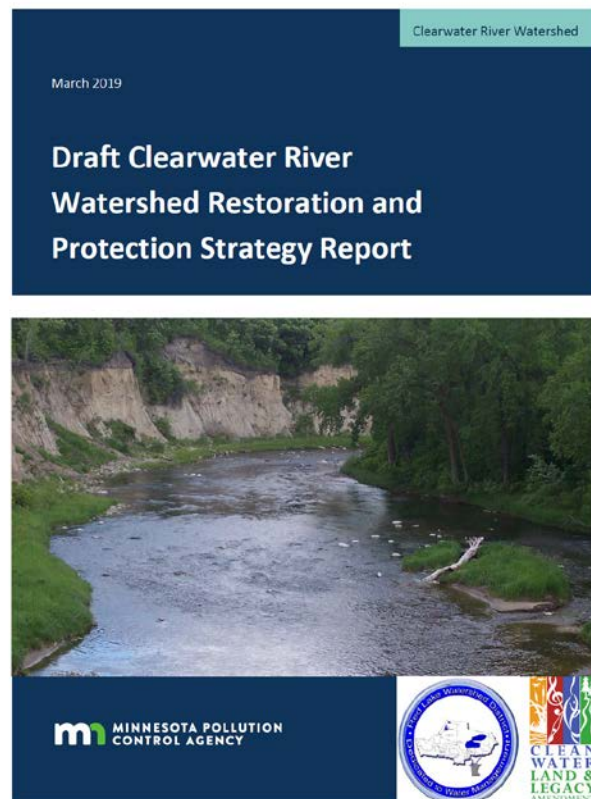
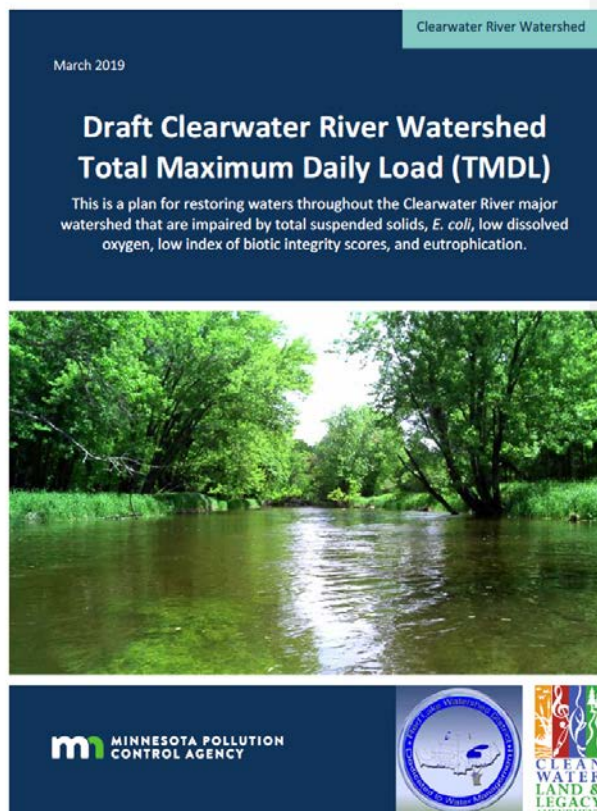


By Corey Hanson, Red Lake Watershed District Water Quality Coordinator. 8/7/2019.

Clearwater River Watershed Restoration and Protection Strategy (WRAPS) Project

Some final edits were completed during the first week of April to finish draft Clearwater River Watershed Restoration and Protection Strategy and Clearwater River Watershed Total Maximum Daily Load reports. In addition to providing the draft documents to the MPCA Project Manager, the draft documents were shared with members of the “core team” technical advisory committee. Comments were encouraged. A final report was completed and submitted to the MPCA for the Clearwater River Watershed Restoration and Protection Strategy contract.

- Edits of the WRAPS Restoration and Protection tables
- Additions to the protection strategies section of the WRAPS
- Cost estimates for obtaining desired load reductions
- New table that prioritizes reaches for restoration based upon load reduction estimates
- Improved maps
- Detailed review and edits



Staff from the RLWD and MPCA began working on a workplan for the process of preparing these documents for the public notice period.

