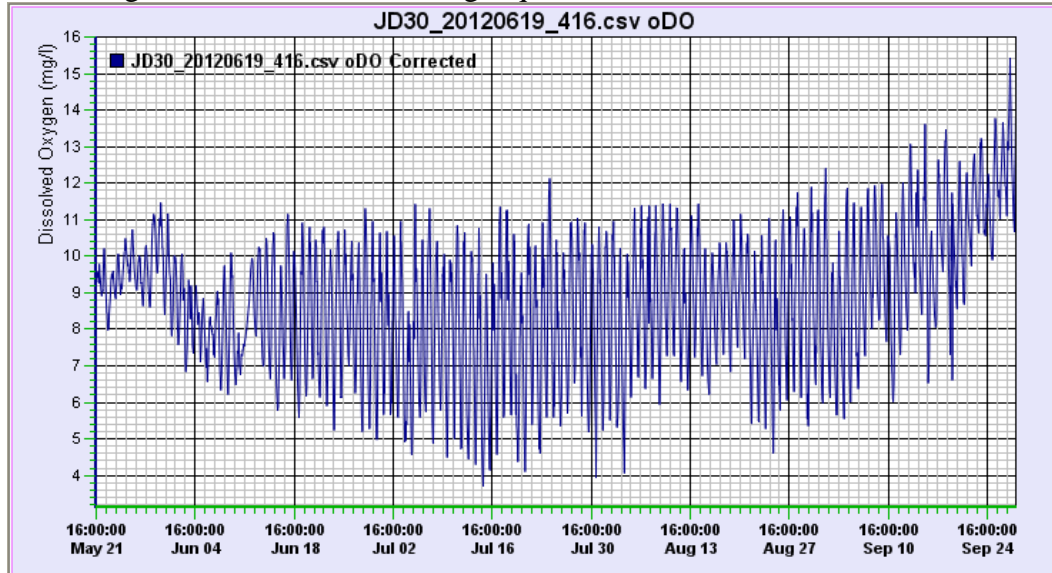


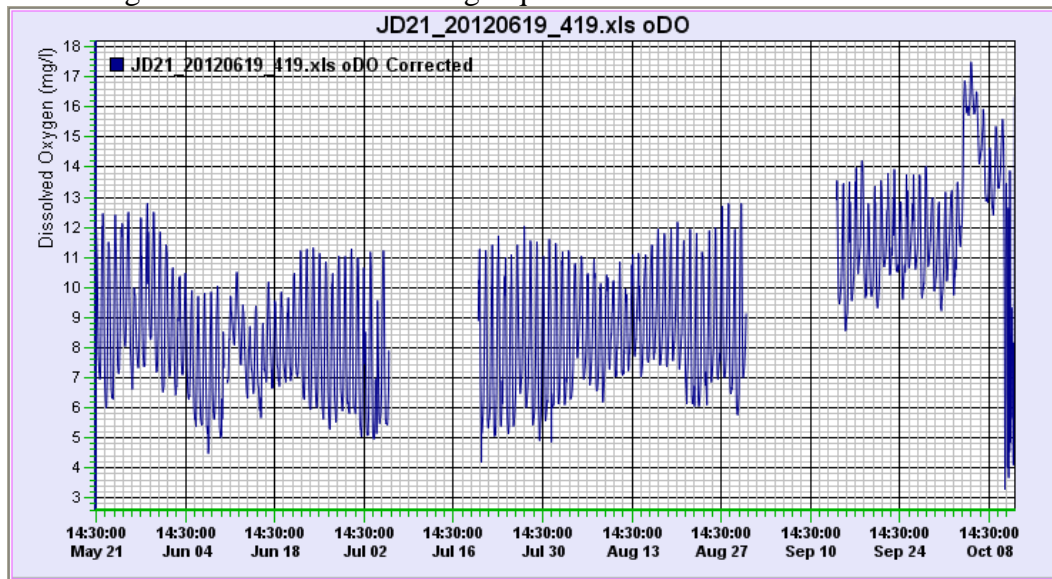
Thief River Watershed Assessment Project
(Watershed Restoration and Protection - WRAP)

