

The Red Lake Watershed District and its project partners combined efforts to submit a new “record” number of samples to the Minnesota Pollution Control Agency for storage in the EQuIS water quality database. Multiple projects contributed to the historically high total, including the RLWD long-term monitoring program, Clearwater River Watershed Restoration and Protection Project, Clearwater River Surface Water Assessment Grant, Red Lake River Watershed Restoration and Protection Project, and Thief River Watershed Restoration and Protection Project. This graph only includes data submitted to the MPCA by the RLWD from RLWD-managed projects. Additional data collected within the RLWD and submitted to EQuIS, but not shown in the graph above, comes from the River Watch program (historically submitted by the International Water Institute until this year), soil and water conservation district monitoring programs, and sampling conducted by the International Water Institute for multiple project.

Clearwater River Watershed Restoration and Protection (WRAP) Project

- Objective 3 – Flow Monitoring
 - HOBO water level loggers were retrieved in mid-November when air temperatures dropped and ice started to form on rivers and streams.
- Objective 7 – Data Entry
 - 2014 data for this project was reviewed and submitted to the MPCA for storage in the state’s EQuIS water quality database.
- Objective 9 – Civic Engagement
 - RMB Environmental Labs, MPCA, and RLWD staff worked on planning a public open house event for the Clearwater River WRAP to be held in Clearbrook in December. Each participating agency created poster displays for the event.

- o RMB Environmental Laboratories staff created and mailed a brochure that introduced the Clearwater River WRAP project to 3,899 landowners and announced the details of the upcoming open house event.

Watershed Restoration & Protection Plan

Bringing together local community knowledge and insight with quality data and technical resources to create management plans that will guide future projects and funding sources specific to the needs of the Clearwater River Watershed.




1 Data Collection

New data was collected in 2014 and combined with historical data. Water chemistry, stream channel stability, and biological community data was collected to inform this study.

2 Discussions

Informational meetings and discussions will take place as information and data are collected. Please consider participating in these events to provide your individual perspective and knowledge about the watershed.

3 Final Plans

Final management plans will prioritize targeted activities in the watershed that will allow water bodies to safely meet water quality standards. These plans will guide local management of water resources in the Clearwater River Watershed.

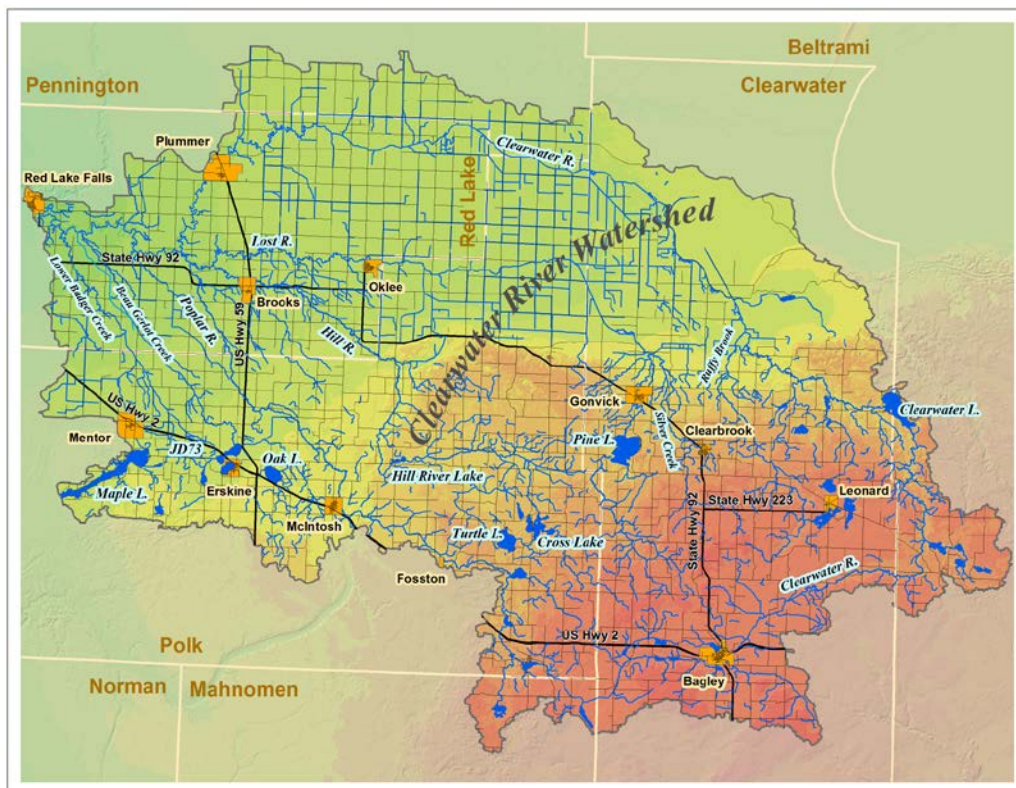
Upcoming Meeting

Join us for an Open House to learn about what studies are being conducted on the Clearwater River. Please come at whatever time works best for you.

