

By Corey Hanson, Red Lake Watershed District Water Quality Coordinator. February 13, 2015.



Thank you to Jim Blix for more than a decade of service to the Red Lake Watershed District as the Water Quality/GIS Technician and congratulations on your retirement! Jim did a lot to improve the GIS capabilities of the District during his tenure and oversaw the collection of a large amount of water quality data by the River Watch programs that he advised and coordinated. He prefers to refer to this change in his life as a "repurposing" rather than a retirement as he is looking forward to spending more time on a number of hobbies and projects. During the process of finding his replacement, the District interviewed a bunch of awesome candidates and ultimately made the decision to hire Ashley Hitt. Ashley has a well-rounded natural resources and GIS background and has hit the ground running in continuing the progress Jim started on some large GIS projects.

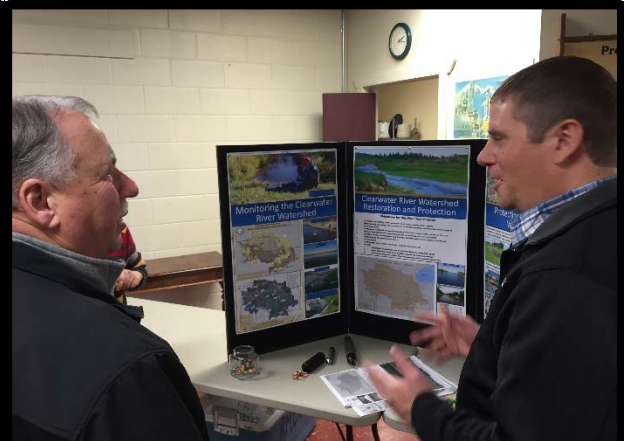
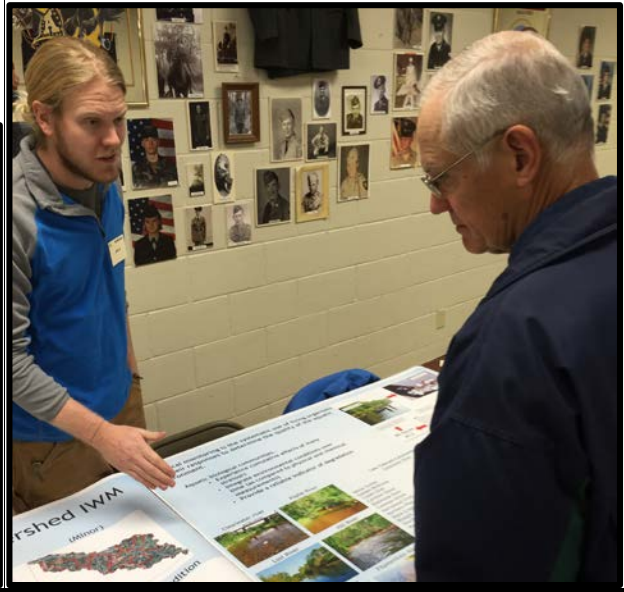
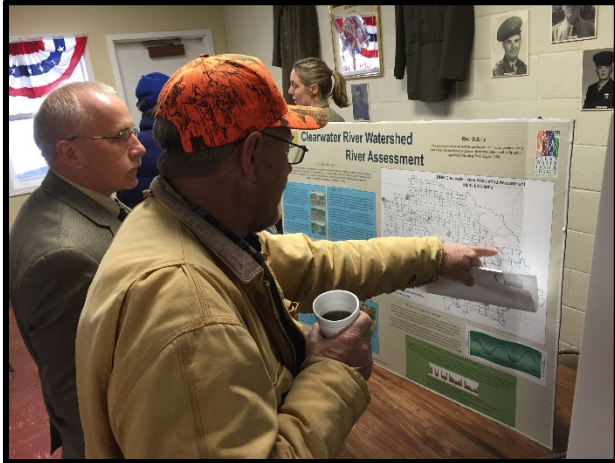
### **Clearwater River Watershed Restoration and Protection (WRAP) Project**

