
- The Board approved a 3-year agreement to pay for the collection of samples by the East Polk SWCD in 9 lakes within the Clearwater River watershed.
- District staff compiled links to existing information about the Thief River for the City of Thief River Falls and created a fact sheet about Thief River water quality. District staff also attended meetings of representatives from the city, MPCA, Minnesota Department of Health, and the United States Environmental Protection Agency, at the request of the city, to provide input on Thief River water quality issues. The city has the short-term goal of justifying federal funding for the relocation of the city's drinking water intake. The long-term goal involves addressing sources of pollution in the Thief River watershed that affect drinking water quality, including sources that can only be addressed on the federal level.
- The District has the good fortune of working with excellent SWCD staff. In back-to-back years, the Outstanding Soil and Water Conservation District Employee award has been achieved by staff at SWCDs within the District (Nicole Bernd of the West Polk SWCD and Peter Nelson of the Pennington SWCD).
- The Board approved a donation of \$300 to the Area I Envirothon to promote education and awareness of water quality issues. Unfortunately, the 2020 Envirothon was eventually canceled due to the COVID-19 pandemic.
- District staff worked with DNR and International Water Institute staff to plan flow monitoring upstream and downstream of the Brandt Impoundment in 2020. The flow monitoring will be used along with intensive sample collection to calculate loads of pollutants going in and out of the impoundment. The water quality sampling and planned DNR flow measurements were postponed due to the COVID-19 pandemic, but the District was able to proceed with stage/flow monitoring. Some flow measurements were recorded to begin creating flow rating curves for the inlet and outlet monitoring sites.
- District staff met with MPCA and SWCD staff to review monitoring plans and site locations for Cycle II Intensive Watershed monitoring of the Thief River Watershed. With input from SWCD staff, District staff submitted a monitoring request form to the MPCA to add sampling locations to the monitoring plans.
- Engineer Mike Flaagan, Pennington County Highway Department, appeared before the Board during their August 13, 2020 meeting to discuss a RRWMB Water Quality Grant Application for repairs to the outlet of Pennington County Ditch 96 in the amount of \$26,313.00. Flaagan

stated that bids for the project came in higher than anticipated. Discussion was held on the District contributing towards the cost of the project. The Board approved a contribution of \$26,313.00 for repairs to the outlet of Pennington County Ditch 96 from the District's Erosion Control Fund, RLWD Project No. 164.

- District staff met with Beltrami County staff in July to discuss potential projects in Beltrami County like the stabilization of the Moose River along the Moose River Road and Upper Red Lake shoreline protection.
- In August 2020, the Board approved a \$1,000 cost-share funding request (using 2020 Erosion Control Funds) from the Red Lake SWCD for the Randy Myhre Water and Sediment Control Basin Project, located in Section 2, Terrebonne Township. The total project cost was \$7,092.00.
- In September 2020, the Board approved three 2020 Erosion Control Fund cost-share requests from the Red Lake SWCD.
 - \$1,000 in cost-share funding for the \$7,335.59 Ray Delorme Grade Stabilization Project
 - \$1,630 in cost-share funding for the \$10,921.43 Dave Ste Marie Grade Stabilization Project
 - \$7,521 in cost-share funding for the \$12,621.12 Ralph Perreault Grade Stabilization Project in Gervais Township
- The Board approved \$12,500 from the District's 2020 Erosion Control Funds for the installation of side water inlet culverts in Marshall County, by the Marshall County SWCD.

2021 Plans

- Hydrological conditioning of the Clearwater River Watershed digital elevation model (DEM). The main stages will be lakes routing (adding wall lines, editing lake polygons, and adding burn lines to make sure that flow enters and exits lakes properly) and non-contributing area analysis (using flow accumulation lines and non-contributing area polygons to identify culverts that were missed by the culvert inventory).
- Work with SWCDs and counties in the Clearwater River Watershed to begin the Clearwater River One Watershed One Plan process.
- Sampling for the District's long-term monitoring program.
- Continuous dissolved oxygen monitoring at a minimum of 10 locations.
- Blue-green algae monitoring
 - Monitoring the Mud River and Maple Lake for algal toxins
 - Watching for blue-green algae blooms on the Thief River
 - Temperature logging in the Thief River
 - Possible late-summer screening for algal toxins in shallow, eutrophic lakes
- Stage and flow monitoring
- Implementation of projects in the Thief River 1W1P annual work plan (Judicial Ditch 23 outlet stabilization, streambank stabilization in the Lower Thief River subwatershed, and a feasibility study for the restoration of meanders in the Mud River within Agassiz national Wildlife Refuge.
- Implementation of projects in the Red Lake River 1W1P annual work plans (side water inlets, Demarais-Hanson gully stabilization feasibility study, repair of the Ditch 10 outlet).
- Streambank stabilization and side water inlet installations for the Red Lake River Small Watershed Focus 319 Grant.
- Public education
- River Watch
- Lake sampling at Long Lake

- Bartlett Lake Management Plan completion and water quality monitoring training for volunteer samplers.

River Watch

The lead up to the 25th annual River Watch Forum began fall of 2019 with our annual River Watch Kick Offs, being held early October in Thief River Falls, Grand Forks and Moorehead. The Kick Offs included 3 breakout sessions (Stroud Station Continuous Monitoring, Water Quality Sampling Equipment and Basics, and Macroinvertebrate Sampling Basics and Identification), selection of River Watch Captains, and project/assignment overview with brainstorming worksheet. Those schools attending the Kick Offs that RLWD directly work with included: Clearbrook-Gonvick, Red Lake County Central, Red Lake Falls, and Thief River Falls.

The project for the 25th annual River Watch Forum was to choose an age group that is not currently included in the watershed education program and build an educational program to fill the gap. Ages ranged from kindergarten, 1st, 2nd, 3rd graders or adults. River Watch Students were asked to work with a teacher, community group, or other entity to help develop their educational program. 2 schools that RLWD directly works with started working diligently in the winter to finish their projects.

Red Lake Falls River Watch Team created a board game to help 3rd graders learn about the Red Lake River Watershed along with river uses, terminology, and animal life. The Team plans to improve the game based off suggestions from teachers and students so 3rd graders years from now can still play and learn about the watershed they live in.

Red Lake County Central gave a short lesson to 3rd graders about Zebra mussels and the motto Clean, Drain, Dry. After the lesson, the 3rd graders went to the gym for an interactive game showing them firsthand how Cleaning, Draining and Drying your boat can stop the spread of Zebra mussels. The 3rd grade teachers invited the River Watch Team to come back next school year to teach a new set of 3rd graders.



As spring of 2020 approached and the spread of Covid-19 loomed the MN Governor issued a stay-at-home order which put all schools to distance learning thus canceling our in-person River Watch Forum. Luckily, the due date for Forum projects had been scheduled just before distance learning began. This allowed River Watch teams to finish their projects and the River Watch Staff to judge the projects. 18 River Watch Teams turned in completed projects, which consisted of a video about their education program as well as a handout explaining their program. River Watch Staff decided to host a virtual River Watch Forum Week, with a new video being posted each day during the week of May 4th – 8th. The videos included History of River Watch, 2019-2020 River Watch Highlights, Compilation of Projects, Peoples Choice and Staff Highlights, and the last video featuring the Forum Project Champions.

You can see all the virtual Forum videos and River Watch Teams 2020 education projects by following this link: <https://iwinst.org/mesmerize/watershed-education/river-watch/forum-resources/2020-river-watch-forum/>

Spoiler: Red Lake County Central took home the 1st Place Champion title for the 2nd year in a row!

International Water Institute who manages the River Watch Program announced in the Spring of 2020 they would start an annual River Watch Scholarship made available to seniors who have participated in the River Watch program for at least one year and have shown excellence in leadership. The inaugural scholarship recipient was announced in June, Sidney Olson of Red Lake County Central. Sidney has been in River Watch for three years and has helped her team grow in numbers and in their overall determination to deliver high-quality projects. As a team captain for the last two years, Sidney has led teams of three and twelve students to the top award at the 2019 and 2020 River Watch Forum. River Watch staff have had the opportunity to work with Sidney as she has taken part in all the available activities offered. Sidney's work ethic and confidence in leadership are a great combination and will suit her well as she pursues a degree in Education.



Sidney Olson helping up the kiosk RLCC River Watch team created at People's Park in Plummer, MN

When schools reconvened fall 2020, two schools were able to start water quality and macroinvertebrate sampling. Red Lake Falls was able to water quality sample once in September and macroinvertebrate sample in the Clearwater River near the Klondike Bridge in Red Lake Falls in October. During macroinvertebrate sampling River Watch students learned how to follow invertebrate sampling protocol, identify different habitat types within a river/stream system, proper use of equipment for collecting, and sorting and identify invertebrates using a key. Students also learned which invertebrates are indicators of good and bad water quality.

Red Lake County Central was able to water quality sample once on October 29th. A school visit on October 6th introduced River Watch to new team members by showing how to use equipment and explanations of the different water chemistry measurements that are taken.



River of Dreams

The River of Dreams program engages elementary age students to better understand their watershed through reading, writing, art, and geography. River of Dreams is inspired by “*Paddle-to-the-Sea*” a 1941 children’s novel by Holling Clancy Holling that follows the journey of a wooden canoe through the Great Lakes, down the St. Lawrence Seaway and out to the Atlantic Ocean. River of Dreams students experience virtual tours of their watershed, see where their local rivers flow, and visualize their watershed during a classroom visit by RLWD and IWI staff. The students decorate a trackable, 14” cedar canoe and write a dream for its river journey. Canoes are launched into the local river students learned about during the classroom visit. A web page is created for each canoe which includes the date and location of launch along with a picture of the canoe and “dream” story. Canoes found by area residents can be logged into the database by following instructions and recording the unique ID number which accompany each canoe. View decorated canoes, read dream stories, and see where canoes are discovered at www.riverofdreams.org

Participating schools that are located within the RLWD boundary include: Clearbrook-Gonvick, Crookston, Grygla, Red Lake County Central, Red Lake Falls, Scared Heart (East Grand Forks), St. Bernards (Thief River Falls), Win-E-Mac, Fisher, and East Grand Forks.

River of Dreams classroom visits were able to be completed in February and early March 2020, before schools had to begin distance learning. Canoe launches had to be canceled with hopes to reschedule launches in spring of 2021.

Geographic Information Systems (GIS)

Mapping: Maps are created as needed to accommodate requests by District staff. It should be noted that RLWD created maps are not to be used as legal survey maps, they are for reference use only.

In the first few month of 2020 RLWD summer intern created point and polygon shapefiles for all tile permits RLWD have received since they began requiring permits for tile (2015-2019). A point shapefile was created to represent the location off all tile pumps. A polygon shapefile was created to encompass the area being tiled. Attributes for tile shapefiles include, permit number, tile designer, type of tile, acres tiled, etc.

PTMApp (Prioritize Target and Measure Application): PTMApp is a GIS based application that uses LiDAR data and terrain analysis methods to prioritize field scale locations for conservation and best management practices. Generating data to prioritize resources/issues, target specific fields to place CPs and BMPs, and measure water quality improvement by tracking expected nutrient and sediment load reduction to priority resources.

The tool enables users to build prioritized and targeted implementation scenarios, measure the cost-effectiveness of the scenario for improving water quality, and report the results to pursue funds for project implementation.

RLWD summer intern and staff completed a culvert survey of the Clearwater Watershed using LiDAR, aerial imagery, and ground truthing of areas unable to be identified with aerial imagery. With a complete culvert survey of the Clearwater Watershed RLWD staff is now working on creating a Hydro-conditioned Digital Elevation Model (DEM) of the watershed. This DEM must be completed to create data needed to run PTMapp for Clearwater One Watershed One Plan.

Other Watershed Activities

Permits (RLWD Project No. 90)

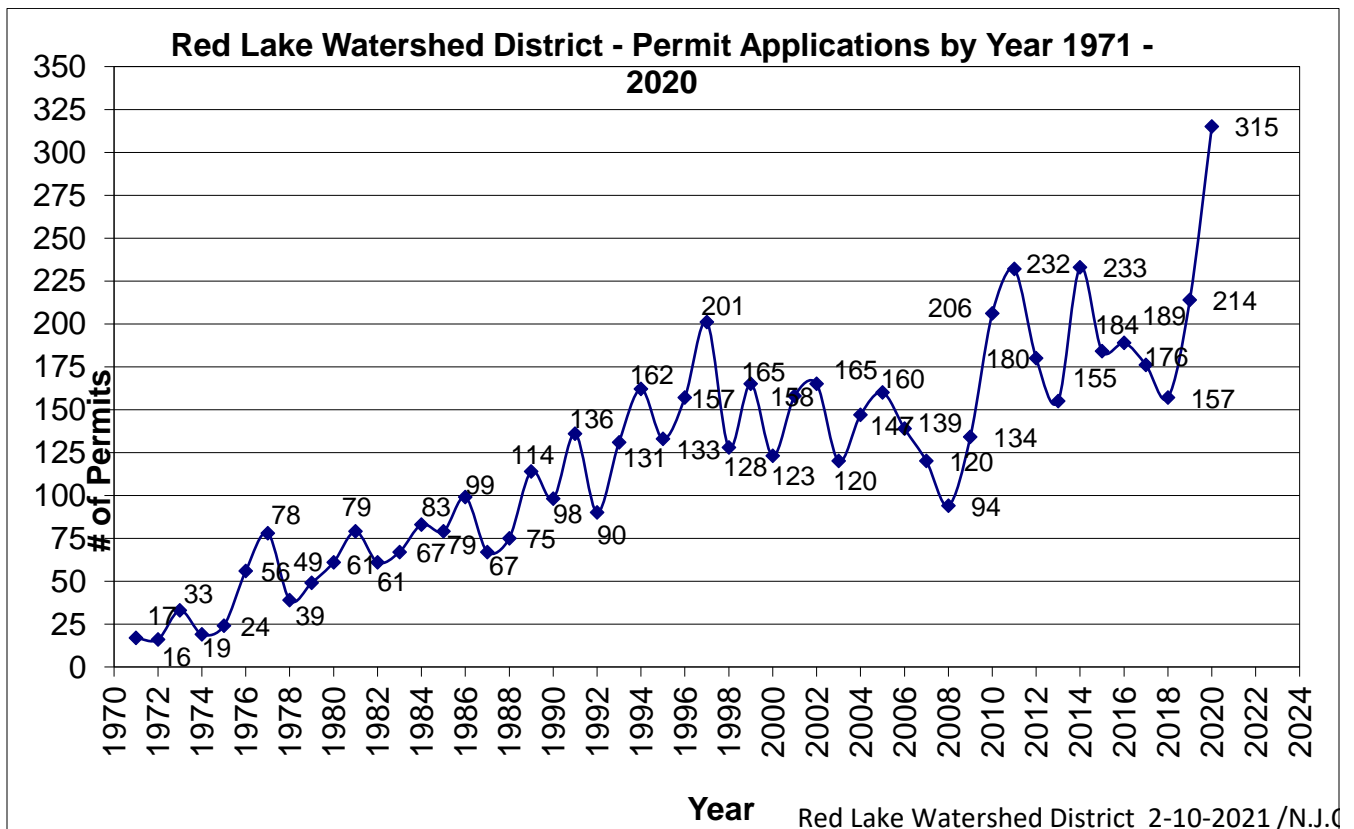
In 2020, a record total of 315 permit applications were received, 47 were for subsurface tile projects. This year was the fifth full year of the District’s subsurface drain tile permitting policy. The numbers listed below indicate the permits and how they are categorized within our rules for permitting:

- 6 utility
- 4 re-grade
- 195 culvert/bridge
- 63 drainage
- 47 drain tile

Applicants included state and county highway departments, railroads, townships, cities, utility & pipeline companies, State & Federal agencies, landowners, and private individuals. Permit applications are available on the District web site: www.redlakewatershed.org

Examples of permitted work consisted of road and bridge projects, wetland restorations, erosion control projects, culvert installations, and ditch cleaning. Work associated with permit review may involve, watershed delineations, detailed surveys, drainage area and culvert sizing recommendations, and meetings.

71 - '80' 10 Year Average	81- '90 10 Year Average	91 - '00 10 Year Average	01 - '10 10 Year Average	11 - '20 10 Year Average
39.2	82.2	142.6	144.3	203.5



The District also dealt with permit violations relating to unpermitted/unauthorized work. In those cases, written warnings are sent explaining that if there is a second offense, the responsible person or entity could possibly be subject to an administrative fee, re-storing the work to the original condition, and paying for any engineering and attorney's fees incurred by the District.

The District, at times, may perform surveys and establish proposed grades/elevations when necessary. Final approval for the work will be discussed with the proper public road authorities, whether it is the state, county, or township.

Wild Rice Water Allocation (RLWD Project No. 45)

As a domesticated agricultural grain crop, wild rice is grown in paddies, flooded with water to an average depth of about 1 foot.

Wild rice production along the Clearwater River began in 1968. The water allocation project was petitioned by the growers in 1984. This involves the appropriation of water from the Clearwater River, for production of wild rice on approximately 12,000 acres of paddies. Spring flood storage capacity in the paddies is substantial, and amounts to about 23,000 acre-feet, which is equivalent to 1.1 inches of runoff. This storage helps to reduce downstream flood flows/peaks.

When there is substantial flow in the river, no water allocation is necessary. the growers may pump as needed. However, during periods of low flow, the District allocates water to the growers. The allocation program ensures that each grower receives their appropriate share of available flow and that the protected flow of 36 cubic feet per second (cfs) is maintained in the Clearwater River.

