

RED LAKE WATERSHED DISTRICT

April 26, 2018

Agenda

9:00 a.m.

| | | |
|------------|--|-----------------------------|
| 9:00 a.m. | Call to Order | Action |
| | Review and approve agenda | Action |
| | Requests to appear | Information |
| | April 12, 2018 Minutes | Action |
| | Financial Report dated April 25, 2018 | Action |
| 9:05 a.m. | East Polk SWCD-Water Quality Sampling-Sarah Mielke/Rachel Klein | Info./Action |
| 9:10 a.m. | MN Ag Water Quality Certification Program-Glen Kajewski | Information |
| | Four-Legged Lake, RLWD Proj. No. 102A Preliminary Engineers Report | Information |
| | Thief River Falls West Side FDR Project No. 178-Update | Info./Action |
| | Black River Impoundment, RLWD Project No. 176 Preliminary Engineers Report Wetland Banking-Update | Info./Action Information |
| | Release of Claims Form-Haying Euclid East Impoundment, RLWD Project No. 60C Brandt Impoundment, RLWD Project No. 60D | Action |
| 10:00 a.m. | Ditch 16, RLWD Project No. 177, Preliminary Hearing | Info./Action |
| | RLWD Tile Drainage Sub Surface Drainage | Information |
| | Permit No. 18006-Allan Merrill, Vineland Township, Polk County | Action |
| | Permits: No. 18003-18005, 18007, 18012, 18015, 18016, 18018, 18019 | Action |
| | Red Lake Tribal Membership | Information |
| | ESRI Renewal Maintenance | Info./Action |

| | |
|--------------------------|--------------|
| Parking Lot Maintenance | Info./Action |
| 2017 Draft Annual Report | Information |
| Administrators Update | Information |
| Legal Counsel Update | Information |
| Managers' updates | Information |
| Adjourn | Action |

UPCOMING MEETINGS

| | |
|------------------|-----------------------------------|
| May 10, 2018 | RLWD Board Meeting, 9:00 a.m. |
| May 15, 2018 | RRMWB Meeting, Fertile, 9:30 a.m. |
| May 24, 2018 | RLWD Board Meeting, 9:00 a.m. |
| June 20-22, 2018 | MAWD Summer Tour |

DRAFT

RED LAKE WATERSHED DISTRICT
Board of Manager's Minutes
April 12, 2018

President, Dale M. Nelson, called the meeting to order at 9:00 a.m. at the Red Lake Watershed District Office, Thief River Falls, MN.

Present were: Managers Dale M. Nelson, Terry Sorenson, Brian Dwight, Allan Page, and Gene Tiedemann. Absent: Les Torgerson and LeRoy Ose. Staff Present: Myron Jesme and Tammy Audette and Legal Counsel Sparby.

The Board reviewed the agenda. Manager Dwight requested the addition of Red Lake Nation, Preliminary Engineers Report for Four-Legged Lake and Subsurface Drainage Rules. A motion was made by Tiedemann, seconded by Sorenson, and passed by unanimous vote that the Board approve the agenda with the addition of Red Lake Band of Chippewa Indians, Preliminary Engineers Report for Four-Legged Lake and Subsurface Drainage Rules. Motion carried.

The Board reviewed the March 13, 2018 minutes. Motion by Sorenson, seconded by Page, to approve the March 13, 2018 Board meeting minutes as presented. Motion carried.

The Board reviewed the March 19, 2018 minutes. Motion by Tiedemann, seconded by Page, to approve the March 19, 2018 Board meeting minutes as presented. Motion carried.

The Board reviewed the Financial Report dated April 11, 2018. Motion by Tiedemann, seconded by Sorenson, to approve the Financial Report dated April 11, 2018 as presented. Motion carried.

Staff member Arlene Novak reviewed proposals from American Federal Bank-Fosston and Ultima Bank-Fosston for the potential investment of funds. Novak stated that both banks offer Money Market Accounts, with accelerated interest rates about three times what the District is currently earning. After considerable discussion by the Board, a motion was made by Sorenson, seconded by Dwight, to open a Money Market Account with an initial deposit of \$500,000 to American Federal Bank-Fosston, and authorizing American Federal Bank-Fosston as a depository of the District. Motion carried.

The Board reviewed the General Fund Budget as of March 31, 2018.

Bids were opened for agricultural land for rent located within the proposed Black River Impoundment, RLWD Project No. 176. The following bids were received: Richard Salentiny, \$45.00 per acre; Tom Koop, \$40.00 per acre if rent is paid up front, \$45.00 per acre if rent is split ½ due in the spring, ½ due in the fall, \$50.00 per acre if payment is due in the fall; Nick Knott, \$72.00 per acre; and David Garry, \$47.00 per acre. Administrator Jesme noted that the FSA provided the farmable acreage on the property at 396.23 acres. Motion by Sorenson, seconded by Tiedemann, to accept the high bid from Nick Knott at \$72.00 per acre for a total of \$28,528.56, with rental payment due by June 1, 2018. Motion carried.

Matt Fischer, Board of Water and Soil Resources (BWSR) appeared before the Board to discuss the mechanism for the formation of a Water Management District (WMD) within the District's jurisdiction. The creation of a WMD would provide a general equitable mechanism for funding targeted and specific watershed "Projects" addressing local resource concerns and priorities. Fischer stated that a WMD should be set up while the District is working through the One Watershed One Plan (1W1P) process. Fischer recommended that since the District is working through the Thief River 1W1P, the Delegate representing the District on the Policy Committee could request the inclusion of WMD within the Thief River 1W1P Plan. Discussion was held on the potential development of a WMD with the Red Lake River Watershed 1W1P as it relates to the Thief River Falls West Side Flood Damage Reduction Project, RLWD Project No. 178. Motion by Dwight, seconded by Sorenson, to authorize Manager Ose, Delegate to the Thief River 1W1P Policy Committee, to propose the inclusion of a Water Management to the Thief River 1W1P Plan. Motion carried.