Open House
December 2, 2014
2:00 - 4:00 p.m. and 5:00 - 7:00 p.m.

Clearbrook Community Center
200 Elm St, Clearbrook, MN 56634
Cookies and refreshments will be served.

- o RMB staff created a map of the Clearwater River that was designed to be printed in a poster-sized print for use during the Clearbrook open house event and other future events.



- RMB staff also created a flyer to invite people to the open house event. They also created a similar-looking large format sign to display at the meeting place. Press releases were sent to eight area newspapers and to radio stations.

The Red Lake Watershed District
Invites You To:

Learn About the Clearwater River!

The Red Lake Watershed District is currently working on a plan for water quality restoration and protection for the Clearwater River in northwestern Minnesota. Come learn about this project and share your ideas. MPCA, DNR and Red Lake Watershed District Staff will be on hand to explain the study and answer questions.

Open House

December 2, 2014

2:00-4:00pm and 5:00-7:00pm

Clearbrook Community Center

200 Elm Street, Clearbrook, MN

Stop by whenever it is convenient for you!

Refreshments will be provided.

Kids are welcome.





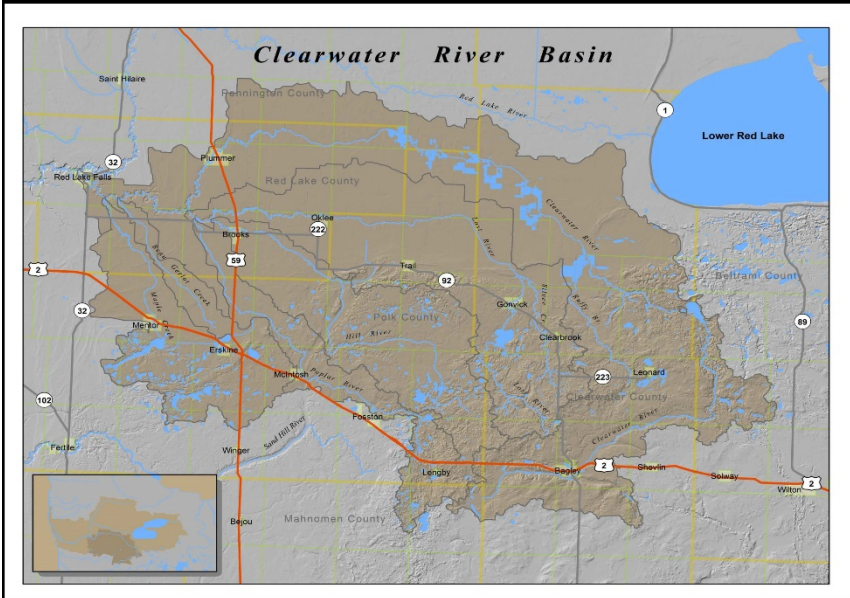
Clearwater River by Bagley

www.redlakewatershed.org | clearwaterriver.wordpress.com

Clearwater River Watershed Restoration and Protection

Objectives for this Four Year Project:

1. **Evaluation of Existing Data** (assessment of water quality data, report)
2. **Water Quality Sampling** (add parameters to SWAG sampling, pre-9am dissolved oxygen)
3. **Flow Monitoring**
4. **Continuous Dissolved Oxygen Monitoring** (10 2-week logger deployments at 16 sites)
5. **Stream Channel Stability Assessment** (geomorphology, erosion potential)
6. **Pollutant Source Investigation and Stressor Identification** (investigative sampling)
7. **Water Quality Monitoring Data Entry**
8. **Data Analysis**
9. **Civic Engagement** (public meetings, website development)
10. **Reports**
 1. **Watershed Restoration and Protection Strategy (WRAPS) report**
 2. **Total Maximum Daily Load (TMDL) reports for impaired waters**
 3. **Protection plans for waters that are meeting water quality standards**