Paddies are typically drained during July and August to facilitate harvest. Some growers partially flood paddies in the fall season through freeze up. By doing this, it helps to reduce the need of pumping activity in the spring, at which time, water supplies may not be enough to meet all their needs.

During most of 2020, flows in the Clearwater River were above the minimum that would initiate allocation. Allocation was necessary for a period beginning in late September and continuing through early November for fall flooding of the paddies. Normal duties include correspondence with growers and recording river levels at various sites. The growers also provide valuable information on river conditions and stream gage data.



Stream Flow & Pool Elevation Monitoring (RLWD Project No. 21)

Stream flow monitoring is a vital on-going activity. The District has an active stream gauging program and local volunteers assist us in recording gauge readings and monitoring river conditions during runoff events. Approximately 160 gauges of various types (staff, wire weight, automated) are located throughout the District. Many automated river level gauges within the district can be accessed via the internet and are extremely valuable to obtain “real time” data.

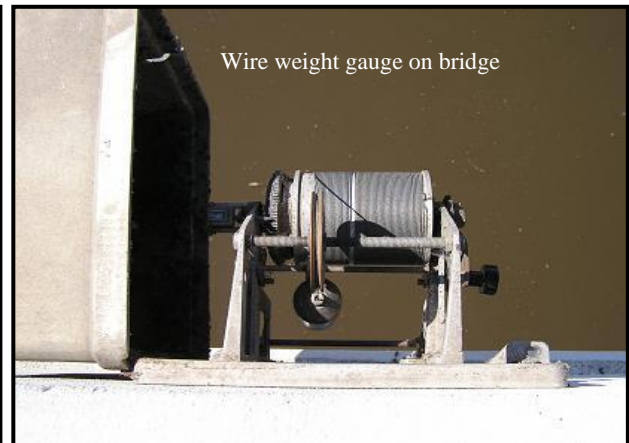
The District deploys autonomous water level loggers in tributary streams and other important locations that are not gauged by state or federal flow monitoring stations. HOBO water level loggers were deployed at 27 sites in 2020. Flow monitoring results can be viewed within monthly water quality reports.

District staff performs flow measurements and continues to develop stage (gauge height) and discharge (flow in cubic feet per second) curves at many locations. This data, in conjunction with records and cooperative efforts from other agencies such as the U. S. Geological Survey (USGS), National Weather Service, and the MnDNR will help everyone better understand drainage and runoff characteristics within the District.

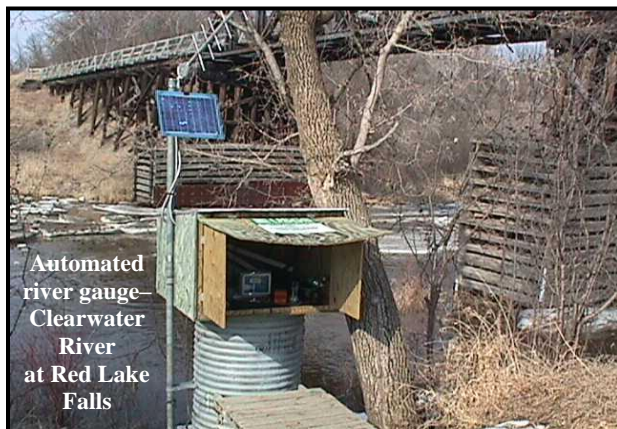
With several years of recorded data, it is increasingly valuable for the Board of Managers and staff, in the operation and maintenance of existing projects and for the development of potential projects.



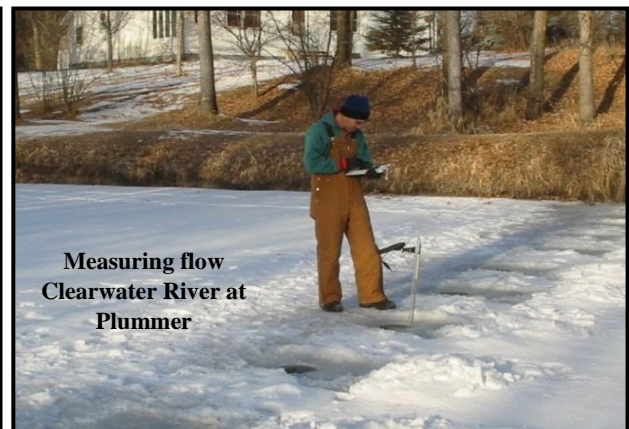
Typical staff
gauge at
structure



Wire weight gauge on bridge

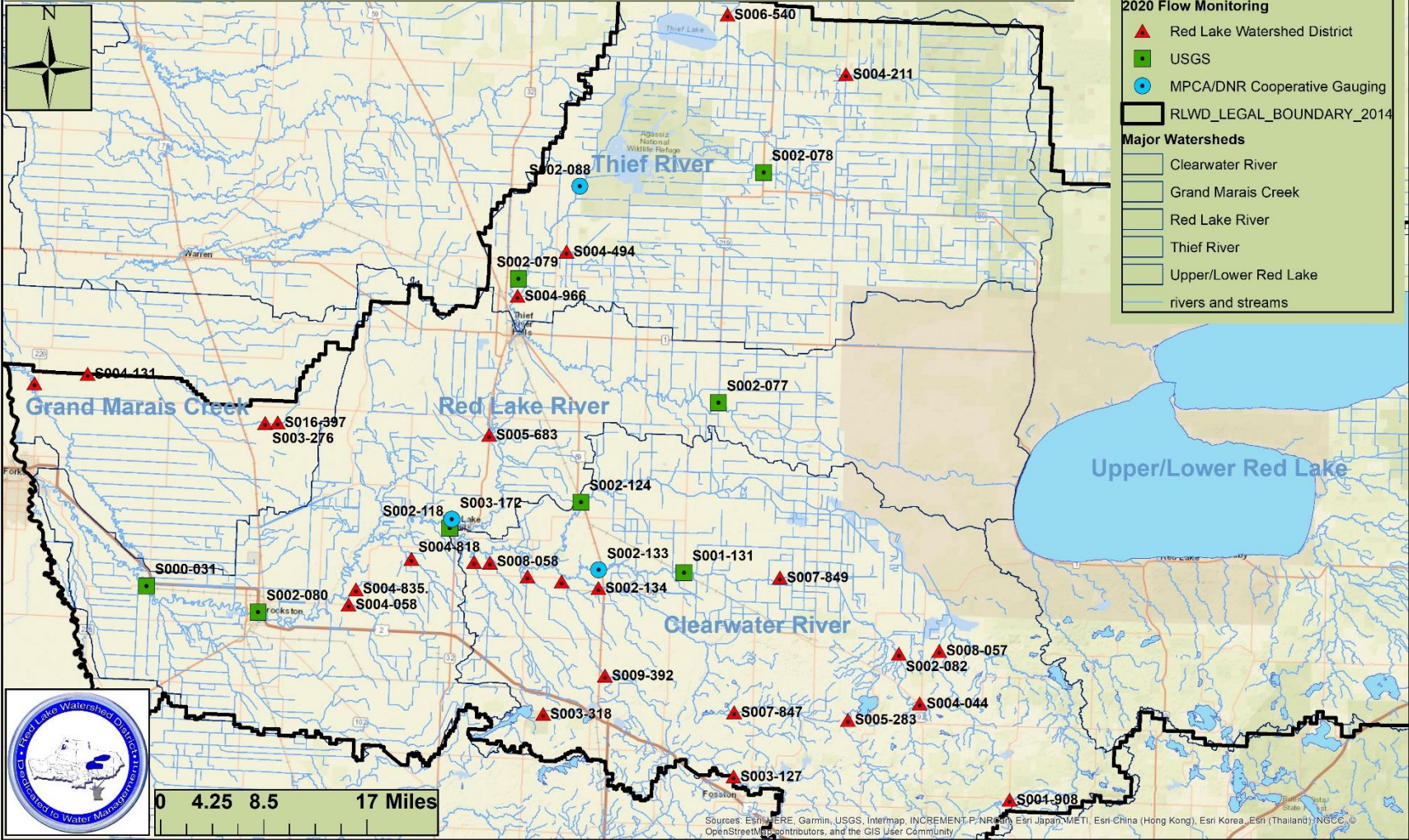


Automated
river gauge–
Clearwater
River
at Red Lake
Falls



Measuring flow
Clearwater River at
Plummer

Red Lake Watershed District 2020 Stage and Flow Monitoring Sites



Snow Surveys

Each year, the District performs snow surveys which usually begin in mid-February and continues through the spring melt on an as needed basis if snow conditions change. Seven sampling sites are monitored throughout the District. The locations of these sites are near impoundment facilities which are designed and operated for floodwater retention.

In 2020, due to the existing weather and snowpack conditions, six snow surveys were obtained. In early March, the average depth of the snow at our sampling sites was 15.4 inches and the water equivalent (moisture content) was 3.0 inches. This was the second year in a row that spring flooding has occurred.

Measuring Procedure: The depth of the snowpack is measured and a ‘core sample’ is obtained. The tube and snow core are weighed, and the “water content” of the snow is calculated. Five samples are taken at each site and averaged, for the data.

This information is forwarded to the National Weather Service, the North Central River Forecast Center and local officials. This helps them to estimate the amount of runoff and make flood forecasting predictions.

The relationship between snowpack and the amount of snowmelt runoff is complex and depends on many factors.

Some of the criteria used to determine flood potential of spring snowmelt are:

- Depth of existing snow cover and snow moisture content
- Existing soil moisture (was it wet or dry the previous fall?)
- Depth of frost - or, is there any frost?
- River ice and ice jams

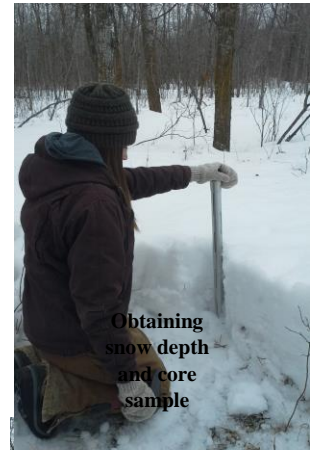
Fast and slow thaws:

- Gradual or intermittent thawing may reduce the potential for serious flooding, especially in areas with minimal frost depths
- Flood potential usually increases with late season melting, when a rapid melt is more likely; and if additional precipitation occurs during the runoff event.

Geographic Information Systems-GIS (RLWD Project No. 145)

Mapping: Maps are created as needed to accommodate requests by District staff. It should be noted that maps created are not to be used as legal survey maps, they are for reference use only.

A live working ArcGIS map that was created for tracking parcel splits for the Thief River Falls Water Management District, RLWD project 171A, is updated as new parcel splits occur.



Obtaining snow depth and core sample



Establishing weight of snow sample to calculate water content

Maintenance of Drainage Systems

One of the many tasks of the Ditch Inspector at the Red Lake Watershed District (RLWD) is to inspect the legal drainage ditch systems that are under the jurisdiction of the District. Semi-annual or annual inspections are conducted on these legal drainage systems to determine what type of repairs or any maintenance work that may be needed to keep these ditches functioning in good working order. Some of the things that the Ditch Inspector looks for: erosion around culverts, damage to slopes or scouring of the ditch bottom, violations to the right-of-way or buffer strips, and cattails or other weeds that may need to be managed.

Larson Helicopters from Perham, Minnesota was contracted this year to spray the District's ditches. A helicopter is used because a lot of our ditches are not accessible to a ground sprayer due to fences, wet ground, and some of the ditches go cross country with no right of way to drive on. There was only a total of 34.74 miles of ditch that needed to be sprayed for cattails out of the 285.03 miles of ditch that are under the jurisdiction of the Red Lake Watershed District.

Most of the District's ditches have a permanent grass buffer strip on one or both sides. By state law the buffer strip is required to be a minimum of 16 ½ feet wide but is wider on some ditches. The District is required to inspect these grass strips and maintain them. Maintenance of these buffer strips will consist of mowing the ditch and its right-of-way at least once a year, starting around July 1st, and spraying for any noxious weeds. Four to five contractors are hired each year to mow the many watershed projects and the approximately 170 miles of accessible ditch right-of-way.

In 2018 the Board approved the installation of culvert markers on every Side Water Inlet (SWI) culvert in each drainage system. Listed are the system where the installation of markers has been completed:

- RLWD #1 Lateral A & B, Project 5
- RLWD #3, Project 7
- RLWD #7, Project 20
- RLWD #9, Project 39
- Arveson Petition, Project 109
- Winsor Hangaard, Project 113
- RLWD #1 Lateral C, Project 115
- Project 117
- Polk County Ditch Improvement #'s 104, 61, 47, 94, Project 119
- Baatz Petition, Project 123
- Polk County Ditch #63, Project 134
- Polk County Ditch Improvement #33, Project 135
- RLWD #10 Project 161
- RLWD #11, Project 166
- RLWD #13, Project 170A
- RLWD #12, Project 169
- RLWD #14, Project 171
- RLWD #15, Project 175
- RLWD #16, Project 177
- Thief River West Side Project, Project 178

2020 Ditch Mowing		
Project #	System	Contractor
5	RLWD #1 Lat A & B	Olson Construction
7	RLWD #3	Olson Construction
14	State Ditch #83	Brad Lunke
20	RLWD #7	Olson Construction
36	RLWD #8	Olson Construction
39	RLWD #9	Todd Stanley
41	JD #72	Olson Construction
43B	Burnham Creek	Shane Vanosek
48	JD #2 Br A & A1	Olson Construction
49	JD #2B	Olson Construction
51	Main JD #2	Olson Construction
53	Krostue Petition	David Shane
60FF	Grand Marais Creek Cut Channel	Shane Vanosek
109	Arveson Petition	Olson Construction
113	Winsor Hangaard	Olson Construction
115	RLWD #1 Lat C	Olson Construction
117	Kenneth Johnson Petition	Shane Vanosek
119	Polk Co Ditch Improvement #'s 104, 61, 47, 94	David Shane
122	Challenger Ditch	Olson Construction
123	Baatz Petition	Shane Vanosek
134	Polk Co Ditch #63	David Shane
135	Polk Co Ditch #33	David Shane
161	RLWD #10	Olson Construction
166	RLWD #11	Shane Vanosek
169	RLWD #12	Shane Vanosek
170A	RLWD #13	Olson Construction
171/171A	TRF Flood Damage Reduction/RLWD #14	Les Cota
175	RLWD #15	Shane Vanosek

2020 Ditch Spraying by Larson Helicopters, LLC		
Project Number	System	Miles Sprayed
5	RLWD #1 Lat A & B	2.5
20	RLWD #7	1.45
36	RLWD #8	2
41	JD #72	5.5
43B	Burnham Creek	1.33
48	JD #2A & A of 1	.37
49	JD #2B	.2
115	Equality/RLWD #1	1.24
117	Johnson Petition	1.40
119	Polk Co. Ditch Improvement #'s 104, 61, 47, 94	2.73
135	Polk Co. Ditch #33	4.3
161	RLWD #10	3.52
169	RLWD #12	2.86
170A	RLWD #13	1.93
171	RLWD #14	3.41



New culvert Lateral B of RLWD #1 STA 129+71 looking north

RLWD Project #5, RLWD #1 Lat A & B

Along Lateral B of RLWD #1, at Station 129+71 (the NW corner of the SW4NW4 sec 26 Equality Township), a 42” x 40’ Corrugated Steel Pipe (CSP) failed. In 1979, This pipe was replaced during an Improvement to Project 20, RLWD #7, which established Lateral B of RLWD #1 as a second outlet for RLWD #7. Due to the Improvement, Project 20, RLWD #7 was responsible for twenty percent of the bill while RLWD #5 was responsible for eighty percent of the bill.

RLWD Project #14, State Ditch 83, Marshall County

During inspection, it was noted that a lot of erosion is occurring around most of the side water inlets. Rip rap is to be placed at these outlets in the Spring of 2021. In the summer, Lunke Construction Inc. removed trees from four different locations that were causing log jams. RLWD paid for half the bill while Agassiz Wildlife Refuge paid the other half. In the fall, RLWD staff cut down trees from a windstorm that were blocking the ROW trails.

In the recent years, sloughing along the system has increasingly gotten worse. In the late fall/early winter RLWD staff inspected and surveyed five sites along the system. Working with Houston Engineering, the data collected will be used to design possible solutions for each site and each project will be considered to be funded by One Watershed One Plan (1W1P).

Construction of SD #83 Costs Since 2003		
Year	Sites Completed	Construction Cost
2003	5	\$ 17,924.00
2004	High water levels	\$ 0.00
2005	7	\$ 39,033.00
2006	11	\$ 36,004.00
2007	16	\$ 42,144.00
2008	11	\$ 34,450.00
2009	7	\$ 41,574.00
2010	High water levels	\$ 0.00
2011	6	\$ 41,400.00
2012	11	\$ 80,480.00
2013	5	\$ 30,096.00
2014	High water levels	\$ 0.00
2015	4	\$ 16,040.00
2016	1	\$ 2,615.00
2017	12	\$ 55,330.00
2018	4	\$ 14,213.00
2019	High water levels	\$ 0.00
2020	0	\$ 0.00
Total	100	\$ 451,303.00



A



C



D



E

Photos of all five areas along State Ditch #83 that were surveyed by RLWD Staff.
STA 916+70 B. STA 899+71 C. STA 892+32 D. STA 836+30 E. STA 598+68

RLWD Project 20, RLWD #7

Upon inspection in the spring, a small gully was found forming at STA 421+05 (SE corner of the SE4SW4 sec 24 Equality Township). This spot will need to be watched and considered for future maintenance.

