

RLWD Monthly Water Quality Report

August 2008

By: Corey Hanson, Water Quality Coordinator
For: September 11, 2008
RLWD Board Mtg.

Clearwater River Dissolved Oxygen and Fecal Coliform TMDL

The majority of the work done in August for the TMDL study focused on the SWAT model and identifying sources of pollution.

- Flow and dissolved oxygen data collected by the RLWD were processed and sent to Beth Kurz (EERC) to aid in calibration of the model.
- Monitoring equipment structures were removed from the water and stored in the shed.
- Mapped the locations of wild rice paddies and began working on ground-truthing their locations and types of drainage (main line tile, tile & surface drainage, surface drainage). I used maps of farms from previous projects and also talked with the growers.
- To help guide the final month of SWAT model development, several meetings have been scheduled for the month of September. There will be a stakeholders' advisory (everyone) group meeting on September 12th, flanked by smaller technical advisory teleconferences in the first and third weeks of September (3rd and 18th). This will give Beth about a week between meetings to make progress on the model calibration and a couple weeks to finish up the model before her due date.

RLWD Long-Term Monitoring Program

- Monitoring and sampling were conducted at all 40 of the RLWD long-term monitoring sites (including the new RRWMB SWAG sites). Kelly Kerfeld, USFWS intern, assisted with a couple days of sampling.
- Darrigan's Creek, O'Briens Creek, and Cyr Creek had no flow.
- Low dissolved oxygen levels were found on the Clearwater River (at Highway 2 near Bagley)
- High E. coli levels were found in Darrigan's Creek, Ruffy Brook, Silver Creek, and the Hill River



Thief River Watershed Sediment Investigation

- ❖ Very low flow in August.
- ❖ Collected 4 flow measurements for this study in the month of August.



RLWD Monthly Water Quality Report

August 2008

- ❖ Deployed Eureka Manta multi-parameter sondes were retrieved (twice in July) for data downloading, cleaning, and calibration.
- ❖ Five flow measurements were collected on August 5th. HOBO Water Level Logger data were downloaded from the barometric pressure logger and 5 stream sites. USFWS intern Kelly Kerfeld assisted.

Other Notes

- ❖ I was invited to attend a Maple Lake Improvement District meeting on the 14th to talk about water quality in the lake, discuss ways we can keep monitoring the lake, and discuss potential projects to improve water quality in the lake.
 - The MLID has money to help pay for sample analysis and to help pay for projects.
 - They would like to have help in writing grants to help pay for some water quality improvement projects.
 - The MLID will try to find a volunteer who lives on the lake and would be willing to collect samples or help with the collection.
 - I provided them with contact information for RMB Labs whom offer not only sample analysis service, but also data analysis/handling services along with the “per sample” price. The data services include submittal of data to the STORET database so it can be used in statewide water quality assessments.
 - Carp factor into Maple Lake’s water quality problems, but are difficult to eradicate.
 - They would like to see some shoreline restoration (lakescaping) projects and would like to see some projects to reduce agricultural runoff in the watershed of the lake.
- ❖ Made some more progress on compiling the information collected for the Red Lake River Erosion Assessment
- ❖ Provided stage and flow data from Walker Brook to Tim Kroeger of Bemidji State University, who is conducting a study of fens in the upper Clearwater River watershed by Bagley.
- ❖ Since Tammy started ordering battery recycling boxes, we have sent 80 lbs of batteries to the Big Green Box for recycling.
- ❖ The River Watch schools that Jim assists found that water quality was fairly good at nearly all of their sites in August.

September Goals

- Work with Beth Kurz of the EERC to complete the SWAT modeling portion of the Clearwater River Dissolved Oxygen and Fecal Coliform TMDL Study.
- TMDL meetings
- Writing TMDL Study report and source ID
- Education days, water festivals

RLWD Monthly Water Quality Report

August 2008

- Stream gauging in the Thief River watershed
- Thief River Watershed Sediment Investigation sampling and equipment maintenance
- Help fellow staff get started with conducting flow measurements and collecting lake samples.

August Meetings and Events

- **August 1, 2008** – Semi Annual Reports to the MPCA are due for the Thief River Watershed Sediment Investigation and the Clearwater River Dissolved Oxygen and Fecal Coliform TMDL Study.
- **August 14, 2008** – Maple Lake Improvement District Meeting. 7PM, Mentor Community Center
- **August 25, 2008** – Red River Basin Water Quality Team Meeting at the RLWD, 10am
 - Focused on tile drainage
 - We need some research on the effectiveness of side water inlets

Future Meetings/Events

- **September 3, 2008** –
 - TMDL technical advisory teleconference 8:30 – 10:00
 - Thief River Watershed sediment Investigation mid-project review meeting with Pete Fastner and Jim Courneya of the MPCA. 1:30 pm
- **September 12, 2008** - Clearwater River Dissolved Oxygen and Fecal Coliform TMDL Study Stakeholders' Advisory Group meeting, Clearbrook Community Center
 - Model calibration results
 - Specific inventory of sources
 - Approval of BMP strategies
 - What funding mechanisms are available to facilitate implementation projects?
 - Discussion of wild rice paddy operation
- **September 18, 2008** - TMDL technical advisory teleconference, 8:30 - 11
- **September 10, 2008** – Pennington County Outdoor Education Day
- **September 16 and 17, 2008** – Northwest Minnesota Water Festival
- **September 22, 2008** – Red River Basin Water Quality Team Meeting in Moorhead
- **September 26, 2008** – Red River basin Monitoring Advisory Committee, Fertile, 9:30
- **October 8, 2008** – Marshall County Water Resources Advisory Committee, 9:30am
- **October 27, 2008** – Red River Basin Water Quality Team Meeting at the RLWD, 10am
- **November 5, 2008** - Marshall County Water Resources Advisory Committee, 9:30am
- **November 24, 2008** – Red River Basin Water Quality Team Meeting in Moorhead, 10am
- **December 22, 2008** - Red River Basin Water Quality Team Meeting at the RLWD