- Objective 7 – Data Entry
  - A data review was completed on the 2014 submittal of data from the Clearwater River WRAP project so that the MPCA could finalize the data and store it in the EQuIS database.
- Objective 9 – Civic Engagement
  - A document was created with a list of links to water quality reports, informational resources, and links to partner agencies and organizations that are relevant to the Clearwater River Watershed. Some reports, presentations, and maps that were previously unavailable on the internet were uploaded to the RLWD FTP site so that they can be available through the links that will be on the Clearwater River watershed website that is being developed by Emmons and Olivier Resources.
  - RLWD, RMB, an MPCA staff worked on coordinating an open house event in Clearbrook to provide the public with information about the project.
  - RLWD staff put together a collection of photos, maps, and videos from the Clearwater River watershed for use in a slide show to play at the Clearbrook open house event.

- An open house event was held at the American Legion in the town of Clearbrook on December 2<sup>nd</sup>, 2014.
  - The RLWD provided cookies, coffee, and lemonade as refreshments.
  - RMB staff helped with greeting attendees, taking photos, and handing out evaluations.
  - RLWD staff had a station with information about the WRAP project and the aforementioned slide show.
  - MN DNR staff had station with information about the geomorphology work that is being done in the watershed.
  - The Detroit Lakes MPCA office had stations with general information about the WRAP process and stressor identification.
  - MPCA Biological Monitoring staff from Brainerd set up a station with information about the biological monitoring that was conducted in 2014.
  - After the meeting, RMB Environmental Laboratories staff wrote a summary of the event that was used as a blog post on the Clearwater River Blog. Photos from the meeting were
  - The meeting was well attended and agency staff were able to have a lot of conversations with landowners.
  - Thank you to everyone who helped with the event:
    - The Clearbrook American Legion for letting us use their meeting room and kitchen.
    - Moriya Rufer (RMB Environmental Laboratories), Denise Oakes (MPCA Project Manager), Scott Niemala (MPCA), David Dollinger (MPCA), Andrew Peterson (MPCA), Dan Olson (MPCA), Lori Clark (MN DNR), Andrew Butzer (MPCA), Ashley Hitt (RLWD), Mike Vavricka (MPCA), and Stephanie Klamm (MN DNR) and Dan Thul (DNR).

# RED LAKE WATERSHED DISTRICT MONTHLY WATER QUALITY REPORT

December 2014



## Clearwater WRAP Kick-off Meeting

December 2, 2014

Clearbrook, MN

### Meeting Summary

Overall, 33 non-agency participants signed in on the sign-in sheet, 22 in the 2:00-4:00pm time slot and 11 in the 5:00-7:00pm time slot. The largest rush of people was at 1:45pm right before the 2:00pm start time. There were definitely more people who attended and did not sign in, especially in the 1:45pm rush.



Meeting participants were asked to fill out evaluations after walking through the open house. There were 6 total evaluations completed. The response graphs are on the following pages.

Overall, the respondents preferred the open house format to a sit-down presentation format 4:1. It is a small sample size, but it appears the open house format went over well. Most of the respondents indicated that they learned something at the meeting and that it was worthwhile.

Three of the respondents heard about the meeting through the newspaper, two through the mailed brochure, and one by word of mouth. The newspaper press release appears to have been effective as it was published in many of the area newspapers at no cost to the WRAP. Several people mentioned at the meeting that they received the mailing, so it is assumed that was an effective mode of communication as well.

The sign-in sheet indicated that the majority of the participants were from the Clearbrook/Bagley area. One comment overheard was to have a second open house in Red Lake Falls to reach the other half of the watershed.