RLWD Project 36, RLWD #8

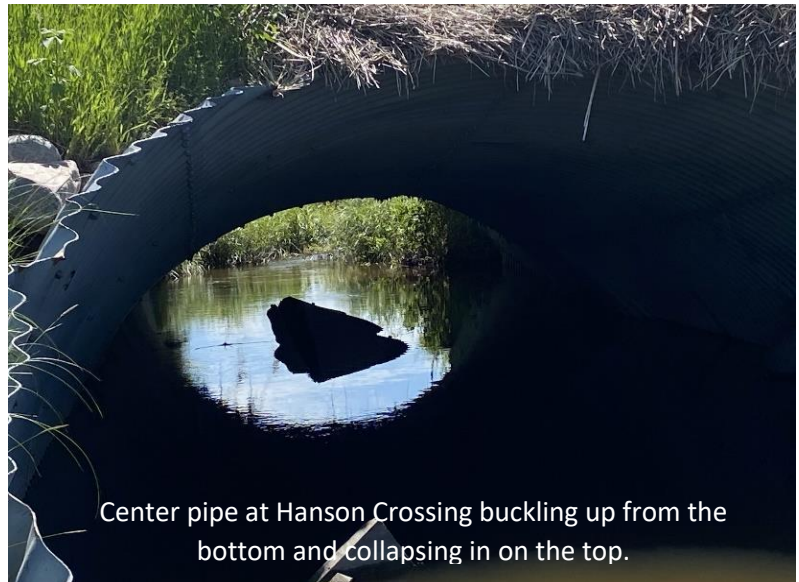
In the late fall, RLWD received a request from a landowner to remove sediment along ¼ mile of the ditch along the NW1/4NE1/4, Section 23, Johnson Township. They also requested having down trees cut and chipped along the NE1/4NE1/4, Section 23, Johnson Township. There is a lack of plans in the office for this ditch system, so in the spring of 2021, a survey and a few soil borings will be done to create and establish ditch plans. Once plans are reestablished, the district will consider the requests.

RLWD Project #43B, Burnham Creek



Western pipe folding in on itself at Hanson Crossing.

During spring inspection, at a crossing known as the “Hanson Crossing,” the western pipe was found folding in on itself again and the center pipe was beginning to fail, buckling in on itself. The pipes are under 340th St SW straddling section 1 of Hammond and section 31 of Fairfax. The road authority, Hammond Township, is responsible for the replacement of pipes. Due to the high cost of replacing the pipes, Hammond Township is applying for bridge funds through the state.



Center pipe at Hanson Crossing buckling up from the bottom and collapsing in on the top.

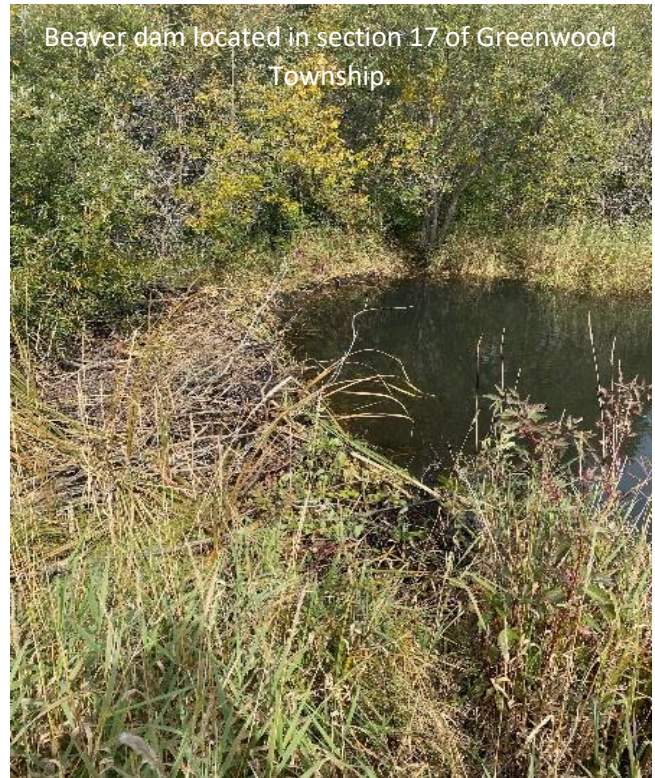


Both culverts temporarily removed at Simmons Crossing until Spring of 2021.

At a crossing located between section 9 and 10 of Russia Township, known as “Simmons Crossing,” one pipe separated causing the crossing to cave in. This led to a more detailed inspection of both the pipes and it was found that both pipes had rusted out along the bottom. The crossing has been temporarily removed as not to block flow. In the spring of 2021, two new 29” x 42” arch pipes will be installed, these pipes have a coating that allows them to last longer while sitting constantly in water. At Station 1310+10 (section 10 Russia Township) a 30” flap gate was replaced.

RLWD Project #48, JD #2A

In October, a small area of sediment and cattails along Branch A (NE corner of the NE4SE4, Section 30, Greenwood Township, Clearwater County) was cleaned out. One beaver was trapped, and a dam was pulled upstream of a farmyard crossing in section 17 of Greenwood Township. This year a detailed inspection was completed on this system. A detailed inspection implies that all culvert, side water inlets and ditch slopes were inspected. It also includes surveying the whole system to have an idea of how much sediment has accumulated. Once plans are drawn up in Auto CAD, the information will be available to the public.



RLWD Project #49, JD #2B

Early in the spring, two beavers were trapped, and two dams were pulled, located in section 25 and 26 of Winsor Township. In the fall, one beaver was trapped, and one dam was pulled in section 30 of Greenwood Township.

RLWD Project #102, JD #5, Clearwater County

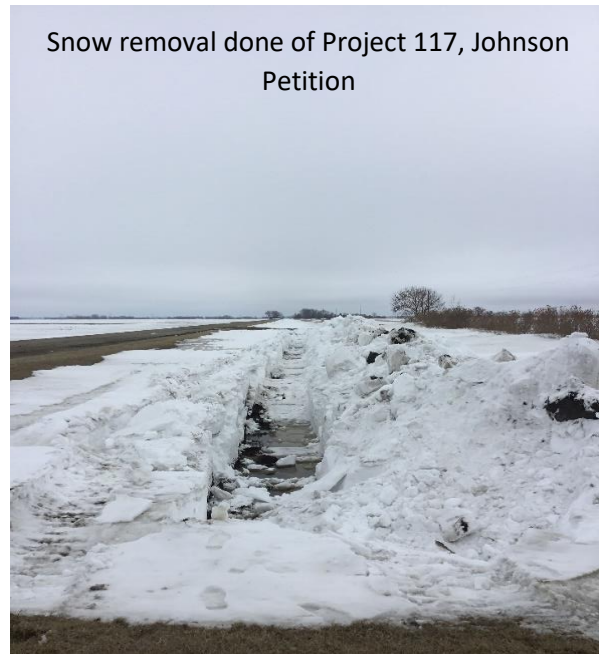
In early spring, two beavers were trapped just upstream of the outlet. The dam was not removed due to the Board's decision to not spend money on the system until after the court hearing on the Four-Legged Lake appeal.

RLWD Project #113, Winsor Hangaard

This year a detailed inspection was mostly completed on this system. A detailed inspection implies that all culvert, side water inlets and ditch slopes were inspected. It also includes surveying the whole system to have an idea of how much sediment has accumulated. Once plans are drawn up in Auto CAD, the information will be available to the public. The whole system was inspected, however only half of the survey was completed. Upon inspection, it was found that a pipe has rusted out in section 10 of Winsor Township along the old SCS Ditch at Station 98+16. This 18" x 30' CSP will be replaced in the spring of 2021.

RLWD Project 117, Johnson Petition

About a half mile worth of snow removal was done in April by Brault Construction. A detailed inspection was completed on this system. A detailed inspection implies that all culvert, side water inlets and ditch slopes were inspected. It also includes surveying the whole system to have an idea of how much sediment has accumulated. Once plans are drawn up in Auto CAD, the information will be available to the public.



Snow removal done of Project 117, Johnson Petition

RLWD Project #119, Polk County Ditch Improvement, Polk County

During a rainfall event in the spring, a group of trees fell, laying across the ditch into the road. Brault Construction immediately removed the debris. In the fall, three 18” flap gates were replaced. In the late fall, RLWD staff started removing trees from the outlets of the side water inlet culverts.

RLWD Project #122, Challenger Ditch

In 2019, the RLWD Board approved a petition from Pennington County for the realignment and modification of a portion of the existing drainageway and outlet of the ditch system due to the construction of a round-a-bout and a bridge. In 2020, most of the construction was completed by R.J. Zavoral & Sons, Inc. The ditch has been reconstructed and the outlet is completed, however there are still a few side water inlets that need to be installed. The project is to be completed in 2021.



Just upstream from the outlet of Challenger Ditch looking east.



Portion of Challenger Ditch just downstream of the Pennington Ave. round-a-bout, Looking

RLWD Project #134, Polk County Ditch 63, Polk County

During spring inspection, a large gully was found in the SW4NW4NW4 section 10 of Andover Township (near STA 184+00). The gully is about twenty feet long, eleven feet wide and six feet deep. Due to the topography of the area, the best fix is to shape the gully and place riprap to stabilize the slopes. This work will be done in 2021.



RLWD Project #135, Polk Count Ditch #33

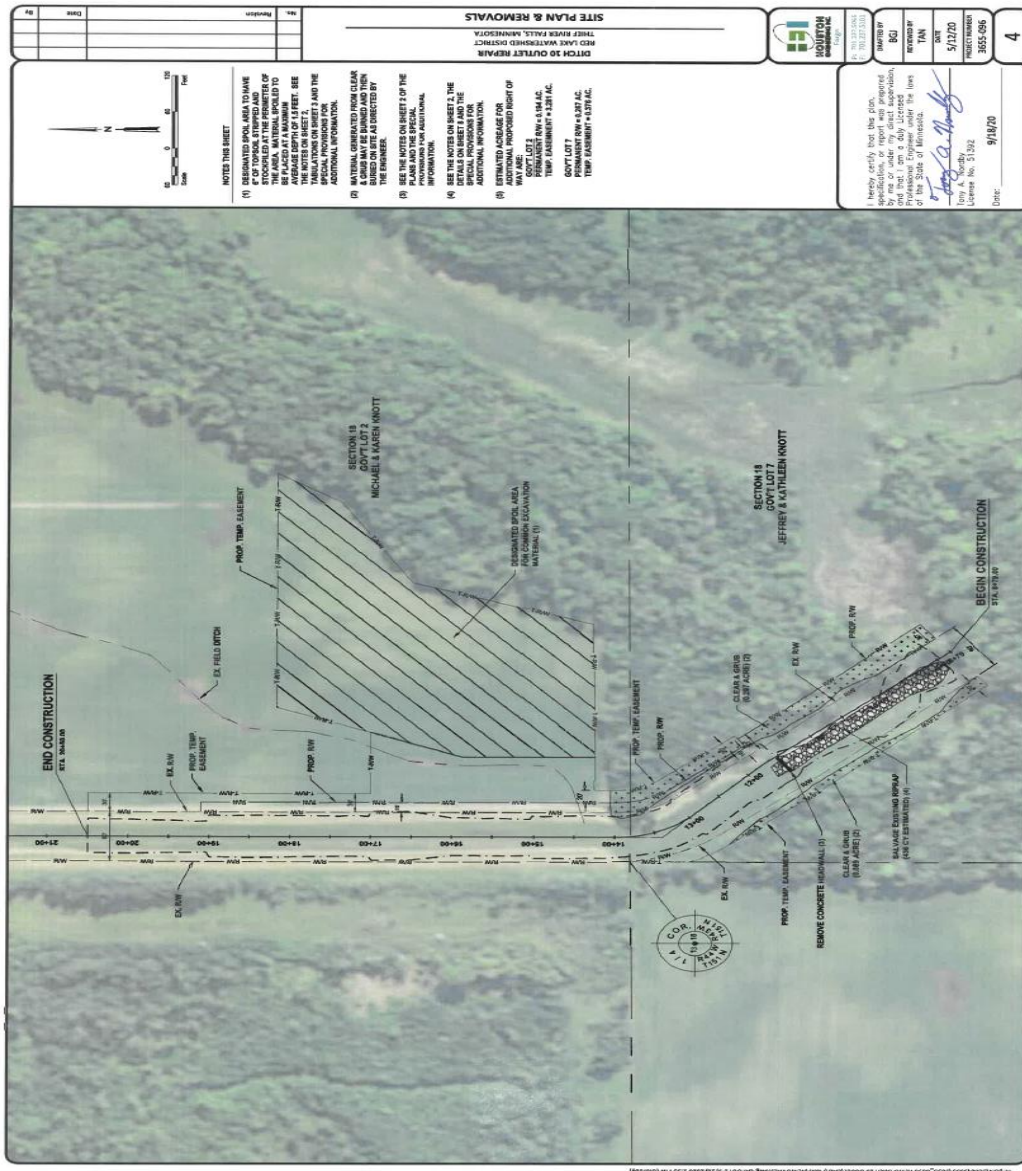
In March of 2020, about three quarters of a mile work of snow removal was done by Grant Plante. In 2019, it was determined that the bridge at STA 369+60 is not structurally sound and needs to be replaced. The existing structure is a cast-in-place bridge with the base of the walls having integral footings that extend approximately a foot into the waterway, which is exposed on both sides due to erosion. The northern bridge wall is tilting inwards 3-5 degrees, while cracking on the inlet wings are showing several inches of movement. About one foot of the concrete is deteriorating substantially and there is significant evidence of piping erosion along the structure. Currently, RLWD staff is looking into the history of the crossing and will be in contact with landowners about the issue.



A. South west corner of failing bridge. B. East side of failing bridge. C. Under failing bridge, looking west.

RLWD Project #161, RLWD Ditch 10, Red Lake County

In 2019 a disaster was declared by the Federal Emergency Management Agency (FEMA) due to the spring flood. RLWD staff submitted a request for public assistance in repairing the outlet for Ditch 10. RLWD staff went through the process required for mitigation and was awarded a total of \$84,412.86 (Federal: \$63,309.65 State: \$21,103.21). Due to COVID restrictions, this process took longer than expected and the District was awarded the money in the late fall of 2020. It was the Engineers opinion that construction wait till the Spring of 2021. The RLWD staff then applied for a Time Extension which was accepted. This money is to be used by September 20, 2021. The new outlet structure construction was awarded to R.J. Zavoral & Sons, Inc. according to the contract, the work will be substantially complete on or before July 16, 2021 and completed and ready for final payment on or before July 30, 2021. The contract price of the awarded contract is \$218,498.95.



Engineer approved Construction plans for the outlet of Project 161, RLWD Ditch #10.

RLWD Project #166, RLWD #11

An 18” gate was replaced in section 9 of Sullivan Township.

RLWD Project #169, RLWD 12, Polk County

In March of 2020, about a mile and a half of snow removal was done by Brault Construction. Soon after the spring melt, a 36” reinforced concrete pipe separated under township road 370th Ave SW, at STA 704+02. Roome Township, being responsible for the maintenance of the culvert, replaced it with a 36” C.S.P. This ditch system has been in a state of disarray, so the District had Higher Ground fix up many side water inlets that had been damaged over the years. There were many flap gates that were replaced and/or sections of pipe replaced. Work was done at Stations 238+00, 243+00, 341+00, 356+00, 374+00, 385+00, 395+50, 425+50, 436+50, 478+30 and 495+30. A pipe had washed out at STA 230+30, the contractor reset the pipe and seeded the ground. Piping was occurring at STA 282+00, so the pipe was dug up, soil was compacted, and pipe was reset. In the late fall Brault Construction brushed between STA 229+00 and STA 239+00.



18” gate replaced along RLWD Ditch #12



Brushing along RLWD Ditch #12 STA 229+00 to 239+00

RLWD Project #170A, RLWD #13

RLWD Staff was notified about a damaged flap gate on a pipe under Pennington County Road 60. Upon inspection it was also discovered that the pipe had rusted out. In the fall, Pennington County replaced and paid for the pipe through the road while the District replaced and paid for the flap gate.



RLWD Project #171, RLWD #14

In the spring, Paul Ryerson removed and hauled away cattail and grass cutting debris that was blocking the trash rack on the south side of Greenwood Street. In late July part of the system, STA 58+00 to STA 88+00, was sprayed with Milestone to manage the Burdock infestation.