- Task 5 – Stage and Flow Monitoring
 - Provided MPCA and DNR staff with flow measurement data and information from the Highway 89 crossing of the Mud River. The stage record collected by the RLWD between 2007 and 2012 was also sent to MPCA and DNR staff.
- Task 8 – HSPF Modeling
 - Houston Engineering distributed a final report about the HSPF model that they developed for the Thief River watershed.
- Task 9 – Data Entry
 - Continuous dissolved oxygen data that was collected in Branch 200 of JD 11 (a.k.a. Ditch 200, S004-493) in 2008, 2009, 2011 was summarized (daily minimums, daily maximums, and daily averages) and submitted to the MPCA for entry into the EQuIS water quality database. The DO levels were so low in this ditch that it failed to meet the standard based just on the discrete data, so there also are a lot of daily minimums from the continuous data that fail to meet the 5 mg/L standard (41% in 2008, 50% in 2009, and 46% in 2011).
 - Continuous dissolved oxygen data in JD30 (north of Thief River Falls) was summarized and submitted to the MPCA for entry into the EQuIS water quality database. 17 out of 131 days' daily minimum dissolved oxygen levels (13%) fell below 5 mg/L.
 - Continuous dissolved oxygen data in JD21 (tributary of the Moose River) was summarized and submitted to the MPCA for entry into the EQuIS water quality database. Dissolved oxygen levels were okay at this site because only 7 days of 119 that were monitored (6%) had daily minimum dissolved oxygen concentrations below 5 mg/L.
 - Continuous dissolved oxygen data that was collected in the Moose River at CSAH 54 in 2009 and 2012 was summarized and submitted to the MPCA for entry into the EQuIS water quality database. The continuous dissolved oxygen data at this site looked okay in 2009 (zero daily minimums below 5 mg/L), but not very good in 2012. Dry weather and low flows in 2012 likely contributed to the fact that 67% of the 137 daily minimums fell below the 5 mg/L standard.
 - Continuous dissolved oxygen data that was collected in Marshall County Ditch 20 at CSAH 54 in 2007-2009 and 2011 was summarized and submitted to the MPCA for entry into the EQuIS water quality database. Only 6 of the 110 daily minimums in 2011 were below 5 mg/L (5.45%), so the dissolved oxygen levels here were pretty good for a ditch. In 2007-09, only 2.79% of the daily minimums are less than 5 mg/L. Rock riffles and ephemeral flow probably help keep dissolved oxygen levels in this large ditch at a decent level.
 - Continuous dissolved oxygen data that was collected in the Thief River in 2011 at the 380th St. NE (North Boundary Road) monitoring site (S004-055) was summarized and submitted to the MPCA for entry into the EQuIS water quality database. Only 1 of the 113 daily minimums was below 5 mg/L.

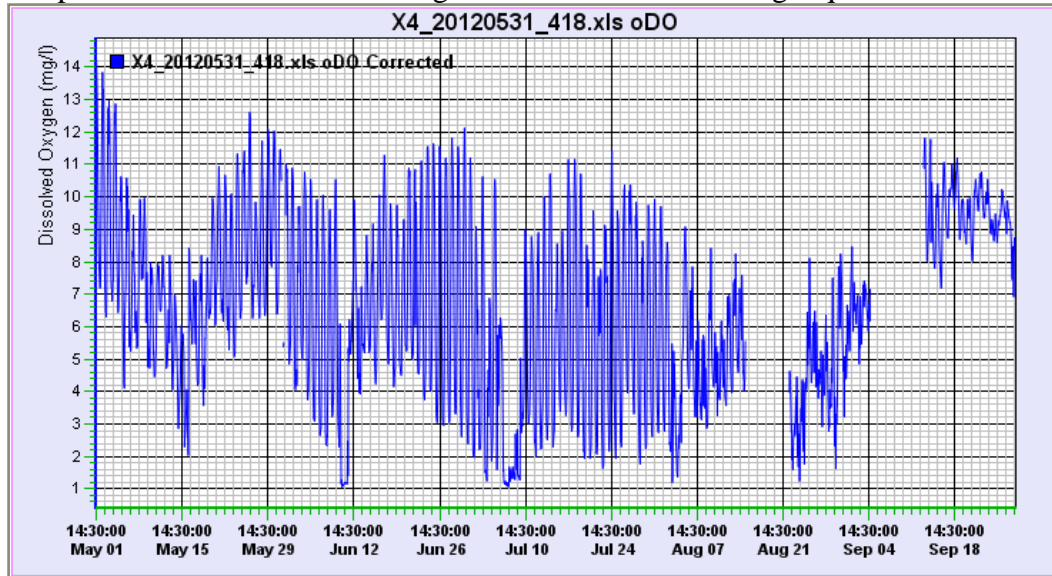
- Task 10 – Data Analysis
 - 2012 continuous dissolved oxygen data from JD30 was compiled and corrected for fouling and calibration drift using Aquarius software.