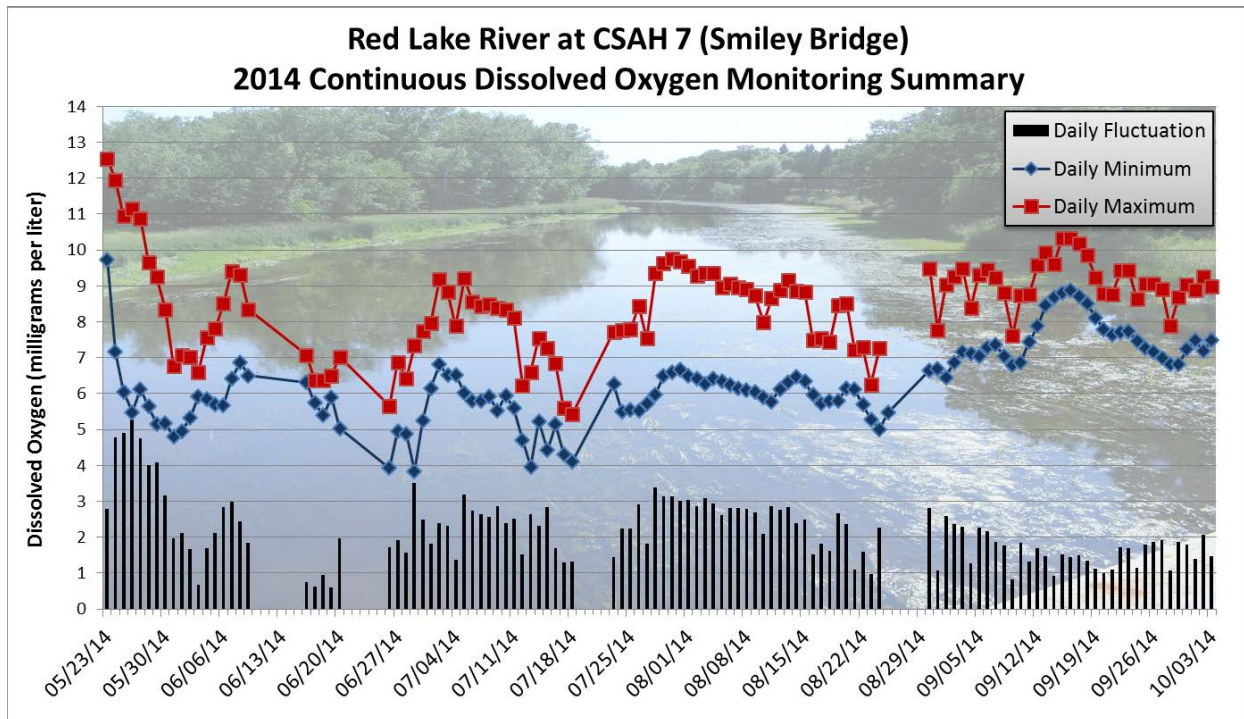


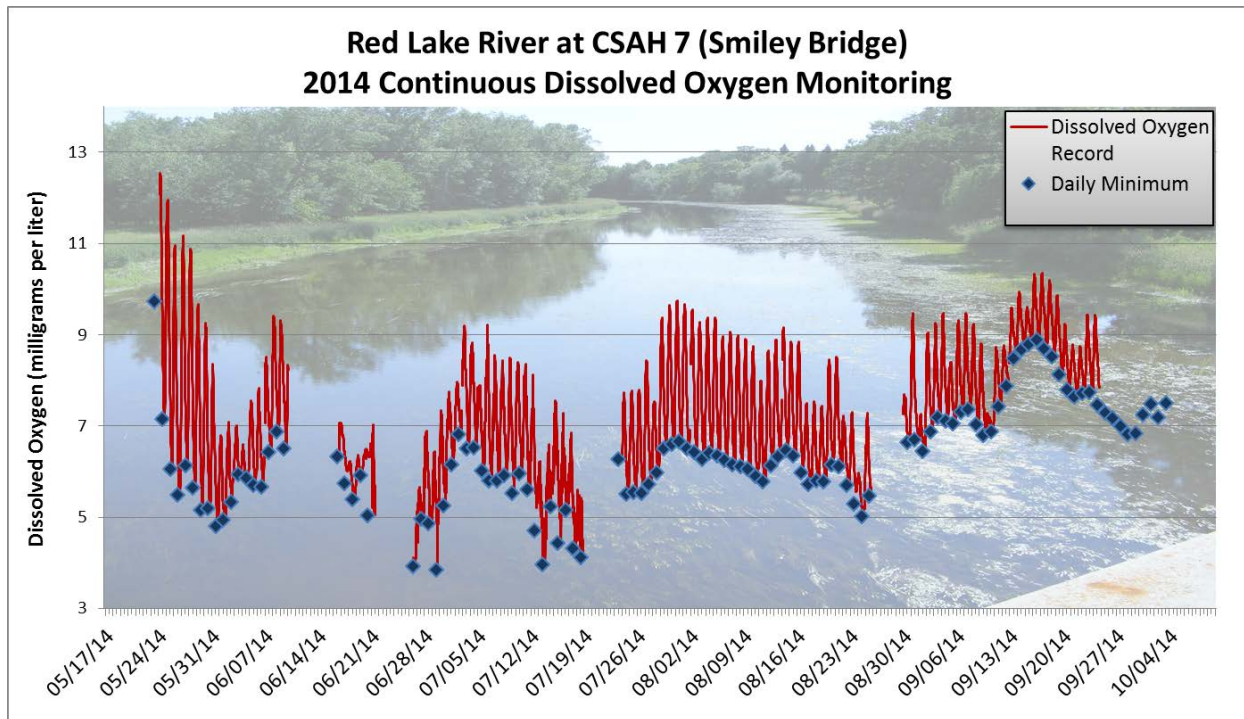
**Clearwater River Watershed Surface Water Assessment Grant (SWAG)**