Brian Ophsahl, Brady Martz and Associates, presented the 2017 Annual Audit Report. After various questions by the Board, a motion was made by Tiedemann, seconded by Page, and passed by unanimous vote that the Board approve the 2017 Annual Audit Report as presented.

Laura Stengrim, Executive Director-Visit Thief River Falls and Dave Bergman, Explore MN Tourism appeared before the Board to discuss the Pine to Prairie Birding Trail. Stengrim stated that the Pine to Prairie Birding Trail is a unique partnership with communities in NW Minnesota, local, state and federal agencies and various interest groups; the trail is over 200 miles in length with 45 sites. Stengrim reviewed the site selection criteria, stating that the MnDNR assists in evaluating sites along the trail. Stengrim requested the Board to consider including the Parnell Impoundment, RLWD Project No. 81, and the Euclid East Impoundment, RLWD Project No. 60C as potential sites to be added to the trail. Motion by Page, seconded by Dwight, to authorize the addition of the Parnell Impoundment, RLWD Project No. 81, and the Euclid East Impoundment, RLWD Project No. 60C, to the Pine to Prairie Birding Trail, after the evaluation by the MnDNR. Motion carried. Manager Dwight recommended that Ms. Stengrim present this information to the RRWMB for consideration and potential partnership.

Administrator Jesme stated that as part of the Joint Powers Agreement with Hines Township for the Blackduck Lake Project, RLWD Project No. 50E, the agreement states that the Joint Board should meet annually. It was the consensus of the Board, to authorize Jesme to set up a meeting with the Joint Powers Board for the Blackduck Lake Project, RLWD Project No. 50E.

Administrator Jesme reminded the Board, that the Ditch 16, RLWD Project No. 176, Preliminary Hearing will be held on April 26, 2018 at 10:00 a.m. at the District office, during the regularly scheduled Board meeting.

Administrator Jesme stated that various meetings have been held with the City of Thief River Falls, Pennington County, and MnDOT, regarding the proposed Thief River Falls West Side Flood Damage Reduction Project, RLWD Project No. 178. The Board reviewed a letter that was submitted to the City of Thief River Falls from the MnDNR regarding funding consideration through the state's Flood Damage Reduction Grant Assistance Program. The District submitted

a grant application requesting \$1,500,000 in cost-share funding from this program to assist with the funding package for the \$5.0 million project. Potential funding from the RRWMB will be discussed at their April 17, 2018 meeting. Jesme stated that MnDOT will be completing work on Highway 32 south of Thief River Falls in 2020 and are in the process of working on the final design. MnDOT is willing to install the needed structures to work in conjunction with the proposed TRF West Side FDR Project and is requesting the alignment details by May 2018. Engineer Nate Dalager, HDR Engineer, Inc., stated that he is working on completion of the Preliminary Engineers Report. It was the consensus of the Board, to schedule a meeting with the City of Thief River Falls, Pennington County and MnDOT, to discuss the potential funding scenario. Managers Nelson and Tiedemann will participate in the meeting.

Administrator Jesme updated the Board on the redetermination of benefits for Judicial Ditch 72, RLWD Project No. 41. Jesme stated that the Joint Powers Board will meet next Tuesday to amend or clarify the previous motion approving the redetermination of benefits for Judicial Ditch 72.

The Board reviewed a Release of Claims and Indemnification and Hold Harmless Agreement for gopher trapping on District projects. Motion by Tiedemann, seconded by Page, to approve the Release of Claims and Indemnification and Hold Harmless Agreement for LeRoy Christensen, on the Louisville/Parnell Project, RLWD Project No. 121, Parnell Impoundment, RLWD Project No. 81, and the Brandt Impoundment, RLWD Project No. 60D. Motion carried.

The Board reviewed an update and status on the proposed BWSR Buffer Administrative Penalty Order Amendment. Administrator Jesme stated that in the very near future, the Board will have to approve a Buffer Enforcement policy like what the Counties have approved. Jesme indicated that he is working with BWSR and Buffalo Red River Watershed District staff to draft a policy paper which better follows existing Watershed District law.

The Board reviewed the following MAWD information: 2018 Update-Quarter One; 2018 Summer Tour; and draft Training Work Plan.

Pennington SWCD submitted a request for a financial donation for the Area I Envirothon. The Area I Envirothon will be held on April 25, 2018, at Agassiz National Wildlife Refuge. Motion by Tiedemann, seconded by Sorenson, to donate \$300 to the Area I Envirothon to promote education and awareness of water quality issues. Motion carried.

The Board reviewed the permits. Motion by Tiedemann, seconded by Sorenson, to approve the following permits with conditions: RLWD Permit No. 18011, Minnesota Department of Transportation, Lowell Township, Polk County; No. 18013, Dennis Schulz, Euclid Township, Polk County; No. 18014, Enbridge Energy, Leon Township, Clearwater County; and Table Permit No. 18012, Jordey Marquis, Silverton Township, Pennington County, for further review. Motion carried.

Mike Enright, Ellingson Drainage, appeared before the Board stating that he is the local representative for the installation of tile drainage for Ellingson Drainage. Enright stated that they

work with landowners for the installation of splash guard mats and rock riprap at the outlet of tile drains to help prevent erosion. Manager Tiedemann discussed his concern with open drains and creation of a berm. Manager Dwight recommended the implantation of some type of non-erosive outlet to the District's Tile Drainage Rules. Further discussion was held on the potential of cost sharing with tile drain outlets currently in place for erosion control matters. Further discussion will be held on the District's Tile Drainage Rules at the April 26, 2018 meeting.

Administrator Jesme stated that he recently completed a six-month employee evaluation for staff member Christina Slowinski, recommending an increase of \$1.00 per hour pay raise, retroactive to March 18, 2018. Motion by Tiedemann, seconded by Page, to approve the \$1.00/hour raise for Christina Slowinski effective March 18, 2018. Motion carried.

Discussion was held on updating the District's Fox Lawson review. Motion by Sorenson, seconded by Dwight, to authorize Administrator Jesme to proceed with the Fox Lawson review based on the Budget and Salary Committee recommendation. Motion carried.