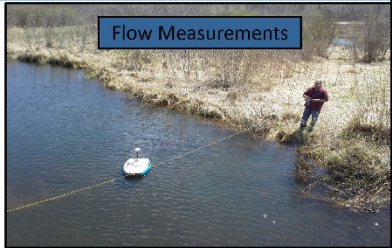
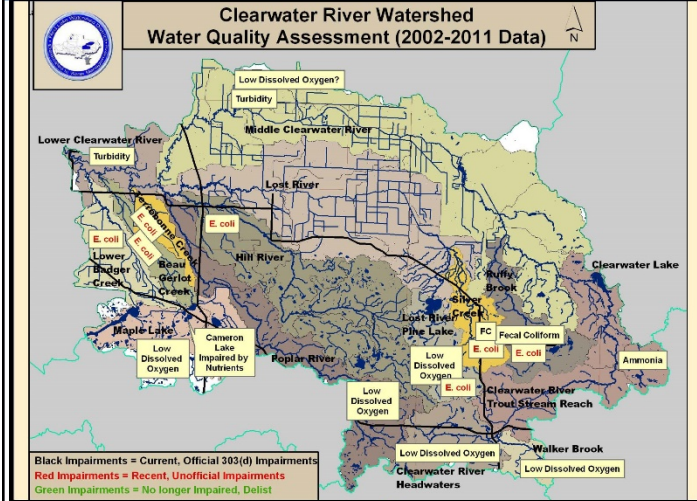


CLEAN WATER LAND & LEGACY AMENDMENT



River Sampling and Field Measurements

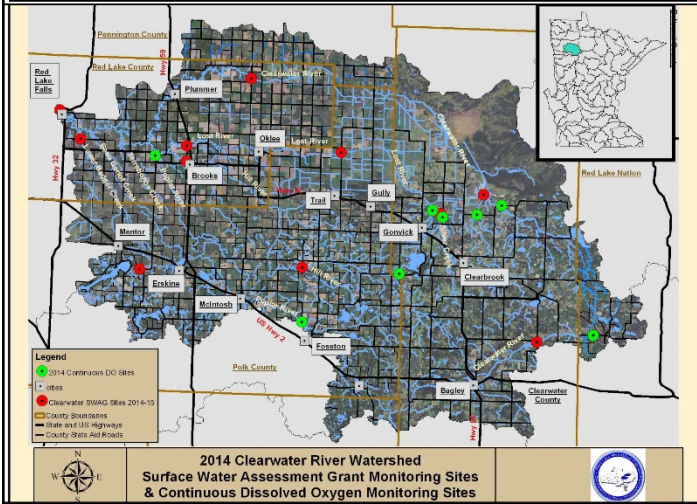
Monitoring the Clearwater River Watershed



Flow Measurements



Lakes



Geomorphology



Deployment of Dissolved Oxygen and Water Level Logging Equipment



Rain Gardens

www.redlakewatershed.org | clearwaterriver.wordpress.com

Protecting and Restoring Water Quality

Stormwater ponds like these in Bagley and Clearbrook reduce sedimentation from street, parking lot, and construction runoff.



Rock riffle grade stabilization structures stabilize the river channel and reduce downward channel bottom erosion.



Riparian vegetation along river and stream banks makes a big difference.



Erosion due to vegetation removal by grazing

Stable banks nearby where vegetation is left intact

Side water inlets reduce the amount of gully erosion in fields.



Before

After



Installation of tile drainage systems with main line outlets in wild rice paddies has reduced the amount of in-paddy erosion and sedimentation in the river when paddies are drained prior to harvest.



Erosion within a paddy ditch

Surface Drained

Main Line Tile Drained

Erosion control projects



1999

2004

2014

Red Lake River Watershed Assessment Project
(Watershed Restoration and Protection - WRAP)

- Task 5 – Flow Monitoring
 - HOBO water level loggers were retrieved in November. A couple of loggers could not be retrieved. The cable broke on the JD60 logger and it is at the bottom of the ditch near the lower fence post that was supporting the deployment pipe. It will have to be retrieved next year. The Red Lake River at CSAH 27 was too deep to retrieve the HOBO water level logger that is deployed at that site. It will either have to be retrieved through the ice during the winter or retrieved during the spring/early summer of 2015.