RED LAKE WATERSHED DISTRICT
MONTHLY WATER QUALITY REPORT

April 2019

Table 1. Prioritization of restoration efforts in the Clearwater River based on the amount of pollutant load reductions that are needed

Stream Name	Assessment Unit	Drainage Area	TSS Annual Load Reduction Estimate (Tons/Year)	TSS Reduction (Tons/Acre)	TSS Percent Reduction	Total TSS Rank	TSS/ acre Rank	TP Annual Load Reduction Estimate (lbs/Year)	TP Reduction (lbs/Acre)	TP Percent Reduction	Total TP Rank	TP/ acre Rank	E. coli Annual Load Reduction Estimate (billion orgs./year)	E. coli Reduction /Acre (billion orgs/year)	E. coli Percent Reduction	Total E. coli Rank	E. coli /acre Rank	Average rank
Silver Creek	09020305-527	34.37											43.96	1.3	1.59%	1	1	1.00
Long Lake	04-0295	20.78						217.36	10.5	45.75%	1	1						1.00
Clearwater River	09020305-648	569.42	950	1.7	23.70%	2	1											1.50
Clear Brook	09020305-526	6.24											367.92	59.0	22.40%	2	4	3.00
Cameron Lake	60-0189	3.6						1,053.13	292.5	65.16%	3	3						3.00
Stony Lake	15-0156	2.52						767.21	304.4	83.94%	2	4						3.00
Clearwater River	09020305-647	488.81	873	1.8	21.92%	1	2	28,238.23	57.8	56.55%	4	2	4031.79	8.2	4.06%	9	2	3.33
Clearwater River	09020305-501	1358.19	2,471	1.8	33.73%	4	3											3.50
Clearwater River	09020305-511	1198.3	7,123	5.9	53.96%	5	4											4.50
Terbonne Creek	09020305-574	14.94											1191.73	79.8	52.35%	4	6	5.00
Nassett Creek	09020305-545	6.15	1,385	225.2	35%	3	5						911.04	148.1	35.42%	3	11	5.50
Hill River	09020305-539	177.23											6050.32	34.1	21.06%	10	3	6.50
Lost River	09020305-529	30.62											2823.64	92.2	18.61%	6	7	6.50
Lost River	09020305-530	20.5											2027.58	98.9	34.07%	5	8	6.50
Poplar River	09020305-504	116.82											8622.76	73.8	29.91%	11	5	8.00
Beau Gerlot Creek	09020305-651	24.06											3364.94	139.9	21.64%	7	9	8.00
Brooks Creek	09020305-578	23.56											3477.72	147.6	42.37%	8	10	9.00
Lost River	09020305-512	60.13											9913.4	164.9	48.56%	12	12	12.00
Lower Badger Creek	09020305-502	122.2											20220.27	165.5	50.13%	13	13	13.00
JD 73	09020305-550	49.99											27523.36	550.6	51.37%	14	14	14.00
Ruffy Brook	09020305-513	54.05											60888.82	1,126.5	74.60%	15	15	15.00

River Watch

- April 4, 2019 - River of Dreams with Clearbrook-Gonvick elementary students
- April 17, 2019 – River Watch sampling with the Clearbrook-Gonvick River Watch team

Red Lake River Watershed Restoration and Protection Strategy (WRAPS) Project

RLWD staff reviewed a new draft summary of the Red Lake River WRAPS. A final report was completed and submitted to the MPCA for the Red Lake River Watershed Restoration and Protection Strategy Public Notice contract.

Red Lake River Watershed One Watershed One Plan

The Board of Water and Soil Resources (BWSR) in partnership with the MN Association of Soil and Water Conservation Districts applied to Natural Resources Conservation Service (NRCS) for an Regional Conservation Planning Partnership (RCPP) in 2017 based on wanting to leverage Clean Water Funds made available to BWSR to fund implementation of performance based watershed implementation plans known as One Watershed, One Plan (1W1P). The application was approved in December of 2017. The approved project is called “One Watershed, One Plan Accelerated Implementation”. The program has allocated a total of \$428,020 to the Red Lake River Watershed. The project will:

- Leverage federal funds with Clean Water Funds (\$8.75 mill) appropriated to BWSR for performance-based watershed implementation.
- Advance the 1W1P implementation framework to accelerate the prioritized and targeted implementation of BMPs that has the ability to move the water quality needle forward faster than our current implementation framework.
- Enable accelerated implementation of soil and water conservation practices in priority sub-watersheds, in locations which will return the greatest return on investment, and which can be shown to collectively achieve measurable water quality improvement goals.

The Planning Work Group met via teleconference on April 10, 2019 to discuss project tracking, project implementation progress, RCPP funding and a workplan amendment. Outreach for the RCPP program will be increased next year to improve participation. Project tracking has been set up in ArcGIS Online. There is a shapefile that can be edited and there are drop-down menus for populating fields in the attribute table. Jim Hest, conservation engineer with the Red River Valley Conservation Service, is retiring in July. A project along Burnham Creek will be added to the work plan. Ditch 16 will be constructed this year.