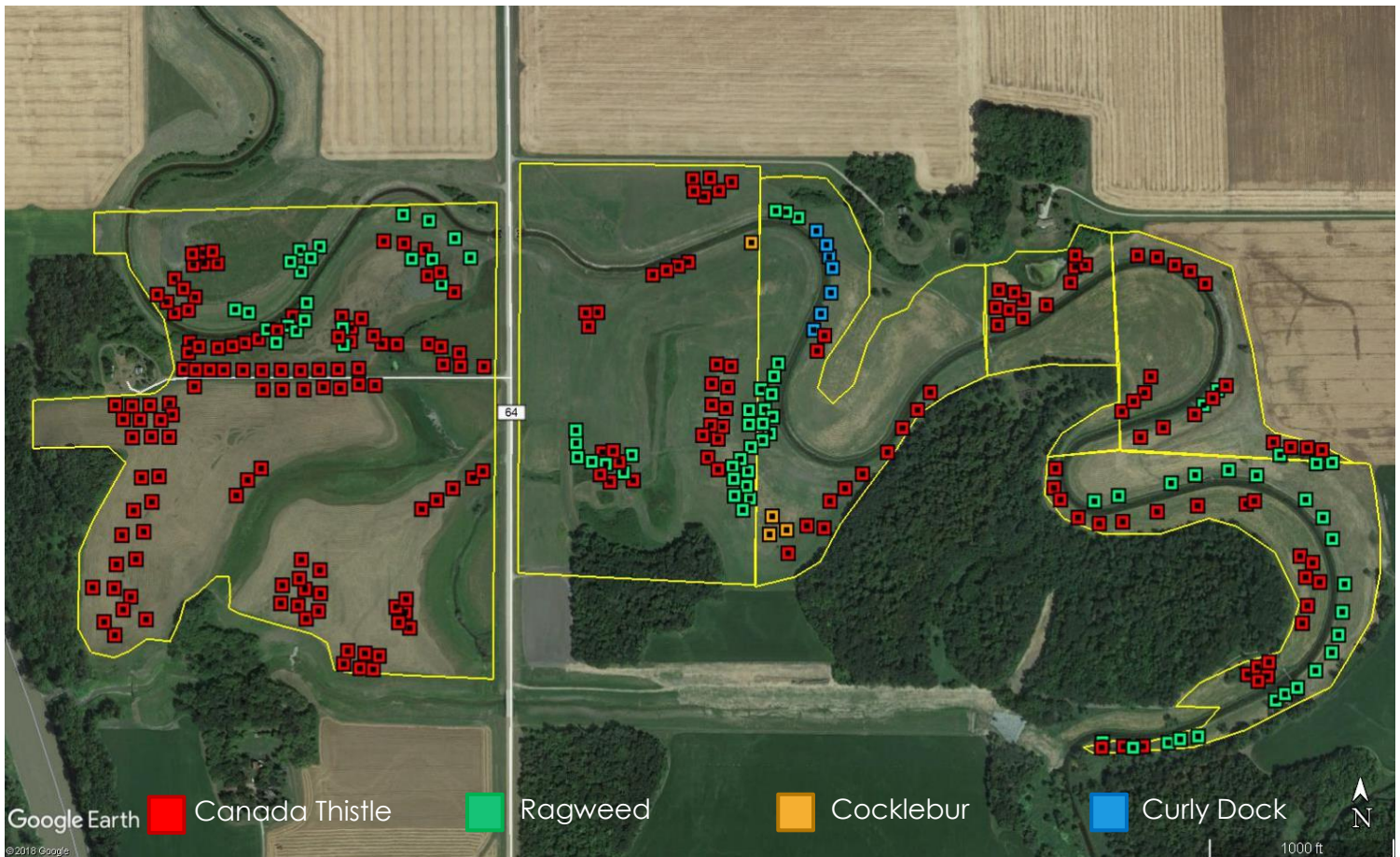
RLWD Project #175, RLWD 15, Polk County

In early October, RLWD staff approved a permit to install a 36" x 60' CSP next to an existing 30" pipe at station 402+09. Brushing was done east of Highway 75 up to the Brandt Impoundment Outlet. The contractor came across a large beaver dam at STA 114+00. Staff had the dam trapped and pulled. A total of six beavers were trapped.

Grand Marais Creek Cut Restoration, Project 60F, Polk County

The District is responsible for the maintenance of the RIM easements, including management of noxious weeds. Over the past five years, Canadian Thistle has become an issue that needs to be managed. The District decided, after many years of spot mowing, to try spot spraying with an herbicide, Milestone. L & M Spraying was hired to spray the areas of concern shown below. In the late spring of 2020, there was a large rainfall event that caused the area east of County Road 64 to be under water for a significant amount of time. Due to this event, the Canadian Thistle never grew during the 2020 field season. L & M Spraying sprayed what they could find (most was on the west side of CR 64) but will try again next year if any Canadian Thistle grows back.

Noxious Weeds Locations Determined by West Polk SWCD



Acronyms

The following is a list of common acronyms used by the Red Lake Watershed District.

State, Regional, and Local Government	
BWSR	Board of Water and Soil Resources
DNR	Department of Natural Resources
JPB	Joint Powers Board
LCMR	Legislative Commission on Minnesota Rivers
LGU	Local Governmental Unit
MnDOT	Minnesota Department of Transportation
MPCA	Minnesota Pollution Control Agency
MSTRWD	Middle Snake Tamarac Watershed District
RLWD	Red Lake Watershed District
SWCD	Soil and Water Conservation District
TAC	Technical Advisory Committee
Federal Agencies	
Corps	U.S. Army Corps of Engineers
EPA	U.S. Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FSA	Farm Services Administration
NRCS	Natural Resources Conservation Service
USF&WS	U.S. Fish & Wildlife Service
USGS	U.S. Geological Survey
Organizations	
MAWD	Minnesota Association of Watershed Districts
Programs	
CLWP	Comprehensive Local Water Planning
CRP	Conservation Reserve Program
EQIP	Environmental Quality Incentive Program
FDR	Flood Damage Reduction
RIM	Reinvest in Minnesota Program
WCA	Wetland Conservation Act
SWAG	Surface Water Assessment Grant
WRAP	Watershed Restoration and Protection
WRAPS	Watershed Restoration and Protection Strategy
Terms	
CP	Conservation Practice
BMP	Best Management Practice
GIS	Geographic Information System
GPS	Geographic Positioning System
LIDAR	Laser Imaging Detection and Ranging
NPS	Nonpoint Source Pollution
TMDL	Total Maximum Daily Load
PTMApp	Prioritize Target Measure Application

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**RED LAKE WATERSHED DISTRICT
OFFICIAL DIRECTORY
DECEMBER 31, 2020**

Board of Managers

<u>Manager</u>	<u>County</u>	<u>Position</u>
Dale M. Nelson	Pennington	President
Gene Tiedemann	West Polk	Vice President
LeRoy Ose	Marshall	Secretary
Terry Sorenson	East Polk	Treasurer
Brian Dwight	Beltrami	Manager
Allan Page	Red Lake	Manager
Les Torgerson	Clearwater	Manager

INDEPENDENT AUDITOR'S REPORT

Board of Managers
Red Lake Watershed District
Thief River Falls, Minnesota

Report on the Financial Statements

We have audited the accompanying modified cash basis financial statements of the governmental activities, each major fund, and the remaining fund information of the Red Lake Watershed District as of and for the year ended December 31, 2020, and the related notes to the financial statements, which collectively comprise the District's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with the modified cash basis of accounting described in Note 1; this includes determining that the modified cash basis of accounting is an acceptable basis for the preparation of the financial statements in the circumstances. Management is also responsible for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express opinions on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes

evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective modified cash basis financial position of the governmental activities, each major fund, and the remaining fund information of the Red Lake Watershed District, as of December 31, 2020, and the respective changes in modified cash basis financial position for the year then ended in conformity with the basis of accounting described in Note 1.

Basis of Accounting

We draw attention to Note 1 of the financial statements, which describes the basis of accounting. The financial statements are prepared on the modified cash basis of accounting, which is a basis of accounting other than accounting principles generally accepted in the United States of America. Our opinions are not modified with respect to the matter.

Other Matters

Other Information

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the Red Lake Watershed District's basic financial statements. The official directory, management's discussion and analysis, budgetary comparison schedule, statement of receipts and disbursements and changes in fund balance, and statement of direct expenditures by classification as shown in the table of contents are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The budgetary comparison schedule, statement of receipts and disbursements and changes in fund balance, and the statement of direct expenditures by classification are the responsibility of management and were derived from and relate directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the budgetary comparison schedule and the supplementary statements are fairly stated in all material respects in relation to the financial statements as described in the basis of accounting described in Note 1.

The official directory and the management's discussion and analysis section have not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on them.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated March 4, 2021 on our consideration of the Red Lake Watershed District's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to solely describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the District's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering Red Lake Watershed District's internal control over financial reporting and compliance.



**BRADY, MARTZ & ASSOCIATES, P.C.
THIEF RIVER FALLS, MINNESOTA**

March 4, 2021

RED LAKE WATERSHED DISTRICT
MANAGEMENT'S DISCUSSION AND ANALYSIS
FOR THE YEAR ENDED DECEMBER 31, 2020

Our discussion and analysis of the Red Lake Watershed District's financial performance provides an overview of the District's financial activities for the fiscal year ended December 31, 2020, within the limitations of the District's modified cash basis of accounting. Please read it in conjunction with the District's financial statements that begin on page 15.

FINANCIAL HIGHLIGHTS

- The District's governmental funds total expenditures exceeded total revenues, on the modified cash basis of accounting, by \$5,180,153 for the year ended December 31, 2020.
- The general fund showed an increase on the modified cash basis fund balance in the amount of \$57,116.
- The District's General Fund ended the year with a fund balance of \$209,238.
- The District's combined fund balance at the close of the current year was \$2,219,500.

Overview of the Financial Statements

This annual report is presented in a format consistent with the presentation requirements of the Governmental Accounting Standards Board (GASB) Statement No. 34, as applicable to the District's modified cash basis of accounting.

Report Components

This annual report consists of five parts as follows:

Government—Wide Financial Statements: The Statement of Net Cash Position and the Statement of Activities Arising from Cash Transactions on pages 15 and 16 provide information about the activities of the District government-wide (or "as a whole") and present a longer-term view of the District's finances.

Fund Financial Statements: Fund financial statements (starting on page 17) focus on the individual parts of the District government. Fund financial statements also report the District's operations in more detail than the governmental-wide statements by providing information about the District's most significant ("major") funds. For governmental activities, these statements tell how these services were financed in the short term as well as what remains for future spending.

Notes to the Basic Financial Statements: The notes to the basic financial statements are an integral part of the government-wide and fund financial statements and provide expanded explanation and detail regarding the information reported in the statements.

Other Supplementary Information: This Management's Discussion and Analysis and the General Fund Budgetary Comparison Schedule (starting on page 35) represent other financial information. Such information provides users of this report with additional data that supplements the government-wide statements, fund financial statements, and notes (referred to as "the basic financial statements").

Other Supplementary Statements: This part of the annual report (starting on page 37) includes other supplemental financial information which is provided to address certain specific needs of various users of the District's annual report. These statements and schedules include individual Fund Statements for Governmental units.

RED LAKE WATERSHED DISTRICT
MANAGEMENT'S DISCUSSION AND ANALYSIS - CONTINUED
FOR THE YEAR ENDED DECEMBER 31, 2020

Basis of Accounting

The District has elected to present its financial statements on a modified cash basis of accounting. This modified cash basis of accounting is a basis of accounting other than accounting principles generally accepted in the United States of America. Basis of accounting is a reference to when financial events are recorded, such as the timing for recognizing revenues, expenses, and their related assets and liabilities. Under the District's modified cash basis of accounting, revenues and expenses and related assets and liabilities are recorded when they result from cash transactions, except for the recording of depreciation expense on the capital assets in the government-wide financial statements.

As a result of the use of this cash basis of accounting, certain assets and their related revenues (such as accounts receivable and revenue for billed or provided services not yet collected) and certain liabilities and their related expenses (such as accounts payable and expenses for goods or services received but not yet paid, and accrued expenses and liabilities) are not recorded in the basic financial statements. Therefore, when reviewing the financial information and discussion within this annual report, the reader should keep in mind the limitations resulting from the use of the modified cash basis of accounting.

Reporting the District as a Whole

The District's Reporting Entity Presentation

This annual report includes all activities for which the Red Lake Watershed District Board of Managers is fiscally responsible. These activities, defined as the District's reporting entity, are operated within separate legal entities that make up the primary government. The District has no reportable component units.

The Government-Wide Statement of Net Cash Position and the Statement of Activities Arising from Cash Transactions

Our financial analysis of the District as a whole begins on page 7. The government-wide financial statements are presented on pages 15 and 16. One of the most important questions asked about the District's finances is, "Is the District as a whole better off or worse off as a result of the year's activities?" The Statement of Net Cash Position and the Statement of Activities Arising from Cash Transactions report information about the District as a whole and about its activities in a way that helps answer this question. These statements include all of the District's assets and liabilities resulting from the use of the modified cash basis of accounting.

These two statements report the District's net cash position and changes in them. Keeping in mind the limitations of the modified cash basis of accounting, you can think of the District's net cash position—the difference between assets and liabilities—as one way to measure the District's financial health or financial position. Over time, increases or decreases in the District's net cash position are one indicator of whether its financial health is improving or deteriorating. You will need to consider other nonfinancial factors, however, such as changes in the District's property tax base and the condition of the District's infrastructure, to assess the overall health of the District.

RED LAKE WATERSHED DISTRICT
MANAGEMENT'S DISCUSSION AND ANALYSIS - CONTINUED
FOR THE YEAR ENDED DECEMBER 31, 2020

In the Statement of Net Cash Position and the Statement of Activities Arising from Cash Transactions, the District has one type of activity:

Government Activities - The District's basic services are reported here, including the general administration and capital projects. Property taxes, state aids, and state and federal grants finance most of these activities.

The Fund Financial Statements

The fund financial statements begin on page 17 and provide detailed information about the most significant funds. Some funds are required to be established by state law and by bond covenants.

However, the Board of Managers establishes certain other funds to help it control and manage money for particular purposes or to show that it is meeting legal responsibilities for using certain taxes, grants, and other money. The District's two kinds of funds—governmental and fiduciary—use different accounting approaches.

Governmental funds— Most of the District's basic services are reported as governmental funds, which focus on how money flows into and out of those funds and the balances left at year-end that are available for spending. These funds report the acquisition of capital assets and payments for debt principal as a detailed short-term view of the District's general government operations and the basic services it provides. Governmental fund information helps you to determine (through a review of changes to fund balance) whether there are more or fewer financial resources that can be spent in the near future to finance the District's programs.

The District considers the General Fund, the Special Revenue Fund, and the Capital Project Fund as significant or major governmental funds. There are no other funds.

Fiduciary funds— These fund types are often used to account for assets that are held in a trustee or fiduciary capacity such as pension plan assets, assets held per trust agreements, and similar arrangements.

A FINANCIAL ANALYSIS OF THE DISTRICT AS A WHOLE

Net Cash Position

The District's combined government-wide Net Position, resulting from modified cash basis transactions decreased by \$2,328,036 between fiscal years 2020 and 2019. As noted earlier, net position - modified cash basis may serve over time as a useful indicator of a government's financial position. In the case of Red Lake Watershed District, assets exceeded liabilities by \$20,076,136 at December 31, 2020, which is a decrease of \$2,328,036 over the year ended December 31, 2019; which is more than a 10.39% decrease over the prior year.

A portion of Red Lake Watershed District's net position (\$17,856,636 or 88.94%) reflects its investment in capital assets. Red Lake Watershed District uses these capital assets to provide services to citizens; consequently, these are not available for future spending.

A portion of Red Lake Watershed District's net position (\$655,399) reflects a portion of net position that is restricted for ditch maintenance.