- Task 8 – Data Entry
 - A data review was completed on the 2014 EQUIS data submittal for the Red Lake River WRAP
- Task 9 – Data Analysis
 - The MPCA’s official assessment process for the Red Lake River began in November. The MPCA will hold internal Watershed Assessment Team meetings in December, then get input from local agencies during a Professional Judgment Group meeting in early 2015.

- Task 10 – Civic Engagement
 - The best of the Red Lake Watershed District’s collection of photos taken within the Red Lake River watershed were uploaded to a Google+ folder so that Emmons and Olivier Resources staff could use them in the creation of the Red Lake River website and RMB Environmental Laboratories staff could use them for civic engagement efforts.

Thief River Watershed Assessment Project
(Watershed Restoration and Protection - WRAP)

- Task 5 – Flow Monitoring
 - HOBO water level loggers were retrieved in November when temperatures when ice began to form on area rivers and streams.
- Task 11 – Civic Engagement
 - Began sharing monthly RLWD water quality reports with WRAP stakeholders on the project’s email contact list.

Grand Marais Creek Watershed Restoration and Protection Project

Only a minimal amount of water quality data was collected specifically for this project in 2014. The data that was collected within the Grand Marais Creek watershed will be submitted with the RLWD’s Long-Term Monitoring data submittal.

HOBO water level loggers were retrieved in mid-November when temperatures dropped below freezing and ice began to form on rivers, streams, and ditches.

RLWD and Emmons and Olivier Resources (EOR) staff discussed the timing and topics of the next technical advisory and stakeholders update meetings.

The MPCA’s official assessment process for the Red Lake River began in November. The MPCA will hold internal Watershed Assessment Team meetings in December, then get input from local agencies during a Professional Judgment Group meeting in early 2015.

Other Notes

- Water quality related topics from the November 13, 2014 RLWD Board of Managers meeting:
 - The construction of the Grand Marais Creek Channel Restoration Project continued into November. The project’s engineer recommended giving notice to the contractor to halt work for 2014 due to a lack of available rock and completion of work on the downstream channel.
 - Work on the Burnham Creek Project No. 43B, C, and D, Phases 1-4 has been substantially completed.
 - Staff member Gary Lane stated that due to high water levels on State Ditch 83, limited work was completed on the ditch system. Lane stated that in late

September, seven side water inlet culverts were installed. Once the water level recessed, a Contractor was hired to repair several sloughed areas.

- The River Watch Fall Kick-Off will be held at the District office on November 17 starting at 9:00 a.m.
- Water quality related topics from the November 25, 2014 RLWD Board of Managers meeting:
 - 95% of the Grand Marais Creek Channel Restoration Project's channel excavation is completed, with most of the channel being opened by the end of this week.
 - Cattail mowing was completed at the Parnell Impoundment as part of a University of Minnesota, Crookston and Red River Basin Commission study on cattail management for wetland wildlife and bioenergy production.
 - Due to a variety of set-backs, a complete harvest biomass was not possible. It was the consensus of the Board, to invite Mr. Svedarsky to a future meeting to discuss the process and results of harvesting of cattails.
- Red Lake Department of Natural Resources Winter Newsletter:
 - http://www.redlakednr.org/PDF/2014_2015%20winter.pdf
 - Improving fish passage.
 - Environmental Assessments
 - Lead poisoning in wildlife
 - Red Lake walleye population
- The International Water Institute released a September-October issue of their River Rendezvous newsletter
 - http://www.iwinst.org/wp-content/uploads/2014/11/RWRendez_Issue-19_SepOct2014-PDF.pdf
 - River Explorers kayaking trips
 - <http://www.iwinst.org/education/river-watch-river-explorers-program>
 - River Stories videos and online photo sharing
 - <http://youtu.be/1d9HYOUOGPM>
 - Clearwater River
 - <http://www.arcgis.com/apps/MapTour/index.html?appid=182891a4ac4b46e996b5817601584c34>
 - Minnesota Department of Agriculture nitrate rule development
- In preparation for GIS and Water Quality Technician Jim Blix's retirement, RLWD staff interviewed a number of excellent candidates for the job.
- The Red Lake Watershed District hired Ashley Hitt as the new GIS and Water Quality Technician.
- Cattail harvesting began in the Parnell Impoundment
 - Project work plan:
http://www.lccmr.leg.mn/projects/2014/work_plans/2014_06i.pdf

November Meetings/Events

- **November 17, 2014** – Upper and Lower Red Lakes Watershed Restoration and Protection Project planning meeting with Red Lake DNR, MPCA, DNR, and SWCD staff in Bemidji.