Discussion was held on the District's Overall Technical Advisory Committee meeting that was held on March 19, 2018 at the District. It was the consensus of the Board, to authorize the staff to work on the development of a survey to be submitted to the Advisory Committee, requesting suggestions on what type of information/format the Advisory Committee would like to see presented at the yearly meetings. Staff will develop a draft survey to present to the Board, prior to submittal to the Advisory Committee.

Administrators Update:

- Jesme and Manager Ose and Sorenson attended the RRMWB meeting on March 20, 2018 in Moorhead in conjunction with the RRWMB and RRBFDWG March Conference. Included in the packet was the survey results from the March Conference, information from the "Small Group" discussions as well as the RRWMB meeting highlights.
- The Thief River 1W1P Advisory Committee met on April 11th at 9:00 a.m., followed by the Policy Committee meeting. The Planning Work Group later in the day to receive an update on the Zonation process of the plan.
- BWSR is working on a press release for all of the 1W1P Pilot Projects, which would include the Red Lake River 1W1P. The press release is intended to assist in telling the story on how we can move forward once the planning process is complete.
- Included in the packet was the League of Cities Insurance Trust 2017-2018 premium rates as well as the 2017-2018 coverage changes.
- Jesme attended the Pennington County Township Association meeting on April 11th.
- Included in the packet was the January 2018 Water Quality Update.

Managers Nelson and Dwight discussed a meeting the attended with members of Red Lake Nation. Discussion was held on the desire of the Red Lake Nation to have a seat on the District's Board of Managers. A petition would need to be submitted to BWSR for an additional seat on the Board of Managers. Legal Counsel Sparby suggested requesting the opinion of the Attorney General. It was the consensus of the Board, to have Legal Counsel Sparby research the legalities of an additional seat on the District's Board of Managers.

Manager Dwight discussed his concerns on the Four-Legged Lake Project, RLWD Project No. 102A as it relates to the alternatives for the CSAH Standards and Specifications in the drafting of the Preliminary Engineers Report. Engineer Nate Dalager, HDR Engineering, Inc. stated that the Preliminary Engineers Report for the Four-Legged Lake Project, RLWD Project No. 102A will be presented at the April 26, 2018 meeting.

Discussion was held on the Resolution passed by the Sandhill River Watershed District to withdraw from the RRWMB.

Engineer Tony Nordby, Houston Engineering, Inc., stated that they have gathered the right-of-way requirements for the diversion ditches for the Black River Impoundment Project, RLWD Project No. 176. Discussion was held on scheduling a hearing soon. Nordby will present the Preliminary Engineers Report at the April 26, 2018 Board meeting.

Administrator Jesme stated that he had several calls regarding the maintenance assessment on the Water Management District for the Thief River Falls FDR Project, RLWD Project No. 171A.

Motion by Sorenson, seconded by Page, to adjourn the meeting. Motion carried.

LeRoy Ose, Secretary

RED LAKE WATERSHED DISTRICT
Financial Report for April 25, 2018

| Ck# | Check Issued to: | Description | Amount |
|------------|-----------------------------------|---|---------------|
| online | EFTPS | Withholding for FICA, Medicare, and Federal taxes | \$ 3,537.37 |
| online | MN Department of Revenue | Withholding taxes | 649.12 |
| online | Public Employees Retirement Assn. | PERA | 2,453.86 |
| online | EFTPS | Withholding for FICA, Medicare, and Federal taxes | 268.00 |
| online | MN Department of Revenue | Withholding taxes | 50.00 |
| online | EFTPS | Withholding for FICA, Medicare, and Federal taxes | 3,545.77 |
| online | MN Department of Revenue | Withholding taxes | 646.55 |
| online | Public Employees Retirement Assn. | PERA | 2,465.32 |
| 36745 | American Federal Bank-Fosston | Initial bank deposit | 500,000.00 |
| 36746 | Area 1 Envirothon | Envirothon donation | 300.00 |
| 36747 | Marshall SWCD | Thief River 1W1P | 404.83 |
| 36748 | Pennington SWCD | Thief River 1W1P | 947.61 |
| 36749 | Eazy Pack-N-Ship | Shipment of water quality equipment for battery replacement | 20.38 |
| 36750 | Elroy Aune | TR1W1P mileage | 51.77 |
| 36751 | Beltrami County Treasurer | 2018 Real estate taxes for Moose River Impoundment | 0.65 |
| 36752 | Brady Martz & Assoc., P.C. | Remainder of fees for 2017 audit | 3,000.00 |
| 36753 | Cenex Credit Card | Gas for vehicle | 118.00 |
| 36754 | Delta Dental | Dental insurance premium | 437.45 |
| 36755 | The Exponent | Legal ad for Preliminary hearing notice | 411.75 |
| 36756 | Farmers Union Oil | Gas for vehicle | 61.33 |
| 36757 | Forestry Suppliers, Inc. | 200 Utility markers | 3,474.95 |
| 36758 | Further | Flexible Spending Account fees | 8.85 |
| 36759 | Gordy's Plumbing | Replace O rings in kitchen faucet | 80.57 |
| 36760 | HDR Engineering, inc. | *See below | 64,480.32 |
| 36761 | Steve Holte | TR1W1P mileage | 38.15 |
| 36762 | Houston Engineering, Inc. | Thief River 1W1P Professional fees | 6,665.12 |
| 36763 | Curtis Hunt | TR1W1P mileage | 111.18 |
| 36764 | Marco | Monthly contract for Microsoft Office 365 | 187.50 |
| 36765 | Randy McMillin | TR1W1P mileage | 51.23 |
| 36766 | Dale M. Nelson | Mileage | 105.73 |
| 36767 | Northwest Beverage, Inc. | H2O for office | 29.50 |
| 36768 | Northwestern Mutual Financial | Deferred Compensation | 484.84 |
| 36769 | LeRoy Ose | Mileage | 39.24 |
| 36770 | Pennington Square, Inc. | Gas for 2 vehicles | 92.97 |
| 36771 | Pennington County Treasurer | Real estate taxes for Black River Impoundment area land | 6,640.00 |
| 36772 | Pennington SWCD | PTMapp grant expenses | 261.06 |
| 36773 | Purchase Power | Fee for installing postage on postage meter | 1.50 |
| 36774 | Polk County Administrator | 2018 Real estate taxes for Proj. Nos.43A, 60C,60D,81 and 121 | 3,374.86 |
| 36775 | Red Lake County Treasurer | 2018 Real estate taxes for Louisville Parnell Impoundment | 222.88 |
| 36776 | Darrold Rodahl | TR1W1P mileage | 16.35 |
| 36777 | Tony Salentine | Read, observe and operate Brandt, Euclid East, Parnell & FSE site | 520.00 |
| 36778 | Kevin Sanders | TR1W1P mileage | 16.35 |
| 36779 | Sun Life Financial | Life insurance premium | 139.12 |
| 36780 | Thief River Falls Times | Ad for Agricultural land for rent | 325.00 |
| online | Cardmember Services | **See below for explanation | 2,655.07 |
| online | Aflac | Staff paid insurances | 465.74 |
| online | SelectAccount | FSA medical account | 114.39 |
| online | SelectAccount | FSA medical account | 312.12 |
| direct | Al Page | Mileage and meal | 216.90 |
| | Payroll | | |
| | Check #11387 -11397 & 7436 | | 12,254.83 |
| | Total Checks | | \$ 622,756.08 |