A progress report for this project was written and submitted to the Minnesota Pollution Control Agency Project Manager.

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

- Task 3 – Continuous Dissolved Oxygen Monitoring
  - Dissolved oxygen was continuously monitored with a HOBO optical dissolved oxygen logger during the summer of 2014. The dissolved oxygen data from this site was compiled and corrected using Aquarius software. Corrections included fouling drift corrections, calibration drift corrections, and deletion of questionable data. The data from this HOBO dissolved oxygen logger needed less fouling and calibration drift corrections than most. There was a period of time in June when sedimentation around the probe caused readings that were not representative of conditions in the river. That period of time was deleted. The compiled and corrected data set was summarized by daily minimum, maximum, and average values, entered into an EQiS data submittal template, and submitted to the MPCA for entry into either their EQiS or HYDSTRA databases so that it can be used for future water quality assessments.





- Task 5 – Flow Monitoring
  - HOBO water level loggers were cleaned.
- Task 10 – Civic Engagement
  - A document containing all known links to reports, maps, and other informational resources pertinent to the Red Lake River watershed was compiled and sent to Emmons and Olivier Resources staff for use in building a website for the Red Lake River watershed. Some documents and presentations that were previously unavailable online were scanned and saved to the RLWD FTP site so that they will be available to the public through the links that will be found on the new web pages that EOR is creating.
- Task 12 – Reports
  - Some time was spent on the Red Lake River WRAPS report.

**Thief River Watershed Restoration and Protection (WRAP) Project**

- Task 10 - Civic Engagement
  - Shared a link to the Agassiz National Wildlife Refuge sediment management report entitled “Decision analysis of mitigation and remediation of sedimentation within large wetland systems—A case study using Agassiz National Wildlife Refuge” with stakeholders. Here is the link to the report:  
<http://pubs.usgs.gov/of/2014/1180/>
  - Compiled a Google+ folder of Thief River photos and a document full of links to existing reports, maps, and resources to help Emmons and Olivier Resources build the Thief River watershed website. Reports that were unavailable on the internet were scanned and uploaded to the RLWD FTP site. RLWD staff also began on working on writing text for the website’s pages.

