

June 17th, 2013 Grygla Open House Event



An open house event was held at the Grygla Community Center on June 17th as part of the ongoing Thief River Watershed Restoration and Protection Project civic engagement efforts. Andy Mohn of RMB Environmental Laboratories did a great job of organizing the event. The purpose of the event was to provide an opportunity for adults and children to enjoy themselves while learning about water and the watershed. The event was held later in the day (3-6 PM), so people could attend after work. Popcorn and lemonade were provided as refreshments. Displays were set up with information about the Thief River WRAP study and water quality conditions within the watershed. A slideshow also played as part of the display. Turnout was lower than we had hoped, but the format made the visit enjoyable for those who came. We got to meet, talk with, and learn from some people we haven't met before. When we hold events like these in the future, we will try to coincide with a larger event that is taking place in town (like the Thief River Falls Community Expo) so we might be able to visit with more people.

The kids in attendance were able to decorate a canoe that they could either keep or launch into the river and track via the International Water Institute's website. They also played "Water Olympics" games in which they experimented with water's physical properties like surface tension and cohesion. Attendees were able to enter a door prize drawing. There were separate drawings for kids and adults. Kids had a chance to win a ladybug habitat, a butterfly garden, or a grow-a-frog habitat. Adults could win a \$40 gas card, a Red Lake Watershed District travel mug, a rain gauge, or a very nice Under Armour windbreaker that was donated to the event by DigiKey. RMB, RLWD, MPCA, and Marshall County SWCD staff helped run the event.



Jerome Street Streambank Stabilization Project (Thief River Falls)



Clearbrook Stormwater Pond



Bagley Stormwater Pond (Constructed in 2003, still working well)



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

The Phase II work plan, budget, and funding were added to the project via an amendment. This means that any unspent money from Phase I will still be available past June 30, 2013 until the end of the project on June 30, 2015. The Phase II amendment adds additional funding for water quality monitoring, flow data collection, stressor identification, data analysis, civic engagement, and report writing.

- Task 2 – Water Quality Sampling
 - Semi-weekly pre-9 AM dissolved oxygen readings are being recorded at several sites along the Thief River, near Thief River Falls, County Ditch 20, and Judicial Ditch 60.
- Task 7 – Stressor Identification
 - The RLWD's Garmin Montana 650 GPS/Camera was used to photograph and map actively eroding spots (gully and rill erosion visible from the road) while traveling between monitoring sites.

Lots of significant gullies and rill erosion along a township ditch along the eastern edge of Section 16 in Excel Township.



- Task 11 – Civic Engagement
 - An Open House Event at the Grygla Community Center was held on June 17th.
 - A Technical Advisory Group met on June 12th at the Detroit Lakes MPCA office.
 - Informative You Tube videos are being planned as part of this civic engagement effort. Draft scripts have been put together by RMB Environmental Laboratories staff. The scripts are being reviewed by MPCA, RMB, and RLWD staff. Once we have some good “scripts,” we can collect and compile footage for the videos. Some ideas for videos include explanations of turbidity, dissolved oxygen, E. coli, the watersheds, and the Watershed Restoration and Protection projects.
 - Radio spots will be purchased to broadcast messages on local radio stations that are similar to (or exactly the same as) the “Water Minutes” that are developed by the Red River Basin Commission and broadcast on Fargo radio stations.
- Task 12 – Identification of Sources and Solutions
 - Stream Power Index shapefiles were made available for downloading from the Red Lake Watershed District’s website. Direct links to the files were provided to project partners, contacts, and other interested parties.

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

The Phase II work plan, budget, and funding were added to the project via an amendment. This means that any unspent money from Phase I will still be available past June 30, 2013 until the end of the project on June 30, 2015. The Phase II amendment adds additional funding for water quality monitoring, continuous dissolved oxygen monitoring, flow data collection, stressor identification, geomorphology, data entry, data analysis, civic engagement, identification of sources/solutions, and report writing.

- Task 2 – Water Quality Sampling
 - Semi-weekly pre-9 AM dissolved oxygen readings are being recorded in the Red Lake River at the Greenwood Street Bridge crossing.

