

**RED LAKE WATERSHED DISTRICT
MONTHLY WATER QUALITY REPORT**

July 2020

By Corey Hanson, Red Lake Watershed District Water Quality Coordinator. 11/3/2020



Storm clouds rolling into Thief River Falls on July 17, 2020



Long-Term Water Quality Monitoring Program

The second round of 2020 sampling for the District's long-term monitoring program was completed in July. Runoff from July storms resulted in high flows and high concentrations of pollutants like total suspended solids, total phosphorus, and *E. coli*. 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.

High flows in Grand Marais Creek



Erosion in the Cyr Creek subwatershed



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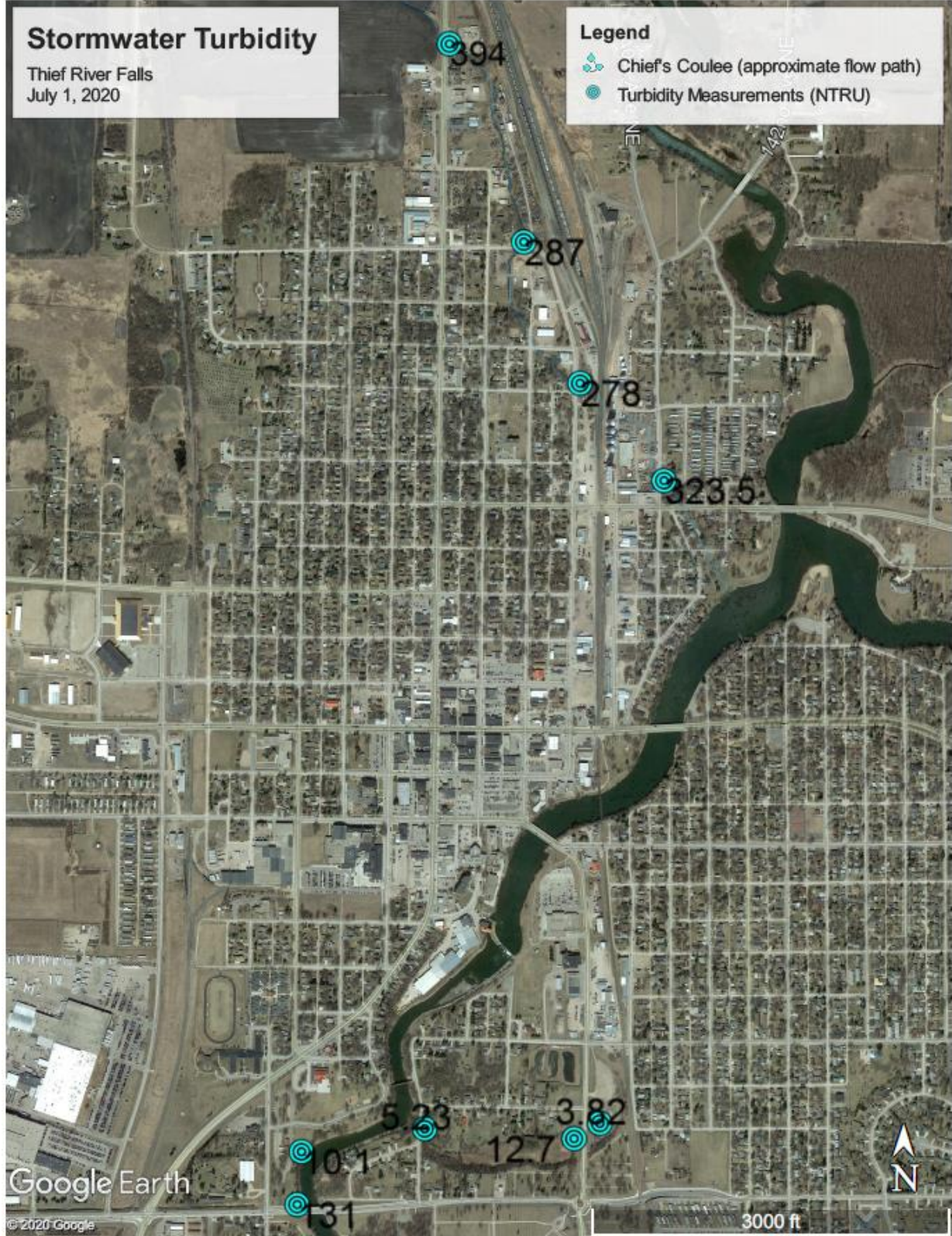
Erosion along Branch 200 of Judicial Ditch 11, east of the intersection of 270th Street NE and 290th Avenue NE



A set of stormwater samples were collected from stormwater outlets in the City of Thief River Falls. 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. The samples were collected after an early morning rainfall event on July 1, 2020. 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 coming from a private field drainage ditch that drains to Chief's Coulee.

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Thief River Falls snow disposal area: The area around the drain (under the lone tree in the open area) with standing water in this photo is the potential location of a settling pond that would be constructed as part of the Thief River Falls Oxbow Restoration Project.



Pallets and trash were partially blocking flow at a stormwater outlet downstream of the potential Thief River Falls Oxbow Restoration Project at Columbia Avenue. Some erosion had been caused by runoff from Columbia Avenue that flows down a bare slope to the stormwater channel.



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Runoff from a field on the west side of Highway 32 that was the source of high turbidity, total suspended solids, and other pollutants in Chief's Coulee n July 1, 2020.



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. 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. In late July, District staff agreed to test a sample if it 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 maximum concentration that could be measured with the Abraxis test kit.

Screenshot image, provided by a lake resident, of the Lake Sarah blue-green algae



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Samples were collected from Long Lake, near Pinewood. The lake continued to meet lake water quality standards. A sample was collected from Four-Legged Lake in response to concerns about pollutants in the lake. Water quality in the lake was excellent, with very low concentrations of phosphorus and chlorophyll-a as well as no detectable chemical contaminants.

The amount of sediment that is carried by a stream is measured by collecting and analyzing samples for **total suspended solids**. Fish and aquatic macroinvertebrates (bugs, worms, crustaceans, etc.) are harmed by high concentrations of total suspended solids. In July 2020, high total suspended solids concentrations (>65 mg/l, >30 mg/l, or >15 mg/l, depending on the site's location) were found at:

- Red Lake River at CSAH 15, near Fisher
- Red Lake River at CSAH 11, near Gentilly
- Red Lake River at CSAH 3, near Huot
- Red Lake River at CSAH 13
- Red Lake River at Highway 32
- Red Lake River at Center Street E, near St. Hilaire

Very low total suspended solids (<1 mg/L) concentrations were found in the Clearwater River at CSAH25 and the Lost River at 109th Ave.

High concentrations of *E. coli* bacteria indicate an increased risk of gastrointestinal illness from aquatic recreation activities (swimming) that involve contact with water. High *E. coli* concentrations (>126 MPN/100ml) were found in the following waters (alphabetical order) during July 2020 sampling:

- Beau Gerlot Creek at CR 114
- Black River at CSAH 18
- Blackduck River at Deer Trail Road NE
- Burnham Creek at 270th Street SW
- Darrigan's Creek at CSAH 23
- Gentilly Creek at CSAH 11, in Gentilly
- Hill River at County Road 119
- Hill River at CSAH 35
- Judicial Ditch 30 at 140th Ave NE
- Judicial Ditch 73 at the Maple Lake inlet
- Judicial Ditch 73 at 343rd Street SE
- Kripple Creek at CSAH 53
- Lost River at County Road 119
- Lost River at CSAH 8
- Lost River at 486th Street, near the Pine Lake outlet
- Lost River at 109th Ave
- Lower Badger Creek at 150th Avenue SE
- Marshall County Ditch 20 at 180th Ave NE
- Mud River at Highway 89
- North Cormorant River at CSAH 36
- O' Briens Creek at Harvest Road NE

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- Polk County Ditch 14 ear the Maple Lake outlet
- Red Lake River at CSAH 11, near Gentilly
- Red Lake River at CSAH 3, near Huot
- Red Lake River at CSAH 13
- Red Lake River at Highway 32
- Red Lake River at Center Street E, near St. Hilaire
- Red Lake River at Greenwood Street in Thief River Falls
- Red Lake River at CSAH 7 (Smiley Bridge), east of Thief River Falls
- Ruffy Brook at CSAH 11
- Silver Creek at County Road 111
- Silver Creek at 159th Ave
- Terrebonne Creek at CSAH 92
- Thief River at 140th Ave NE
- Thief River at CSAH 7
- Thief River at 380th St. NE

The state's water quality standard for **total phosphorous** varies by river nutrient region. Rivers and tributaries in the western part of the District have to meet a 0.150 mg/l standard in the South River Nutrient Region. Rivers and tributaries assigned to the Central River Nutrient region have to meet a 0.100 mg/l standard. Rivers and tributaries in the eastern part of the District have to meet a more protective standard of 0.050 mg/l in the North River Nutrient Region. High total phosphorus concentrations relative to the State of Minnesota's new regionalized river eutrophication nutrient criteria were recorded in samples collected at the following sites in July 2020:

- Black River at CSAH 18
- Blackduck River at Deer Trail Road NE
- Branch 200 of JD 11 at 190th Ave NE
- Browns Creek at CR 101
- Burnham Creek at 270th Street SW
- Clear Brook at CSAH 92
- Clearwater River, north of Plummer
- Clearwater River at County Road 127
- Coburn Creek at CSAH 30
- Cyr Creek at 220th Street Southwest
- Darrigan's Creek at CSAH 23
- Grand Marais Creek at 130th Street Northwest
- Grand Marais Creek at 110th Street Northwest
- Heartsville Coulee at 13th Street Southeast
- Hill River at 335th Avenue SE
- Judicial Ditch 30 at 140th Ave NE
- Lost River at 109th Ave
- Marshall County Ditch 20 at 180th Ave NE
- Moose River at CSAH 54
- Mud River at Highway 89
- Nasset Creek

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- North Cormorant River at CSAH 36
- O' Briens Creek at Harvest Road NE
- Pennington County Ditch 21 at 135th Avenue SE
- Polk County Ditch 1 at County Road 61
- Polk County Ditch 2 at Polk County Road 62
- Poplar River at 310th Street SE
- Red Lake River at CSAH 15, near Fisher
- Red Lake River at Woodland Ave in Crookston
- Red Lake River at CSAH 11, near Gentilly
- Red Lake River at CSAH 3, near Huot
- Red Lake River at CSAH 13
- Red Lake River at Highway 32
- Red Lake River at Center Street E, near St. Hilaire
- Red Lake River at Greenwood Street in Thief River Falls
- Red Lake River at CSAH 7 (Smiley Bridge), east of Thief River Falls
- RLWD Ditch 15 at CSAH 20
- Silver Creek at County Road 111
- South Cormorant River at CSAH 37

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. Low dissolved oxygen levels (<5 mg/l) were found in the following rivers and streams in July 2020:

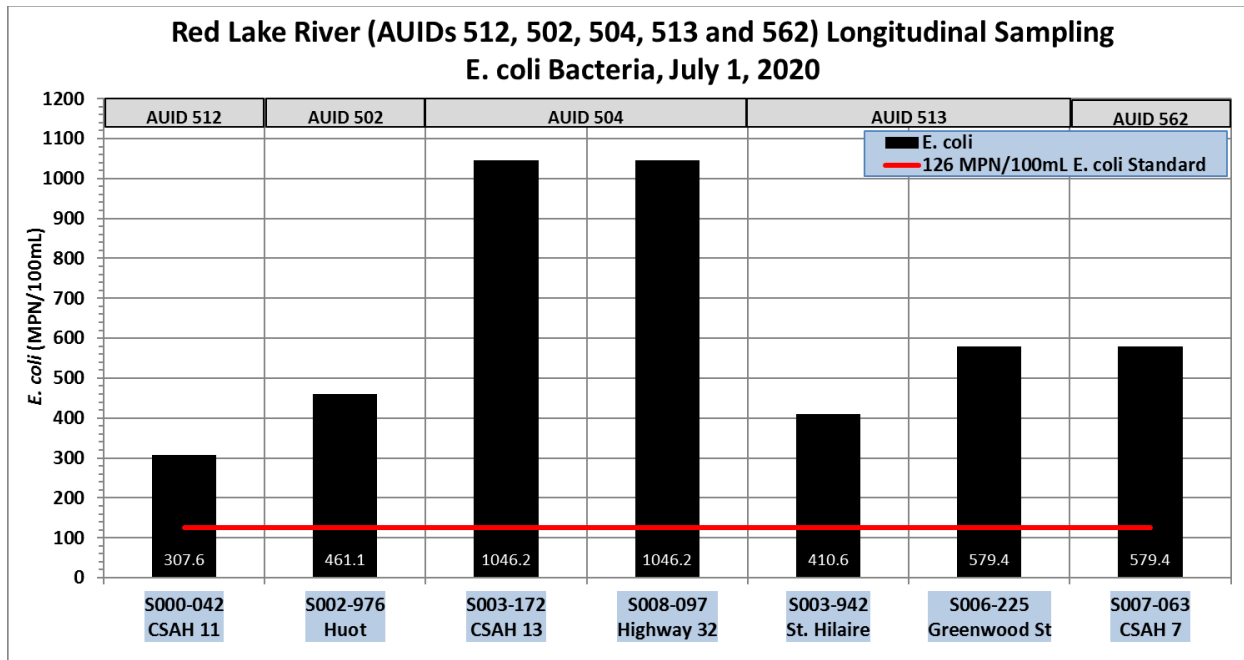
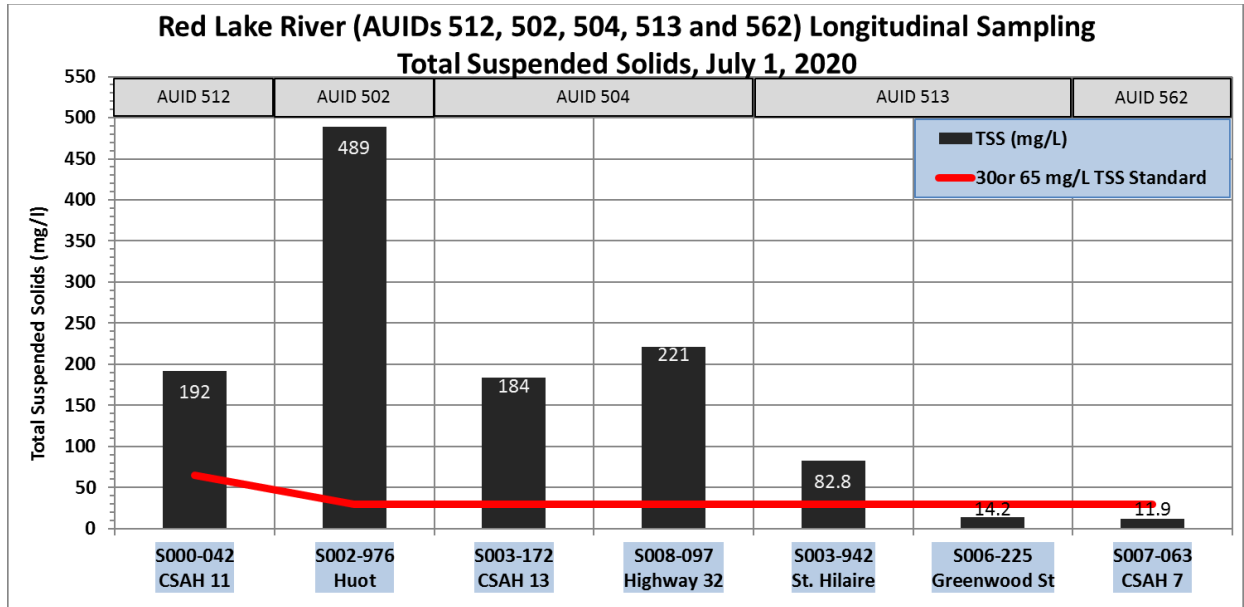
- Branch 200 of JD 11 at 190th Ave NE
- Brandt Impoundment inlet
- Brandy Impoundment outlet channel (RLWD Ditch 15) at 260th Avenue Southwest
- Clearwater River at CSAH 25, near Bagley
- Grand Marais Creek at 110th Street Northwest
- Grand Marais Creek at 130th Street Northwest
- Heartsville Coulee at 13th Street Southeast
- Judicial Ditch 73 at the Maple Lake inlet
- Lost River at 109th Ave, upstream of Pine Lake
- Marshall County Ditch 20 at 180th Ave NE
- Moose River at Highway 89
- Polk County Ditch 1 at County Road 61
- Polk County Ditch 2 at County Road 62
- Walker Brook at CSAH 19

Longitudinal samples were collected at crossings along the Red Lake River on July 1 after a rainfall event, from the CSAH 7 (Smiley) Bridge 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

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peaked at the Red Lake Falls crossings. Total phosphorus concentrations were high at all the sites, peaking at Huot.



Continuous Dissolved Oxygen Monitoring

New sensor caps were purchased for 2020 monitoring with the District's HOBO dissolved oxygen loggers. The HOBO dissolved oxygen loggers were then deployed at:

- Pennington County Ditch 21 at the 135th Ave NE.

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- Marshall County Ditch 20 at 180th Ave NE
- Judicial Ditch 30 at 140th Ave NE
- Branch 200 of Judicial Ditch 11 at 190th Ave NE (downstream of Farmes Pool)
- Branch 200 of Judicial Ditch 11 at 270th St NE (upstream of Lost River Pool)

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.