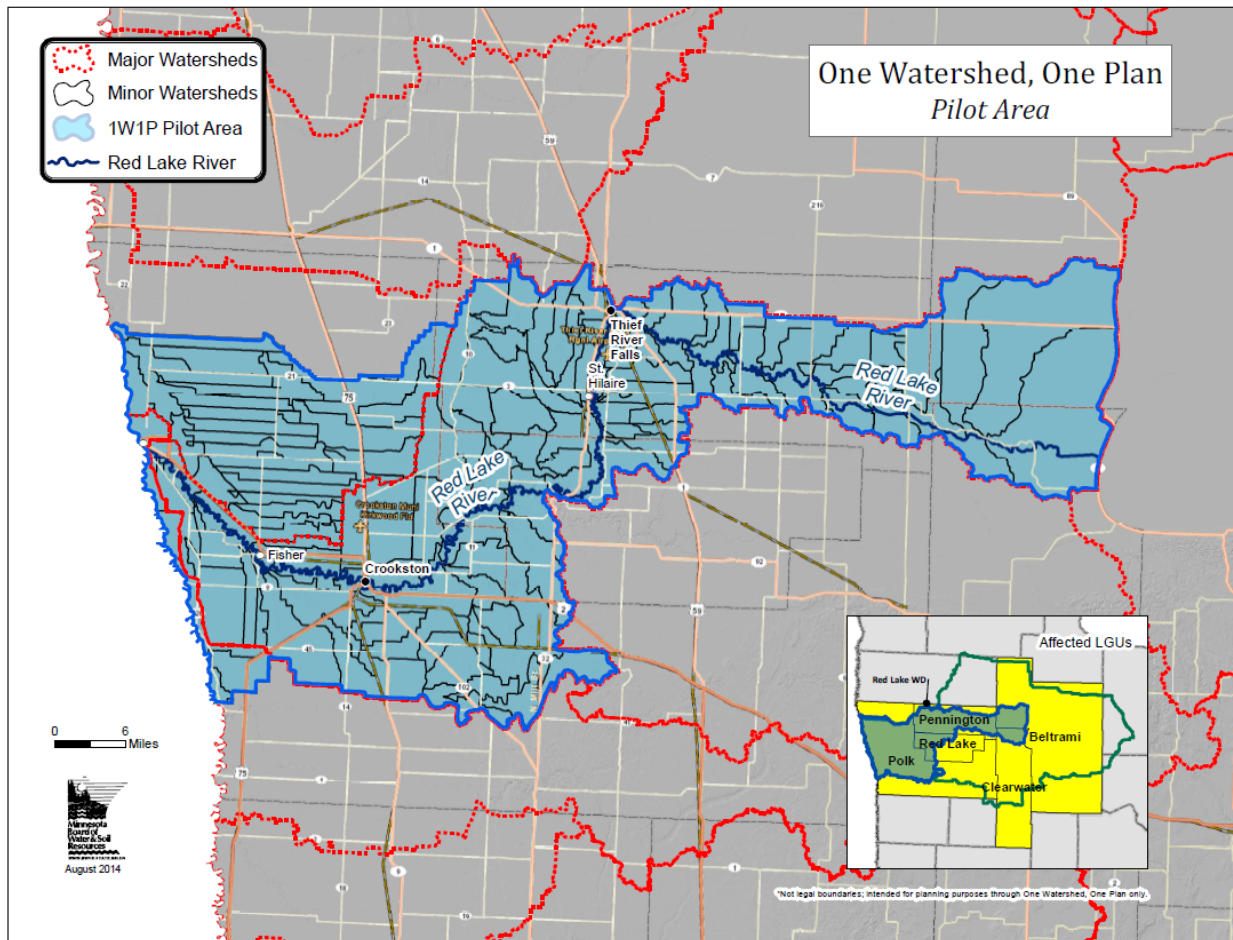
- Task 13 – Reports
  - Some time was spent working on the Thief River WRAPS report.

**Grand Marais Creek Watershed Restoration and Protection Project**

RLWD and Emmons & Olivier Resources staff discussed the timing and topics of the next technical advisory and stakeholders update meetings.

**One Watershed One Plan**

The Red Lake River Planning Group is initiating a comprehensive watershed management plan for the Red Lake River Watershed (plus Grand Marais Creek). The Red Lake River Planning Group was created through an agreement between the Counties of Polk, Red Lake, and Pennington; the West Polk, Red Lake, and Pennington Soil and Water Conservation Districts; and the Red Lake Watershed District, to create a watershed based plan under the Minnesota Board of Water and Soil Resources One Watershed One Plan Pilot Program. The group is working on identifying and engaging stakeholders and planning a public kick-off meeting for the project.



### Other Notes

- Water quality related topics from the December 11, 2014 RLWD Board of Managers meeting:
  - Davidson Construction, Inc. has completed the channel excavation on the Grand Marais Creek Channel Restoration Project. Everything but some minor touch up work and seeding will be completed this winter, along with a punch list items to be completed in the spring. The Contractor has completed the installation of live stakes as well as Toe Wood Sod Mats as Red Lake Watershed District December 11, 2014 Page 2 of 4 requested by the MnDNR channel design. Houston Engineering will request that the Contractor submit a written plan for the seeding process to take place next spring.
- Water quality related topics from the December 30, 2014 RLWD Board of Managers meeting:
  - The Board reviewed a Progress Report from Dan Svedarsky, Northwest Research and Outreach Center, University of Minnesota-Crookston regarding Cattail Management for Wetland Wildlife Habitat and the Bioenergy Potential at the Parnell Impoundment.