- Task 3 – Continuous Water Quality Monitoring
 - Eureka Midge, In-Situ TROLL 9500, HOB0 dissolved oxygen loggers were deployed at 6 monitoring sites to record round-the-clock dissolved oxygen readings and to record the true daily minimum dissolved oxygen concentrations.
 1. Red Lake river at CSAH 27
 2. Red lake River at the Highlanding Bridge
 3. Pennington County Ditch 96
 4. Cyr Creek
 5. Judicial Ditch 60
 6. Kripple Creek
 - Dissolved oxygen loggers are regularly retrieved from their deployment tubes after two weeks of deployment. After retrieval, they are replaced by a clean, freshly calibrated dissolved oxygen logging sonde. The dirty sondes are brought back to the lab where data is downloaded, sondes are cleaned, and sondes are re-calibrated.
- Task 7 – Stressor Identification
 - The RLWD's Garmin Montana 650 GPS/Camera was used to photograph and map actively eroding spots (gully and rill erosion visible from the road) while traveling between sites.

Outlet of a ditch along 160th Ave SW, west of Red Lake Falls, downstream of where it crosses CSAH 11



- Task 10 – Civic Engagement
 - A Technical Advisory Group met on June 12th at the Detroit Lakes MPCA office.

Red Lake River and Grand Marais Creek Assessment (Surface Water Assessment Grant)

Sampling schedules were revised to include “make-up” sampling events at specific sites that were missed in 2012 due to a lack of water. These schedules were distributed to the project partners and approved by the MPCA Project Manager. Sampling for this project also resumed in June. High E. coli concentrations (greater than the 126 CFU/100 ml chronic water quality standard) were found in the Black River (twice – one was very high), Judicial Ditch 60, Polk County Ditch 1, Red Lake River at Highlanding, Red Lake River at the CSAH 13 Bridge in Red Lake Falls, Red Lake River in Crookston, Red Lake River in Grand Forks, Burnham Creek, Kripple Creek, Gently Creek, and Grand Marais Creek. Aside from the high E. coli that was found at the Highlanding bridge during one sampling visit, the water in the Red Lake River upstream of Thief River Falls was very clean (low sediment concentrations). The high E. coli at the CSAH 13 bridge in Red Lake Falls is worrisome because that stretch of the river is heavily used for direct-contact aquatic recreation (tubing, swimming, kayaking). Investigative sampling will be conducted through the Red Lake River WRAP project to figure out the source(s) of the bacteria.



Cliff swallows and cattle. Two sources of E. coli bacteria in the Red Lake River at CSAH 27.

Grand Marais Creek Watershed Restoration and Protection Project

A geomorphic survey is planned for late August of 2013. Minnesota Department of Natural Resources staff are willing to help with that effort. Emmons and Oliver Resources staff made some progress on documentation of existing water quality conditions and the development of a website for the watershed.

District Monitoring

- The second round of 2013 sampling at RLWD long-term monitoring sites (a.k.a. district monitoring) began in June.
- High E. coli concentrations were found in Darrigan's Creek and the South Cormorant River on June 3rd, 2013.



Clearwater River near Bagley

Quote of the Month:

“Unless a man undertakes more than he possibly can do, he will never do all that he can.”

– Henry Drummond

Other Notes

- City of Thief River Falls staff requested the collection of samples from the stormwater outlet in Hartz Park to investigate an unexplained discharge. The pipe had frozen up this last winter and a “sheen” on the water had been traced upstream to the stormwater outlet by a concerned citizen. The water looked clear at the time of sampling, though, so it didn’t appear alarming at the time (city staff indicated it has looked worse at other times). The water did have a relatively high concentration of nitrates and fluoride. This indicates that the water is tap water that includes fertilizer runoff. So, it is most likely runoff into the sewer from a lawn that has been over-fertilized and over-watered.
- Water quality assistant interviews were conducted on June 19th and 25th. Caleb Loeslie was hired and began working here on June 26th.