Stage and Flow Monitoring

Stage and flow measurements were recorded at monitoring stations near the inlet and outlet of the Brandt Impoundment.

Inlet to the Brandt Impoundment



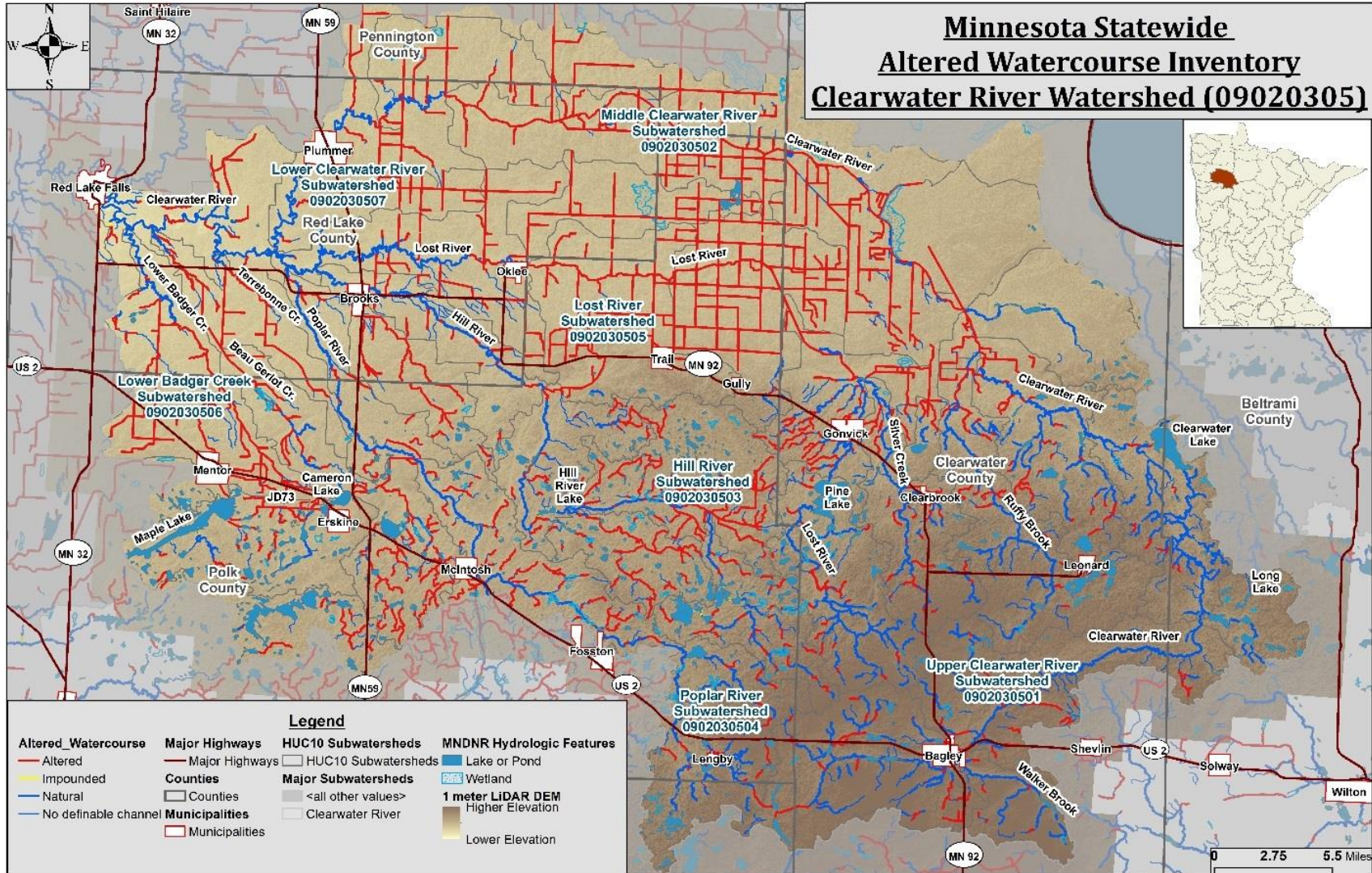
Clearwater River Watershed Restoration and Protection Strategy (WRAPS)

District staff edited the Clearwater River WRAPS report based on comments from an MPCA review of the spring 2019 version of the document. Some revisions were made to maps in the WRAPS report. New maps were created, based on a list of maps that were added by the MPCA to the final version of the Red Lake River WRAPS.

Comments were received from the U.S. Environmental Protection Agency on the Clearwater River Watershed Total Maximum Daily Load report.

