

By: Corey Hanson, Water Quality Coordinator
For: November 23rd, 2010
Red Lake Watershed District Board Meeting

District Monitoring

- The last round of the RLWD's long-term district monitoring program for 2010 was completed in October.
- High E. coli levels were found:
 - Black River
 - Silver Creek
- High turbidity levels were found:
 - Red Lake River in Grand Forks
 - Red Lake River in Crookston
 - Thief River at CR7
 - Lower end of Burnham Creek
- Low dissolved oxygen levels were found:
 - Grand Marais Creek
 - Walker Brook
 - Badger Lake inlet
- I received the 2010 sample analysis results for the Red River Watershed Management Board Surface Water Assessment Grant from Danni Halvorson. There were many high E. coli readings from those sites.
 - The E. coli levels in Darrigan's Creek are very high and that stream is almost certainly going to end up on the 2012 303(d) List of Impaired Waters.
 - An E. coli impairment is also imminent for the Blackduck River.
 - It looks like the South Cormorant River is impaired by high E. coli, particularly during the month of June.
 - Samples collected from O' Briens Creek have had consistently high E. coli levels during the months of June and July. So, that stream is also likely to be included on the next List of Impaired Waters.
 - Kripple Creek appears to be impaired by high E. coli bacteria, particularly during the month of August.
 - Lower Badger Creek also appears to be impaired by high concentrations of E. coli that have occurred in the month of August.
- Discussion with a local resident at the Pine Lake Outlet
 - Fishing in the Clearwater River has drastically declined since the 1960's.
 - He pointed out some barriers to public participation:
 - Some people feel that agency people have already made up their minds
 - Agency people are getting paid to be there, local people are there for free.
- Adding a monitoring site that is further downstream of the Pine Lake Outlet, near the Anderson Lake inlet, would capture the effects of the cattle operations along the river.
- Began entering 2010 monitoring data into the RLWD water quality database.
- At the most recent Polk County Water Plan meeting, a representative from East Grand Forks expressed a need for total organic carbon (TOC) monitoring in the Red Lake River

because it is directly related to post-treatment trihalomethane levels. High levels of TOC mean that more treatment (chlorination) is needed. Trihalomethanes (chloroform belongs to this group of chemicals) form when disinfectants (chlorine) react with naturally occurring organic and inorganic material in water. They have been linked to an increased risk of cancer and birth defects. So, for this fall sampling and in future samples, TOC analysis was requested for samples from key sites along the Red Lake River and its tributaries.

- The EPA has guidelines of 2 mg/L TOC for drinking water and 4 mg/L for source water.
- The Thief River had a 20 mg/L TOC concentration, which would be 5 times higher than that guideline.
- Red Lake River at Highlanding: 15.4 mg/L TOC
- Red Lake River in East Grand Forks: 14.1 mg/L TOC



Debris piled on top of the culverts at the Hwy 54 crossing of the Moose River, indicating how high the water got in September.

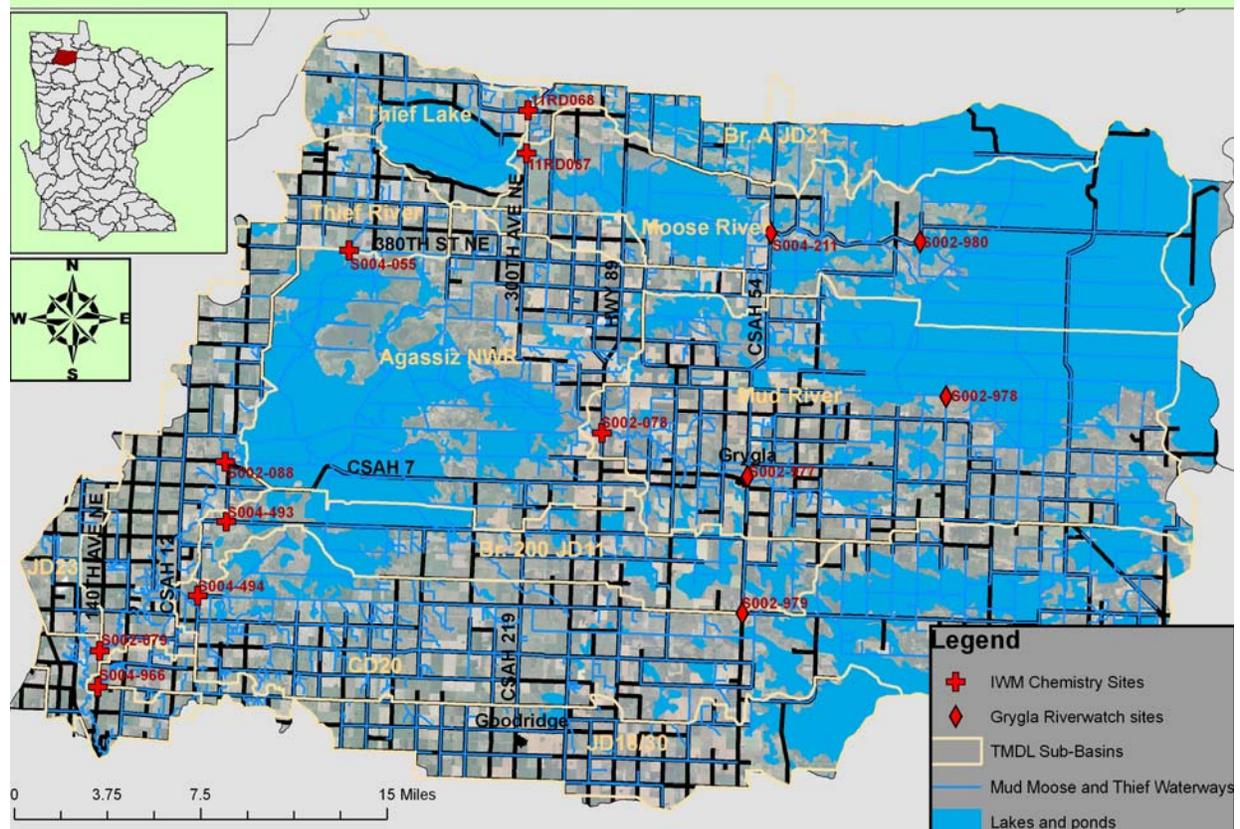
Thief River Watershed Sediment Investigation

