

Thief River Watershed Assessment Project (Watershed Restoration and Protection)

The MPCA has a new acronym for the watershed based studies like the ones that we are working on for the Thief River and Red Lake River. Originally, these projects were referred to as “Watershed-Based Total Maximum Daily Load (TMDL) studies.” Then they were referred to as Major Watershed Restoration and Protection Projects (MWRPPs). Now, they are called Watershed Restoration and Protection (WRAP) projects.

- Task 3 – Continuous Water Quality Monitoring.
 - Eureka Manta and Manta 2 multi-parameter sondes were cleaned and calibrated in preparation for deployment in May.
- Task 5 – Stage and Flow Monitoring
 - A flow measurement was made at the Branch A of JD21 monitoring site.

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

- Task 2 – Water Quality Monitoring
 - Pre-9am field measurements were made at the “Smiley Bridge” (CR7) monitoring site on the Red Lake River. Pre-9am dissolved oxygen measurements are needed in order to confidently declare that a river is meeting the State’s dissolved oxygen water quality standard. The Smiley Bridge is close to the RLWD office in Thief River Falls, so it will be possible to get equipment calibrated and get to the site before 9am. This will be done several times each month (at a minimum – depending upon the amount of time available) throughout this summer.



- Task 3 – Continuous Water Quality Monitoring
 - Eureka Midge dissolved oxygen loggers were taken out of storage, cleaned, and fitted with new sensor membranes.

- Task 5 – Flow Monitoring
 - A HOBO deployment pipe was installed and a HOBO water level logger was deployed inside that pipe at the CSAH 27 crossing of the Red Lake River.



- Multiple flow measurements were made at the JD60 monitoring site.
- Multiple flow measurements were made at the Pennington CD96 monitoring site.
- Flow was measured at the CD1 monitoring site.
- A lack of flow was noted at the Heartsville Coulee monitoring site.
- Flow was measured at the Gentilly Creek monitoring site. Flow and stage will be monitored at the CR11 crossing so that these measurements are made downstream of a series of beaver dams that have been built in the stream. Sampling and dissolved oxygen monitoring will continue to be conducted at the 180th Avenue crossing.
- Flow was measured at the Cyr Creek monitoring site.
- Flow was measured at the Burnham Creek monitoring site at 320th Ave SW.
- Flow was measured at the Kripple Creek monitoring site.
- Task 6 – Stream Channel Stability Assessment
 - Began planning reconnaissance routes for the Red Lake River.
- Task 11 – Identification of Sources and Solutions
 - Ben Sullivan, a Green Corps employee working at the University of Minnesota Crookston, will continue monitoring stormwater discharge within the city of Crookston. He will be borrowing a special sampler and a HACH 2100P portable turbidimeter from the RLWD to conduct this work. This monitoring will build upon the work that was done by Michael Knudson in 2011.

Stream Gauging

- A HOBO water level logger and its deployment pipe were installed in Ruffy Brook at the CR 67 monitoring site (Site #797).



- A HOBO water level logger was deployed in Silver Creek at the CR 111 monitoring site (water quality site #81).
- A HOBO water level logger and its deployment pipe were installed in the Hill River at the CR 119 monitoring site (Site #PL40).



- A set of instructions for the deployment of HOBO Water Level Loggers was created at the request of others in the Red River Basin that were planning to use them this year (Pelican River Watershed District, MPCA).
- A HOBO water level logger and its deployment pipe were installed in the channel upstream of where the Spring Gravel dam washed out near Melvin, MN. This logger will record a temperature record for this site and record whether or not there is water in the channel. This will give us an indication of the potential for this stream to provide a suitable environment for fish.

River Watch

The March River Watch Forum for 2012 was held at the U of M Crookston campus and was hosted by the International Water Institute. All schools who were in attendance brought a poster display featuring each school's localized application of flood hydrographs and elevation profiles of rivers that they monitor. The Bagley group won the Peoples' Choice Award for the best display.

An early spring brought an early River Watch monitoring season. The Thief River Falls, Win-E-Mac, and Grygla River Watch groups headed out in March to gather early data. Fosston, Fisher, Oklee, Bagley, Thief River Falls, and Win-E-Mac went out in April. Red Lake Falls, Thief River Falls, Oklee, Win-E-Mac, and Bagley monitored in May.

We extend our congratulations to the River Watch volunteers who will be graduating this spring. Their contributions are significant and they will be missed by teachers and District staff. But we also welcome the newcomers and look forward to continued River Watch contributions in our watershed.



Public Education

- Envirothon questions were written for the current events topic (reducing nonpoint pollution through the use of low impact development practices) for the Envirothon competition that was held at Rydell National Wildlife Refuge.