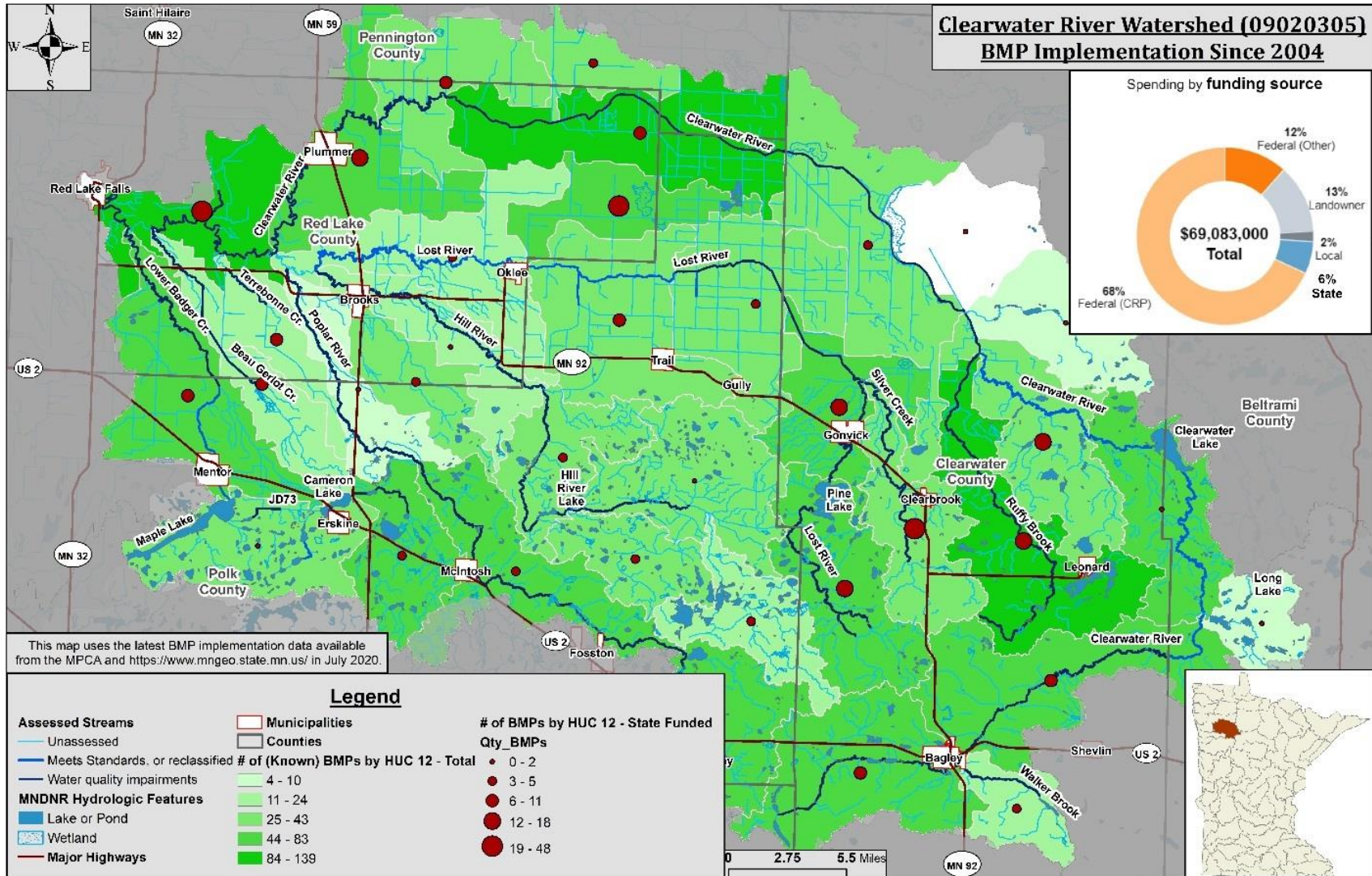
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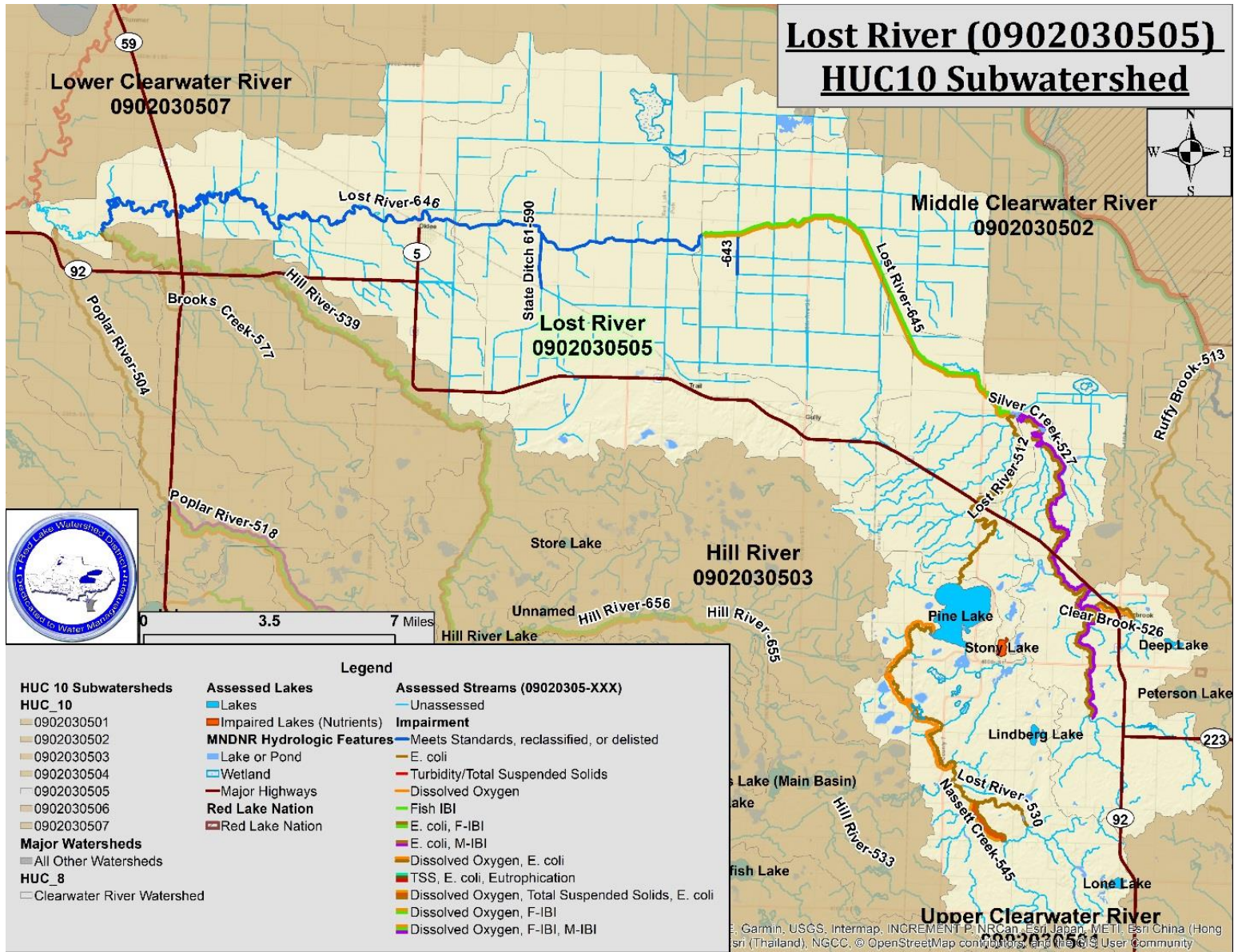
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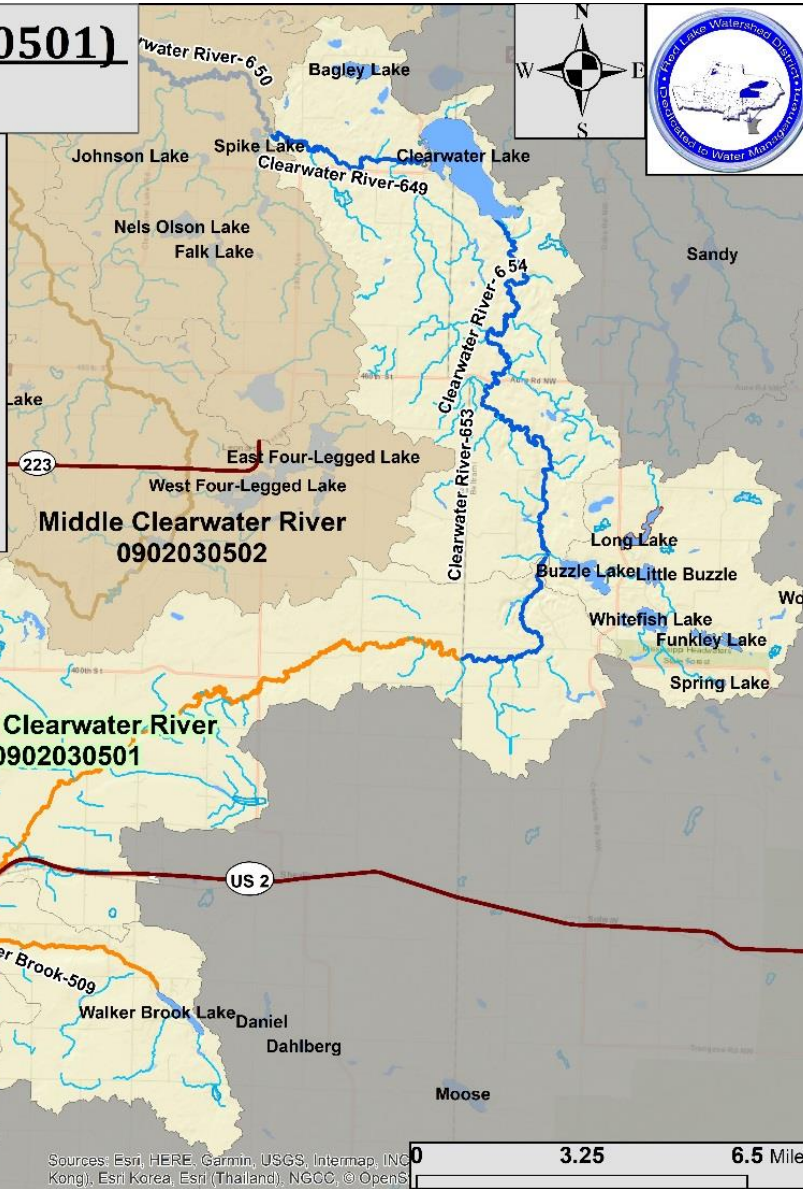
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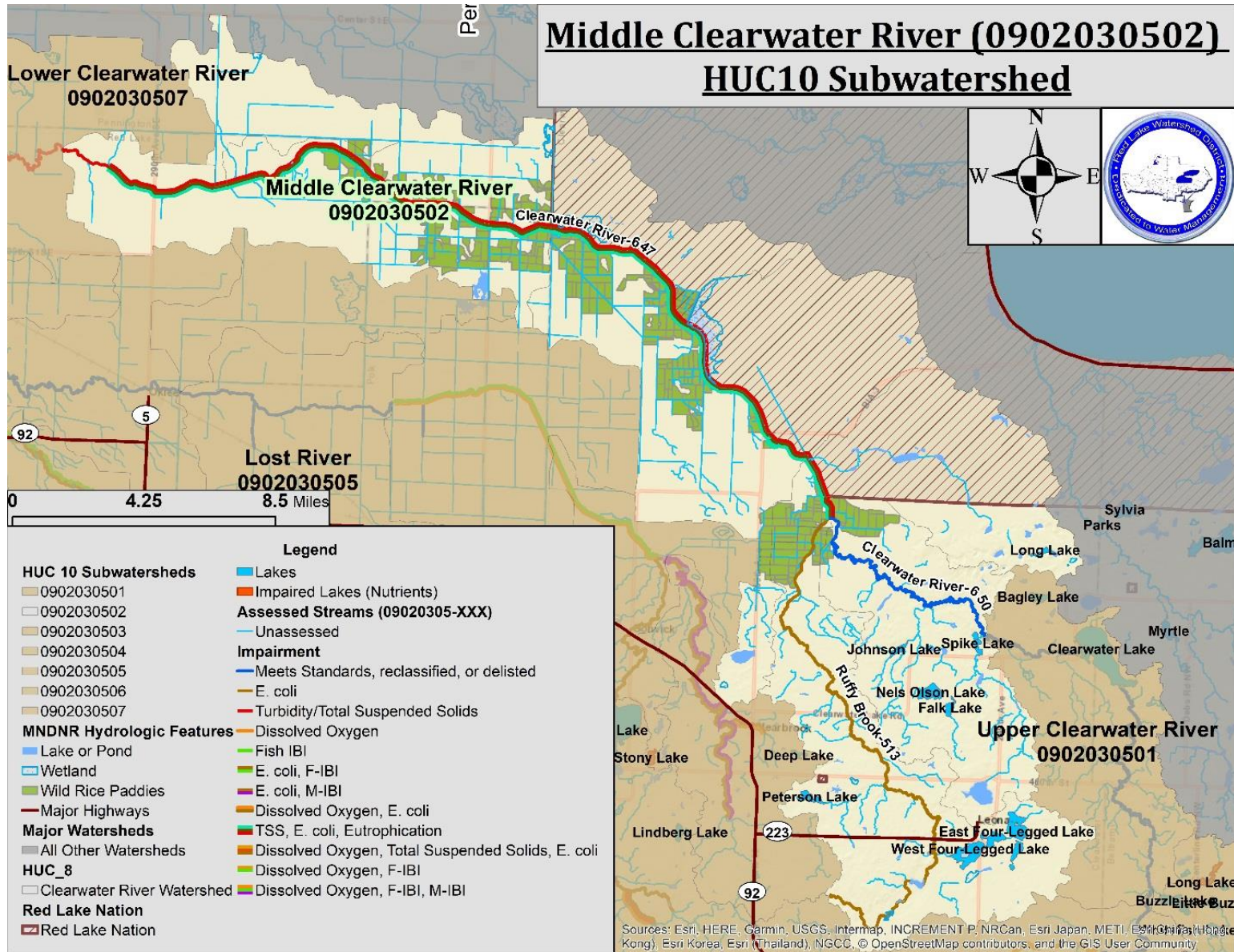
Upper Clearwater River (0902030501) HUC10 Subwatershed