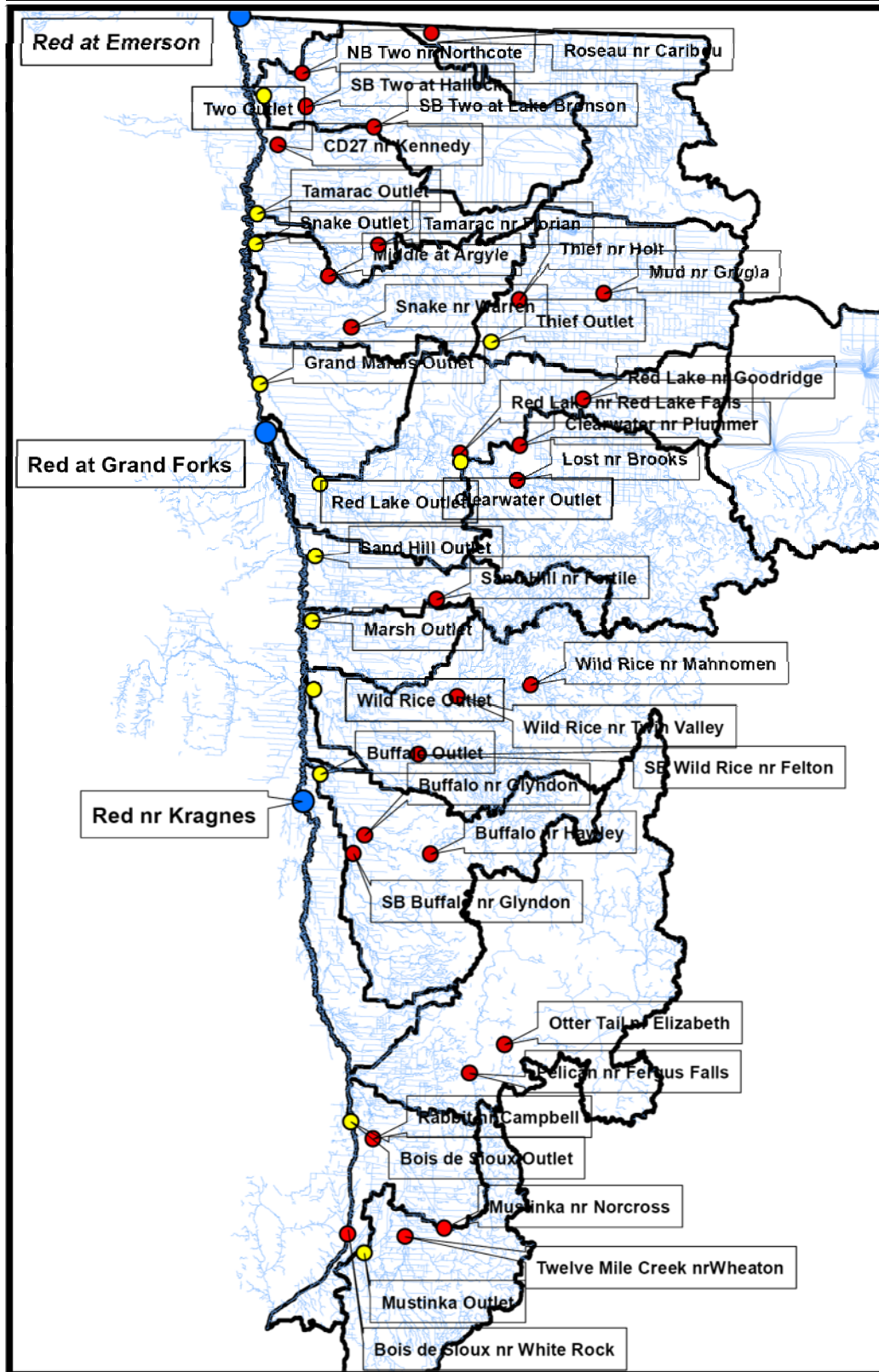
- The Red Lake Watershed District provided the Thief River Falls Parks and Recreation program with “River of Dreams” small cedar canoes that kids can decorate, launch, and track online.