### December Meetings/Events

- **December 2, 2014** – Public kick-off meeting for the Clearwater River WRAP
- **December 3, 2014** – Marshall County Water Resources Advisory Committee Meeting
  - A Board of Water and Soil Resources Reinvest in Minnesota (RIM) Reserve Program sign up coming in 2015.
  - Matt Waterworth replaced Kevin Geitzen as the Marshall County Natural Resources Conservation District Technician
  - Mud River testing for toxins related to dog deaths was discussed. A monitoring plan will be developed to investigate the problem further in 2015.
  - The Marshall County Soil and Water Conservation District planted 23.1 miles of trees in 2014 (20,000 trees).
  - Landowner members of the committee voiced complaints about the expanded jurisdiction of the United States Corps of Engineers.
- **December 4-6, 2014** – Minnesota Association of Watershed Districts 2014 Annual Meeting and Trade Show
- **December 12, 2014** – Red River Basin Monitoring Advisory Committee Meeting at the Sand Hill Watershed District in Fertile
  - Watershed scale zebra mussel assessment model
    - Reports are being generated. These reports can be incorporated into watershed plans.
    - Researchers are learning that rivers have the ability to “stop” the spread of zebra mussels.
    - Unsuitable conditions for their growth
    - Zebra mussels can’t live in a soft bottom substrate



- Calcium is the number one limiting factor for their growth. Consider adding calcium testing to long-term monitoring programs.
- CRED is a new “app” for photographing and reporting aquatic invasive species. The app includes identification aids.
- River Explorers River Stories
  - Classroom discussions while on the river
  - Organizers are starting to engage school administration.
  - More than 598 participants (students, scouts, teachers, community education programs, DNR workshops)
  - 160.6 miles of river have been traveled.
  - The Thief River and Clearwater River are among the rivers that have been paddled.
  - River Stories are web and map-based descriptions of some of the trips that are available for viewing on the International Water Institute’s website. The link below will take you to a page that has links for each river that was explored.
    - <http://www.iwinst.org/education/river-watch-river-explorers-program>
- International Water Institute and MPCA staff will be cleaning and troubleshooting YSI sondes from River Watch programs and other monitoring partners from across the Red River Basin.
- IWI water quality projects
  - Watershed Pollutant Load Monitoring Network
    - Grand Marais Creek at CR64 is no longer a load monitoring sites, but is still a pesticide monitoring site.
  - Minnesota Department of Agriculture Pesticide monitoring
  - MPCA mercury sampling project
    - Two sites on the Thief River will be included in this sampling project.
  - Flood Damage Reduction project monitoring – load monitoring pilot project
    - Pollutant loads will be monitored at the inlet and outlet of the Brandt Impoundment, north of Euclid.
- The Red Lake DNR is hiring an assistant aquatic biologist
- IWI stream tables and groundwater models are available for use in schools and other educational programs. Red Lake County Central has already made use of them.
- The 2015 River Watch Forum was discussed. It will be held on March 18<sup>th</sup>. It is the 20<sup>th</sup> anniversary of the program and there will be some extra special prizes given away at this year’s forum.
- The Red River Basin Commission is looking for water quality related success stories.
- The Red River Basin Commission is conducting a study on the harvesting biomass (cattails) in impoundments and using it for bioenergy or for the extraction of phosphorus for use as a fertilizer.