***HDR, Inc.**

| | |
|--------------------------------------|------------------|
| Proj. 26 Pine Lake | 18,363.03 |
| Proj. 26 Pine Lake-Site F | 606.69 |
| Proj. 102A Four Legged Lake | 12,666.75 |
| Proj. 147 Louisville Parnell Wetland | 1,378.21 |
| Proj. 178 Thief River Westside FDR | <u>31,465.64</u> |
| TOTAL | 64,480.32 |

****Cardmember Services**

| | |
|-------------------------------------|-----------------|
| AT&T-Monthly cell phone expense | 270.81 |
| Menards-cell phone charging cord | 10.73 |
| Office Depot-Bathroom paper towels | 47.22 |
| Embassy Suites-Gene Tiedemann | 182.38 |
| Embassy Suites-Myron Jesme | 364.76 |
| Caseys General Store-gas Equinox | 29.80 |
| Holiday Gas Station-gas for Equinox | 25.00 |
| Courtyard Marriot-Brian Dwight | 142.38 |
| Courtyard Marriot-Gene Tiedemann | 284.76 |
| Courtyard Marriot-LeRoy Ose | 442.95 |
| Courtyard Marriot-Myron Jesme | 284.76 |
| Courtyard Marriot-Allan Page | 284.76 |
| Courtyard Marriot-Terry Sorenson | <u>284.76</u> |
| TOTAL | 2,655.07 |

Northern State Bank

| | |
|---|-----------------------------|
| Balance as of April 11, 2018 | \$ 1,262,778.99 |
| Total Checks Written | (622,756.08) |
| Receipt #016532 NRCS-Pay request #8 for Pine Lake RCPP | 80,354.42 |
| Receipt #016533 Polk County-In lieu of 2017 Crookston Housing Development Authority | 488.33 |
| Receipt #016534 State of Minnesota-40% of original grant of Proj. 167A, Drainage Database | <u>15,480.00</u> |
| Balance as of April 25, 2018 | <u><u>\$ 736,345.66</u></u> |

Border State Bank

| | |
|----------------------------------|----------------------------|
| Balance as of February 28, 2018 | \$ 18,149.28 |
| Receipt #016526 Monthly interest | <u>3.85</u> |
| Balance as of March 31, 2018 | <u><u>\$ 18,153.13</u></u> |

American Federal Bank-Fosston

| | |
|------------------------------|-----------------------------|
| Investment of funds | \$ 500,000.00 |
| No activity | <u>0</u> |
| Balance as of April 25, 2018 | <u><u>\$ 500,000.00</u></u> |