RED LAKE WATERSHED DISTRICT
MANAGEMENT'S DISCUSSION AND ANALYSIS - CONTINUED
FOR THE YEAR ENDED DECEMBER 31, 2020

	Governmental		Change 19-20
	Activities		
	2020	2019	
ASSETS			
Total Current Assets	\$ 2,219,500	\$ 7,399,653	\$ (5,180,153)
Net Capital Assets	<u>17,856,636</u>	<u>15,004,519</u>	<u>2,852,117</u>
Total Assets	<u>\$ 20,076,136</u>	<u>\$ 22,404,172</u>	<u>\$ (2,328,036)</u>
Net Position	<u>\$ 20,076,136</u>	<u>\$ 22,404,172</u>	<u>\$ (2,328,036)</u>

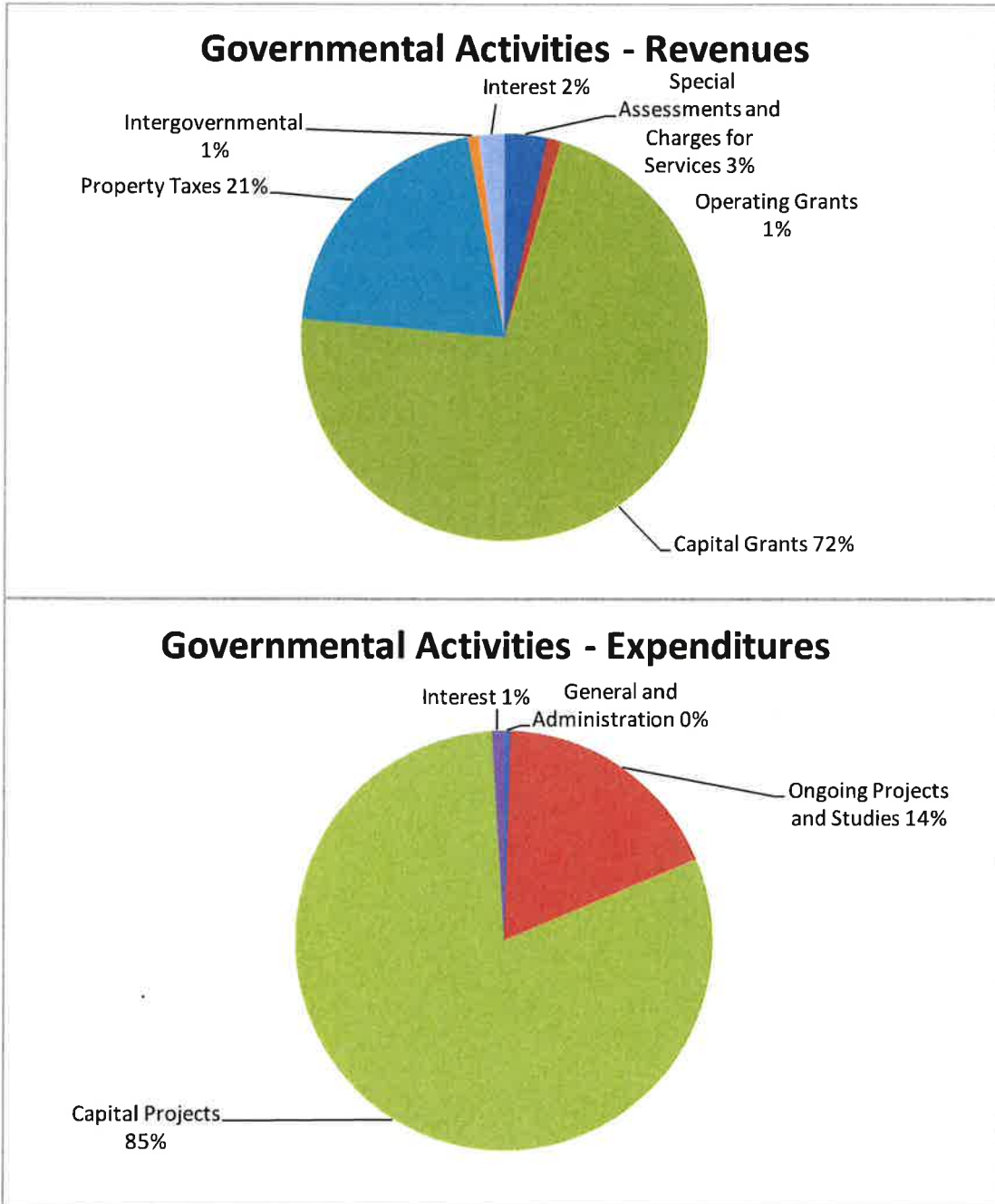
Changes in Net Cash Position

For the years ended December 31, 2020 and 2019, Net Position of the primary government (resulting from modified cash basis transaction) changed as follows:

	Governmental		Change 19-20
	Activities		
	2020	2019	
Revenues			
Program Revenues			
Special Assessments and Charges for Services	\$ 264,834	\$ 2,570,200	\$ (2,305,366)
Operating Grants	94,783	16,000	78,783
Capital Grants	5,755,540	468,487	5,287,053
General Revenues			
Property Taxes	1,647,099	2,005,618	(358,519)
Intergovernmental	70,467	94,095	(23,628)
Interest	<u>166,300</u>	<u>200,099</u>	<u>(33,799)</u>
Total Revenues	<u>7,999,023</u>	<u>5,354,499</u>	<u>2,644,524</u>
Expenses			
General and Administration	46,816	108,749	(61,933)
Ongoing Projects and Studies	1,881,236	436,769	1,444,467
Capital Projects	8,298,524	2,365,454	5,933,070
Allocated Interest	<u>100,483</u>	<u>85,365</u>	<u>15,118</u>
Total Expenses	<u>10,327,059</u>	<u>2,996,337</u>	<u>7,330,722</u>
Decrease in Net Position	<u>(2,328,036)</u>	<u>2,358,162</u>	<u>(4,686,198)</u>
Net Position - January 1	<u>22,404,172</u>	<u>20,046,010</u>	<u>2,358,162</u>
Net Position - December 31	<u>\$ 20,076,136</u>	<u>\$ 22,404,172</u>	<u>\$ (2,328,036)</u>

RED LAKE WATERSHED DISTRICT
MANAGEMENT'S DISCUSSION AND ANALYSIS - CONTINUED
FOR THE YEAR ENDED DECEMBER 31, 2020

Below are specific graphs which provide comparisons of the governmental activities revenues and expenditures for the year ended December 31, 2020:



RED LAKE WATERSHED DISTRICT
MANAGEMENT'S DISCUSSION AND ANALYSIS - CONTINUED
FOR THE YEAR ENDED DECEMBER 31, 2020

Governmental Activities

To aid in the understanding of the Statement of Activities Arising from Cash Transactions on page 16, some additional explanation is given. Of particular interest is the format that is significantly different from a typical Statement of Revenues, Expenses, and Changes in Fund Balance. You will notice that expenses are listed in the first column, with revenues from that particular program reported to the right. The result is a Net (Expense)/Revenue. This type of format highlights the relative financial burden of each of the functions on the District's taxpayers. It also identifies how much each function draws from the general revenues or if it is self-financing through fees and grants or contributions. All other governmental revenues are reported as general. It is important to note that all taxes are classified as general revenue, even if restricted for a specific purpose.

A FINANCIAL ANALYSIS OF THE DISTRICT'S FUNDS

General Fund Budgetary Highlights

For the year ended December 31, 2020, General Fund expenditures were \$94,803 under final budget. The budget was not amended during the year.

CAPITAL ASSET AND DEBT ADMINISTRATION

Capital Assets—Modified Cash Basis

At December 31, 2020, the District had approximately \$17,856,636 (net of accumulated depreciation) invested in capital assets. This investment in capital assets consists of building, equipment, and infrastructure assets necessary for the District to carryout watershed and conservation management within its service area.

	2020		2019	
	Cost	Accumulated Depreciation	Cost - Less Accumulated Depreciation	Cost - Less Accumulated Depreciation
Building and Improvements	\$ 775,594	\$ 364,322	\$ 411,272	\$ 433,778
Infrastructure Improvements	13,134,433	4,364,279	8,770,154	8,739,823
Engineering Equipment	413,594	363,518	50,076	59,078
Office Equipment	165,696	126,791	38,905	39,300
Land and Permanent Easements	4,125,776	-	4,125,776	3,726,959
Construction in Progress	4,460,453	-	4,460,453	2,005,581
	<u>\$ 23,075,546</u>	<u>\$ 5,218,910</u>	<u>\$ 17,856,636</u>	<u>\$ 15,004,519</u>

ECONOMIC FACTORS AND NEXT YEAR'S BUDGET

As noted below, construction will begin on several projects as well as work on several water quality grants, flow through-grants, cooperative projects and grants with other agencies.

RED LAKE WATERSHED DISTRICT
MANAGEMENT'S DISCUSSION AND ANALYSIS - CONTINUED
FOR THE YEAR ENDED DECEMBER 31, 2020

OTHER ITEMS OF INTEREST

Water Quality Projects

Water Quality grants from the State of Minnesota and Minnesota Pollution Control Agency for Surface Water Assessment Grants, Watershed Assessment Projects (watershed based TMDL), are ongoing for Clearwater River, Red Lake River, Thief River, and Grand Marais Creek. Expenses over and above the grants are expended from the Capital Projects Fund.

Pine Lake Watershed

Red Lake Watershed District entered into a grant agreement with the Natural Resource Conservation Service for the study of projects which qualify for the Regional Conservation Partnership Programs (RCP). The grant for the Pine Lake Watershed funded 70% of the cost of the study, not to exceed \$500,000, which included a study for the completion of a Watershed Protection Plan. Development of the plan continued into 2018 but due to various concerns with permitting agencies and costs associated with delays in moving forward, all funds earmarked for the plan were spent without a final plan being developed. It was estimated that an additional \$200,000 was needed to complete the plan. The District staff and consultant met with the Red River Retention Authority requesting additional cost share but was denied. The Board directed staff to gather additional information from the permitting agencies to determine if a final plan could be completed and what timeline it would take.

After various hurdles were presented by the Minnesota Department of Natural Resources concerning permitting the proposed Pine Lake Watershed Project the District had been working on over the past two years, the Red Lake Watershed District Board of Managers made a request to the Natural Resource Conservation Service to move forward with a close-out agreement for this project thus canceling the agreement. In August of 2019, the RLWD filed all the paperwork with the NRCS to close out the account. On May 18, 2020, the RLWD received notification from the NRCS that all terms and conditions of the agreement had been met, and that they officially have closed out of the agreement.

As part of the work that was completed on the above-mentioned agreement, the District continued to work with the Minnesota Department of Natural Resources to find common ground in developing a project that would not only fit in the permitting guidelines of the DNR, but also accomplish some of the goals listed in the study which was completed. In 2021, the District hopes to complete final plans and specifications for this project, solicit bids and start construction on a project which includes replacing the outlet structure of Pine Lake.

Red Lake River One Watershed One Plan (1W1P)

Red Lake Watershed District and local partners entered into a grant agreement with the Board of Water and Soil Resources (BWSR) to complete a Pilot Project referred to the public as "*Red Lake River One Watershed One Plan*" (RLR1W1P). The grant, administered by Pennington Soil and Water Conservation District in the amount of \$127,266, was for the development of a comprehensive ten-year plan for the Red Lake River Watershed. The planning and writing of the grant were completed in 2016 with final approval by the BWSR Board in July of 2017. In 2018, funding through the BWSR Clean Water Fund in the amount of \$677,551 was awarded to this planning region to complete various projects identified in the workplan approved by the BWSR. It should be noted at the request of the Policy Committee formed to oversee the implementation of the plan, Red Lake Watershed District was appointed as the fiscal agent for the implementation of the plan. Implementation of the funds dispersed in the 2018 workplan started in 2019 and continued into 2020 with 50% of the funds being spent. In December 2020, Reconciliation of the of the grant was initiated by the Board and Water Resources due to the expenditures of over 50% of

RED LAKE WATERSHED DISTRICT
MANAGEMENT'S DISCUSSION AND ANALYSIS - CONTINUED
FOR THE YEAR ENDED DECEMBER 31, 2020

the grant proceeds. The reconciliation for this portion of the 2018 grant is expected to be completed in early 2021. In 2020, another workplan was developed for the RLR 1W1P planning region which resulted in an additional \$1,0771,149 being appropriated to the RLR1W1P through the Board of Water and Soil Resources Watershed Based Funding. It should also be noted at the request of the Policy Committee formed to oversee the implementation of the 2020 plan, Red Lake Watershed District was appointed as the fiscal agent for the implementation of the plan. All projects identified in the 2018 work plan must be completed by December 31, 2021 and all funding identified in the 2020 work plan must be completed by December 31, 2022.

Thief River One Watershed One Plan (1W1P)

Red Lake Watershed District and local partners entered into a grant agreement with the Board of Water and Soil Resources (BWSR) to complete a Comprehensive Watershed Management Plan for the Thief River Watershed referred to the public as "*Thief River One Watershed One Plan*" (*TR1W1P*). The memorandum of agreement was signed by all partners in March of 2017 with planning process starting in late 2017. The draft plan was completed late 2019 with final approval by the Board of Water and Soil Resources in early 2020. The Red Lake Watershed District acted as the fiscal agent for the grant approved by BWSR in the amount of \$254,680 which was used for the development of the plan. In June of 2020, the Thief River 1W1P Policy Committee entered into a \$529,892 grant agreement with the Board of Water and Soil Resource to complete water quality projects in this planning region. The Red Lake Watershed District is acting as the fiscal agent for the implementation phase grant as well. All projects identified in the work plan must be completed by the expiration date of the grant which is December 31, 2022.

Black River Impoundment

Red Lake Watershed District approved by motion to proceed with the investigation of developing a flood damage reduction project referred to as the Black River Impoundment. In late 2016, the RLWD entered into agreements with three landowners and preliminary engineering was ordered. In June of 2017, options with landowners were exercised with land purchases and easements completed. In 2018, final engineering was completed and permitting was started along with an investigation of creating Wetland Banking credits within the template of the proposed project. In early 2018, the District was informed that no State funding was earmarked for this project. The Board of Managers decided that even though no funding was obtained, the RLWD would proceed with exercising the step submittals to the Red River Watershed Management Board to secure their funding for the project. The Board also elected to proceed with a public hearing which was held August 8, 2018. In 2019 the District, with the assistance of a Houston Engineering Wetland Specialist, continued with the permitting application process with Wetland Conservation Act staff as well as United States Army Corps of Engineers to review wetland impacts to the project. After nearly two years of meetings and review, the District completed an application for permitting wetland impacts for the project.

In 2020 all permits were received, and a funding package was approved between the Red River Watershed Management Board and the RLWD. Bids were let with RJ Zavoral & Sons being awarded the low bid in the amount of \$4,374,457.66. Construction started on the project in October of 2020 and will continue into 2021.

Thief River Falls Westside Flood Damage Reduction Project

Late 2017, the Red Lake Watershed District was petitioned by the City of Thief River Falls and Pennington County to investigate the drainage issues along the westside of the City. HDR Engineering, Inc. was hired to complete an analysis for the "Thief River Falls Westside Flood Damage Reduction Project". In 2018, the District held various landowner meetings as well as coordination with the City of Thief River Falls, Pennington County and Minnesota Department of Transportation to complete a preliminary design for the proposed project. The District officially

RED LAKE WATERSHED DISTRICT
MANAGEMENT'S DISCUSSION AND ANALYSIS - CONTINUED
FOR THE YEAR ENDED DECEMBER 31, 2020

labeled this project "Thief River Falls Westside Flood Damage Reduction Project No. 178." On September 8, 2018, the District signed a grant agreement with the State of Minnesota in the amount of \$1,500,000 to assist with 50% of the cost for this project. Other various state and local funding partners are assisting in the financing of this project.

On May 23, 2019, the public hearing was held for this project. Upon completion of the hearing, the Board of Managers for the Red Lake Watershed District approved moving forward with the project but refrained assessing Water Management charges for the project until additional information could be gathered. On June 13, 2019, the District held a continuation hearing to establish charges for the Water Management District. As a result of the hearing and the fact an appraiser's report for damages had not been completed by the consultant hired by the District, final determination for damages could not be had. On July 11, 2019, a continuation hearing was once again held and final damages and fees were discussed. On September 26, 2019, the final order determining and awarding damages for the establishment of The Thief River Falls Westside Flood Damage Project, RLWD Project #178 was approved by the RLWD Board of Managers.

Advertisement for bids was completed with low bid being awarded to RJ Zavoral & Sons in the amount of \$6,384,732.48. Construction was substantially completed in the summer and fall of 2020 with minor construction still to be completed in 2021.

Agassiz National Wildlife Refuge Partnership Grant

In March of 2018, the Red Lake Watershed District and Agassiz National Wildlife Refuge applied for and received a \$242,000 Minnesota Department of Natural Resources (MnDNR) Conservation Partnership Grant. This grant will assist Agassiz National Wildlife Refuge in completing a three-phase project, designed to establish and enhance native wildlife habitat and increase biodiversity in portions of the refuge. Phase I of the grant, which included cattail spraying to approximately 1,700 acres of wetland complex, was completed in August of 2018. Phase II which included the rehabilitation of the Thief Bay Water Control Structure was completed in September of 2018. Phase III of the project involved replacement of the Arches Water Control Structure/Culverts along one of the ditch branches responsible for significant water movement through the refuge. Due to abnormally large rainfall events in late 2019, the completion of the granted projects had to be extended to fall of 2020. Project was substantially completed in the Fall 2020 with final inspection of the project to occur in the spring/summer of 2021 along with the finalization of the grant.

Agassiz National Wildlife Refuge Partnership Grant

On February 26, 2019, a Conservation Legacy Grant in the amount of \$50,000 was executed on the behalf of Agassiz National Wildlife Refuge, for the removal of sediment in the outlet channel of Agassiz Pool which is commonly known as Judicial Ditch #11 Main Branch. This project was intended to be completed late fall of 2019 but due to abnormal rainfall events, this project was extended to late fall of 2020. Project was completed in 2020 and the grant has been closed.

Legal Drainage Petitions

It should also be noted that in 2017 the District received two legal drainage petitions in Polk County. One petition was for the establishment of a public drainage system referred to as Red Lake Watershed District Ditch #16, Project No. 177 and the other petition was for the improvement to Polk County Ditch #39, Project No. 179. In 2018, a preliminary hearing was held on Project No. 177 at which time viewers were appointed. On April 4, 2019, the final hearing for this project was held. On April 11, 2019, the Detailed Findings of Facts and Order was approved by the Board of Managers. On June 20, 2019 Notice to Proceed was issued to Burski Excavating, Inc. for their bid in the amount of \$1,454,118.40. Prior to awarding the contract it was brought to the District's attention that there was an error in the advertising of bids which lead the District and Burski Excavating to reach a settlement agreement in the amount of \$118,078.30, thus changing the

RED LAKE WATERSHED DISTRICT
MANAGEMENT'S DISCUSSION AND ANALYSIS - CONTINUED
FOR THE YEAR ENDED DECEMBER 31, 2020

awarded bid to \$1,572,196.70. Due to permitting delays and large rainfall events in late September of 2019, start of construction on this project was moved out to late spring 2020 with completion listed date listed in the contract also being extended. Construction started in the spring of 2020 and was substantially completed very late fall of 2020. It is the expectation of the District that the project will be completed late spring to early summer 2021.

April 11, 2019 a Preliminary Hearing for the Improvement of Polk County Ditch #39, RLWD Ditch No. 17, Project 179, was held. Upon completion of the hearing, the Board of Managers by motion, approved moving forward with the appointment of viewers and instructed the engineer to proceed with the final detailed survey report. Due to COVID pandemic, final hearing was delayed until July 24, 2020. Upon hearing testimony, the Board of Manager passed a resolution to move forward with construction of the project. On August 21, 2020, a Notice of Appeal of Order was presented to Michelle Cote, Polk County Taxpayer Service Center. To date the appeal is being reviewed for legal legitimacy and the District is waiting for the results prior to proceeding with construction. It is the hope of the District that a ruling will be forthcoming by summer of 2021.