- The Red River Basin Commission's co-location with other agencies has saved the co-located agencies over \$60,000/year.
- **December 15, 2014** – Pennington County Water Resources Advisory Committee meeting
  - The Pennington SWCD has completed the Ralph Engelstad Arena raingarden and Erickson streambank stabilization projects.
  - JD30/18 Project: The Minnesota Conservation Corps apprentice, Bailey, sent out a letter to landowners to encourage them to install Side Water Inlets and Buffers through the Environmental Quality Incentives Program (EQIP) and CRP. The grant would provide additional incentive to install these practices. There were only two or three responses out of the fifty letters that were sent out.
  - This year the SWCD applied for grant money for various streambank stabilization projects. Two of the projects are in the drinking water supply area, Golf Course Hole #5 and Hannestad streambank stabilization projects. Three other projects are located south of Thief River Falls on the Red Lake River, Greenwood Street Bride, Wenzlaff, and Haas streambank stabilization projects.
- **December 31, 2014** – Interim progress report for the Clearwater River SWAG is due.

### Plans for early 2015

- Thief River Watershed Restoration and Protection Project.
  - Creating Stream Power Index maps.
  - Create a web page dedicated to the Thief River Watershed
  - Flow characterization
  - Work on writing Watershed TMDL and WRAPS report documents
- Red Lake River Watershed Assessment Project
  - Creating Stream Power Index maps.
  - Create a webpage dedicated to the Red Lake River
  - Flow characterization
  - Work on writing Watershed TMDL and WRAPS report documents
  - Provide input during the assessment process
- Clearwater River Watershed Restoration and Protection Project
  - Compile 2014 continuous dissolved oxygen data
  - Compile existing data and summarize existing reports
  - Open house event to introduce the public to the project
- Grand Marais Creek Watershed Restoration and Protection project
  - Plan the next technical advisory committee and public open house meetings.
- Articles for the 2014 RLWD Annual Reports
- Semi-annual reports for WRAP projects
- Compile 2014 stage and flow data

**Upcoming Meetings/Events**

- **January and February 2015** – Thief River, Red Lake River, and Grand Marais Creek WRAP stakeholders meetings (dates not set)
- **February 1, 2015** – Semi-annual progress reports for the Thief River, Red Lake River, Grand Marais Creek, and Clearwater River Watershed Restoration and Protection projects are due.
- **February 4, 2015** – Marshall County Water Resources Advisory Committee Meeting
- **February 11, 2015** – Red Lake River and Grand Marais Creek Best Professional Judgment Group meeting for the Minnesota pollution Control Agency’s official assessment of 2004 through 2014 water quality data in those watersheds. The meeting will be held from 10 am to 2 pm at the Red Lake Watershed District meeting room.
- **March 5, 2015** – 12<sup>th</sup> Annual Red River Basin Water Quality Monitoring Training, 8:30 am - 4:00 pm at the University of Minnesota Crookston
- **March 9, 2015** – Grand Marais Creek Watershed Restoration and Protection Project Technical Advisory Committee meeting and public open house event at the East Grand Forks Campbell Library
  - 1:00 – 3:00 PM - Technical Advisory Committee meeting
  - 4:00 – 6:00 PM – Open House
- **March 18, 2015** – Red River Basin River Watch Forum at the University of Minnesota, Crookston campus
- **March 18, 2015** – One Watershed One Plan Kick-Off Meeting at the Red Lake Watershed District Office.
- **March 23-24, 2015** – Snake River and Grand Marais Creek HSPF Model Training Workshop
- **April 8, 2015** – Marshall County Water Resources Advisory Committee Meeting
- **May 29, 2015** – Target date for completion of a draft watershed TMDL for the Thief River watershed.
- **June 30, 2015** – Target date for completion of a draft Thief River Watershed Restoration and Protection Strategy (WRAPS) report
- **June 30, 2015** – Scheduled completion date for the Thief River Watershed Restoration and Protection Project.
- **July 8, 2015** – Marshall County Water Resources Advisory Committee Meeting
- **September 2015** – Pennington County Outdoor Education Day
- **September 2015** – Northwest Minnesota Water Festival in Fertile and Warren
- **September 2015** – Thief River Open House Meeting
- **November 4, 2015** – Marshall County Water Resources Advisory Committee Meeting
- **December 31, 2015** – Planned completion date for the Red Lake River Watershed Restoration and Protection Project (Draft TMDL and WRAPS reports)

**Quote of the Month:**

“Your future depends on many things, but mostly you.”

– Frank Tyger

“It’s easier to do a job right than to explain why you didn’t.”

– Martina Navratilova

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

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