Red Lake Watershed District
as of April 25, 2018

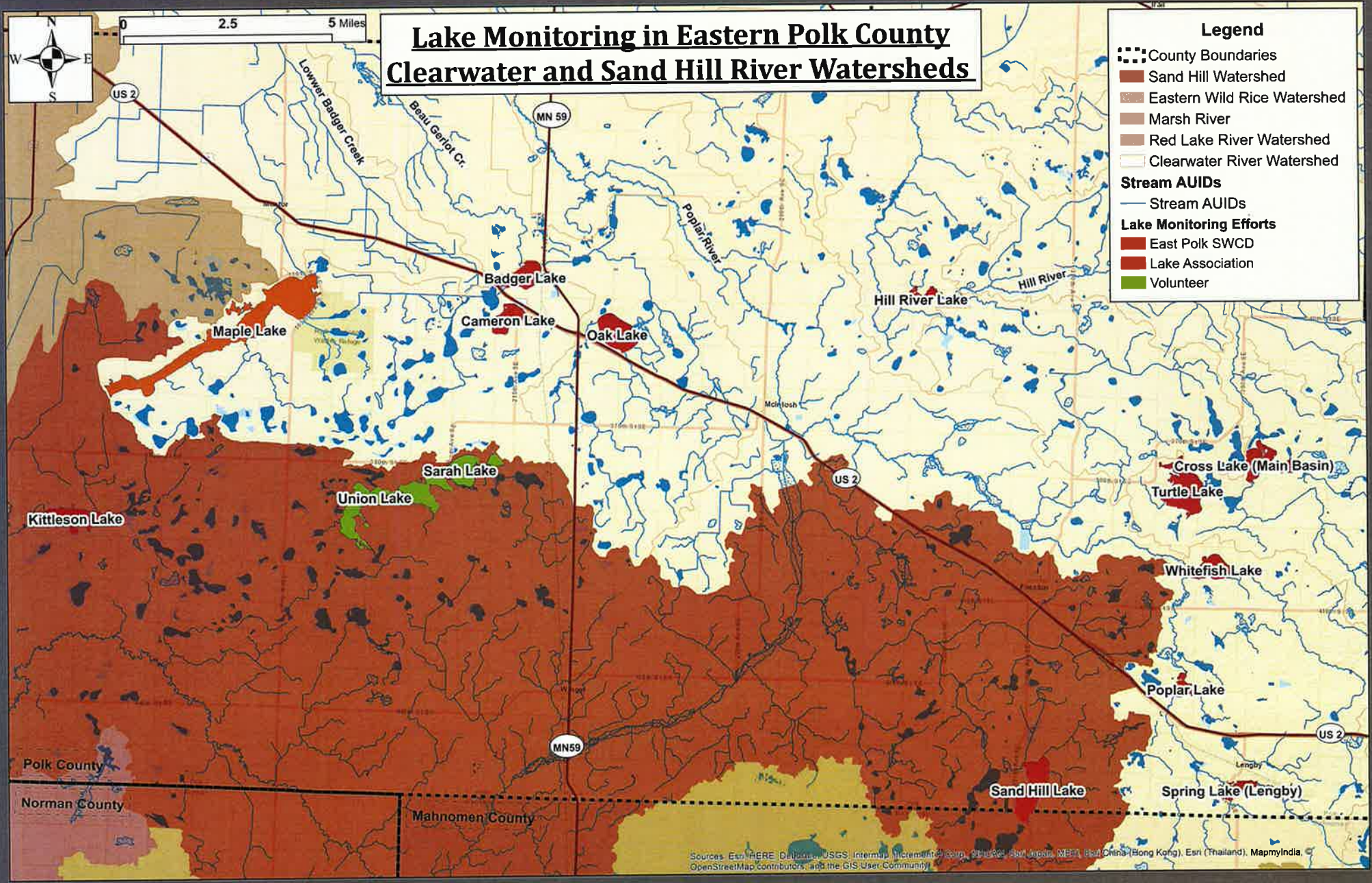
| <u>Name of Institution</u> | <u>Purchase</u> | <u>Int. Rate</u> | <u>Mat. Date</u> | <u>*Maturity Amount</u> |
|--|------------------------|------------------|------------------|-------------------------|
| 10010 Northern State Bank (checking) | \$ 736,345.66 | 0.40% | | \$ 736,345.66 |
| 10020 Border State Bank (Investor savings) Thief River Falls | \$ 18,153.13 | 0.25% | | \$ 18,153.13 |
| 10030 American Federal Bank Fosston | \$ 500,000.00 | 1.20% | | \$ 500,000.00 |
| 10840 Edward Jones (Ally Bank) (Savings account) | \$ 200,000.00 | 0.60% | | \$ 200,000.00 |
| 10470 CDARS-Bank of America, Charlotte, NC monthly interest payment via ACH | \$ 200,000.00 | 1.25% | 7/5/2018 | \$ 200,000.00 |
| 10240 CDARS-TriState Capital Bank-Pittsburgh 12 mos. CD, int. paid monthly | \$ 200,000.00 | 1.40% | 8/9/2018 | \$ 200,000.00 |
| 10550 Citizens State Bank, Roseau #59137 18 mos.(int.pd semi-annually) | \$ 200,000.00 | 1.05% | 9/3/2018 | \$ 201,090.96 |
| 10760 Ultima Bank Minnesota-Fosston (1076) #16623 12 month CD | \$ 200,000.00 | 1.00% | 10/2/2018 | \$ 201,002.74 |
| 10770 CDARS-Bank of China, NY Interest direct deposited monthly | \$ 243,500.00 | 1.50% | 10/18/2018 | \$ 243,500.00 |
| 10770 CDARS-Great Plains National Bank Interest direct deposited monthly | \$ 113,000.00 | 1.50% | 10/18/2018 | \$ 113,000.00 |
| 10770 CDARS-MainStreet Bank Interest direct deposited monthly | \$ 243,500.00 | 1.50% | 10/18/2018 | \$ 243,500.00 |
| 10830 Edward Jones-Morgan Stanley Interest paid at maturity | \$ 200,000.00 | 1.50% | 10/30/2018 | \$ 203,000.00 |
| 10650 First National Bank-Bemidji-12 mos. CD #94230 Qtrly interest-direct deposit(1065) | \$ 200,000.00 | 1.05% | 12/12/2018 | \$ 201,582.19 |
| 10660 CDARS-Amarillo National Bank, TX 12 mos. CD, int. paid monthly | \$ 146,500.00 | 1.50% | 1/17/2019 | \$ 146,500.00 |
| 10660 CDARS-Conway, AR 12 mos. CD, int. paid monthly | <u>\$ 53,500.00</u> | 1.50% | 1/17/2019 | <u>\$ 53,500.00</u> |
| | <u>\$ 3,454,498.79</u> | | | <u>\$ 3,461,174.68</u> |

Lake Monitoring in Eastern Polk County Clearwater and Sand Hill River Watersheds



0 2.5 5 Miles

- Legend**
- ▬ County Boundaries
 - Sand Hill Watershed
 - Eastern Wild Rice Watershed
 - Marsh River
 - Red Lake River Watershed
 - Clearwater River Watershed
 - Stream AUIDs
 - Stream AUIDs
 - Lake Monitoring Efforts
 - East Polk SWCD
 - Lake Association
 - Volunteer



Sources: Esri, HERE, DeLorme, USGS, Intermap, increment p Corp., Swire, Nor Japan, MEB, IBC, China (Hong Kong), Esri (Thailand), MapmyIndia, OpenStreetMap contributors, and the GIS User Community

Minnesota Agricultural Water Quality Certification Program

*Certifying that Minnesota's farms
and waters can prosper together*



Background

- Program initiated by MOU signed by Governor Dayton, USDA Secretary Vilsack and EPA Administrator Lisa Jackson
- Created in statute by MN legislature
- Shaped by an advisory committee comprised of diverse agriculture and conservation representatives
- Empowered by an executive order signed by Governor Dayton compelling the DNR, BWSR and PCA to abide by the MAWQCP producer contract.



