

October 2006 Water Quality Program Progress Summary

By: Corey Hanson

For: November 9th, 2006 RLWD Board Meeting

Lake and Stream Monitoring:

Jim and I completed a round of monitoring at all of our long-term monitoring sites this month. I ordered new Van Dorn water samplers – one for River Watch and one for RLWD monitoring. Jim and I collected samples at Buzzle and Blackduck Lakes. Transmission problems on the 2005 Ford caused one morning to be spent waiting Trail for a ride back to the office instead of monitoring.

I continue to clean and calibrate the Ruffy Brook continuously monitoring sondes once every two weeks.

Monthly rounds of Red River Basin Buffer Initiative and Maple Lake Area monitoring were conducted.

Tile Drainage Study:

Because of recent rain, it was possible to get some more samples from the Red Lake County monitoring sites. Rain data was downloaded at the beginning of the month. Gary Sands requested that I present the findings of our project at the Minnesota-Iowa Drainage Research Conference at the Owatonna Cabela's on November 28th. I accepted since presentation of results is one of the goals of the study. A final report probably won't be done until March 2007 but I will give presentations of preliminary results whenever requested to do so. I could have submitted an abstract for the next International Water Conference but decided to wait until I have completed the final report before requesting opportunities to give a presentation on the project. Tile drainage study field data and lab results have been entered.

Project 60E Monitoring:

Even with some recent rain, there was still no flow at either of the monitoring sites. Equipment was removed for the winter and readied for storage. Data was downloaded from the equipment.

TMDLs

Work will begin soon on the Clearwater River Dissolved Oxygen and Fecal Coliform TMDL. I am putting together a list of potential members of a stakeholders committee. Vernon Johnson, Orville Knott, and Allan Carlson are on that list since the reaches being studied are within the areas that they represent. If anyone has any ideas of potential members (especially potentially interested landowners), please let me know. I will be contacting people soon. The first meeting will be December 1st, 2006.

October (and other past) Meetings and Events

- ❖ **October 20th** – River Watch database demonstration at UMC.
 - River Watch groups will be able to upload their data (in Microsoft Excel spreadsheets) to an online database that will store data from River Watch schools throughout the Red River Basin. We discussed which parameters should be entered, displayed, etc. We also planned certain “checks” that will be conducted on the data when it is submitted to make sure it has been entered correctly. Several pilot schools will be chosen to test this new system and to make sure it is intuitive and glitch-free.
- ❖ **October 23rd** - Red River Basin Water Quality Team Meeting at the RLWD – Year 2 turbidity TMDL study reports.
 - Reviewed RRB water quality plan and report card.
 - I proposed a streambank erosion assessment that will fulfill one of the Red Lake River Corridor Enhancement Project goals and will fit into the current Red River Turbidity TMDL work plan. I budgeted an erosion assessment for areas near road crossings or other visible/accessible sites. It will likely be expanded upon to include application of the Pfankuch Channel Stability Assessment method to priority/representative sites. Molly said we should be able to work it into the workplan by sometime late next summer. This sparked discussion at this meeting and at the RRBMAC meeting about this type of monitoring (which hasn't been done much around here), possible methods, and the participation of volunteers such as River Watch students and landowners.
 - I have attached a copy of the preliminary budget I presented.
 - If it is included in the TMDL study it should be funded 100% by the PCA
- ❖ **October 26th** – Red Lake River Corridor Enhancement JPB mtg. In Red Lake Falls at 7 pm.
- ❖ **October 27th** – Red River Basin Monitoring Advisory Committee
 - Clean Water Legacy Act assessment RFP
 - Provides money for increased monitoring for the assessment of new waters/new parameters.
 - Wayne Goeken of the RRWMB is composing a combined application for all interested monitoring groups within the RRB.
 - Instructions for the grant were vague on some points and discussion with state employees (MPCA) other than Kathryn Dahn of the MPCA is prohibited.
 - I have attached the most recent description of our portion of the proposal.
 - Stream bank erosion/channel stability assessment methods were discussed
- ❖ **November 2nd** – TMDL Informational meeting at the RLWD

Future Meetings/Events

- ❖ **November 22nd** – Marshall County Water Resources Advisory Committee Meeting
- ❖ **November 27th** – Red River Basin Water Quality Team meeting in Moorhead.

- ❖ **November 28th** - Invited to present findings of the tile drainage study at the MN/IA Drainage Research Forum in Owatonna by Gary Sands (U of M Extension Service).
- ❖ **November 15th** – “Safe Date” deadline for submitting data to STORET for the 2007 statewide assessment. This is also the deadline for submittal of the RRWMB CWLA Assessment Proposal.
- ❖ **December 8th** – Red River Basin Monitoring Advisory Committee meeting - SHWD
- ❖ **December 30th** – Red Lake River Corridor Enhancement Project meeting @ the East Grand Forks Library @ 6:30 pm
- ❖ **February 1st, 2007** – Release of preliminary assessments and data summary reports for the 2008 statewide water quality assessment cycle.
- ❖ **February 26th, 2007** – Detroit Lakes MPCA meeting to review data and assessments prior to the BPJ meeting in St. Paul.
- ❖ **March 12th and 13th 2007** – St. Paul Best Professional Judgement meeting for Red River Basin water quality assessments.
- ❖ **March 13 through 15th 2007** – International Water Conference and River Watch Forum

Other Notes

- ❖ Submitted Challenge Grant financial/progress reports to BWSR for the Project 60E (Brandt Channel restoration and water quality monitoring) and 167 (Ditch Inventory and Mapping) projects.
- ❖ I learned that Steve Young of Beltrami County (I believe he said he was one of Lee’s neighbors) is working with Trout Unlimited and Bemidji State University to set up a study of the trout stream reach of the Clearwater River. The study will try to determine what is impacting the over-wintering success of trout within the river. Results of the study will be used to promote mitigation upstream of the trout stream and/or alter the DNR’s trout population management strategies. He plans on applying for grants to conduct the study and will likely be looking for some In-kind or cash contributions from the RLWD and other interested agencies/organizations. He may be making a request at an upcoming board meeting. They will need funding for a research assistant and for monitoring equipment. Since the study will require continuous monitoring, I suggested that there is a chance the Board would be willing to fund the purchase of equipment for the project with the stipulation that we would retain the use of the equipment after completion of the project. If Eureka Midge dissolved oxygen and temperature loggers are used, they only cost about \$1,200 with software and accessories and about \$800 for additional loggers. I also noted that the Board will probably look more favorably upon the project if there are other sources of funding. It would be an efficient use of RLWD funds to supply this volunteer with some of the funding necessary to complete the project. Since they would be doing all the work, it may be a way to accomplish something without having to dedicate a whole lot of money or hardly any staff time.
- ❖ A communication problem developed between the Hydrolabe Datasonde 4 and its handpad display while it was being used for River Watch. It will need to be sent in for repair...again.
- ❖ I conducted flow monitoring at CR11 (USGS Gauge # 05-0776.00) and the Trail Road (SG #37) for the wild rice allocation project. I started a rating curve spreadsheet using recent measurements from 1999 – present. At the 776 site, for example, older

measurements from 1992 and prior did not fit the same curve as the more recent measurements. The current USGS 05-0776.00 rating curve for flow estimation was created in 1987 and appears to be outdated. The difference could be due to the amount of sedimentation that has occurred at this site, differences in flow measurement methods, or other reasons. Note: The closer the R^2 value is to 1, the better. So the current methods of measuring flow have, so far, yielded reliable rating curves for open water conditions. Winter flow measurements are more variable due to the effect of ice, but the winter stage/flow correlation at SG #37 is not too bad.

