

# 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 12<sup>th</sup>, flanked by smaller technical advisory teleconferences in the first and third weeks of September (3<sup>rd</sup> and 18<sup>th</sup>). 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.



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- ❖ Deployed Eureka Manta multi-parameter sondes were retrieved (twice in July) for data downloading, cleaning, and calibration.
- ❖ Five flow measurements were collected on August 5<sup>th</sup>. 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 14<sup>th</sup> 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

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- 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