Burnham Creek Wildlife Habitat Project

During the summer of 2019, the District was contacted by the Minnesota Department of Natural Resource Wildlife staff concerning the outlet structure for the Burnham Creek Wildlife Habitat project which was part of a multi-purpose flood control project completed in 1988 known as Burnham Creek BR6 Impoundment, Project 43A. It was brought to the Districts attention that the outlet structure had was in need of repair. Per the agreement on file, it was stated that RLWD and the MnDNR are jointly responsible for maintenance and repair of the structure. In August of 2019, the RLWD and the MnDNR applied for a grant for the replacement of the outlet structure, through the MnDNR Division of Fish and Wildlife Conservation Partners Legacy Grant. On December 17, 2019, the District was informed that a grant in the amount of \$168,420 was awarded to this project. In 2020, bids were let and the contract was awarded to Swingen Construction Company in the amount of \$148,400. Construction started in late fall of 2020 with completion date of November 5, 2020. Due to extremely cold conditions and problems with delivery of steel for the structure, it was determined that the best alternative was to suspend construction until spring of 2021. It is anticipated that the project will be completed in late spring or early summer of 2021.

Thief River Falls Oxbow Restoration and Stormwater Treatment Project

At their meeting held June 11, 2020, the City of Thief River Falls requested to the RLWD Board of Managers to partner with them to apply for a Clean Water Fund (CWF) Grant which would assist them in restoring existing oxbow located within the city of Thief River Falls. Restoration of the oxbow would improve water quality and phosphorus and chloride reduction with the installation of a sediment pond. At their meeting held October 18, 2020, the RLWD Board of Managers authorized President Nelson, the authority to sign the RRWMB Water Quality Program Grant Agreement for the Thief River Falls Oxbow Project, RLWD Project No. 46Q. In late December 2020, the RLWD was informed that they were approved for a grant in the amount of \$250,000 through a competitive grant from the 2021 Clean Water Funds. It is the hope of the District and the City of Thief River Falls that this project will be bid and constructed in the summer/fall of 2021.

CONTACTING THE DISTRICT'S FINANCIAL MANAGEMENT

This financial report is designed to provide a general overview of Red Lake Watershed District's finances for all those with an interest in the government's finances. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to the Red Lake Watershed District, 1000 Pennington Avenue South, Thief River Falls, Minnesota 56701.

BASIC FINANCIAL STATEMENTS

RED LAKE WATERSHED DISTRICT
STATEMENT OF NET CASH POSITION
DECEMBER 31, 2020

	Total
Assets	
Current Assets:	
Petty Cash	\$ 100
Pooled Cash and Investments	2,219,400
Total Current Assets	2,219,500
Capital Assets:	
Property and Equipment	23,075,546
Less: Accumulated Depreciation	(5,218,910)
Net Capital Assets	17,856,636
Total Assets	20,076,136
Net Position	
Investment in Capital Assets	17,856,636
Restricted for Ditch Maintenance	655,399
Unrestricted	1,564,101
Total Net Position	\$ 20,076,136

See Notes to the Basic Financial Statements

RED LAKE WATERSHED DISTRICT
STATEMENT OF ACTIVITIES ARISING FROM CASH TRANSACTIONS
FOR THE YEAR ENDED DECEMBER 31, 2020

Functions/Programs	Expenses			Program Receipts and Sources			Net Cash Sources (Uses) and Changes in Net Cash Position
	Direct	Allocated Salaries and Overhead	Total	Special			
				Assessments and Charges For Services	Operating Grants and Contributions	Capital Grants and Contributions	
Governmental Activities:							
General and Administrative	\$ (818,598)	\$ 771,782	\$ (46,816)	\$ 1,340	\$ -	\$ -	\$ (45,476)
Ongoing Projects and Studies	(1,776,410)	(104,826)	(1,881,236)	178,722	94,783	-	(1,607,731)
Capital Projects	(7,631,568)	(666,956)	(8,298,524)	84,772	-	5,755,540	(2,468,212)
Allocated Interest	(100,483)	-	(100,483)	-	-	-	(100,483)
Total Governmental Activities	\$ (10,327,059)	\$ -	\$ (10,327,059)	\$ 264,834	\$ 94,783	\$ 5,755,540	\$ (4,211,902)

General Receipts:

Tax Levies	\$ 1,647,099
Intergovernmental (not restricted to specific programs)	70,467
State MV and Disparity Reduction Credits	166,300
Allocated Interest	1,883,866
Total General Receipts	(2,328,036)
Change in Net Position	22,404,172
Net Position - Beginning	\$ 20,076,136
Net Position - Ending	\$ 20,076,136

See Notes to the Basic Financial Statements

RED LAKE WATERSHED DISTRICT
STATEMENT OF BALANCES ARISING FROM CASH TRANSACTIONS – GOVERNMENTAL FUNDS
DECEMBER 31, 2020

<u>ASSETS</u>	General Fund	Special Revenue Fund	Capital Project Fund	Total Governmental Funds
Petty Cash	\$ 100	-	-	\$ 100
Pooled Cash and Investments	209,138	655,399	1,354,863	2,219,400
Total Assets	\$ 209,238	\$ 655,399	\$ 1,354,863	\$ 2,219,500
Fund Balances:				
Restricted for Ditch Maintenance	-	655,399	-	\$ 655,399
Committed for Capital Projects	-	-	1,354,863	1,354,863
Unassigned	209,238	-	-	209,238
Total Fund Balances	\$ 209,238	\$ 655,399	\$ 1,354,863	\$ 2,219,500

Amounts reported from governmental activities in the Statement of Net Cash Position are different because:

Total Fund Balance per Statement of Balances Arising from Cash Transactions, from above \$ 2,219,500

When capital assets (land, building, equipment and infrastructure) that are to be used in governmental activities are purchased or constructed, the cost of those assets are reported as expenditures in governmental funds. However, the statement of net cash position includes those capital assets among the assets of the District as a whole.

Total Net Position	23,075,546
Cost of Capital Assets	(5,218,910)
Accumulated Depreciation	20,076,136
Total Net Position	\$ 20,076,136

See Notes to the Basic Financial Statements

RED LAKE WATERSHED DISTRICT
STATEMENT OF CASH RECEIPTS, DISBURSEMENTS, AND CHANGES IN CASH FUND BALANCES – GOVERNMENTAL FUNDS
FOR THE YEAR ENDED DECEMBER 31, 2020

	General Fund	Special Revenue Fund	Capital Project Fund	Total Governmental Funds
RECEIPTS				
Property Taxes	\$ 100,000	\$ -	\$ 1,547,099	\$ 1,647,099
Special Assessments	-	178,722	-	178,722
Intergovernmental:				
Federal	-	63,760	-	63,760
State	-	31,023	2,322,707	2,353,730
Local	-	-	3,503,300	3,503,300
Other:				
Miscellaneous	1,340	-	84,772	86,112
Allocated Interest	7,013	23,138	136,149	166,300
Total Receipts	108,353	296,643	7,594,027	7,999,023
DISBURSEMENTS				
General and Administrative	46,816	-	-	46,816
Ongoing Projects and Studies	-	1,881,236	-	1,881,236
Capital Projects	-	-	11,150,641	11,150,641
Allocated Interest	4,421	2,080	93,982	100,483
Total Disbursements	51,237	1,883,316	11,244,623	13,179,176
Net Change in Fund Balances	57,116	(1,586,673)	(3,650,596)	(5,180,153)
FUND BALANCE JANUARY 1	152,122	2,242,072	5,005,459	7,399,653
FUND BALANCE DECEMBER 31	\$ 209,238	\$ 655,399	\$ 1,354,863	\$ 2,219,500

See Notes to the Basic Financial Statements

RED LAKE WATERSHED DISTRICT
RECONCILIATION OF CHANGES IN FUND BALANCES OF GOVERNMENTAL FUNDS TO THE
STATEMENT OF ACTIVITIES
FOR THE YEAR ENDED DECEMBER 31, 2020

Net Change in Fund Balances - Total Governmental Funds	\$ (5,180,153)
Governmental funds report capital outlay as expenditures, while governmental activities report depreciation expense allocating those expenditures over the life of the asset:	
Capital Additions Less Net Book Value of Assets Disposed	3,410,827
Depreciation Expense	<u>(558,710)</u>
Change in Net Position - Governmental Activities	<u>\$ (2,328,036)</u>

See Notes to the Basic Financial Statements

RED LAKE WATERSHED DISTRICT
STATEMENT OF ASSETS AND LIABILITIES – FIDUCIARY FUNDS
DECEMBER 31, 2020

<u>ASSETS</u>	<u>Custodial Fund</u>
Cash	\$ -
Total Assets	\$ -
 <u>LIABILITIES AND FUND BALANCES</u>	
Due To Red River Watershed Management Board	\$ -
Total Liabilities	\$ -

See Notes to the Basic Financial Statements

RED LAKE WATERSHED DISTRICT
STATEMENT OF CHANGES IN NET CASH POSITION – FIDUCIARY FUNDS
FOR THE YEAR ENDED DECEMBER 31, 2020

	<u>Custodial Fund</u>
<u>ADDITIONS</u>	
<u>Property Taxes</u>	
Beltrami County	\$ 99,654
Clearwater County	225,119
Itasca County	845
Koochiching County	11,235
Mahnomen County	2,085
Marshall County	63,731
Pennington County	290,517
Polk County	717,102
Red Lake County	136,675
Roseau County	137
State - MV	<u>65,911</u>
 TOTAL ADDITIONS	 <u>1,613,011</u>
<u>DEDUCTIONS</u>	
Red River Watershed Management Board	<u>1,613,011</u>
 TOTAL DEDUCTIONS	 1,613,011
 CHANGE IN NET POSITION	 -
 NET POSITION - BEGINNING	 <u>-</u>
 NET POSITION - ENDING	 <u>\$ -</u>

See Notes to the Basic Financial Statements

RED LAKE WATERSHED DISTRICT
NOTES TO THE BASIC FINANCIAL STATEMENTS
DECEMBER 31, 2020

NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The Red Lake Watershed District, (the "District"), was established under the Minnesota Watershed Act as an agency of the State of Minnesota. The purpose of the District is to carry out conservation of the natural resources of the State of Minnesota through land utilization, flood control, and other needs, upon sound scientific principles for the protection of the public health and welfare and the provident use of natural resources. The District serves an area in Northwestern Minnesota and includes all of Red Lake County and parts of the following counties: Beltrami, Clearwater, Itasca, Koochiching, Mahnomen, Marshall, Pennington, Polk, and Roseau. The District is governed by the Board of Managers, which is composed of seven members appointed by the county boards in accordance with Minnesota Statutes.

As discussed further in Note 1C, these financial statements are presented on a modified cash basis of accounting. This basis of accounting differs from accounting principles generally accepted in the United States of America (GAAP). Generally accepted accounting principles include all relevant Governmental Accounting Standards Board (GASB) pronouncements.

A. FINANCIAL REPORTING ENTITY

The financial statements of the District include all organizations, funds and account groups over which the District's Board exercises significant influence over and, or is financially accountable for organizations for which the nature and significance of their relationship with the District is such that exclusion would cause the Red Lake Watershed District's financial statements to be misleading. In addition, there are no component units as defined in Governmental Accounting Standards Board Statement 61 which are included in the District's reporting entity.

B. BASIS OF PRESENTATION

GOVERNMENT-WIDE FINANCIAL STATEMENTS

The Statement of Net Cash Position and Statement of Activities Arising from Cash Transactions display information about the reporting government as a whole. They include all funds of the reporting entity except for fiduciary funds. The statements distinguish between governmental and business-type activities. The District has only governmental activities which are generally financed through taxes, intergovernmental revenues, and other non-exchange revenues; because of this, all of the District's activities are reported as governmental activities.

FUND FINANCIAL STATEMENTS

Fund financial statements of the reporting entity are organized into funds, each of which is considered to be a separate accounting entity. Each fund is accounted for by providing a separate set of self-balancing accounts that constitutes its assets, liabilities, fund equity, revenues, and expenditures/expenses. Funds are typically organized into three major categories: governmental, fiduciary and proprietary. The District currently has no proprietary funds.

RED LAKE WATERSHED DISTRICT
NOTES TO THE BASIC FINANCIAL STATEMENTS - CONTINUED
DECEMBER 31, 2020

An emphasis is placed on major funds within the governmental categories. A fund is considered major if it is the primary operating fund of the District or meets the following criteria:

- a. Total assets, liabilities, revenues, or expenditures/expenses of the individual governmental or enterprise fund are at least 10% of the corresponding total for all funds of that category or type, AND
- b. Total assets, liabilities, revenues, or expenditures/expenses of the individual governmental fund or enterprise fund are at least 5% of the corresponding total for all governmental and enterprise funds combined.

The funds of the financial reporting entity are described below and are all considered major programs for financial statement purposes.

Governmental Funds

General Fund

The General Fund is the primary operating fund of the District and always classified as a major fund. It is used to account for all activities except those legally or administratively required to be accounted for in other funds.

Special Revenue Fund

The special revenue fund is used to account for the proceeds of specific revenue sources (other than capital projects) where the expenditures are legally restricted for purposes specified in the grant or project agreements. The reporting entity includes the special revenue fund as a major fund.

Capital Projects Fund

The Capital Projects Fund is used to account for resources committed for the acquisition, construction and maintenance of specific capital projects or items. The reporting entity includes the capital projects fund as a major fund.

Fiduciary Funds

Custodial Fund

The reporting entity includes one custodial fund and does not involve the measurement of results of operations. The custodial fund is as follows:

<u>Fund</u>	<u>Brief Description</u>
Red River Water Management Board	Property Taxes are levied by the District on behalf of the Board and submitted to the Management Board.

RED LAKE WATERSHED DISTRICT
NOTES TO THE BASIC FINANCIAL STATEMENTS - CONTINUED
DECEMBER 31, 2020

C. MEASUREMENT FOCUS AND BASIS OF ACCOUNTING

Measurement focus is a term used to describe “how” transactions are recorded within the various financial statements. Basis of accounting refers to “when” transactions are recorded regardless of the measurement focus applied.

MEASUREMENT FOCUS

In the government-wide Statement of Net Cash Position and Statement of Activities Arising from Cash Transactions, governmental activities are presented using the economic resources measurement focus, within the limitations of the modified cash basis of accounting as defined below.

In the fund financial statements, the “current financial resources” measurement focus or the “economic resources” measurement focus, as applied to the modified cash basis of accounting, is used as appropriate.

All governmental funds and the custodial fund utilize a “current financial resources” measurement focus. Only current financial assets and liabilities are generally included on their balance sheets. Their operating statements present sources and uses of available spendable financial resources during a given period. These funds use fund balance as their measure of available spendable financial resources at the end of the period.

BASIS OF ACCOUNTING

In the government-wide Statement of Net Cash Position and Statement of Activities Arising from Cash Transactions and the fund financial statements, governmental activities are presented using a modified cash basis of accounting. This basis recognized assets, liabilities, net position/fund equity, revenues, and expenditures/expenses when they result from cash transactions with the provisions for capital assets, deferred inflows of resources, deferred outflows of resources, and debt and depreciation in the government wide statements. This basis is a comprehensive basis of accounting other than accounting principles generally accepted in the United States of America.

If the District utilized the basis of accounting recognized as generally accepted, the fund financial statements for governmental funds would use the modified accrual basis of accounting. All government-wide financials would be presented on the accrual basis of accounting.

D. ASSETS, LIABILITIES, AND EQUITY

CASH AND CASH EQUIVALENTS

For the purpose of financial reporting, “cash and cash equivalents” includes all demand and savings accounts and certificates of deposit or short-term investments with an original maturity of one year or less. Cash balances from all funds are pooled and invested to the extent available in authorized investments authorized by Minnesota statutes. Earnings from such investments are allocated to the respective funds on the basis of average cash balance participation by each fund. Funds with deficit averages are charged with the investment earnings lost in financing the deficits.

RED LAKE WATERSHED DISTRICT
NOTES TO THE BASIC FINANCIAL STATEMENTS - CONTINUED
DECEMBER 31, 2020

CAPITAL ASSETS

The District's modified cash basis of accounting reports capital assets resulting from cash transactions and reports depreciation where appropriate.

All capital assets are valued at historical cost, or if donated, recorded at its acquisition value. Infrastructure assets acquired prior to January 1, 2004 are not capitalized, but subsequent acquisitions are recorded at cost. Costs associated with infrastructure on property not owned by the District are immediately expensed.

In the government-wide financial statements, capital assets arising from cash transactions are accounted for as an expense in the Statement of Net Cash Position, with accumulated depreciation reflected in the Statement of Net Cash Position. Depreciation is provided over the assets' estimated useful lives using the straight-line method of depreciation. Capitalization thresholds of \$500 for equipment and building improvements of \$10,000 for infrastructure are used to report capital assets. Estimated useful lives being used are summarized below:

Building and Improvements	19-40 years
Equipment, Furniture and Fixtures	3-15 years

In governmental fund financial statements, capital assets arising from cash transactions acquired for use in governmental fund operations are accounted for as capital outlay expenditures of the governmental fund upon acquisition.