Legend	
Major Highways	Lakes
Major Watersheds	Impaired Lakes (Nutrients)
All Other Watersheds	Assessed Streams (09020305-XXX)
HUC_8	Unassessed
Clearwater River Watershed	Impairment
HUC 10 Subwatersheds	Meets Standards, reclassified, or delisted
0902030501	E. coli
0902030502	Dissolved Oxygen
0902030503	E. coli, M-IBI
0902030504	Dissolved Oxygen, E. coli
0902030505	Dissolved Oxygen, Total Suspended Solids, E. coli
MNDNR Hydrologic Features	Dissolved Oxygen, F-IBI
Lake or Pond	Dissolved Oxygen, F-IBI, M-IBI
Wetland	Red Lake Nation
	Red Lake Nation



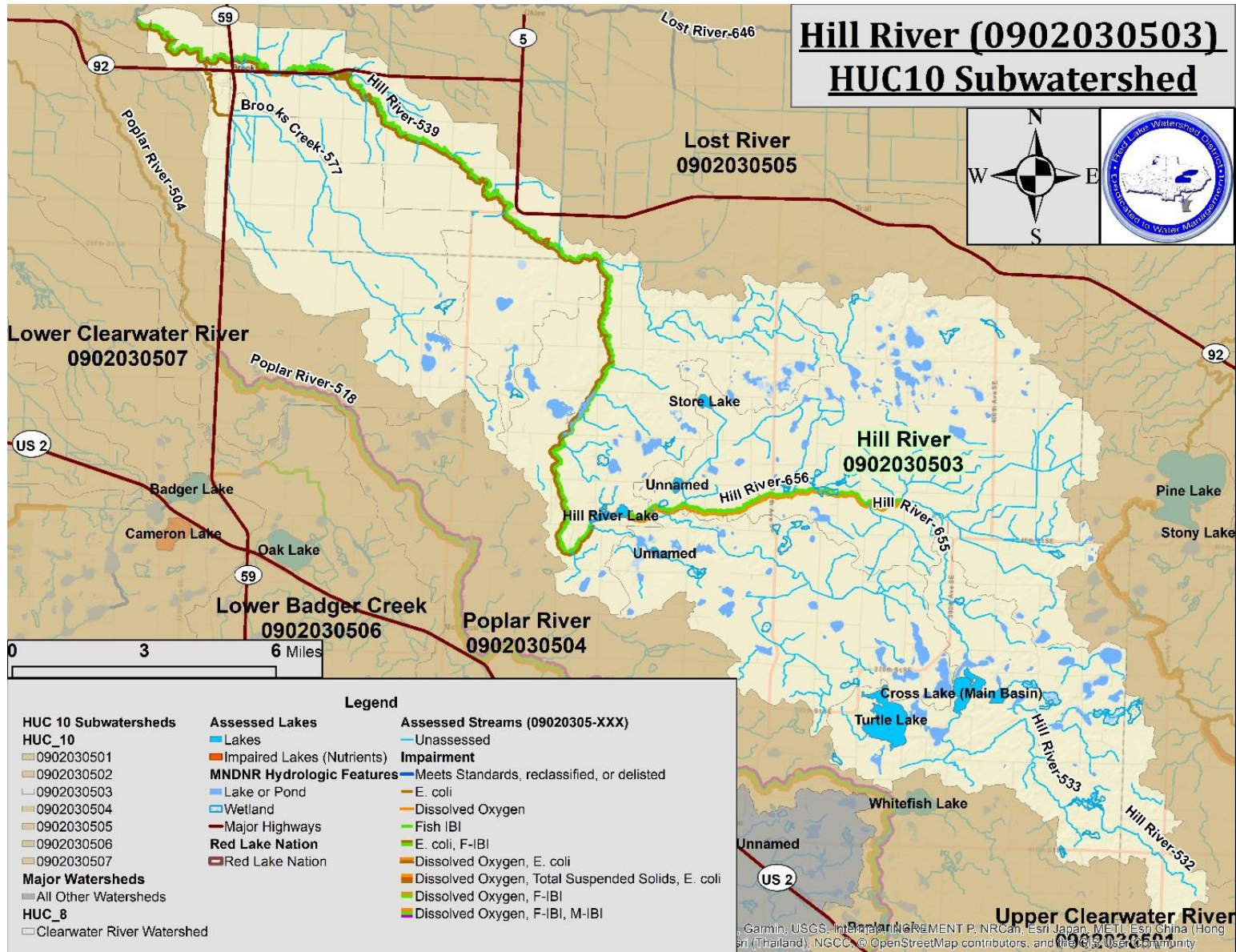
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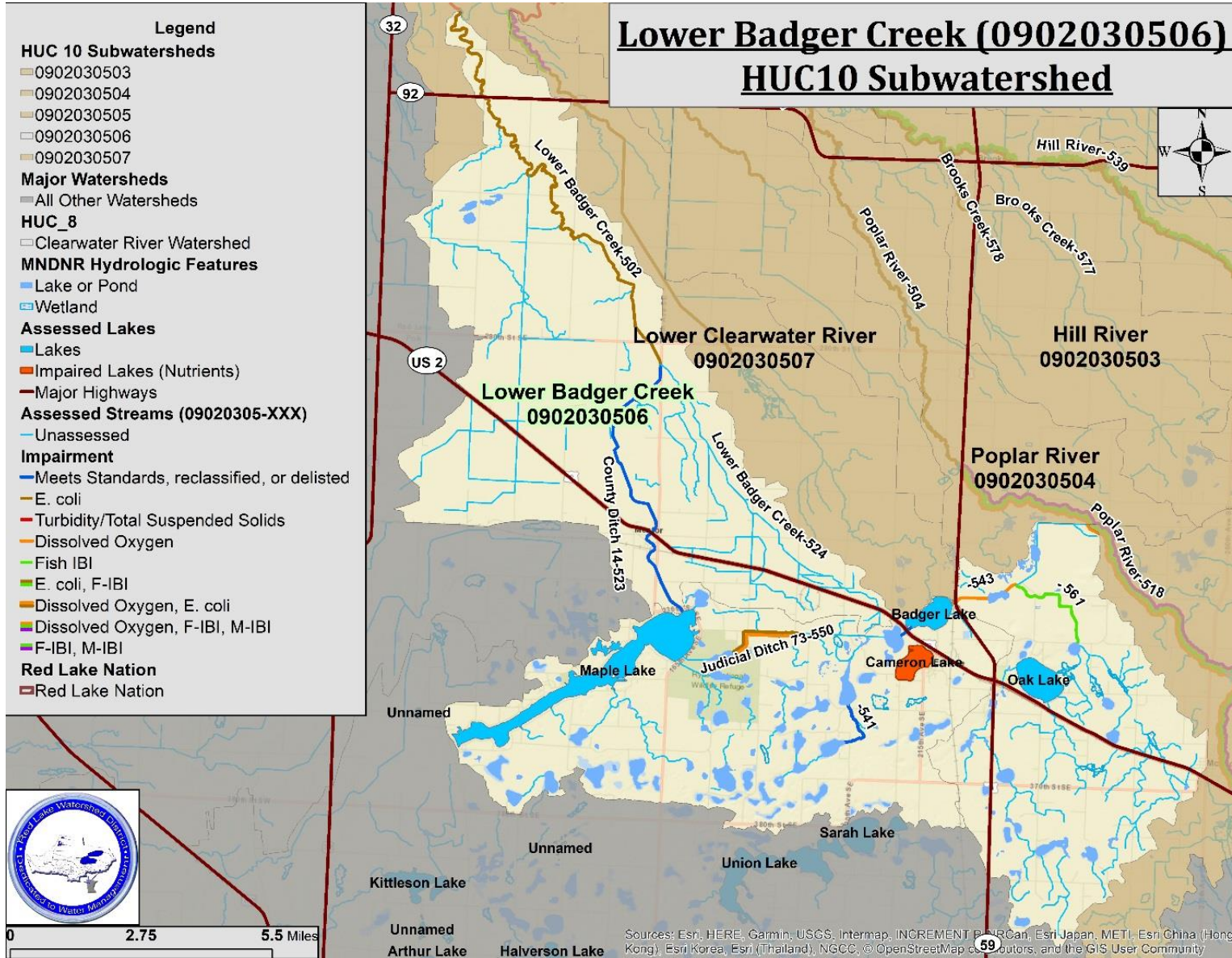
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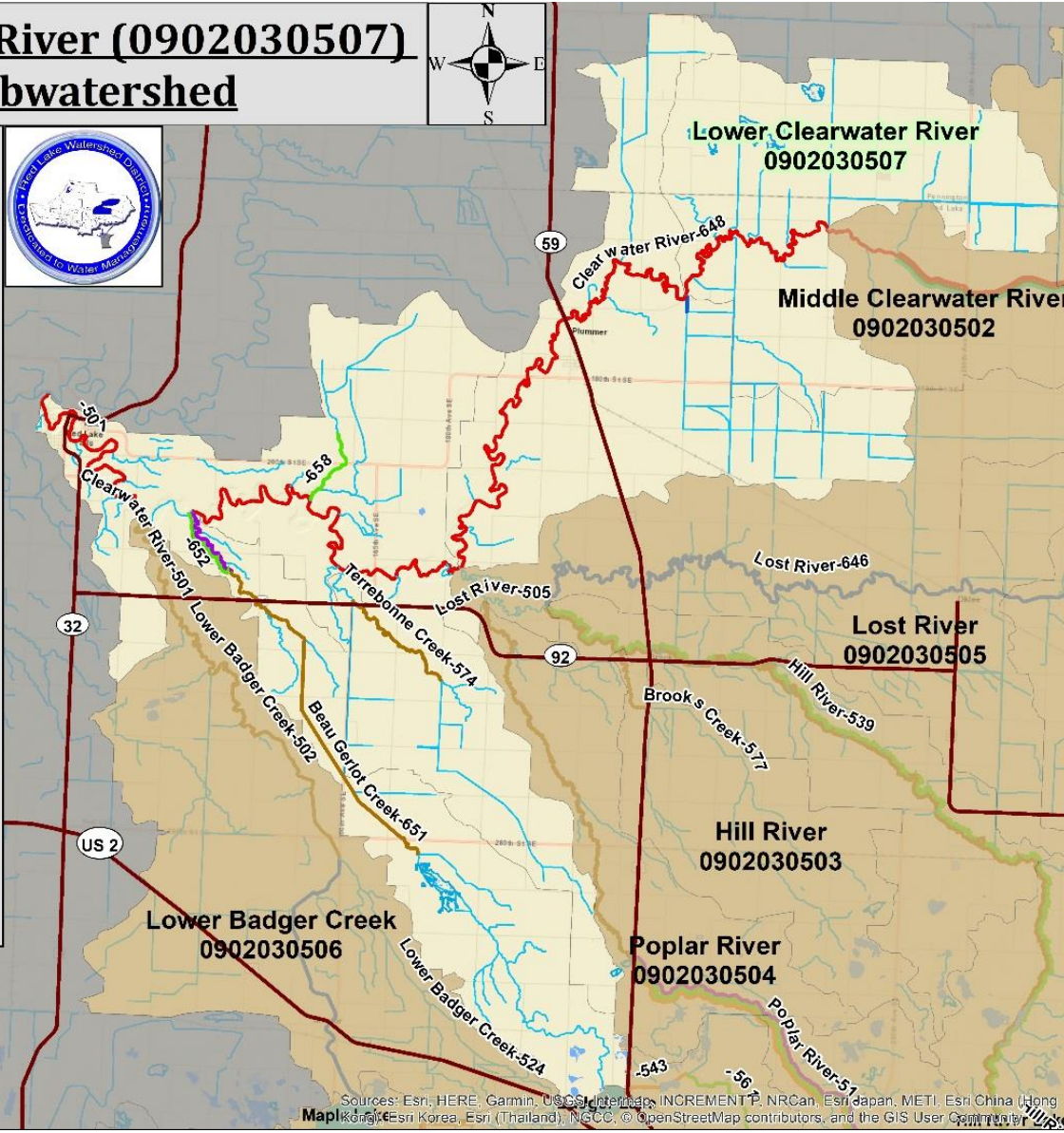
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Lower Clearwater River (0902030507) HUC10 Subwatershed