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

- A project establishment form for this project was completed and sent to Jean Garvin of the MPCA.
- Station establishment forms were completed for new monitoring sites and submitted to Jean Garvin of the MPCA. She assigned each site a new EQUIS "S-Code."

District Monitoring

- EQUIS data review of the 2011 submittal from the Red Lake Watershed District's long-term monitoring project.
- The first round of sampling and monitoring in 2012 for the RLWD's long-term monitoring program was completed in April.

April 2012 Meetings and Events

- **April 3, 2012** – Project 60 monitoring meeting, public meeting to “kick-off” the Grand Marais Creek and Red Lake River Intensive Watershed Monitoring. 10 AM – 2 PM at the RLWD Office.
- **April 4, 2012** - Marshall County Biennial Budget Request Project Planning Meeting
 - The group came up with at least six potential projects/programs that could be submitted to BWSR for the BBR.
- **April 18, 2012** – County Ditch 20 Grade Stabilization CWF Project pre-construction meeting.
 - Work will start when water levels drop low enough.
- **April 20, 2012** – Red River Basin Monitoring Advisory Committee meeting – 9:30 am at the Sand Hill Watershed District office. HOBO Water Level Logger training/demonstration in the afternoon for Tera Guetter (PRWD) and Andy Butzer (MPCA).
 - There may be funding/equipment available for the installation of an additional real-time gauge within the Thief River watershed. The CR7 bridge over the Thief River is the most likely candidate for this installation.
 - River Watch posters from the River Watch Forum are posted online on the International Water Institute's website.
 - Danni Halvorson will put together a cost estimate for pre/post-project load monitoring for the Grand Marais Creek Outlet Restoration Project.
- **April 25, 2012** – Envirothon at Rydell National Wildlife Refuge. Katie Engelmann of the East Polk SWCD and I gave a short presentation on nonpoint pollution and low impact development and then supervised the “Current Issue” test that was given at that station.

Plans for May 2012

- Thief River Watershed Restoration and Protection Project.
 - Complete a report on the existing data that is available for the watershed.
 - Jim Blix will continue working on terrain analysis to identify potential erosion areas throughout the watershed.
 - Create a webpage dedicated to the Thief River
 - Continuous water quality monitoring at five sites
 - Flow measurements (if there is rain and runoff)
 - Collect samples at continuous water quality monitoring sites.
- Red Lake River Watershed Assessment Project
 - Complete a report on the existing data that is available for the watershed.

- Create a webpage dedicated to the Red Lake River
- Flow measurements (if there is rain and runoff) and continuous stage monitoring
- Continuous dissolved oxygen at 6 sites.
- Pre-9am dissolved oxygen (and other field measurements) at the “Smiley Bridge” crossing of the Red Lake River.
- Cooperative project planning with area SWCDs for the BWSR Biennial Budget Request.
- Red Lake River Surface Water Assessment Grant sampling within Pennington County. Provide training for the new Pennington County Water Planner.
- More project planning for the 2013 BWSR CWF application and the 2014-15 BWSR Biennial Budget Request.

Future Meetings/Events

- **May 7, 2012** – Tour the Spring Gravel dam breach site and project area with West Polk SWCD staff.
- **May 11, 2012** – Red Lake River Stressor Identification sampling planning meeting at the Detroit Lakes MPCA Office.
- **May 14-17, 2012** – Agassiz National Wildlife Refuge Workshop.
- **May 22, 2012** – Red Lake River Civic Engagement Planning Meeting at the Red Lake County SWCD Office.
- **June 14, 2012** – Thief River Watershed Sedimentation and Buffer Initiative Information and Input Meeting – 9am – Grygla Community Center
- **August 1, 2012** – BWSR CWF Grant semi-annual progress reports are due.
- **August 1, 2012** – MPCA Thief River Watershed Assessment Project semi-annual progress report is due.
- **January 31, 2013** – The second progress report or final report for the Thief River SWAG monitoring is due.
- **February 1, 2013** - BWSR CWF Grant semi-annual progress reports are due.
- **February 1, 2013** - MPCA Thief River Watershed Assessment Project semi-annual progress report is due.
- **June 30, 2013** – Expiration of the Thief River Watershed Assessment Project Contract.
- **June 30, 2013** – Expiration of the Red Lake River Watershed Assessment Project – Phase I Contract.
- **June 30, 2013** – Final report for the Thief River SWAG grant is due
- **July 30, 2013** – Due date for the final progress report and final invoice for the Thief River Watershed Assessment Project
- **July 31, 2013** – Final payment request for the Thief River SWAG is due.

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