

By Corey Hanson, Red Lake Watershed District Water Quality Coordinator. 6/24/2020

### **Stage and Flow Monitoring**

District staff deployed water level loggers at the District's flow monitoring sites. Some of the stations needed new deployment pipes because the old pipes had been washed away during the high Fall 2019 or Spring 2020 flows. Some loggers had low batteries and were shipped to Onset for battery replacement. Flow was measured in Grand Marais Creek at the 110<sup>th</sup> St NW crossing, at the Brandt Impoundment inlet (250<sup>th</sup> Ave), and at the Brandt Impoundment outlet (260<sup>th</sup> Ave).

District staff worked on compiling and correcting continuous water level and flow data from tributaries of the Thief River and providing that compiled data to Minnesota Department of Health staff. Minnesota Department of Health staff also requested velocity data for a time of travel analysis. Original flow measurement data was located and used to create velocity rating curves that could be used to estimate average flow velocities based on stage measurements.

### **Long-Term Water Quality Monitoring Program**

The start of 2020 water quality sampling for the District's long-term stream monitoring program was changed from May to June. The quantity of sampling planned for the program will remain the same, but the timing of sampling will be shifted to different months than what was originally planned. Rounds of sampling throughout the District will now be completed during the months of June, July, August, and September 2020.

It is important to sample during all five summer months (May – September) for lakes, so Long Lake was still sampled in May. While preparing to contact the landowner, Charles Evenwoll, to update him on last year's sampling results and obtain permission for this year's sampling, District staff sadly learned that he had passed away in October (<https://www.ceasefuneralhome.com/obituaries/Charles-Evenwoll?obid=8163276>). Charles had welcomed District staff in 2019 for a tour of an old splash dam along the Clearwater River and had shared a lot of information about the history of the area (see the "Logging Legacy" article in the June 2019 Red Lake Watershed District Water Quality Report: <http://redlakewatershed.org/waterquality/MonthlyWQReport/2019%2006%20June%20Water%20Quality%20Report.pdf>.) District staff was able to contact the Evenwoll family to offer condolences and receive permission for another season of sampling. The May 27, 2020 sample exceeded the total phosphorus standard but met the chlorophyll-a and Secchi disk transparency standards.

The MPCA finished compiling 2019 RLWD water quality data (lab data in electronic data delivery format and field data) into a data review spreadsheet. District staff reviewed 20% of the records and returned the data file, along with a few corrections, to the MPCA.

### **River Watch**

Due to COVID-19, the 25th Annual River Watch Forum was cancelled. River Watch organizers from the International Water Institute and the RLWD (Natural Resource Technician, Ashley Hitt) created a series of videos for a Virtual River Watch Forum. To share the results of the Forum Project Competition, a series of videos will be shared throughout the first week of May 2020.



**Day 1**, Introductions and River Watch History: <https://www.facebook.com/watch/?v=663276907554987>

**Day 2**, showed off the 2020 t-shirt and sunglasses that were designed for the 25<sup>th</sup> Anniversary of River Watch: <https://www.facebook.com/watch/?v=239411973933320>

**Day 3**, this video highlighted all the hard work that our students put in this past year: <https://www.facebook.com/watch/?v=3063737690349122>

**Day 4**, the River Watch staff shared some of their project highlights as well as the winners of this year's People's Choice Award: <https://www.facebook.com/watch/?v=2731257276997553>

**Day 5**, Winners Announced: <https://www.facebook.com/watch/?v=1701477463325770>

### **Red Lake River Watershed One Watershed One Plan**

District staff were contacted by landowners near Red Lake Falls about an erosion problem that has washed away a significant portion of a campground and is threatening infrastructure. Though the eroded bank is long, it is not extremely high (approximately 10 feet) and might be fixable with a project that is similar to other nearby projects that have been completed by the Red Lake SWCD. The project would have the added benefit of willing landowners who may have access to material (rock) and the means to move it to the project site. This erosion problem can be included among the potential streambank stabilization projects that could be completed with watershed-based funding, 319 grant funding, or other future funding sources.

### **Clearwater River One Watershed One Plan (1W1P)**

District staff reviewed the Clearwater River Application and provided technical information and other comments.

**Clearwater River Watershed Restoration and Protection Strategy (WRAPS)**

Comments from the MPCA on the Clearwater River WRAPS were received from the MPCA and District staff began using those comments to apply additional edits to the draft Clearwater River WRAPS document.