The Planning Work Group met on April 30, 2019 to discuss project implementation progress on the current workplan, project ideas for the next workplan, cost-share policy, and policy committee agenda items. Some edits will be made to the list of priority projects in the work plan and their respective budgets. A grade stabilization structure was constructed last fall in Section 34 of Wylie Township in Red Lake County.

There has been progress made on the surveying work needed to design and install the 166 side water inlets that were funded in Polk County, Red Lake County, and Pennington County. The outlet of Pennington County Ditch 96 will be stabilized under a memorandum of agreement with Red Lake County to use unused funds from an erosion control grant that they had received.

Project ideas for the next round of funding or with leftover funds from the first workplan included:

- Side water inlets along the Black River diversion ditch.
- Grade stabilization WASCOB along Browns Creek in Section 32 of Red Lake County
- Grade stabilization project in Section 10 of Louisville Township along the Black River
- Grade stabilization of a ditch outlet downstream of CSAH 11 in Sections 26/27 of Louisville Township in Red Lake County
- Grade stabilization of a ditch outlet downstream of CR 19 in Red Lake County in the NW ¼ of Section 14 of Red Lake Falls Township

Thief River Watershed Restoration and Protection Strategy (WRAPS) Project

The Thief River TMDL was officially approved by the EPA.

Thief River One Watershed One Plan (1W1P)

Planning work group (PWG) members participated in a conference call and an in-person meeting in April 2019.

Grand Marais Creek Watershed Restoration and Protection Strategy (WRAPS)

A final report was completed and submitted to the MPCA for the Grand Marais Creek Watershed Restoration and Protection Strategy Public Notice contract.

Other Notes

- Water quality related notes from the April 25, 2019 Red Lake Watershed District Board of Managers meeting:
 - Manager Dwight discussed photos he took of tile pumps running into an already flooded ditch system. Discussion was held regarding tile pumps running and not allowing for downstream maintenance of a ditch system.
- RLWD staff reviewed a Red Lake River water quality study proposal from the University of Minnesota Extension
- A monitoring checklist/plan for 2019 sampling for the District's long-term water quality monitoring program was created. The outlet of Four-Legged Lake was added to the list of sites that will be sampled in 2019.
- A description of monitoring activity in the Red Lake River Watershed, particularly in targeted subwatersheds was written and provided to MPCA staff for inclusion in the 319 Focus Watersheds grant workplan.
- The problem of polluted drainage to the Hill River in Brooks was discussed with Red Lake County staff. They discovered that the drainage is flowing through an old clay tile line. They have proposed plugging the tile to prevent future discharge through the clay pipe. There will still be adequate surface drainage through surface culverts and the road ditch.
- A mass of winterkilled fish was found in the Moose River. The suckers appeared to have died from being trapped in the stream over the winter.



- Spring runoff left behind some large washouts and other erosion problems.

Erosion along JD 60



Erosion and sedimentation from a field along the east side of CSAH 12 in Pennington County. The field had no buffer along the ditch and no other BMPs to reduce erosion.



Meetings and Events from April 2019

- **April 1, 2019** – Red Lake River 319 Small Watershed Focus Program meeting

- As a follow-up to this meeting, RLWD staff wrote a summary of monitoring activity that pertains to the reaches that will be targeted for this project. The summary will be used by MPCA staff for a section of the work plan that they are writing.
- **April 8, 2019** – Pennington County Water Resources Advisory Committee
 - Pennington County Ditch Outlet Analysis Project: The county is using drones to capture LiDAR elevation profiles of 53 legal ditch outlets in the county.
 - Thief River PTMApp: Data has been run and is being used to develop a targeted implementation schedule.
 - The Pennington SWCD received a Clean Water Fund Grant to stabilize streambanks within the city of Thief River Falls that were identified as priority projects by the Thief River Falls (stormwater) Water Quality Study. The work plan has been approved and design work for the Hartz Park erosion site will start soon.
 - Red Lake River One Watershed One Plan Update
 - Thief River One Watershed One Plan: A draft of the full plan is expected in June 2019.
 - The SWCD received an extension to finish work on gully control projects that were funded by an Ecofootprint Grant.
 - Gravel pit ordinances: A lack of gravel pit reclamation and preliminary site review in the county has created some problems. Weed management is one of the primary concerns.
 - The SWCD has completed Wetland Conservation Act work for the new bridge south of Thief River Falls and a new apartment complex that will be constructed near Walmart in Thief River Falls. The SWCD has also been busy with septic inspections, tree plantings, monitoring observation wells, and buffer inspections. The SWCD will be helping with the April 24, 2019 Envirothon event. The waters in the county are close to being in compliance along public waters but are “a ways off” for buffer compliance along ditches.
 - Funding for EQIP was reduced in the latest Farm Bill.
 - BWSR update: The Red Lake River One Watershed One Plan can expect another round of funding by the end of 2019. The Thief River could be eligible for its first round of noncompetitive funding, as well, if the 1W1P is completed on time.
 - The United States Fish and Wildlife Service will finish cleaning out sediment from the JD 11 channel that was dammed to create Agassiz Pool in October 2019. The work should take 2-2.5 weeks to complete.
 - The pipe for the underground portion of Chief’s Coulee will be replaced in the summer of 2019.
- **April 10, 2019** – Red Lake River One Watershed One Plan Planning Work Group conference call
- **April 11, 2019** – East Polk Soil and Water Conservation District Annual Planning Meeting
 - Polk County Geological Survey
 - The county was contacted by the Minnesota Geological Survey. The Brooks/Terrebonne/Erskine area set a record for well interference last year. The project will rely upon available GIS data, well locations, and well logs. No additional testing will be involved. The West Polk SWCD participated in a well water nitrate testing clinic and found zero nitrates. An East Polk SWCD employee’s well is affected when the Yaggie farm’s irrigation well is pumping.
 - The SWCD purchased two kayaks for lake sampling.
 - There are cattle along Turtle Lake that may be affecting water quality.