MOU signed by Governor Mark Dayton, USDA Secretary Tom Vilsack, and former EPA Administrator Lisa Jackson in 2012.

Background

- Program offers producers:
 - Recognition
 - Financial/Technical assistance
 - Regulatory certainty
 - Branding/Marketing opportunity
 - Check-up/Validation
- Whole-farm planning for water quality; risk assessment of every parcel, every crop
- Pairs producer with conservation professional to develop site-specific solutions to reduce risk to water quality



Background

- What is 'certainty?'
- Offered by Minnesota state government, via Certification contracts
- Not an exemption from existing rules & regulations
- Relevant to the land in an agricultural operation
- Conditional upon:
 - Implementation of recommended practices
 - Maintenance of practices during certification



In practice, “certainty” means:

Certified farms are deemed to be in compliance with any new State water quality rules or laws and considered to be meeting their contributions to any targeted reductions of pollutants during the period of their certification.



Certification is a Contract

- Contract between the **State of Minnesota and certified producer**
- Agreement good for 10 years
- Outlines obligations of producer and responsibilities of the State
- Defines **certainty** and grants it to producer
- **Field assessment records** attached as appendix to contract

Certification Number _____



MINNESOTA
WATER
QUALITY
CERTIFIED FARM

STATE OF MINNESOTA
AGRICULTURAL WATER QUALITY CERTIFICATION AGREEMENT

This agreement is between _____ (“Producer”) and the Minnesota Department of Agriculture (“MDA”), which is authorized to sign on behalf of the Minnesota Pollution Control Agency, Minnesota Department of Natural Resources, and the Board of Water and Soil Resources pursuant to Minnesota Governor’s Executive Order 14-09.

This contract is governed by Minnesota Statutes Sections 17.9891-17.993 which outline procedures for implementing the Minnesota Agricultural Water Quality Certification Program. All parties agree that the Minnesota Agricultural Water Quality Certification Program is in the public interest as it enhances the water quality of Minnesota’s rivers, lakes, streams, wetlands and groundwater, as well as promotes and accelerates environmental stewardship by Minnesota’s farmers.

A. TERMS OF AGREEMENT:

Agreement start date is _____ and expires on _____.

Statewide Expansion



- **Legislature appropriated Clean Water funds for the first year of the FY16-17 biennium**
- **Funding specifies to deliver the program “Statewide”**
- **Dedicated funds serve as a match for EQIP RCPP**

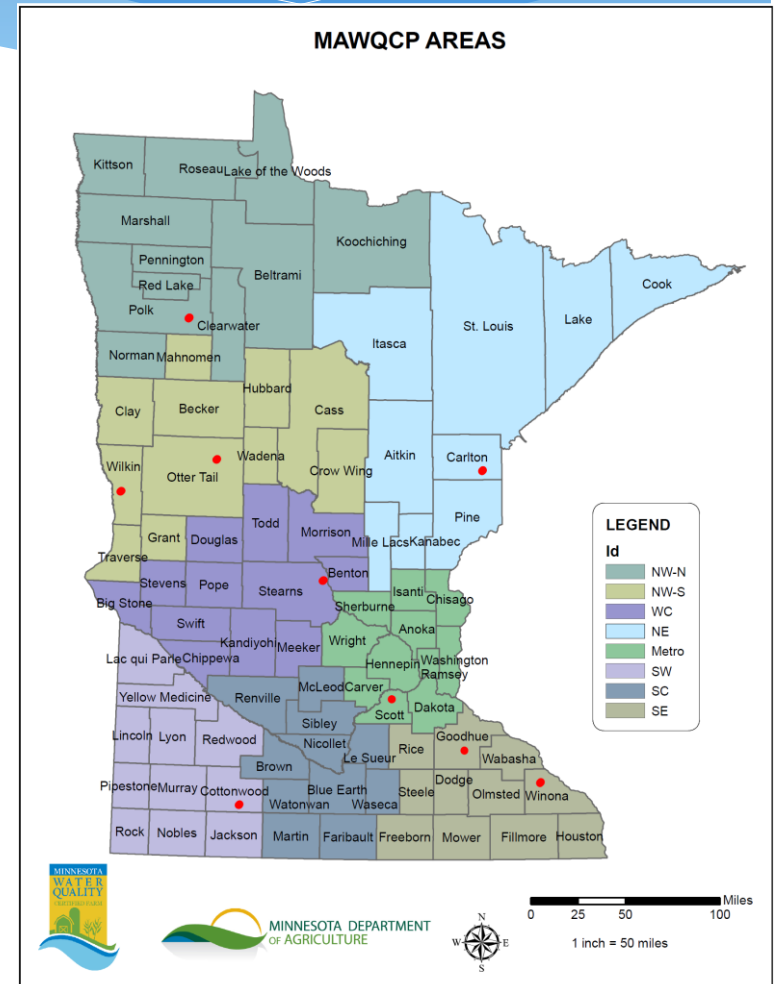
Regional Structure

Northwest

ACS: Glen Kajewski
East Polk SWCD, McIntosh
glen.kajewskieastpolk@gmail.com
Cell 218-689-1502

Kathy Rasch
MDA, Clearbrook
kathy.rasch@state.mn.us
218-784-8388

MyLandMyLegacy.com



Area Specialists, Support Staff

Fiscal Agents manage service areas:

- **Area Certification Specialist (ACS)** full-time lead staff coordinating certification services for each Area
- MDA staffed, area-designated **Intermittent Certification Specialists**; part-time/on-call position for certification support
- A pool for reimbursement of SWCDs for technical assistance or conservation design
- Pilot project for private advisor assessment services
- Separate **Promotion Grant**