DEFERRED OUTFLOWS/INFLOWS OF RESOURCES

In addition to assets, the statement of net cash position will sometimes report a separate section for deferred outflows of resources. This separate financial statement element, deferred outflows of resources, represents a consumption of net position that applies to a future period(s) and so will not be recognized as an outflow of resource (expense/expenditure) until then. In addition to liabilities, the statement of net cash position will sometimes report a separate section for deferred inflows of resources. This separate financial statement element, *deferred inflows of resources*, represents an acquisition of net position that applies to a future period(s) and so will *not* be recognized as an inflow of resources (revenue) until that time. The District does not have any items that qualify for reporting in these categories.

LONG-TERM DEBT

All long-term debt arising from cash transactions to be repaid from governmental fund resources is reported as a liability only in the government-wide statements.

Long-term debt arising from cash basis transactions of governmental funds is not reported as liabilities in the fund financial statements. The debt proceeds are reported as other financing sources and the payment of principal and interest are reported as expenditures.

Currently the District does not have long-term debt.

RED LAKE WATERSHED DISTRICT
NOTES TO THE BASIC FINANCIAL STATEMENTS - CONTINUED
DECEMBER 31, 2020

COMPENSATED ABSENCES

Full-time employees starting on the date of employment will accrue 80 hours per year of vacation for the first five years of employment. During the next five years of employment, an employee accrues 120 hours per year, after ten years of employment but less than twenty, an employee accrues 160 hours per year of vacation, and after 20 years of employment an employee accrues 200. Qualifying part-time employees are entitled to vacation based on the percentage of hours worked per pay period. The maximum accumulation of vacation leave is 200 hours. Unused vacation leave is paid only upon termination of employment.

Full-time employees employed with the District accrue eight hours of sick leave per month. Part-time employees who have worked 60% of the time for a period of nine months shall be entitled to sick leave based on the percentage of hours worked per pay period. The maximum accumulation of sick leave is 400 hours and does not vest upon termination of employment. As of January 1, 2014, half of the employee's remaining sick leave will be paid at the employee's current hourly rate to the employee upon retirement. If the employee quits or is terminated for any reason, no payment shall be made to the employee. District Office shall maintain leave records by posting leave earned and taken, and calculating a current balance for each employee. There will be no payment in lieu of sick leave, except when retirement of employment occurs. No vested or accumulated liability has been recorded for accumulated compensated absences.

PENSIONS

Plan contributions are recognized as of employer payroll paid dates and benefit payments and refunds are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

EQUITY

Government-Wide Statements

Equity is classified as Net Position and displayed in three components:

- a. Restricted Net Position – Consists of Net Position with constraints placed on the use either by (1) external groups such as creditors, grantors, contributors, or laws and regulations of other governments; or (2) law through constitutional provisions or enabling legislation.
- b. Unrestricted Net Position – All other Net Position that does not meet the definition of "restricted" or "invested in capital assets, net of related debt."
- c. Investment in Capital Assets – Consists of capital assets including restricted capital assets, net of accumulated depreciation.

It is the District's policy to first use restricted Net Position prior to the use of unrestricted Net Position when an expense is incurred for purposes for which both restricted and unrestricted Net Position are available.

RED LAKE WATERSHED DISTRICT
NOTES TO THE BASIC FINANCIAL STATEMENTS - CONTINUED
DECEMBER 31, 2020

EQUITY CLASSIFICATION

Fund Financial Statements

Governmental fund equity is classified as fund balance.

E. REVENUES, EXPENDITURES AND EXPENSES

PROGRAM REVENUES

In the Statement of Activities Arising from Cash Transactions, modified cash basis revenues that are derived directly from each activity or from parties outside the District's taxpayers are reported as program revenues. The District has the following program revenues: direct project cost reimbursements and project special assessments, rental income and operating and capital grants specific to projects. All other governmental revenues are reported as general revenue. All taxes are classified as general revenue even if restricted for a specific purpose.

F. USE OF ESTIMATES

The preparation of financial statements in conformity with the other comprehensive basis of accounting (OCBOA) used by the District required management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results could differ from those estimates.

G. FUND BALANCE CLASSIFICATIONS

In the fund financial statements, governmental funds report fund balance in classifications that disclose constraints for which amounts in those funds can be spent. These classifications are as follows:

Nonspendable – consists of amounts that are not in spendable form, such as inventory and prepaid items.

Restricted – consists of amounts related to externally imposed constraints established by creditors, grantors or contributors; or constraints imposed by state statutory provisions.

Committed – consists of internally imposed constraints. These constraints are established by the Board of Managers.

Assigned – consists of internally imposed constraints. These constraints reflect specific purpose for which it is the District's intended use. These constraints are established by the Board of Managers and/or management.

Unassigned – is the residual classification for the general fund and also reflects negative residual amounts in other funds.

When both restricted and unrestricted resources are available for use, it is the District's policy to first use restricted resources, and then use unrestricted resources as they are needed.

RED LAKE WATERSHED DISTRICT
NOTES TO THE BASIC FINANCIAL STATEMENTS - CONTINUED
DECEMBER 31, 2020

When committed, assigned or unassigned resources are available for use, it is the District's policy to use resources in the following order; 1) committed, 2) assigned and 3) unassigned.

INTERFUND BALANCES

In the process of aggregating the fund information for the government-wide Statement of Net Cash Position and Statement of Activities Arising from Cash Transactions, some amounts reported as interfund activity and balances in the fund financial statements have been eliminated or reclassified.

H. NET POSITION

Net position represents the difference between (a) assets and deferred outflows of resources and (b) liabilities and deferred inflows of resources in the District's financial statements. Net investment in capital assets consists of capital assets, net of accumulated depreciation, reduced by the outstanding balances of any long-term debt attributable to the acquisition, construction, or improvement of those assets. Restricted net position consists of restricted assets reduced by liabilities and deferred inflows of resources related to those assets. Unrestricted net position is the net amount of assets, deferred outflows of resources, liabilities, and deferred inflows of resources that are not included in the determination of net investment in capital assets or the restricted component of net position.

NOTE 2 STEWARDSHIP, COMPLIANCE AND ACCOUNTABILITY

By its nature as a local government unit, the District is subject to various federal, state, and local laws and contractual regulations. There are no instances of noncompliance that are considered material to the financial statements.

NOTE 3 DETAIL NOTES-TRANSACTION CLASSES/ACCOUNTS

The District maintains a cash account at its depository bank. Investments are carried at fair value. The District considers Certificates of Deposit to be cash.

Interest Rate Risk

The District does not have a formal investment policy that limits investment maturities as a means of managing its exposure to fair value losses arising from increasing interest rates.

Credit Risk

The District may invest idle funds as authorized in Minnesota Statutes, as follows:

- a. Direct obligations or obligations guaranteed by the United States or its agencies.
- b. Shares of investment companies registered under the Federal Investment Company Act of 1940 and whose only investments are in securities described in (a) above.
- c. General obligations of the State of Minnesota or any of its municipalities.
- d. Bankers Acceptance of United States banks eligible for purchases by the Federal Reserve System.
- e. Commercial paper issued by United States corporations or their Canadian subsidiaries, of the highest quality, and maturing in 270 days or less.

RED LAKE WATERSHED DISTRICT
NOTES TO THE BASIC FINANCIAL STATEMENTS - CONTINUED
DECEMBER 31, 2020

- f. Repurchase or reverse repurchase agreements with banks that are members of the Federal Reserve System with capitalization exceeding \$10,000,000, a primary reporting dealer in U.S. government securities to the Federal Reserve Bank of New York, or certain Minnesota securities broker-dealers.
- g. Futures contracts sold under authority of Minnesota Statutes 471.56, Subd. 5.

The District has no investment policy that would further limit its investment choices.

Concentration of Credit Risk

The District places no limit on the amount the District may invest in any one issuer.

Custodial Credit Risk - Deposits

In accordance with Minnesota Statutes, the District maintains deposits at those depository banks authorized by the District's Board, all of which are members of the Federal Reserve System.

Minnesota Statutes require that all District deposits be protected by insurance, surety bond, or collateral. The market value of collateral pledged must equal 110% of the deposits not covered by insurance or bonds.

At December 31, 2020, the carrying amount of the District's deposits was \$2,219,500 and the bank balance was \$3,545,449. The bank balance was covered by Federal Depository Insurance and by collateral held by the District's agent in the District's name at December 31, 2020.

Related-Party Investments

As of December 31, 2020, the District held no related-party investments.

NOTE 4 PROPERTY TAXES

The District levies property taxes on property owners within the District, which becomes an enforceable lien as of January 1. Taxes are levied in September and are payable to counties on May 15 and October 15 (November 15 for farm property) of the following year. The District levies the tax, while the respective counties collect and remit the tax collections to the District. Property taxes are recognized when received from the counties under the modified cash basis of accounting.

The District also levies special assessments through the counties against property owners who obtain direct benefits from projects or property owners who request, through the petition process, to have a project undertaken. The special assessment collections are recorded in a manner similar to that for property taxes.

RED LAKE WATERSHED DISTRICT
NOTES TO THE BASIC FINANCIAL STATEMENTS - CONTINUED
DECEMBER 31, 2020

NOTE 5 DEFINED BENEFIT PENSION PLANS

Plan Description

All full-time and certain part-time employees of the Red Lake Watershed District are covered by defined benefit plans administered by the Public Employees Retirement Association of Minnesota (PERA). PERA administers the General Employees Retirement Plan (accounted for in the General Employees Fund), which is a cost-sharing, multiple-employer retirement plan. This plan is established and administered in accordance with Minnesota Statutes, Chapters 353 and 356.

General Employees Plan members belong to either the Coordinated Plan or the Basic Plan. Coordinated Plan members are covered by Social Security and Basic Plan members are not. All new members must participate in the Coordinated Plan.

PERA provides retirement benefits as well as disability benefits to members and survivor benefits upon death of eligible members. Benefits are established by state statute. Benefits for members of the General Employees Plan vest after five years of credited service.

Two methods are used to compute benefits for PERA's Coordinated Plan members. Members hired prior to July 1, 1989, receive the higher of Method 1 or Method 2 formulas. Only Method 2 is used for members hired after June 30, 1989. Under Method 1, the accrual rate for Coordinated members is 1.2% for each of the first 10 years of service and 1.7% for each additional year. The rates are 2.2% and 2.7%, respectively, for Basic members. Under Method 2, the accrual rate for Coordinated members is 1.7% for all years of service, and 2.7% for Basic members. For members hired prior to July 1, 1989 a full annuity is available when age plus years of service equal 90 and normal retirement age is 65. For members hired on or after July 1, 1989 normal retirement age is the age for unreduced Social Security benefits capped at 66.

For all General Employees Plan members hired prior to July 1, 1989 whose annuity is calculated using Method 1, a full annuity is available when age plus years of service equal 90. Method 2 provides for unreduced retirement benefits at age 65 for members first hired prior to July 1, 1989 or age 66 (the age for unreduced Social Security benefits), for those first hired on or after that date. Early retirement may begin at age 55 with an actuarial reduction (about six percent per year) for members retiring prior to full retirement age.

There are different types of annuities available to members upon retirement. A single-life annuity is a lifetime annuity that ceases upon the death of the retiree—no survivor annuity is payable. There are also various types of joint and survivor annuity options available which will be payable over joint lives. Members may also leave their contributions in the fund upon termination of public service in order to qualify for a deferred annuity at retirement age. Refunds of contributions are available at any time to members who leave public service before retirement benefits begin.

The benefit provisions stated in the preceding paragraphs of this section are current provisions and apply to active plan participants.

RED LAKE WATERSHED DISTRICT
NOTES TO THE BASIC FINANCIAL STATEMENTS - CONTINUED
DECEMBER 31, 2020

PERA issues a publicly available financial report that includes financial statements and required supplementary information for the General Employees Plan. That report may be obtained on the PERA's website at www.mnpera.org/about/financial/.

Funding Policy

Minnesota Statutes Chapter 353 sets the rates for employer and employee contributions. These statutes are established and amended by the state Legislature. The Red Lake Watershed District makes annual contributions to the pension plans equal to the amount required by state statutes. General Employees Basic Plan members and Coordinated Plan members were required to contribute 9.1 percent and 6.5 percent, respectively, of their annual covered salary in 2020. In 2020, the Red Lake Watershed District was required to contribute the following percentages of annual covered payroll: 11.78 percent for Basic Plan members, 7.5 percent for Coordinated Plan members. The Red Lake Watershed District's contributions to the General Employees Fund for the year ended December 31, 2020 was \$35,138.

NOTE 6 RISK MANAGEMENT

The District is exposed to various risks of loss related to torts; theft of, damage to, or destruction of assets; errors and omissions; injuries to employees; employees' health and life; and natural disasters. The District manages these various risks of loss with the purchase of insurance through commercial insurance providers. The District carries commercial insurance coverage on its commercial property and for liability, personal and advertising injury, non-owned auto and a miscellaneous floater.

Management believes such coverage is sufficient to preclude any significant uninsured losses to the District. Settled claims have not exceeded this insurance coverage in any of the past three fiscal years.

RED LAKE WATERSHED DISTRICT
NOTES TO THE BASIC FINANCIAL STATEMENTS - CONTINUED
DECEMBER 31, 2020

NOTE 7 CAPITAL ASSETS

Capital assets activity resulting from modified cash basis transactions for the year ended December 31, 2020 was as follows:

	Beginning Balance	Additions	Deletions	Ending Balance
<u>Capital Assets</u>				
Building and Improvements	\$ 775,594	\$ -	\$ -	\$ 775,594
Infrastructure Improvements	12,601,966	532,467	-	13,134,433
Engineering Equipment	438,363	12,435	37,204	413,594
Office Equipment	173,843	12,236	20,383	165,696
Land and Permanent Easements	3,726,959	398,817	-	4,125,776
Construction in Progress	2,005,581	2,454,872	-	4,460,453
Total	<u>\$ 19,722,306</u>	<u>\$ 3,410,827</u>	<u>\$ 57,587</u>	<u>\$ 23,075,546</u>
	Beginning Balance	Additions	Deletions	Ending Balance
<u>Accumulated Depreciation</u>				
Building and Improvements	\$ 341,816	\$ 22,506	\$ -	\$ 364,322
Infrastructure Improvements	3,862,143	502,136	-	4,364,279
Engineering Equipment	379,285	21,437	37,204	363,518
Office Equipment	134,543	12,631	20,383	126,791
Total	<u>4,717,787</u>	<u>558,710</u>	<u>57,587</u>	<u>5,218,910</u>
	<u>\$ 15,004,519</u>	<u>\$ 2,852,117</u>	<u>\$ -</u>	<u>\$ 17,856,636</u>

Depreciation expense of \$558,710 for the year ended December 31, 2020 is included in general and administrative program costs.

NOTE 8 OVERHEAD COST ALLOCATION

Overhead costs are allocated to all projects at 150% of direct salaries to projects. Overhead costs represent those costs incurred by the District for administration, employee benefits, engineering, and related operating expenditures, which are not charged directly to the project. The total overhead costs charged to projects in 2020 was \$771,782.

NOTE 9 CONTINGENCIES

Grants

The District participates in state and federal grant programs, which are governed by various rules and regulations of the grantor agencies. Costs charged to the respective grant programs are subject to audit and adjustment by the grantor agencies; therefore, to the extent that the District has not complied with the rules and regulations governing the grants, refunds of money received may be required and the collectability of any related receivable at December 31, 2020, may be impaired. The District is not aware of any significant contingent liabilities relating to compliance with the rules and regulations governing the respective grants.

Claims and Litigation

The District is not presently involved in any legal actions relating to projects undertaken or attempted to be undertaken that are deemed to be material to the financial statements.

RED LAKE WATERSHED DISTRICT
NOTES TO THE BASIC FINANCIAL STATEMENTS - CONTINUED
DECEMBER 31, 2020

NOTE 10 CONSTRUCTION COMMITMENTS

The District had approximately \$2.7 million in construction commitments for capital projects as of December 31, 2020.

NOTE 11 NEW PRONOUNCEMENTS

GASB Statement No. 87, *Leases*, establishes a single model for lease accounting based on the foundational principle that leases are financings of the right to use an underlying asset. This Statement requires recognition of certain lease assets and liabilities for leases that were previously classified as operating leases and recognized as inflows of resources or outflows of resources based on the payment provisions of the contract. Under this Statement, a lessee is required to recognize a lease liability and an intangible right-to-use lease asset, and a lessor is required to recognize a lease receivable and a deferred inflow of resources, thereby enhancing the relevance and consistency of information about governments' leasing activities. This Statement is effective for reporting periods beginning after June 15, 2021. Earlier application is encouraged.

GASB Statement No. 89, *Accounting for Interest Cost Incurred before the End of a Construction Period*, establishes accounting requirements for interest cost incurred before the end of a construction period. This Statement requires that interest cost incurred before the end of a construction period be recognized as an expense in the period in which the cost is incurred for financial statements prepared using the economic resources measurement focus. As a result, interest cost incurred before the end of a construction period will not be included in the historical cost of a capital asset reported in a business-type activity or enterprise fund. The requirements of this Statement are effective for reporting periods beginning after December 15, 2020. Earlier application is encouraged.

GASB Statement No. 91, *Conduit Debt Obligations*, provides a single method of reporting conduit debt obligations by issuers and eliminates diversity in practice associated with (1) commitments extended by issuers, (2) arrangements associated with conduit debt obligations, and (3) related note disclosures. This Statement clarifies the existing definition of a conduit debt obligation; establishes that a conduit debt obligation is not a liability of the issuer; establishes standards for accounting and financial reporting of additional commitments and voluntary commitments extended by issuers and arrangements associated with conduit debt obligations; and improves required note disclosures. This Statement also addresses arrangements—often characterized as leases—that are associated with conduit debt obligations. The requirements of this Statement are effective for reporting periods beginning after December 15, 2021. Earlier application is encouraged.