- Updated presentations for the October 5th meeting.
- Formatted and finalized a final grant report for the MPCA, which was accepted by the MPCA staff that are in charge of approving the final payment of the grant (\$9,650).
- Compiled data from this project onto a DVD and sent it to Rochelle Nustad of the USGS.

2011-12 Intensive Watershed Monitoring

- The Minnesota Pollution Control Agency’s Intensive Watershed Monitoring (IWM) program will be focusing on two watersheds within the Red River Basin in 2011. This monitoring will take place in the Thief River and Sand Hill River watersheds and will coincide with the initiation of watershed-based TMDL studies in both of those watersheds.
 - Water quality monitoring and sampling
 - Biological monitoring (fish, macroinvertebrates)
 - Habitat assessments
- The water quality monitoring for the IWM program is typically handled by local monitoring staff. The monitoring is funded through the MPCA’s Surface Water Assessment Program.
- A Surface Water Assessment Grant application has been submitted by the RLWD for the Thief River watershed. If successful, the RLWD will subcontract with the Marshall County Water Planner and the Pennington County SWCD for the monitoring. We will have the ability to supplement the basic SWAG monitoring with additional sites and parameters using money from the Thief River Watershed Assessment Project contract.

Thief River Watershed Surface Water Assessment Grant Intensive Watershed Monitoring and River Watch Sites



Other Notes

- Completed data entry for the Red River Watershed Management Board Surface Water Assessment Grant
- Project 60 monitoring
- Looked into finding a local landscaper for installation of a rain garden and also contacted Prairie Restorations, Inc. I heard back from Prairie Restorations and they will be working on a plan for our site. We probably won't have a cost estimate until are done taking advantage of the nice weather to work on some of their current projects.
- Loaned a sampler and a transparency tube to a Thief River Falls student for a water-quality related science fair project.
- We finally received some questions and comments from the Saint Paul MPCA office about the Thief River Watershed Assessment Project contract. I spent some time at the end of the month focusing on getting the work plan updated (I submitted nine months ago) and perfected. Hopefully, this is a sign that the MPCA is getting close to putting together a contract for this project.
- Myron and I provided input for the Priority Concerns portion of the Polk County Comprehensive Water Plan.

October 2010 Meetings and Events

- **October 5, 2010** – Agassiz NWR Congressional meeting, RLWD Office, 1-4 PM.
- **October 13, 2010** – Pennington County Water Resources Advisory Committee meeting.
 - Gave a presentation on the Thief River SWAT modeling results.
- **October 15, 2010** – Meeting at the Sand Hill Watershed District to discuss monitoring sites, schedules, and parameters for the Intensive Watershed Monitoring that will begin in 2011 in the Sand Hill River and Thief River watersheds.
- **October 22, 2010** - Red River Basin Monitoring Advisory Committee meeting, Fertile
- **October 26, 2010** – University of Minnesota Crookston Program Advisory Committee meeting.
 - I was invited to discuss the topics that students should be learning about when they are pursuing a degree/career in water resources management.
 - I put together a list of desired skills and knowledge along with some of the classes currently offered by UMC, Bemidji State University, and Central Lakes College that appear to be useful in this profession.
 - The University of Minnesota Water Resources Center (Ann Lewandowski) is leading an effort to establish a Watershed Specialist Training program. This is something to keep an eye on because it's something that RLWD staff should take advantage of if it is offered. Ann also mentioned the possibility that the MPCA would require this training for grantees and contractors. That requirement should meet some opposition as it would put some local agencies (the ones that are currently getting the work done efficiently, but may not be able to afford to send employees to this training) at a disadvantage.

Plans for November 2010

- Completion of 2010 water quality monitoring data entry and submittal to the MPCA for use in the 2011 statewide water quality assessment.
- Work on plans for a rain garden at the RLWD office.
- Retrieve monitoring equipment that is currently deployed. Water level loggers can be left in the water until it begins to freeze. I may also have to wait for water levels to subside in the Thief River watershed.
- Prepare an updated and revised work plan for the Red Lake River watershed-based TMDL before the Thief River watershed-based TMDL begins.
- Compile data from water level loggers and the Project 60 turbidity loggers

Future Meetings/Events

- **November 3, 2010** - Marshall County Water Resources Advisory Committee Meeting, Newfolden
- **November 5, 2010** – Deadline for Surface Water Assessment Grant proposals
- **November 29, 2010** - Red River Basin Water Quality Team meeting, 9am – 4 pm, Detroit Lakes MPCA Office.
 - Triennial Review of Water Quality Standards
 - Sediment research at Agassiz National Wildlife Refuge
 - Thief River Watershed Sediment Investigation