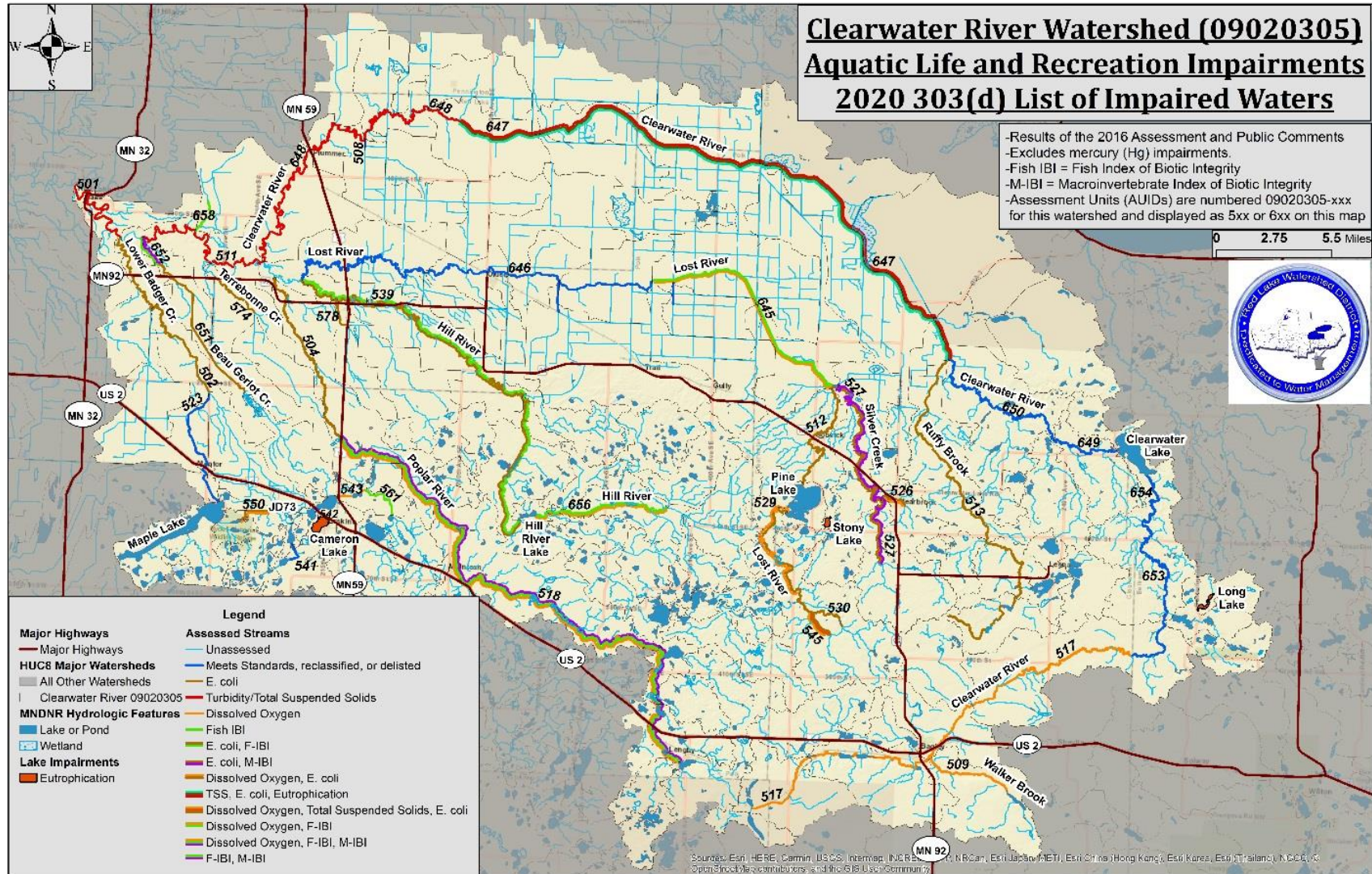
- Legend**
- HUC 10 Subwatersheds**
 - 0902030502
 - 0902030503
 - 0902030504
 - 0902030505
 - 0902030506
 - 0902030507
 - Major Watersheds**
 - All Other Watersheds
 - HUC 8**
 - Clearwater River Watershed
 - MNDNR Hydrologic Features**
 - Lake or Pond
 - Wetland
 - Assessed Lakes**
 - Lakes
 - Major Highways**
 - Major Highways
 - Assessed Streams (09020305-XXX)**
 - Unassessed
 - Impairment**
 - Meets Standards, reclassified, or delisted
 - E. coli
 - Turbidity/Total Suspended Solids
 - Dissolved Oxygen
 - Fish IBI
 - E. coli, F-IBI
 - Dissolved Oxygen, E. coli
 - TSS, E. coli, Eutrophication
 - Dissolved Oxygen, F-IBI
 - Dissolved Oxygen, F-IBI, M-IBI
 - F-IBI, M-IBI
 - Red Lake Nation**
 - Red Lake Nation



Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community

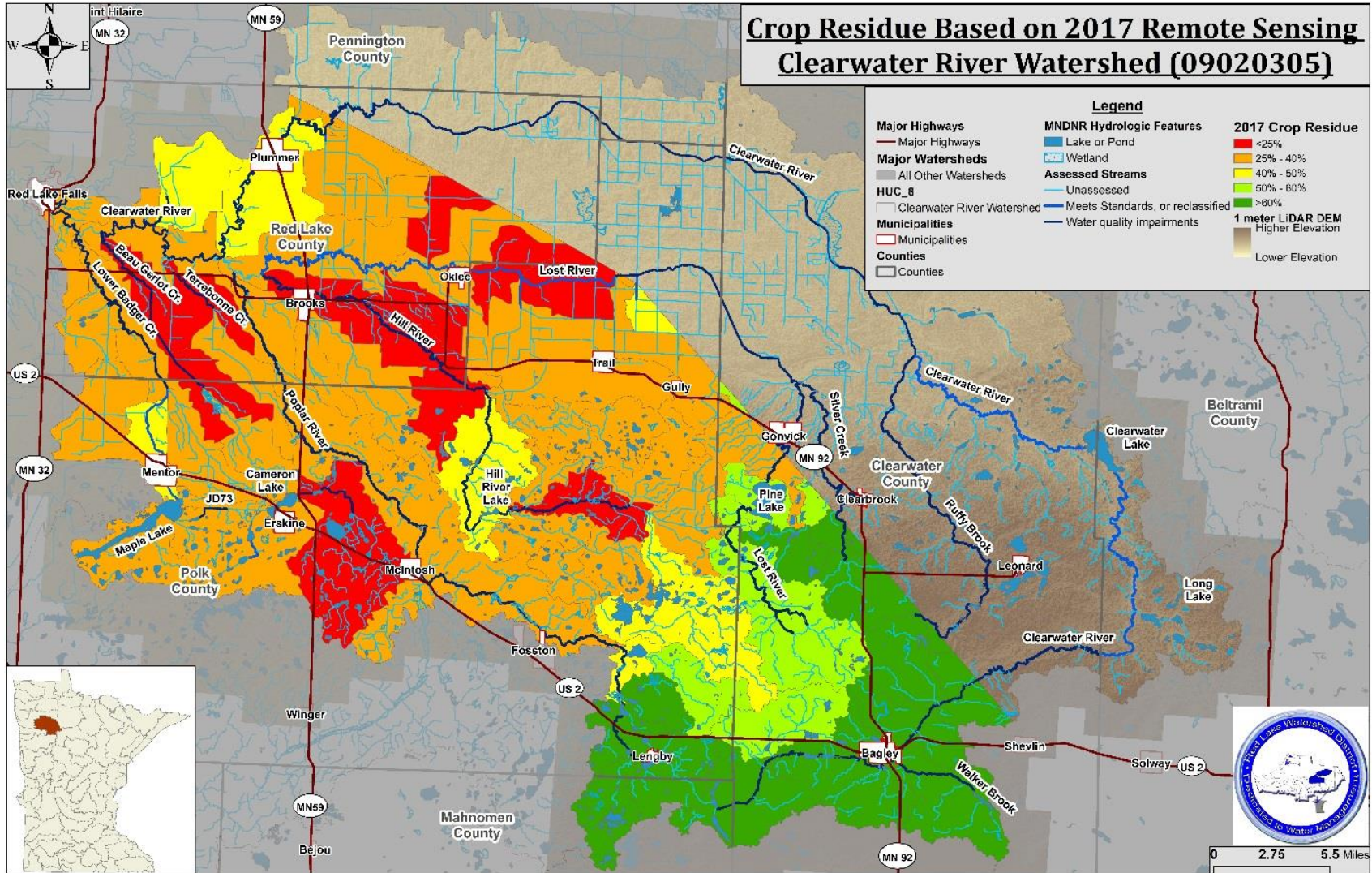
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Red Lake River Watershed One Watershed One Plan (1W1P)

District staff reviewed a draft application for 319 Small Watersheds Focus grant funding to fund projects in priority subwatersheds of the Red Lake River. The application was prepared by Peter Nelson of the Pennington SWCD (1W1P Coordinator) and the Red Lake River 1W1P Planning Work Group and then officially submitted by the District (as the fiscal agent for the 1W1P).

Thief River One Watershed One Plan (1W1P)

District engineering staff began surveying for the grade and streambank stabilization project at the outlet of Judicial Ditch 23.

Other

- District staff finished editing an application for competitive Red River Watershed Management Board funding for water quality projects. 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. A map was created for the application.
- District staff began working on a BWSR Clean Water Fund application for the Thief River Falls Oxbow Restoration Project.
- The Red Lake River Corridor Enhancement Joint Powers Board put together a grant application to fund a series of events and initiatives that will connect people with the outdoors.
 - Creation of a media library containing professional photographs, video clips, studio produced video stories, written testimonials, memes and high-quality branded graphics. And implementation of a coordinated marketing campaign using media and branded materials for 5 years following GMRPTC dollars have been expended.
 - Plan, market, organize and deliver on 12 events over the course of 2 years in the six cities that are members of the Joint Powers Board. Thief River Falls, St. Hilaire, Red Lake Falls, Crookston, Fisher and East Grand Forks. Each city will host one event per year and all events will be cross- promoted throughout the entire region.
 - Comprehensive and intentionally inclusive advertising campaign to attract new and existing audiences to take part in activities associated with the Red Lake River, both on the water and on land in close proximity to the Water Trail, so users can enjoy the beauty and splendor of the Red Lake River. Develop messaging around water safety, active living, mental health and community pride.
 - Document accurately and consistently, the attendance of each event, noting the ratio of diverse populations and first-time users of the River as an asset. Polling, interviews, registrations etc. Document the reaching of marketing materials through digital analytics and distribution statistics from printed materials used and disseminated to schools, businesses, organizations, through mailings and at large events.

Water quality related notes and minutes from the July 9, 2020 Red Lake Watershed District Board of Managers meeting.

- The Board reviewed a MPCA 319 Grant Proposal Workplan for the Red Lake River Targeted Watershed Grant-Phase 1, for the Red Lake River 1W1P, RLWD Project No. 149. Administrator Jesme stated that as part of the grant, the District would be required to be the Fiscal Agent. Motion by Ose, seconded by Dwight, to approval the proposed Workplan with the District being the Fiscal Agent for the MPCA Section 319 Grant for the Red Lake River Targeted Watershed Grant-Phase 1, Red Lake River 1W1P, RLWD Project No. 149. Upon roll call vote, motion carried unanimously.

Water quality related notes and minutes from the July 23, 2020 Red Lake Watershed District Board of Managers meeting.

- Engineer Mike Flaagan, Pennington County Highway Department appeared before the Board to discuss Pennington County Ditch No. 96 outlet stabilization project, located south of St. Hilaire. Flaagan stated that the estimated project cost will be \$205,676.00 and that a portion of funding for the project will come from a Clean Water Fund grant that the Pennington SWCD received from BWSR, through an unused grant the Red Lake SWCD received, as well as a local match using ditch funds. Flaagan requested that the District apply for a grant through the RRWMB Water Quality Program Funding in the amount of \$26,313.00. There was considerable discussion concerning additional stabilization of the system which could be considered in the future. Motion by Ose, seconded by Tiedemann, to approve the request for submittal of a Grant Application to the RRWMB in the amount of \$26,313.00 for a bank stabilization project at the outlet of Pennington County Ditch No. 96. Upon roll call vote, motion carried unanimously.
- Thief River Falls Oxbow project was presented to the RRWMB for funding. The RRWMB sent the project to the Water Quality Committee for review. The District also requested the \$100,000 RRWMB Water Quality Allocation for the installation of side water inlet pipes and rock structures for the proposed Black River Impoundment Project and side water inlets for RLWD Ditch 16 that were not previously funded.