MAWQCP Progress

- * Certification Status as of March 19, 2018:
 - **541 certified farms**
 - **335,924 certified acres**
 - **1021 new best management practices** that have yielded:
 - Over 55 million pounds of soil saved per year
 - More than 23 million pounds sediment reduced/year
 - Over 14,000 pounds of phosphorus prevented from entering our waters per year
 - 49% estimated reduction in nitrogen loss

NW Region Info

NW service area provides assistance to 10 Soil and Water Conservation Districts

21 Certified Farms in NW MN, 29 applications in NW area at this time

10 Certified Farms in Pennington SWCD

Size of certified farms in NW region range from 5 acres to several thousand acres

Incentives offered to participants

\$100 to sign application and complete the assessment

Additional \$200 if complete the assessment and become certified



Mike and Ryan Skaug, West Polk

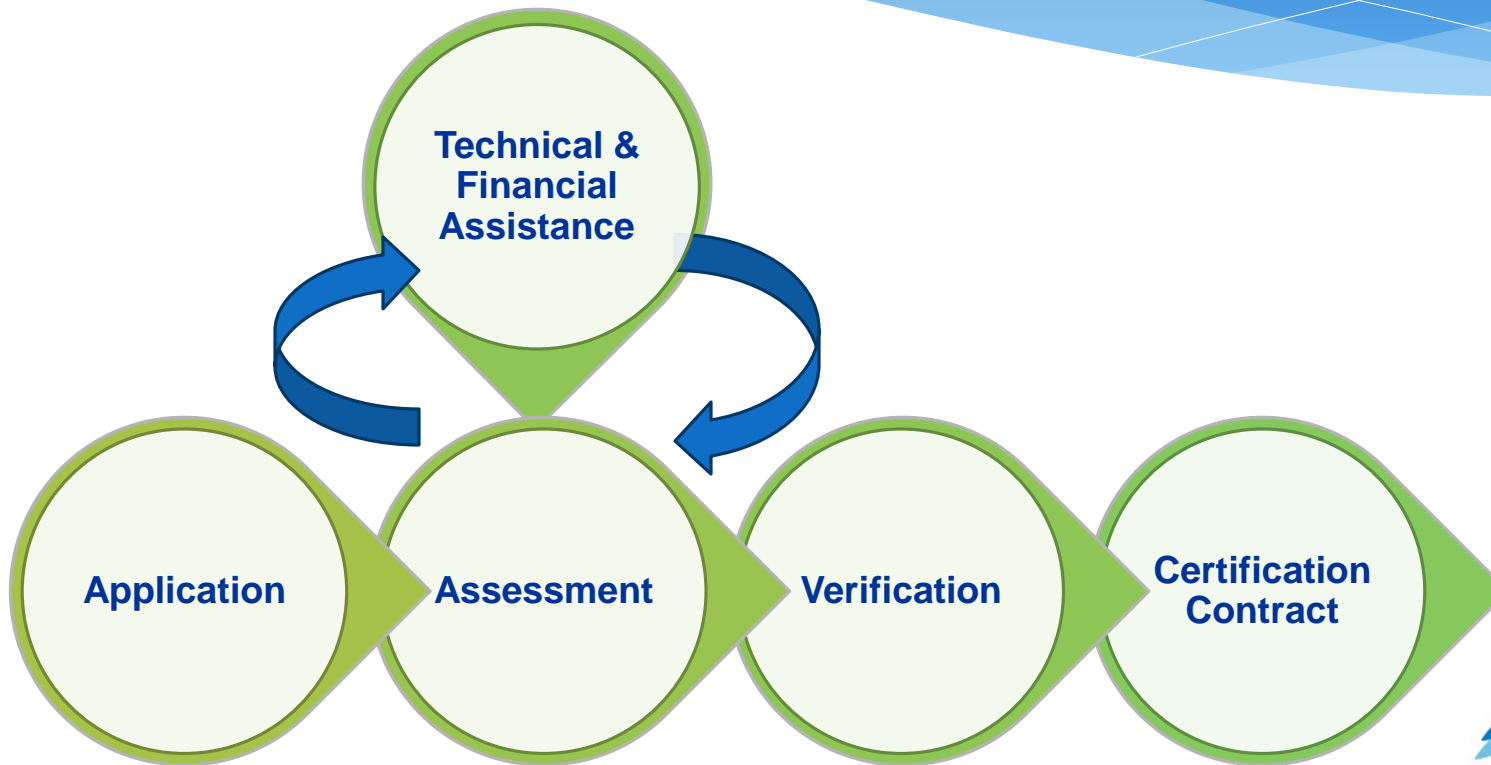


Assessment Process

Or 'What can a producer expect?'



Assessment Process




Assessment Process

Step 1. Application

- Establishes **eligibility** for program resources
- Ensures **compliance** with existing water quality regulations

| | | Yes | N/A |
|---|---|--------------------------|--------------------------|
| 1 | Are you in compliance with Minnesota Administrative Rules Chapter 7020 – Animal Feedlots and, if applicable, do you have a valid National Pollutant Discharge Elimination System (NPDES)/State Disposal System (SDS) permit for your feedlot operation? | <input type="checkbox"/> | <input type="checkbox"/> |
| 2 | Are you in compliance with the Minnesota Wetlands Conservation Act (Minnesota Statutes Section 103G.221-103G.2375)? | <input type="checkbox"/> | <input type="checkbox"/> |
| 3 | Are you in compliance with Subsurface Sewage Treatment Systems (septic system) requirements (Minnesota statute 115.55 and 115.56)? | <input type="checkbox"/> | <input type="checkbox"/> |
| 4 | Are you in compliance with the Federal Insecticide, Fungicide, and Rodenticide Act and Minnesota statutes (18B, 18C, 18D, 103H) regarding pesticide and fertilizer distribution, use, storage, handling and disposal? | <input type="checkbox"/> | <input type="checkbox"/> |
| 5 | Are you in compliance with the local shore land management ordinance? | <input type="checkbox"/> | <input type="checkbox"/> |



Minnesota Department of Agriculture

625 Robert Street North, St. Paul, MN 55155-2538
www.mda.state.mn.us

Pesticide and Fertilizer Management, Ph: 651-201-6489

Minnesota Agricultural Water Quality Certification Program Application

This serves as formal application to participate in, and formal declaration of intent to achieve certification by, the Minnesota Agricultural Water Quality Certification Program (MAWQCP). Formal application for certification may provide priority attention and consideration for state and federal agency decisions involving technical and financial assistance to obtain certification. Completion of this application by the Applicant constitutes eligibility for any priority status provided in support of the Minnesota Agricultural Water Quality Certification Program.