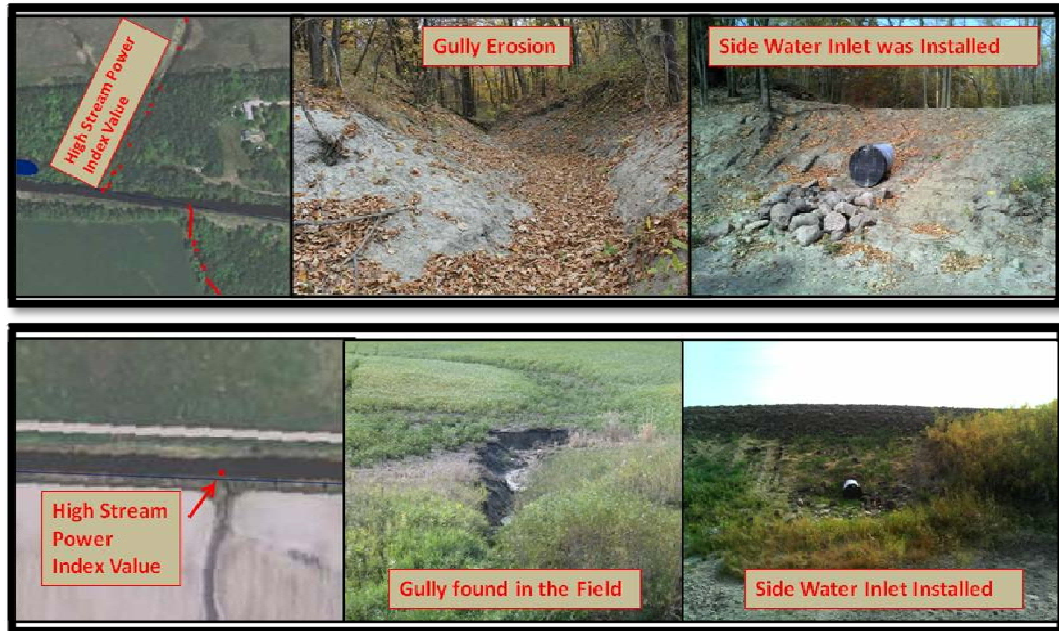
- 2012 continuous dissolved oxygen data from JD21 was compiled and corrected for fouling and calibration drift using Aquarius software.



- 2012 continuous dissolved oxygen data from the Moose River at CSAH 54 was compiled and corrected for fouling and calibration drift using Aquarius software.



- Task 11 – Civic Engagement
 - Photos and stream power index images were provided to the MPCA for use in a press release.



- The MPCA Project Manager put together a list of Core Team (TAC) members.
- Task 13 – Reports
 - A semi-annual report was completed and sent to the MPCA Project Manager.

Red Lake River Watershed Assessment Project
(Watershed Restoration and Protection - WRAP)

- Task 10 – Civic Engagement
 - The MPCA Project Manager put together a list of Core Team (TAC) members.
 - The MPCA has released some informational videos about the watershed approach to monitoring, assessment, restoration, and protection.

1. <http://youtu.be/ACim1rj-RZw>



2. <http://youtu.be/zG0so5AZANs>



3. <http://youtu.be/cGqFO9G6UnA>



4. <http://youtu.be/B15EKurqFAA>



- Task 12 – Reports
 - A semi-annual report was completed and sent to the MPCA Project Manager.

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

The RLWD submitted the final invoice for this project in January, so it will soon be officially closed-out.