**Other Notes**

- District staff drafted a Thief River Monitoring Request form with locations where additional data could be beneficial to the 2023 water quality assessment and the stressor identification process.
- District staff, as part of the Red River Watershed Management Board's Water Quality Monitoring Advisory Committee, reviewed a checklist that was being created to standardize the process of reviewing applications for RRWMB water quality funding.
- District staff continued to communicate with City of Thief River Falls staff and their consultant to develop a plan for restoring the oxbow wetland downstream of Pennington Avenue South. Project partners discussed different alternatives for removing trash from stormwater runoff and discussed options for reducing runoff from the snow dumping area on the east side of Pennington Ave S. A later phase of the project should also include stormwater runoff reduction strategies further upstream within the stormwater drainage system that flows into that wetland. A large source of sediment has been eliminated when the city removed the sludge ponds that were located within the block to the north of the oxbow wetland. Sediment samples revealed that a large portion of the sediment in the oxbow wetland was lime sludge that came from those ponds.



- District staff helped City of Northome staff get information from local DNR staff about how to properly remove a beaver dam near the outlet of Bartlett Lake.
- District water quality staff reviewed the Black River Impoundment Project Regional Conservation Partnership Program (RCPP) application that was being drafted by the District Administrator.
- District staff worked on drafting proposals for RRWMB base water quality funding.
- District staff made some additions to the Thief River Watershed monitoring request form (for 2011-2012 intensive watershed monitoring) based on comments received from the Pennington SWCD and sent the form to the MPCA.
- Construction was underway on the Thief River Westside Flood Damage Reduction project, including the stabilization of the drainage system's outlet. An online map was created by MnDOT to explain the projects that were planned for 2020 around the city of Thief River Falls (including a new bridge and new roundabouts).  
<https://mndot.maps.arcgis.com/apps/MapSeries/index.html?appid=2672e3339467430d97633d461ea5ea55>
- Flooding within Old Crossing Treaty Park, near Huot, caused significant damage to the park and its trees. District staff stopped to photograph the aftermath of the flooding while traveling around between water level logger deployment sites. There had been discussion during a recent Red lake River Corridor Enhancement Project meeting about replacing some of the trees in the park and the reasons for that need were evident.



- While traveling across the watershed to deploy water level loggers, District staff photographed fresh erosion problems, including georeferenced photos of sites that need side water inlets to prevent gully erosion in fields and sedimentation in ditches.

Erosion on the west side of 120<sup>th</sup> Ave SE, near Lower Badger Creek



Erosion along the south side of 220<sup>th</sup> St. SW, west of Cyr Creek



## RED LAKE WATERSHED DISTRICT MONTHLY WATER QUALITY REPORT

May 2020

- High flows in September/October 2019 and Spring 2020 caused damage to the Russia 13 stabilization project. There are plans to complete the project and repair the damage in early summer 2020.



- Trees had been cleared from the north bank of Polk CD 79, east of 180<sup>th</sup> Ave SW.



Water quality related notes and minutes from the May 14, 2020 Red Lake Watershed District Board of Managers meeting.

- The Board reviewed Task Order No. 3 for the Pine Lake Project, RLWD Project No. 26 with HDR Engineering, Inc. for Final Engineering of the Project in the amount of \$181,420.00. Discussion was held on the project design and support of the MnDNR. Legal Counsel Sparby stated that once the Plans and Specifications are submitted, the District will hold a hearing on the project. Motion by Dwight, seconded by Page, to approve the Task Order No. 3 with HDR Engineering, Inc. for the Pine Lake Project, RLWD Project No. 26. Upon roll call vote, motion carried unanimously.
- Administrator Jesme discussed the various partners that are assisting in the submittal of a NRCS RCPP funding application for the Black River Impoundment Project, RLWD Project No. 176.
- Engineer Tony Nordby, Houston Engineering, Inc., reviewed the costs and construction plans for the outlet repairs to Ditch 10, RLWD Project No. 161. Nordby stated that additional right-of-way will be required for the project. The District is still waiting to hear from FEMA. Administrator Jesme stated that some funding was earmarked in the Red Lake River 1W1P Work Plan for repairs to the outlet. Jesme stated he will present a cost breakdown at the next Board meeting. Motion by Dwight, seconded by Page, to approve the Plans and Specifications for the outlet repairs to Ditch 10, RLWD Project No. 161. Upon roll call vote, motion carried unanimously.

Water quality related notes and minutes from the May 28, 2020 Red Lake Watershed District Board of Managers meeting.