Plans for the rest of 2014 and early 2015

- Thief River Watershed Restoration and Protection Project.
 - Creating Stream Power Index maps.
 - Create a web page dedicated to the Thief River Watershed
 - Flow characterization
 - Finish a summary of existing data
 - Work on writing Watershed TMDL and WRAPS report documents
 - Compile continuous dissolved oxygen data from Smiley Bridge at the end of the year.
- Red Lake River Watershed Assessment Project
 - Creating Stream Power Index maps.
 - Create a webpage dedicated to the Red Lake River
 - Flow characterization
 - Work on writing Watershed TMDL and WRAPS report documents
 - Provide input during the assessment process
- Clearwater River Watershed Restoration and Protection Project
 - Compile 2014 continuous dissolved oxygen data
 - Compile existing data and summarize existing reports
 - Open house event to introduce the public to the project
- Grand Marais Creek Watershed Restoration and Protection project
 - Plan the next technical advisory committee and public open house meetings.
- Articles for the 2014 RLWD Annual Reports
- Semi-annual reports for WRAP and SWAG projects
- Compile 2014 stage and flow data

Upcoming Meetings/Events

- **December 2, 2014** – Public kick-off meeting for the Clearwater River WRAP
- **December 3, 2014** – Marshall County Water Resources Advisory Committee Meeting
- **December 4-6, 2014** – Minnesota Association of Watershed Districts 2014 Annual Meeting and Trade Show
- **December 31, 2014** – Interim progress report for the Clearwater River SWAG is due.
- **January and February 2015** – Thief River, Red Lake River, and Grand Marais Creek WRAP stakeholders meetings (dates not set)
- **February 1, 2015** – Semi-annual progress reports for the Thief River, Red Lake River, Grand Marais Creek, and Clearwater River Watershed Restoration and Protection projects are due.
- **February 4, 2015** – Marshall County Water Resources Advisory Committee Meeting

- **February 11, 2015** – Red Lake River and Grand Marais Creek Best Professional Judgment Group meeting for the Minnesota pollution Control Agency’s official assessment of 2004 through 2014 water quality data in those watersheds. The meeting will be held from 10 am to 2 pm at the Red Lake Watershed District meeting room.
- **March 5, 2015** – 12th Annual Red River Basin Water Quality Monitoring Training, 8:30 am - 4:00 pm at the University of Minnesota Crookston
- **March 9, 2015** – Grand Marais Creek Watershed Restoration and Protection Project Technical Advisory Committee meeting and public open house event at the East Grand Forks Campbell Library
 - 1:00 – 3:00 PM - Technical Advisory Committee meeting
 - 4:00 – 6:00 PM – Open House
- **March 18, 2015** – One Watershed One Plan Kick-Off Meeting at the Red Lake Watershed District Office.
- **March 23-24, 2015** – Snake River and Grand Marais Creek HSPF Model Training Workshop
- **April 8, 2015** – Marshall County Water Resources Advisory Committee Meeting
- **May 29, 2015** – Target date for completion of a draft watershed TMDL for the Thief River watershed.
- **June 30, 2015** – Target date for completion of a draft Thief River Watershed Restoration and Protection Strategy (WRAPS) report
- **June 30, 2015** – Scheduled completion date for the Thief River Watershed Restoration and Protection Project.
- **July 8, 2015** – Marshall County Water Resources Advisory Committee Meeting
- **September 2015** – Pennington County Outdoor Education Day
- **September 2015** – Northwest Minnesota Water Festival in Fertile and Warren
- **September 2015** – Thief River Open House Meeting
- **November 4, 2015** – Marshall County Water Resources Advisory Committee Meeting
- **December 31, 2015** – Planned completion date for the Red Lake River Watershed Restoration and Protection Project (Draft TMDL and WRAPS reports)

Quote of the Month:

“Adversity causes some men to break records.”

– William Arthur Ward

“Failure seldom stops you. What stops you is the fear of failure.”

– W.J. Slim

Red Lake Watershed District Monthly Water Quality Reports are available online at: <http://www.redlakewatershed.org/monthwq.html>. “Like” the Red Lake Watershed District on [Facebook](#) to stay up-to-date on RLWD reports and activities.