July 2020 Meetings and Events

- **July 9, 2020** – Conference call to discuss potential projects in Beltrami County, including stabilization of the Moose River and if there is any way to control extreme erosion that occurs along the south shore of Upper Red Lake.
 - Moose River stabilization
 - The Beltrami County Highway Department Engineer might be able to survey the Moose River, for approximately \$15,000.
 - The scope of the project was discussed. The channel degradation is occurring throughout the reach between Moose River Road and CSAH 54. So, the stabilization work might be needed along that entire reach.
 - Use 1W1P technical and engineering funds to pay for the survey.
 - Apply for RRWMB baseline water quality funding, next year, to fund the survey.
 - Have conversations with landowners. Discuss what the project may look like. A couple landowners have already expressed openness to projects.
 - Apply for Lessard-Sams funding for the actual construction.
 - Upper Red Lake Shoreline Protection
 - There is a lot of erosion along the south shore due to high water levels and powerful wave action on the large lake. The erosion happens on a regular basis
 - It is a big, shallow, sandy lake.

- The waves are so powerful that it is difficult to find a solution that works. There was concern that vegetation, planted to stabilize the shoreline, would just get washed away.
 - A previous rock rip-rap stabilization project also failed because the waves eroded the land behind the rip rap and to the sides of the rip-rap.
 - The erosion's effect on water quality is unclear.
- **July 10, 2020** - District staff met with a Maple Lake lakeshore resident to hear concerns about water quality and land use in and around the lake.
- **July 14, 2020** – Thief River 1W1P Policy Committee (PC) meeting
 - The PC reviewed and approved the minutes from the last meeting.
 - Review of the annual work plan
 - Discussion about the name of Judicial Ditch 23 (“County Ditch vs “Judicial Ditch”). Available documentation and maps show that it is indeed “Judicial Ditch 23.”
 - Agenda items were passed.
 - Review of a project checklist
 - Ashley Hitt presented on the creation of PTMApp (Prioritize, Target, and Measure Application) layers to prioritize areas for targeted project implementation in each subwatershed. The layers were created using tools that were developed by Henry Van Offelen of the Board of Water and Soil Resources. Ashley did a good job of answering questions regarding the concept of using a model to make objective predictions about which areas are contributing the sediment and nutrients.
- **July 20, 2020** – Pennington County Water Resources Advisory Committee
 - County Ditch 96, 21, and 16 Gully Control and Buffer Implementation project update
 - 11 side water inlets were installed last fall. There was a small window for contractors to get them installed due to last fall's rainfall events.
 - Ditch Outlet Analysis
 - Northland Community and Technical College has completed at least two drone flights for each of the ditch outlets that are being analyzed. The third round of flights has begun. High water has caused delays.
 - The college has been processing data as it has been collected.
 - The SWCD anticipated that the flights would be completed in August so that the calculation of sediment loss can begin.
 - Thief River PTMApp
 - Ashley Hitt is working on the Targeted Implementation Report. Peter Nelson and Ashley hit met to put together an outline for the report.
 - Shapefiles are being created to prioritize catchments and prioritize practices within those catchments.
 - Pennington County Ditch 96 Outlet Stabilization
 - HDR Engineering has been working on survey, design, and geotechnical work.
 - Groundwater has been affecting streambanks stability.
 - The BWSR grant funding will be a little less than what is needed. The SWCD will look for other sources of funding
 - Thief River Falls Streambank Stabilization Projects
 - Design work has begun for the streambank stabilization project in Hartz Park. The construction was initially planned for this year but will more likely be done next year.

- Cover Crop and Grade Stabilization – Lower Thief and JD 30/18/13
 - Funded by a \$256,000 2020 Clean Water Fund grant, the project will implement 5,000 acres of cover crop and at least 60 side water inlets in the Lower Thief River and Judicial Ditch 30/18/13 subwatersheds. Implementation of cover crop is being encouraged by boosting the cost-share rate for landowners that install BMPs.
 - 75% base cost-share rate for the installation of side water inlets
 - 90% cost-share for combine implementation of side-water inlets and cover crops (extra incentive for cover crop)
- Cooperative Weed Management Area grant
 - Report locations of invasive weeds to the SWCD (Bryanna Greffthen)
- New Clean Water Fund Grant ideas
 - Discussion of erosion along Pennington County Ditch 96, upstream of the railroad crossing, 0.2 miles west (upstream) of Highway 32. The erosion isn't visible from the highway due to the railroad grade, but aerial photos show that almost the entire south bank of the ditch is failing between the railroad and the upstream "Y" confluence (approximately 550 yards).
- One Watershed One Plan Updates
 - There were 10 application in Pennington County for Red Lake River 1W1P RCPP-funded projects (windbreaks and grazing plans).
 - Work will begin on the Thief River 1W1P projects. The plan was approved by BWSR in March, all 7 LGUs have adopted the plan, and the watershed-based funding grant has been executed. The outlet of Judicial Ditch 21 will likely be one of the first projects to be completed.
 - Local staff worked together to submit an application for BWSR funding to develop a 1W1P for the Clearwater River Watershed. BWSR staff reported that there was funding available for 5 plans and 9 applications were submitted.
(Note: The Clearwater River Watershed 1W1P application was successful!)
- SWCD staff have been working on buffer compliance checks. One corrective action notice was sent last fall.
- Geologic Atlas: well locations deep well boring records, and Minnesota geologic survey information is being compiled.
- The Pennington SWCD began water quality sampling in April and found extremely high turbidity in the Black River and at the outlet of Pennington County Ditch 70.
- Tree sales were slower this year (about 5,000 trees were sold).
- The SWCD has been working on WCA-related permitting for the Black River Impoundment.
- Events for the county's AIS prevention program have been canceled, but the SWCD was able to renew a billboard lease, renew a sponsorship for Lindner Angling Buzz, and deploy stationary zebra mussel samplers in the Red Lake River.
- The Pennington County Highway Department is working on bridge construction (Mark Boulevard). Abutments are being installed and they might be able to start on the deck of the bridge soon. Curb and gutter for the roundabout near Challenger Elementary School will be completed soon. They want to get the roundabout completed before school starts. Ditch cleaning is occurring along Judicial Ditch 13, north of Goodridge. There are

plans to clean Pennington County Ditch 41 by Highlanding, complete additional cleaning of Judicial Ditch 13, and clean along Pennington County Ditch 96.

- United States Fish and Wildlife Service staff at Agassiz National Wildlife Refuge have collected three sets of samples during runoff events. A new biologist will start working at the refuge in October. The refuge office and outhouses are closed, but the trails are open. Discussion of surveying for the Mud River remeandering project (Thief River 1W1P) could start in October when the new biologist is added to the refuge staff.

July 21, 2020 – Red River Watershed Management Board meeting

- District staff presented an application for baseline funding for side water inlets along RLWD Ditch 16 and within the drainage area of the Black River Impoundment.
 - District staff and HDR Engineering staff presented an application for competitive water quality funding for the Thief River Falls Oxbow Restoration Project.
 - A board member commented that these were good projects for RRWMB water quality funding because they have a FDR component (even if it is small in the case of the oxbow restoration project).
- **July 24, 2020** – Public hearing for the Polk County Ditch 39 improvement – all staff helped with cleaning the garage, seating setup, attendee sign-in, cleanup, etc.
 - **July 29, 2020** – Webex conference to discuss the 2020 Virtual Northwest Minnesota Water Festival
 - Packets for the teachers and students with lessons, activities, and instructions.
 - Informational videos to go along with each station’s lesson (either a video that already exists or a new video that is created locally).
 - Teachers would show the video, then the kids would do the activities.
 - Materials list – materials will be provided to classes, along with the packets.
 - Discussion about who will put together the lesson and video for each station.
 - Discussion about video editing and different software options.
 - Heather Donaho, Kittson County SWCD, took the lead in organizing the virtual event. She has experience with creating educational videos that are shared on the SWCD’s Facebook page.
 - Discussion of ideas for activities that would fit the learning format.
 - **July 29, 2020** – District and City of Thief River Falls staff met to discuss details of the Thief River Falls Oxbow Restoration Project and an application for BWSR Clean Water Funding

Red Lake Watershed District Monthly Water Quality Reports are available online:

<http://www.redlakewatershed.org/monthwq.html>.

Learn more about the Red Lake Watershed District at www.redlakewatershed.org.

Learn more about the watershed in which you live (Red Lake River, Thief River, Clearwater River, Grand Marais Creek, or Upper/Lower Red Lakes) at www.rlwdwatersheds.org.

“Like” the Red Lake Watershed District on [Facebook](#) to stay up-to-date on RLWD reports and activities.