June Meetings/Events

- **June 10, 2013** – Pennington County Water Resources Advisory Committee – 9 am
- **June 10, 2013** - E-Link Training Session – 12:30 – 3:30 PM
- **June 12, 2013** – Technical Advisory Committee meeting for the red Lake River and Thief River Watershed Restoration and Protection Projects
- **June 17, 2013** – Grygla Open House Event at the Grygla Community Center, 3-6 PM
- **June 25, 2013** – Execution of the Phase II Amendment for the Thief River Watershed Restoration and Protection Project.
- **June 27, 2013** – Execution of the Phase II Amendment for the Red Lake River Watershed Restoration and Protection Project.
- **June 28, 2013** – Red River Basin Monitoring Advisory Committee meeting at the Sand Hill Watershed District Office in Fertile.
 - Watershed Load Monitoring Site Selection
 - The MPCA is expanding its load monitoring program to include more sites and a longer duration of sampling (until Clean Water Legacy funding runs out.)
 - Sites are selected for subwatersheds that are at least 300 square miles in size. Some sites are chosen to represent significant changes in land use. Existing gauging sites get a high priority. Regional Assessment Location (RAL) sites are also priority sites for this load monitoring work.
 - In addition to the sites that are already monitored by International Water Institute staff for the load monitoring program within the RLWD, the Clearwater River in Plummer and the Lost River near Brooks will be added to the program.
 - Red River Basin Flood Forecast Work Group
 - As part of a stream gage and precipitation network project, Red River Basin Commission staff will be surveying agencies within the Red River Basin to compile an inventory of all stream gauges and precipitation monitoring stations that are in operation.
 - River Explorers
 - Wayne Goeken, Asher Kingery, and Bagley River Watch students paddled down a reach of the Clearwater River east of Bagley and took georeferenced photos along the way. They found some potentially dangerous obstructions like fences and docks that spanned the river.
 - There are plans to provide maps online of canoeing routes and the different categories of things that are found along the way (hazards, erosion, scenic spots).
 - International Water Institute field staff are monitoring 118 sites this year.
 - Project 60 FDR monitoring sites are still being monitored by Danni Halvorson.
 - The Red Lake Department of Natural Resources' sampling budget was significantly cut by the Federal government's sequester.

Proposed MPCA Watershed Pollutant Load Monitoring Sites in the Red River Basin



Plans for July and August 2013

- Thief River Watershed Restoration and Protection Project.
 - Creating Stream Power Index maps and figuring out ways to distribute and use the information.
 - Create a web page dedicated to the Thief River Watershed
 - Compile and apply corrections to continuous water quality data.
 - Stressor identification sampling (investigate sources of impairments) and windshield surveys.
- Red Lake River Watershed Assessment Project
 - Produce an updated assessment of water quality conditions in the watershed.
 - Create a webpage dedicated to the Red Lake River
 - Compile and apply corrections to continuous dissolved oxygen data.
 - Deploy/retrieve dissolved oxygen loggers.
 - Stressor identification sampling and windshield surveys.
 - Follow-up geomorphology work.
- District monitoring in July to finish the 2nd round of district monitoring.
- Begin the third round of district monitoring in August.
- Flow measurements at stage monitoring sites in the Clearwater River watershed.
- Stressor ID sampling for WRAP projects during runoff events.
- Grand Marais Creek geomorphology.
- Grand Marais Creek amendment to get more funding for flow monitoring and Middle Snake Tamarac River Watershed District staff time.

Future Meetings/Events

- **July 1, 2013** – Beginning of Phase II of the Thief River and Red Lake River Watershed Restoration and Protection Projects.
- **July 15-16, 2013** - Follow-up geomorphology work at Red Lake River stations
- **July 17, 2013** – Marshall County Water Resources Advisory Committee at the Marshall County Park at the Florian Reservoir.
- **July 15-16, 2013** – Follow-up geomorphology work at Red Lake River stations
- **August 23, 2013** - Red River Basin Monitoring Advisory Committee meeting at the Sand Hill Watershed District Office in Fertile.
- **August 26-29, 2013** – Grand Marais Creek Geomorphology work
- **October 16, 2013** - Marshall County Water Resources Advisory Committee

Red Lake Watershed District Monthly Water Quality Reports are available online at:
<http://www.redlakewatershed.org/monthwq.html>.

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