GASB Statement No. 92, *Omnibus 2020*, provides additional guidance to improve consistency of authoritative literature by addressing practice issues identified during the application of certain GASB statements. This statement provides accounting and financial reporting requirements for specific issues related to leases, intra-entity transfers of assets, postemployment benefits, government acquisitions, risk financing and insurance-related activity of public entity risk pools, fair value measurements and derivative instruments. The requirements of this Statement are effective for reporting periods beginning after June 15, 2021. Earlier application is encouraged.

RED LAKE WATERSHED DISTRICT
NOTES TO THE BASIC FINANCIAL STATEMENTS - CONTINUED
DECEMBER 31, 2020

GASB Statement No. 96, *Subscription-Based Information Arrangements* provides guidance on the accounting and financial reporting for subscription-based information technology arrangements (SBITAs). A SBITA is defined as a contract that conveys control of the right to use another party's (a SBITA vendor's) information technology (IT) software, alone or in combination with tangible capital assets (the underlying IT assets), as specified in the contract for a period of time in an exchange or exchange-like transaction. Under this Statement, a government generally should recognize a right-to use subscription asset—an intangible asset—and a corresponding subscription liability. The requirements of this Statement will improve financial reporting by establishing a definition for SBITAs and providing uniform guidance for accounting and financial reporting for transactions that meet that definition. The requirements of this Statement are effective for fiscal years beginning after June 15, 2022, and all reporting periods thereafter. Earlier application is encouraged.

Management has not yet determined what effect these statements will have on the District's financial statements.

NOTE 12 SUBSEQUENT EVENTS

No significant events occurred subsequent to the District's year end. Subsequent events have been evaluated through March 4, 2021, which is the date these financial statements were available to be issued.

SUPPLEMENTARY INFORMATION

RED LAKE WATERSHED DISTRICT
BUDGETARY COMPARISON SCHEDULE - GENERAL FUND
FOR THE YEAR ENDED DECEMBER 31, 2020

REVENUES	Original and Final Budget	Actual 2020	Variance
Tax Levies	\$ 100,000	\$ 100,000	\$ -
Miscellaneous	7,000	1,340	(5,660)
Allocated Interest	<u>-</u>	<u>7,013</u>	<u>7,013</u>
 Total Revenues	 <u>107,000</u>	 <u>108,353</u>	 <u>1,353</u>
 EXPENDITURES			
General and Administrative	146,040	46,816	(99,224)
Interest	<u>-</u>	<u>4,421</u>	<u>4,421</u>
 Total Expenditures	 <u>146,040</u>	 <u>51,237</u>	 <u>(94,803)</u>
 Expenditures Exceed Revenues	 (39,040)	 57,116	 <u>96,156</u>
 FUND BALANCE JANUARY 1	 <u>152,122</u>	 <u>152,122</u>	
 FUND BALANCE DECEMBER 31	 <u>\$ 113,082</u>	 <u>\$ 209,238</u>	

See Note to the Budgetary Comparison Schedule

RED LAKE WATERSHED DISTRICT
NOTE TO THE BUDGETARY COMPARISON SCHEDULE
FOR THE YEAR ENDED DECEMBER 31, 2020

NOTE 1 – BUDGETARY COMPARISON

The budget is prepared using the same method of accounting as the financial statements. The annual adopted budget is not legally binding on the District, with the exception of the revenue budget for the general fund, which is limited by state statute at \$250,000 and set by the Board for 2020 at \$107,000. All appropriations lapse at year-end.

RED LAKE WATERSHED DISTRICT
STATEMENT OF RECEIPTS AND DISBURSEMENTS AND CHANGES IN FUND BALANCE – ALL FUNDS –
MODIFIED CASH BASIS
FOR THE YEAR ENDED DECEMBER 31, 2020

	Revenues					Expenses			Transfer		Fund Balance (Deficit) December 31
	Fund Balance (Deficit) January 1	Assessments and Other Charges for Services	Operating/ Capital Grants and Contribution	Allocated Interest Earned	Taxes	Direct	Allocated Interest Charged	Allocated Salary and Overhead	In (Out)		
GENERAL FUND	\$ 152,122	\$ 1,340	\$ -	\$ 7,013	\$ 100,000	\$ 818,598	\$ 4,421	\$ (771,782)	\$ -	\$ 209,238	
SPECIAL REVENUE FUND JOBS:											
Red Lake River Project	63,993	4,362	-	863	-	-	-	166	-	69,072	
Clearwater River Project	32,526	7,720	-	467	-	-	-	-	-	40,713	
Lost River Project	10,519	2,663	-	151	-	-	-	-	-	13,353	
RLWD Ditch #1	(530)	3,531	-	-	-	4,173	20	2,828	-	(4,020)	
RLWD Ditch #3	(586)	5,867	-	12	-	33	-	2,018	-	3,242	
State Ditch #83	60,316	28,521	450	919	-	5,061	-	3,383	-	81,762	
RLWD Ditch #7	2,938	8,336	-	58	-	1,686	-	2,858	-	6,788	
Pine Lake Maintenance	(4,516)	6,748	-	-	-	325	95	6,455	-	(6,643)	
RLWD Ditch #8	2,978	551	-	37	-	700	-	1,709	-	1,157	
RLWD Ditch #9	(661)	908	-	-	-	721	6	383	-	(863)	
J.D. Ditch #72	3,351	6,922	-	58	-	3,458	-	862	-	6,011	
Clearwater/Wild Rice River	6,629	2,028	-	91	-	-	-	2,990	-	5,758	
Branch A & 1, J.D. #2	4,269	2,321	-	22	-	555	-	8,844	-	(2,787)	
Main J.D. #2 and Branch B&C	743	3,314	-	15	-	1,325	-	1,002	-	1,745	
Main J.D. 2C, Eck	3,177	478	-	43	-	-	-	236	-	3,462	
Krostie Petition	(6,891)	3,618	-	-	-	1,920	80	914	-	(6,187)	
Clearwater County Joint Ditch #4	3,995	1,291	-	55	-	-	-	1,496	-	3,845	
Clearwater County Joint Ditch #5	(11,188)	2,826	-	-	-	2,853	156	892	-	(12,263)	
Clearwater County Ditch #1	1,794	1,317	-	29	-	-	-	298	-	2,842	
Clifford Anverson Ditch	2,253	2,801	-	27	-	28	-	855	-	4,198	
Winsor/Hangard/Clearwater County Petition	11,306	8,249	-	183	-	131	-	3,388	-	16,219	
Equality RLWD Ditch #1, lat C	(3,063)	4,764	-	17	-	2,853	44	1,149	-	(2,345)	
K. Johnson Petition	2,062	2,338	-	-	-	1,440	-	2,210	-	767	
Polk County Ditch #s 104, 61, 47, 94	(6,611)	9,347	-	-	-	11,926	94	4,272	-	(13,556)	
TRF Drainage Ditch (Challenger Ditch)	(1,366)	1,004	-	-	-	-	20	442	-	(824)	
Scott Baatz Petition	672	1,131	-	1	-	250	-	1,838	-	(284)	
Polk County Ditch #63 Improvement	17,000	3,388	-	228	-	1,680	-	1,778	-	17,158	
Polk County Ditch #33 Improvement	3,406	5,873	-	33	-	4,618	-	2,387	-	2,307	
RLWD Ditch #10	3,747	3,356	82,303	402	-	3,129	-	2,013	-	84,666	
RLWD Ditch #11	15,367	569	-	177	-	2,877	-	1,915	-	11,321	
RLWD Ditch #12	(6,705)	15,927	-	-	-	14,426	130	5,633	-	(10,967)	
RLWD Ditch #14	(5,266)	5,863	-	-	-	5,333	108	1,873	-	(6,697)	
RLWD Ditch #15	62,115	3,574	-	745	-	14,306	-	4,537	-	47,581	
Burnham Creek Channel	7,432	15,500	-	49	-	18,439	-	8,124	-	(3,582)	
RLWD Ditch #13	(553)	1,281	-	-	-	676	18	1,646	-	(1,612)	
Thief River Falls Flood Damage Reduction Project	1,150	375	-	10	-	940	-	178	-	417	
RLWD Ditch #16	2,029,425	-	12,030	18,446	-	1,620,453	-	9,588	-	429,860	
Improv to Polk Co. #39	(63,155)	-	-	-	-	50,095	1,309	11,666	-	(126,225)	
TOTAL SPECIAL REVENUE	2,242,072	178,722	94,783	23,138	-	1,776,410	2,080	104,826	-	655,399	

RED LAKE WATERSHED DISTRICT
STATEMENT OF RECEIPTS AND DISBURSEMENTS AND CHANGES IN FUND BALANCE – ALL FUNDS –
MODIFIED CASH BASIS – CONTINUED
FOR THE YEAR ENDED DECEMBER 31, 2020

	Revenues				Expenses			Transfer		Fund Balance (Deficit) December 31
	Fund Balance (Deficit) January 1	Assessments and Other Charges for Services	Operating/ Capital Grants and Contribution	Allocated Interest Earned	Taxes	Direct	Allocated Interest Charged	Allocated Salary and Overhead	In (Out)	
CAPITAL PROJECT FUND JOBS:										
Moose River Project	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 25,828	\$ 214	\$ 6,208	\$ 32,250	\$ -
County Ditch 20/State Ditch 83	-	-	-	-	-	-	2	222	224	-
Baird Beyer Dam	-	-	-	-	-	-	-	-	-	-
Lost River Impoundment	-	-	-	-	-	-	-	-	-	-
Stream Gauging	-	-	-	-	-	23,568	367	20,650	44,585	-
Culvert Sizing	-	-	-	-	-	6,908	114	6,170	6,203	-
Schirrick Dam	-	-	-	-	-	76,964	5,714	5,167	12,189	-
Pine Lake PWT	(390,855)	-	14,398	-	-	75,507	7	756	763	(467,156)
Little Pine Lake WMA	-	-	-	-	-	836	141	24,044	25,021	(76,166)
Pine Lake FDR	-	-	-	-	-	95	105	12,762	12,962	115,802
Hydrologic Analysis	114,260	-	-	1,522	-	40,769	1,078	126,927	168,774	-
Emergency Maintenance	-	-	-	-	-	-	17	1,897	1,914	-
RRWMB - Technical Com	-	-	-	-	-	-	2	300	302	-
Water Quality	-	-	-	-	-	-	-	-	-	-
Maintenance Dams	-	-	-	-	-	-	-	-	-	-
Odney Flat Dam	-	-	-	-	-	-	-	-	-	-
Latundresse Dam	-	-	-	-	-	-	-	-	-	-
Miller Dam	-	-	-	-	-	-	-	-	-	-
Seeger Dam	-	-	-	-	-	-	-	-	-	-
Blackduck Lake Structure	-	-	-	-	-	-	-	-	-	-
Elm Lake	-	-	-	-	-	-	-	-	-	-
Klongerbo Lake Project	-	-	-	-	-	-	-	-	-	-
Red Lake Res./Good Lake	-	-	-	-	-	-	-	-	-	-
Penn Co Road #7	-	-	-	-	-	-	-	-	-	-
Parnell Impoundment	-	4,243	-	-	-	20,250	154	5,353	21,514	-
Permits	-	-	-	-	-	6,448	914	149,461	156,823	-
Project Development	-	-	-	-	-	728	473	43,957	45,158	-
Louisville/Parnell Project	-	6,540	-	-	-	1,803	-	75	(4,662)	-
Challenger Ditch Realign	-	-	-	-	-	-	-	-	-	-
Ring Dike Program - General	(2,861)	-	3,174	-	-	-	2	418	420	(1,523)
Ring Dike Program - Shaumburg	(4,061)	-	3,892	-	-	2,173	27	1,810	-	(3,207)
Ring Dike Program - Threat	(6,861)	8,175	7,864	-	-	18,353	119	4,896	-	(14,190)
Ring Dike Program - Sie Marie	-	-	-	-	-	-	1	667	-	(668)
Ring Dike Program - P Nelson	-	-	-	-	-	-	1	524	-	(525)
G.I.S.	-	-	-	-	-	10,000	241	32,802	43,043	-
Wetland Banking	-	41,720	1,112	125	-	576	-	1,387	(40,994)	-
Ten Year Overall Plan	249,822	-	535,575	5,760	-	478,901	-	12,638	-	299,618
Thief River 1W1P	(79,866)	-	290,414	1,040	-	6,837	-	19,854	-	184,877
PTMAPP Grant	(49,957)	-	24,224	-	-	2,597	-	6,867	35,626	-
Cleanwater River 1W1P	-	-	-	-	-	750	429	3,688	-	(3,688)
North Parnell Storage Site	-	-	-	-	-	-	5	302	1,057	-
Cleanwater River - TMDL	-	-	-	-	-	-	21	2,043	2,064	-

RED LAKE WATERSHED DISTRICT
STATEMENT OF RECEIPTS AND DISBURSEMENTS AND CHANGES IN FUND BALANCE – ALL FUNDS–
MODIFIED CASH BASIS – CONTINUED
FOR THE YEAR ENDED DECEMBER 31, 2020

	Fund Balance (Deficit) January 1	Revenues				Expenses			Transfer		Fund Balance (Deficit) December 31
		Assessments and Other Charges for Services	Operating/ Capital Grants and Contribution	Allocated Interest Earned	Taxes	Direct	Allocated Interest Charged	Allocated Salary and Overhead	In	(Out)	
Red River Corridor	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5	\$ 695	\$ 700	\$ -	\$ -
Erosion Control Projects	-	-	-	-	108,193	-	465	3,893	112,551	-	-
Drainage- Inv & Insp	-	-	-	-	4,000	-	45	604	4,648	-	-
FEIMA D-Firm Grant	-	-	-	-	-	-	7	943	950	-	-
Black River Impoundment	(820,784)	22,365	-	-	4,219,434	-	16,994	44,346	-	-	(5,059,381)
Web Page Development	(1,502)	1,500	-	-	144	-	18	1,863	1,081	-	(1,066)
Administrative Construction	8,843,822	65,911	127,702	1,547,099	-	-	-	-	(917,320)	-	9,667,214
Burnham Creek - BR6	-	-	-	-	136,280	-	392	7,804	-	-	(144,476)
Euclid East Impoundment	-	-	-	-	7,218	-	109	10,973	14,120	-	-
Brandt Impoundment	-	-	-	-	54,013	-	280	14,733	68,934	-	-
Brandt Channel Restoration	102	-	-	-	1,022	-	9	-	1,031	-	-
Grand Marais - Restoration	-	-	-	-	5,817	-	49	1,529	7,395	-	-
Grand Marais Cut Channel Stabilization	-	-	-	-	500	-	7	530	1,037	-	-
Clearwater Public Education (River Watch)	-	-	-	-	310	-	162	17,418	17,890	-	-
Red River Basin Long Term Flood Control	(1,846,594)	-	-	-	(1,786,652)	-	22,642	2,536	85,120	-	-
Four Legged Lake PWT	-	-	-	-	203	-	3	111	317	-	-
BWSR Flood Storage Pilot Project	-	-	-	-	313	-	2	132	447	-	-
Thief River TMDL	-	-	-	-	-	-	3	341	344	-	-
Cleanwater River WRAP	(22,236)	6,960	-	-	-	-	344	15,838	31,458	-	-
TRF Westside FDR	(971,748)	4,703,678	-	-	6,768,649	-	41,923	36,413	-	-	(3,135,055)
State/Local/Federal Grants	-	-	-	-	-	-	-	-	-	-	-
Agassiz NWR Wetland	(3,691)	96,183	-	-	-	-	1	66	67	-	-
Agassiz Grant SIL T	(1,389)	48,757	-	-	48,750	-	129	2,334	2,968	-	(5,548)
Total Capital Projects	5,005,459	84,772	5,826,007	136,149	10,483,685	93,982	666,956	1,354,863	-	-	1,354,863
Total All Funds	\$ 7,399,653	\$ 264,834	\$ 5,920,790	\$ 166,300	\$ 13,078,693	\$ 100,483	\$ -	\$ -	\$ -	\$ -	\$ 2,219,500

RED LAKE WATERSHED DISTRICT
STATEMENT OF DIRECT EXPENDITURES BY CLASSIFICATION –
GOVERNMENTAL FUNDS - MODIFIED CASH BASIS
FOR THE YEAR ENDED DECEMBER 31, 2020

<u>DIRECT EXPENDITURES:</u>	<u>2020</u>
Salaries -	
Inspection	\$ 38,585
Survey - Preliminary	7,819
Survey - Construction	389
Drafting	17,716
Engineering	37,478
Project Administration	304,374
Field Work - Water Programs	38,401
Other	45,497
Compensated Absences	38,912
Payroll Taxes and Benefits	115,455
Manager's Expense	14,531
Travel, Mileage, Meetings and Per Diems	2,156
Audit	9,450
Legal	48,020
Appraisal and Viewers	13,333
Other Professional Fees	330,931
Office Supplies	13,390
Office Equipment	12,236
Dues and Subscriptions	9,993
Insurance and Bonds	29,239
Repairs and Maintenance	14,226
Utilities	9,126
Telephone	8,784
Advertising and Publications	12,273
Truck Expense	10,685
Miscellaneous	37,025
Land Acquisition and Easements	273,236
Construction	10,557,835
Engineering Costs and Fees	4,746
Engineering Fees	1,010,418
Engineering Equipment	12,434
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Total Expenditures	\$ 13,078,693
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