Clearwater River Watershed Projects (WRAP, SWAG, Data Submittal)

Some tentative planning and scheduling was done for Clearwater River geomorphology that is planned for this summer. Stream reconnaissance and Bank Erosion Hazard Index ratings are planned for the first two weeks of May and possibly the first week of June. Work at geomorphology stations is tentatively planned for the second and fourth weeks of July and the second week of August.

MPCA staff Denise Oakes and Jim Courneya worked to get more funding for the Clearwater River WRAP and increase the budget from \$135,000 to \$185,473. A new draft of the work plan for the Clearwater River Watershed Restoration and Protection Project was completed to include additional investigative sampling, geomorphology, civic engagement work, stream power index mapping, an intensive investigation of pollutant and dissolved oxygen levels in the Poplar River, Core Team (technical advisory committee) meetings, website creation, water quality assessment, and dissolved oxygen loggers.

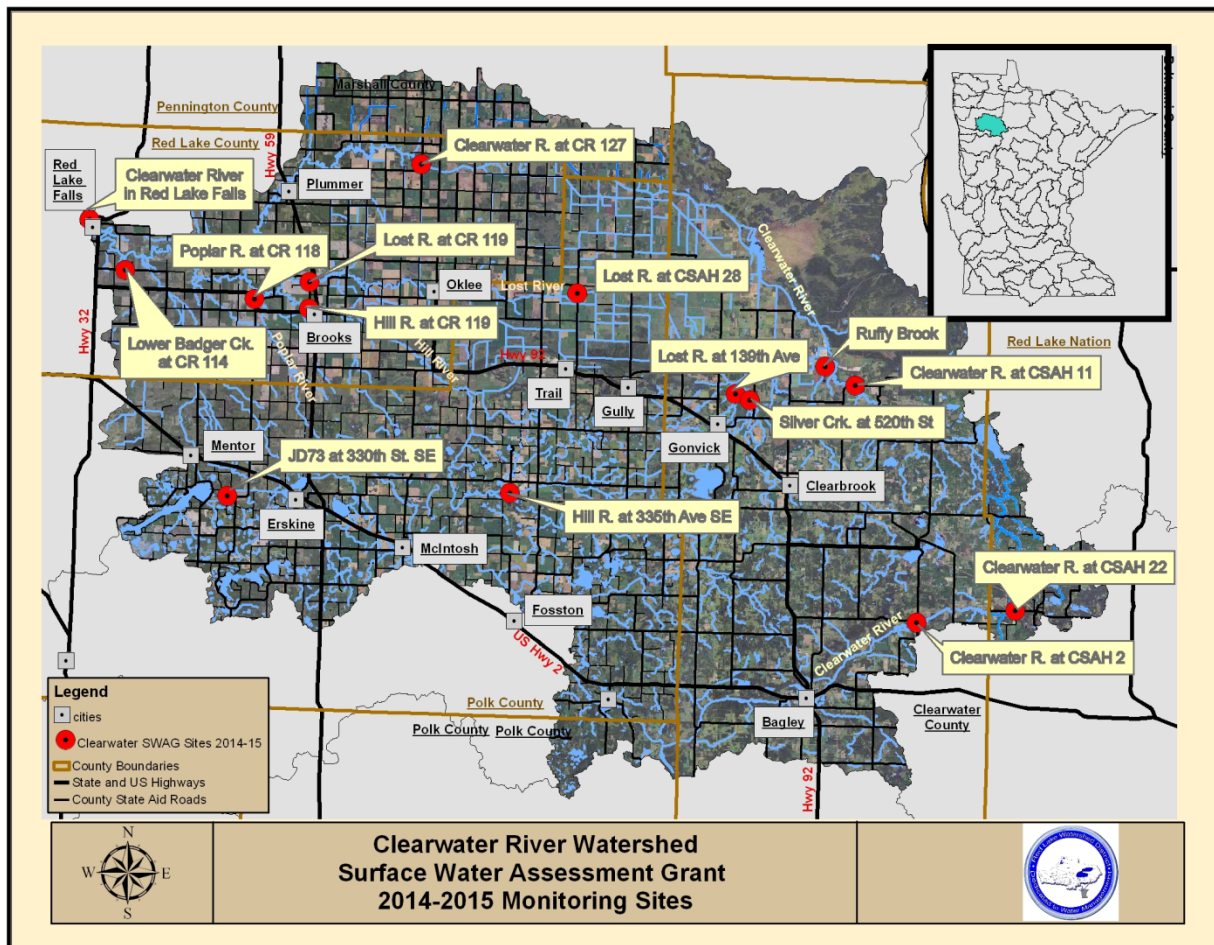
The MPCA Project Manager put together a list of Core Team (TAC) members.

