

Thief River Watershed Assessment Project (Watershed Restoration and Protection)

- Task 2 – Water Quality Monitoring
 - Water quality samples were collected at continuous dissolved oxygen monitoring sites in May.
 - Water levels in the Thief River watershed were very low in May.
- Task 3 – Continuous Water Quality Monitoring.
 - Eureka Manta and Manta 2 multi-parameter sondes were deployed at five sites throughout the Thief River watershed on May 1st. They are deployed in the Thief River, JD30, Branch A of JD21, Moose River, and Mud River. After two weeks, the deployed sondes are retrieved and clean, freshly calibrated sondes are deployed at each site. The formerly deployed sondes are then brought back to the lab for data downloading, cleaning, and calibration.
 - A locking system was added to the deployment pipe at the Hillyer Bridge site after a Manta owned by the Northwest Regional Sustainable Development Partnership was stolen from the site.
- Task 5 – Stage and Flow Monitoring
 - A flow measurement was made at the Branch A of JD21 monitoring site.

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- 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.
 - WRAP funds were used to add E. coli analysis to samples collected for the Red Lake River Surface Water Assessment Grant. Biochemical oxygen demand, chemical oxygen demand, and orthophosphorus were added to the analysis of samples from sites at which dissolved oxygen loggers are deployed.
- Task 3 – Continuous Water Quality Monitoring
 - Deployment pipes for dissolved oxygen loggers were installed at the Burnham Creek and Black River monitoring sites.
 - Eureka Midge dissolved oxygen loggers were deployed at 5 sites throughout the Red Lake River watershed (Heartsville Coulee, Burnham Creek, Polk CD1, Kripple Creek, and Gently Creek). TROLL 9500 dissolved oxygen loggers with optical dissolved oxygen sensors will be deployed in the Black River this year.
 - After two weeks of deployment, sondes are retrieved and replaced with clean, freshly calibrated equipment. They are then brought back to the lab where data is downloaded, sondes are cleaned, membranes are replaced and dissolved oxygen sensors are re-calibrated.



- Task 11 – Identification of Sources and Solutions
 - Eroding ditch outlets along the Red Lake River in Polk County were identified. The West Polk SWCD will use this information to plan grade stabilization projects that can be funded by the Clean Water Fund.

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

- Project partners were provided with a spreadsheet that describes the locations of reference points and stage measurement methods at all the monitoring sites.
- Project partners collected the first two rounds of samples for this project in May.
- The RLWD Water Quality Coordinator collected the first round of samples from the four Pennington County sites. The new Pennington County Water Planner, Peter Nelson, was able to help with the second round and learn about water quality monitoring.
- Judicial Ditch 1 and Judicial Ditch 75, north of Grand Marais Creek, have had very high levels of hardness and sulfates.
- Flow is already approaching (or already at) zero at several sites.

Other Notes

- The RLWD hired a summer Water Quality Assistant, Alisha Mosloff. She will be helping with water quality sampling, culvert inventories, continuous water quality monitoring, stream gauging, River Watch, and other projects.
- West Polk SWCD and RLWD staff visited the Spring Gravel dam breach area to begin planning for a future stabilization and restoration project that could be initiated by the SWCD.
- New safety vests were ordered for water quality staff and the River Watch program.
- Safety cones and vests were also ordered for the Crookston High School River Watch program.
- RLWD staff provided new Pennington County SWCD staff with training on the calibration of multi-parameter sondes.
- A total of three new staff members (two from the Pennington SWCD and one from the RLWD) were trained on water quality monitoring methods during a full day of sampling at Pennington SWCD's nine long term monitoring sites.
- Posters from this Spring's River Watch Forum are available online at :
<http://www.iwinst.org/education/river-watch-forum/school-water-quality-posters>
- New safety beacon flashers were purchased for RLWD vehicles.

May 2012 Meetings and 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.
 - Identified additional monitoring sites that will help us learn more about what is going on in the Red Lake River watershed.
 - HUC12 watersheds will be the basis for water quality assessments in the future, not AUID reaches.
 - Sites may be added in the Red Lake Reservation downstream of the Lower Red Lake Dam. The Red Lake DNR would monitor those sites.

- More continuous dissolved oxygen data could be collected along the upper reach of the Red Lake River.
- If CD1 goes dry that dissolved oxygen logger can be moved to the Highland bridge so that continuous dissolved oxygen data could be collected there this year. A “sonde keg” will have to be built in order to deploy equipment there because it is a wider and deeper river than what we’ve been able to monitor with the “angled pipe” deployment method.
- Add a chemistry site at the Greenwood Street Bridge in Thief River Falls
- Add a chemistry site on Brown’s Creek at CR101.
- Add a continuous dissolved oxygen monitoring and chemistry monitoring site on the Black River above the Shirrick Dam.
- Add a chemistry monitoring site on Cyr Creek.
- Add additional Burnham Creek monitoring sites at CR45 and CR48.
- **May 14-17, 2012** – Agassiz National Wildlife Refuge Decision Analysis Workshop.
 - RLWD staff attended three out of four days of this workshop.
 - The workshop was a structured discussion that was centered around how to deal with sedimentation within Agassiz Pool. How can incoming sediment be reduced? Can we protect and/or restore habitat that has been degraded by sedimentation? The main goal was to create a framework for mitigating sedimentation issues in Agassiz Pool and create an implementation plan.
- **May 21, 2012** – BWSR Biennial Budget Request (BBR) Webinar
 - Fiscal Year 2014-15 project proposals are being collected by BWSR. BWSR will use this information as a basis for determining the amount of money the agency requests from the State Legislature.
 - In the Fall of 2013, priority will be given to 2014-15 grant applications for projects that were previously submitted as part of the BBR.
 - There will still be some money available for 2013 projects (approximately 20 million dollars).
 - The window for submitting project proposals is May 15th to June 29th of this year.
 - RLWD staff have been helping local SWCDs with the development of project ideas. Our workload has reached a point where we most likely won’t have time to develop new projects on our own prior to the June 29th deadline.
- **May 22, 2012** – Red Lake River Civic Engagement Planning Meeting at the Red Lake County SWCD Office.

Plans for June 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.
 - Continuous water quality monitoring at five sites
 - Flow measurements (if there is rain and runoff)
 - Assist Lisa Newton with a town hall style meeting in Grygla for the Thief River Buffer Initiative project.

- Move the Mud River sonde deployment pipe to deeper water.
- 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. Deploy and retrieve sondes. Clean, calibrate, and download data from sondes.
 - Pre-9am dissolved oxygen (and other field measurements) at the “Smiley Bridge” crossing of the Red Lake River.
 - Red Lake River reconnaissance and bank erosion hazard index estimates as part of the stream channel stability assessment objective.
- Cooperative project planning with area SWCDs for Clean Water Fund projects and 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.

Future Meetings/Events

- **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>

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