- The Board reviewed a Memorandum of Agreement for the Clearwater River 1W1P, RLWD Project No. 149B. Administrator Jesme stated that the Clearwater SWCD has taken the lead on the project. Discussion was held on the appointment of Board members to the Policy Committee and Advisory Committee. Motion by Ose, seconded by Torgerson, to authorize President Nelson the authority to sign the Memorandum of Agreement for the Clearwater River 1W1P, RLWD Project No. 149B and appoint Manager Torgerson as the Delegate, and Manager Dwight as the Alternate to the Policy Committee and Manager Sorenson to the Advisory Committee. Upon roll call vote, motion carried unanimously.

### **May 2020 Meetings and Events**

- **May 4, 2020** – RLWD staff meeting teleconference
- **May 7, 2020** - Phone/Skype/Teams meeting with USGS staff to discuss errors that were found on the USGS Streamstats website. District staff, while using the USGS Streamstats website, found errors in the routing of flows in the Thief River Watershed between the Moose River and Agassiz National Wildlife Refuge and reported them to the USGS. District staff helped USGS staff discover the sources of the errors and document them for future correction if funding becomes available.
- **May 11, 2020** – RLWD staff meeting teleconference
  - District staff will be completing the Clearwater River Watershed culvert inventory in May so that the Clearwater River Watershed LiDAR digital elevation model can be hydroconditioned in preparation for the development of a PTMApp model for the watershed.
  - The Board hired an Engineering Specialist, Dave Marshall. Dave has many years of experience working watershed districts, SWCDs, and consultants. His surveying and

design (AutoCAD) skills will be a valuable addition to the staff and help implement the many projects that are planned for drainage system improvements and 1W1P implementation.

- **May 14, 2020** – Thief River Falls Source Water Funding teleconference (City of Thief River Falls staff, Thief River Falls Mayor Holmer, Minnesota Department of Health, Minnesota Pollution Control Agency, Environmental Protection Agency)
  - Funding for relocating the city of Thief River Falls intake for the city’s drinking water was discussed. After Mayor Holmer made a trip to Washington D.C. and met with officials, he was optimistic that there would be Federal funding available to fund the project. Rather than grants, however, the agency representatives on this call discussed loans like the state of Minnesota’s Clean Water Stated Revolving Fund program and the EPA Water Finance Clearing House. The city, however, is concerned about borrowing additional money and is worried about having to raise rates.
  - There was some discussion about the “long-term” solutions that would involve changes in the management of sediment and water within Agassiz Pool. There was discussion about permits related to the excavation. It was noted that the USFWS proceeded with the clean-out of the JD 11 channel within the pool was permitted as a drainage project along a legal ditch system. It was also noted that excavation of the JD 11 channel was primarily a habitat improvement project that may have had different permitting requirements. Issues with the USFWS operation of Agassiz Pool will be moved up the ladder of authority within the USFWS.
- **May 18, 2020** – Webex meeting to discuss ideas for the Thief River Falls oxbow wetland cleanout project. The city property to the north of the oxbow (where the sludge ponds had been located) was ruled out as a location for a stormwater treatment pond because it has a very small drainage area. Some of the trash removal options have been ruled out due to maintenance and aesthetic concerns. Discussion of stormwater treatment came to focus on something (vegetation, pond, trash rack, higher riser, tile drainage, etc) near the riser that drains water from the snow dumping area to the oxbow wetland. The group discussed different strategies and their trade-offs. Space for a pond may be limited because of the space required to store all the snow that is moved to the site over a winter. It appears that much of the sediment and trash currently settles-out throughout the area. Removal of some of that sediment for use as fill material was discussed.
- **May 18, 2020** – Koochiching County Local Work Group teleconference to discuss conservation priorities
  - The group reviewed rankings of different resource concerns and causes.
  - Addressing excess nutrient runoff was one of the priorities
  - Erosion was the highest priority concern. There was some discussion about whether to include pasture as an erosion concern. Multiple people were in favor of including pasture as an erosion concern due to the damage that cattle can do to streambanks.
  - The ranking of sediment transport was increased because it covers sediment and nutrient transport to lakes.
- **May 20, 2020** – Red River Watershed Management Board conference call to discuss and comment on anticipated cuts to Clean Water Funding to BWSR, MPCA, and DNR programs due to decreased sales tax revenue caused by the Covid-19 pandemic.
- **May 26, 2020** – RLWD staff meeting teleconference



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

**May 2020**

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](http://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](http://www.rlwdwatersheds.org).

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