Continuous dissolved oxygen data from the Clearwater River at CSAH 10 (S003-174) was summarized (daily minimum, maximum, and average) and sent to the MPCA for entry into the EQulS water quality database.

Continuous dissolved oxygen data from the Poplar River at 340th St. SE (S003-126) was summarized (daily minimum, maximum, and average) and sent to the MPCA for entry into the EQUIS water quality database.

Continuous dissolved oxygen data from the Poplar River 220th Ave SE (S004-501) was summarized (daily minimum, maximum, and average) and sent to the MPCA for entry into the EQUIS water quality database.

A Surface Water Assessment Grant (SWAG) application was submitted for the Clearwater River watershed. The Red Lake Watershed District will work with the Clearwater Soil and Water Conservation District (SWCD), Red Lake SWCD, and East Polk SWCD to monitor 15 sites throughout the watershed.



Grand Marais Creek Watershed Restoration and Protection Project

- Emmons and Olivier, Inc. staff wrote a semi-annual report for this project.
- Geomorphology photos, notes, and GPS data points from Grand Marais Creek, near the Fisher rest area, were sent to DNR staff.
- The MPCA Project Manager put together a list of Core Team (TAC) members.

Other Notes

- Red Lake River HSPF model calibration results were reviewed. Comments were provided to RESPEC modeling staff about watershed features that may be causing a few instances of divergence between predicted (modeled data) and observed (monitoring data) dissolved oxygen, flow, and total suspended solids values.
- Comments on the 2014 Draft List of Impaired Waters list were submitted to the MPCA during the public comment period. The submitted comments were about how continuous dissolved oxygen data supports the dissolved oxygen delisting that is proposed for the Thief River and about how the assessment overlooked the fact that portions of the lower reach of the Thief River are clearly impaired by E. coli bacteria when sites are assessed individually.

January Meetings/Events

- **January 14-16, 2014** – 31st Annual Red River Basin Land & Water International Summit Conference
 - In Manitoba, progress is being made toward developing an economically viable system of sequestering phosphorus (20-60 kg/hectare) using cattails and biomass harvesting.
 - The MPCA is planning to integrate downstream needs/issues (Lake Winnipeg eutrophication, Gulf of Mexico hypoxia) into WRAP projects.
- **January 17, 2014** – Surface Water Assessment Grant Application Deadline.
- **January 22, 2014** - Marshall County Water Resources Advisory Committee

Plans for February and March 2014

- Thief River Watershed Restoration and Protection Project.
 - Creating Stream Power Index maps.
 - Create a web page dedicated to the Thief River Watershed
 - Flow characterization
 - Plan and hold public meetings in early 2014.
- Red Lake River Watershed Assessment Project
 - Create a webpage dedicated to the Red Lake River
 - Compile and apply corrections to continuous dissolved oxygen data.
 - Flow characterization
 - Plan and hold public meetings in early 2014.

- Organize a Core Team meeting in March to discuss the WRAPs that are underway within the District.
- Contract with the Red Lake DNR for flow measurements in the Grand Marais Creek and Clearwater River watersheds.
- Annual Water Quality Training session

Upcoming Meetings/Events

- **February 3, 2013** – WRAP project progress reports are due.
- **March 5th, 2014** – Annual Red River Basin Water Quality Monitoring Training Session at the University of Minnesota, Crookston
- **March 10th, 2014** - Pennington County Water Resources Advisory Committee
- **June 30, 2014** – Clearwater River HSPF model should be completely finalized.

Quotes of the Month:

“The more I want to get something done, the less I call it work.”
– Richard Bach

“To finish first, you must first finish.”
– Sam Walton

Red Lake Watershed District Monthly Water Quality Reports are available online at:
<http://www.redlakewatershed.org/monthwq.html>.

“Like” the Red Lake Watershed District on [Facebook](#) to stay up-to-date on RLWD reports and activities.