- There was a question about the costs of aerating a lake. Hill river Lake, Cross Lake, and Whitefish Lake have experienced winterkill of fish.
- The Cameron Lake erosion problem along the south shore will be examined and the SWCD will plan on submitting a grant application. Restoration of Cameron Lake will generally involve three phases: 1) reduction of nutrient inputs, 2) evaluation of in-lake management alternatives, and 3) application of strategies to improve water quality conditions.
- Last year's application for Clean Water Funding of WASCOD installations in the Clearwater River watershed will be re-submitted. Staff from BWSR offered to review the application.
- The timing of the Clearwater River 1W1P was discussed.
- Well sealing, cover crops, nutrient management (nitrogen), and weed management were also discussed.
- **April 11, 2019** – Thief River One Watershed One Plan Planning Work Group conference call
- **April 16, 2019** – Clearwater County Local Work Group meeting
 - Reviewed fiscal year 2019 resource concerns and priority areas
 - Reviewed fiscal year 2019 activities
 - 11 EQIP applications last year
 - No-till program is getting more user-friendly
 - The SWCD used buffer funding and cost-share from the RLWD to fund grade stabilization projects along Silver Creek.
 - Discussed and prioritized fiscal year 2020 resource concerns and priority areas
 - Local work group input and recommendations on areas of concern, programmatic recommendations, outreach, ranking criteria, monitoring, and coordination. The top ten resource concerns and causes were selected and ranked for cropland, forestland, pastureland, and farmsteads.
 - The loss of stands of ash trees was discussed. Ash trees grow as pure stands. When the stands die-out, the ground gets wet, is taken over by sedge, and will never be forested again.
 - There was concern about lots of forested land being converted into pastureland in the county.
 - There was some discussion about a medication that kills parasites in cows but also kills beneficial bugs that break down manure.
- **April 16, 2019** – Red River Basin Monitoring Advisory Committee Meeting to discuss Tiered Aquatic Life Use standards
 - TALU Application in the Red River Basin
 - MPCA is looking for input on the history of ditch systems.
 - Classification and Assessment of Legal Ditches
 - Ditches weren't specifically targeted for sampling. The watershed approach was trying to be unbiased and treated all "blue lines on the map" equally.
 - There is concern about the effect of use classification on the ability to conduct ditch maintenance. There may be implications for the maintenance process if a ditch is found to be impaired for aquatic life and a state permit is required to do the work. Additional BMPs may be required under state permits. Regular maintenance, however, should not be restricted.
 - Class 3 and 4 Waters Classification Background

- The MPCA goes back 5 year to look at crop use when classifying streams.
- The MPCA is trying to use common sense and apply standards based on what is actually being grown.
- There was concern about water quality standards for water that is used for irrigation. The concern was that the standards might limit irrigation in some manner and that it might represent overregulation. The MPCA staff explained that the purpose of the standard was to protect the irrigator (making sure that the water is safe to use for irrigation), not to limit the irrigator. The is more cause for concern about the quality of water for irrigation if there is a wastewater treatment facility upstream.
- Almost every wastewater treatment facility discharges water that is high in chloride (conditioner salt). High chloride can increase salt levels and cause problems for aquatic life and irrigators. A narrative standard would take into current conditions into account.
- Classification of Class 3 and 4 waters will not affect appropriations for golf courses.
 - Questions for MPCA and Review
- **April 17, 2019** – Thief River One Watershed One Plan Planning Work Group meeting to discuss project implementation ideas for the first annual workplan
- **April 30, 2019** – Red Lake River One Watershed One Plan meeting

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.