

JULY 2007 WATER QUALITY PROGRAM PROGRESS SUMMARY

August 10, 2007

By: Corey Hanson, Water Quality Coordinator

For: August 23rd, 2007
RLWD Board Mtg.

District Monitoring

Samples were collected in the Thief River, Clearwater River, and Upper/Lower Red Lakes watersheds as time allowed. All the new Beltrami County monitoring sites (Blackduck River, Cormorant River, Darrigan's Creek, and O' Brien's Creek) had E.coli levels that exceeded the state standard of 126 CFU/100 ml. Darrigan's Creek (pictured) had some of the worst water quality I have tested in a stream. The turbidity was 683 NTRU; total suspended solids were 608 mg/L; and the E. coli concentration was 2419.6 MPN/100 ml.



Clearwater River Dissolved Oxygen and Fecal Coliform TMDL

Five sets of samples were collected at all six E. coli monitoring sites (July 2nd, 9th, 18th, 24th, and 30th). The Eureka Midge dissolved oxygen loggers were cleaned and calibrated. Stage data was collected at the beginning of the month. A semi-annual progress report was submitted at the end of the month (narrative and spreadsheet).

Site #157 on Silver Creek still showed an impairment with a geometric mean of 1278.6 MPN/100ml. The Silver Creek E.coli impairment continues downstream to site #81 as well (GM = 292.8 MPN/100ml). Although I had high E.coli results from both sites on the Lost River on July 2nd, the rest of the results from samples collected through the month had low enough levels to bring the geometric means down to 109.5 MPN/100 ml and 48.6 MPN/100ml, respectively, at sites 782 (Oklee) and 51 (CR7). The Plummer monitoring site on the Clearwater River (780) still showed no sign of impairment. The site further upstream (37 - "Trail Road"), however had a geometric mean of 213.32 for the month of July. I expect that an impairment may show up downstream of the wild rice paddies in August as well. They typically drain the paddies from late July through September in preparation for harvest.

Fish trapped downstream of the Spring Lake Outlet culvert



Thief River Watershed Sediment Investigation

Equipment was retrieved, cleaned, calibrated, and replaced twice in July. The HOBO water level logger at the Hwy 89 crossing of the Moose River has been stolen. There is enough money in the budget to replace it, but it may not be worth the risk of having it vandalized again. A semi-annual progress report was submitted at the end of the month (narrative and spreadsheet).

A detailed budget spreadsheet is required by the MPCA as part of the workplan development process. I added the cost of workplan development and project administration (semi-annual reports, etc) to the budget as extra in-kind (\$4,000). The budget was approved by the MPCA, so I may proceed with completing the work plan.

Project 60E

I completed a round of cleaning and calibration in late July and will continue to clean and calibrate the equipment on a monthly basis. There was no flow at the highway 75 crossing of the Brandt channel.

Tile Drainage Study

Tile drainage study water level data was collected at the beginning of the month.

Clearwater River Habitat and Bioassessment Project

The 8 remaining macroinvertebrate samples from the Clearwater River Habitat and Bioassessment project were delivered to Andre Delorme of the Valley City State University Macroinvertebrate Laboratory on July 23rd when I traveled to Moorhead for the RRB Water Quality Team meeting. A contract has been signed by Myron for the work. Analysis will cost \$150 per sample, for a total contract of \$1200 for analysis of 8 samples. I am looking forward to being able to finally complete the report for this project. The samples were collected in 2003.

June Meetings and Events

- ❖ **July 23rd** – Red River Basin Water Quality Team – Moorhead
 - Wisconsin Buffer Initiative – Should Minnesota adopt similar mandates for buffers or farm based conservation plans that manage runoff?
 - Some rivers are not being included in the current statewide water quality assessment because they are classified as ditches. The Thief River from Thief Lake to Agassiz NWR is one of these reaches.
 - State agencies (MPCA, BWSR) will be looking for proposals for projects that will utilize recently approved Clean Water Legacy Act funding.
 - Revised analytical hierarchy process for prioritizing watersheds within the RRRB
 - *The Northern Tallgrass Prairie Ecoregion: A River and Stream Conservation Portfolio* report by the Nature Conservancy is available on the web at:
<http://www.nature.org/wherewework/northamerica/states/minnesota/news/news1653.html>

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- ❖ **July 31st** – Reports due for BWSR Challenge Grant projects (167, 60E).

Future Meetings/Events

- ❖ **August 1st** – Semi-annual reports for the Thief River Watershed Sediment Investigation and Clearwater River Dissolved Oxygen and Fecal Coliform TMDL studies are due.
- ❖ **August 8th** – Marshall County WRAC
- ❖ **August 13th** – Pennington County Water Resources Advisory Committee
- ❖ **August 16th** – Red Lake River Corridor Enhancement Project meeting, Red Lake Falls City Hall, 6:30 PM
- ❖ **August 27th** – Red River Basin Water Quality Team – Thief River Falls
 - I may be presenting on Tile Drainage Study results; other mtg. Topics may include SWAT modeling, pesticides
- ❖ **September 12th** – Pennington County Outdoor Education Day
- ❖ **September 18th** – Northwest Minnesota Water Festival - Warren
- ❖ **September 19th** – Northwest Minnesota Water Festival - Fertile
- ❖ **September 20th** - Red Lake River Corridor Enhancement Project meeting St Hilaire City Hall, 6:30 PM
- ❖ **September 24th** – Red River Basin Water Quality Team – Moorhead
- ❖ **October 4th** – Meeting at the Detroit lakes MPCA office to announce final 2008 List of Impaired Waters
- ❖ **October 10th** – Marshall County WRAC
- ❖ **October 18th** – Red Lake River Corridor Enhancement Project meeting, Thief River Falls City Hall, 6:30 PM
- ❖ **October 22nd** – Red River Basin Water Quality Team – Thief River Falls
- ❖ **November 15th** – Red Lake River Corridor Enhancement Project meeting, East Grand Forks – Campbell Library, 6:30 PM
- ❖ **November 26th** – Red River Basin Water Quality Team – Moorhead
- ❖ **November 30th** – Deadline for submitting data to the MPCA for entry into the EPA's STORET water quality database.
- ❖ **December 20th** – Red Lake River Corridor Enhancement Project meeting, Fisher School Library, 6:30 PM
- ❖ **January 17, 2008** – Red Lake River Corridor Enhancement Project meeting, Crookston City Hall, 6:30 PM
- ❖ **January 31, 2008** – Final Report deadline for the Tile Drainage Study
- ❖ **February 21, 2008** – Red Lake River Corridor Enhancement Project meeting, Red Lake Falls City Hall, 6:30 PM
- ❖ **March 20, 2008** – Red Lake River Corridor Enhancement Project meeting, St Hilaire City Hall, 6:30 PM
- ❖ **April 17, 2008** – Red Lake River Corridor Enhancement Project meeting, Thief River Falls City Hall, 6:30 PM
- ❖ **May 15, 2008** – Red Lake River Corridor Enhancement Project meeting, East Grand Forks – Campbell Library, 6:30 PM
- ❖ **June 19, 2008** – Red Lake River Corridor Enhancement Project meeting, Fisher School Library, 6:30 PM