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Applicant Full Name (Print) _____

Phone _____

State _____ Zip _____

Water Quality Certified producers must be in compliance with all existing applicable state water protection rules and regulations at the time of Certification. Producers seeking certification must confirm compliance with the following existing

| | Yes | N/A |
|---|--------------------------|--------------------------|
| Are you in compliance with Minnesota Administrative Rules Chapter 7020 – Animal Feedlots and, if applicable, do you have a valid National Pollutant Discharge Elimination System (NPDES)/State Disposal System (SDS) permit for your feedlot operation? | <input type="checkbox"/> | <input type="checkbox"/> |
| Are you in compliance with the Minnesota Wetlands Conservation Act (Minnesota Statutes Section 103G.221-103G.2375)? | <input type="checkbox"/> | <input type="checkbox"/> |
| Are you in compliance with Subsurface Sewage Treatment Systems (septic system) requirements (Minnesota statute 115.55 and 115.56)? | <input type="checkbox"/> | <input type="checkbox"/> |
| Are you in compliance with the Federal Insecticide, Fungicide, and Rodenticide Act and Minnesota statutes (18B, 18C, 18D, 103H) regarding pesticide and fertilizer distribution, use, storage, handling and disposal? | <input type="checkbox"/> | <input type="checkbox"/> |
| Are you in compliance with the local shore land management ordinance? | <input type="checkbox"/> | <input type="checkbox"/> |

If you are in compliance with any of the above questions, your MAWQCP representative can assist you with information on assistance to resolve eligibility.

In answer Yes or N/A to each of the above questions, you are eligible for MAWQCP certification. Certified parties are subject to audit of compliance with the terms of your MAWQCP certification.

At the time of certification I must be in compliance with existing applicable state water protection rules and regulations. I understand that I have priority status for technical and financial assistance to reach certification.

Applicant Name (Print) _____ Date _____

Applicant Signature _____

In accordance with the Americans with Disabilities Act, this information is available in alternative forms of communication upon request by calling 651-201-6000. TTY users can call the Minnesota Relay Service at 711 or 1-800-627-3529. The MDA is an equal opportunity employer and provider.

AG-03247
11/14

Assessment Process

Step 2. Assessment Tool

<https://mnwatercertify.mda.state.mn.us/wqcpapp/>



Welcome to the *Minnesota Agricultural Water Quality Certification Program Assessment Tool*

Load an Existing Certification File

Create New Certification

A partnership effort of



MINNESOTA DEPARTMENT
OF AGRICULTURE



CLEAN
WATER
LAND &
LEGACY



MINNESOTA
DEPARTMENT OF
NATURAL RESOURCES



Minnesota Pollution
Control Agency



Minnesota
Board of
Water & Soil
Resources

For background and details on the assessment tool, please see the Technical Document and Bulletins available here: <http://www.mda.state.mn.us/protecting/waterprotection/awqcprogram/assessmentprocess.aspx>

Assessment Process

Step 2. Assessment Tool

Unitless **risk-assessment index** for each parcel and crop, scoring between 0 - 10 based on the following criteria with site inspection for eligible scores ≥ 8.5

- 1) Field characteristics and soil physical/erosion factors,
- 2) Nutrient management factors,
- 3) Tillage management factors,
- 4) Pest management factors,
- 5) Irrigation and tile drainage management,
- 6) Additional conservation practices

The screenshot shows a web-based assessment tool interface. At the top, there is a green header with the text "Minnesota Agricultural Water Quality Certification Pr...". Below the header, a blue bar displays the status "Certification Eligible" and a table of scores: Field (1.89), Nutr. Mgmt (2.50), Tillage (2.00), Pest Mgmt Base Score (2.50), Adjust (8.89), and Final (9.61). The main content area is titled "Risk Index Score" and lists several criteria with dropdown menus and input fields:

| Criteria | Selected Option | Score |
|---------------------------------------|--------------------|-------|
| Nitrogen Application Rate | MN BMP recommen... | 3.00 |
| Phosphorus Application Rate | UMN recommendation | 3.00 |
| Commercial Fertilizer Timing | Recommended | 2.00 |
| Commercial Fertilizer Source | Recommended | 1.00 |
| Commercial Fertilizer Placement | Recommended | 1.00 |
| Manure Application Timing & Placement | No Manure Applied | 0 |
| Nutrient Management | | 10.00 |

Overall Risk Index Score: 10.00
Warning: **Save before you leave.** This website does not save any information entered. When you close the browser window all info not saved to your computer will be lost.

At the bottom, there are six green navigation buttons: Site Information, Field Physical Factors, Nutrient Management, Tillage & Pest Managem..., Irrigation/Tile Drainage, and Conservation Practices.

Assessment Process

Step 3. Field verification



- Existing conservation practices are reviewed, setbacks and buffers paced, tile inlets examined, areas susceptible to gullies visited, tillage and crop rotation confirmed among other checks.



- Whole farm conservation planning
- Site-specific treatments
- Boots-on-the-ground conservation delivery

Assessment Process

Minnesota Agricultural Water Quality Certification: Record #: 9

| Producer & Field/Site Information | | | Field/Site Summary | | | |
|--|--|--|---|----------------------------|---------------------------|------------------------|
| <i>Producer:</i> Example Farms | | | <i>Field Sensitivity</i> | <i>Nutrient Management</i> | <i>Tillage Management</i> | <i>Pest Management</i> |
| <i>Field Name:</i> S-40 | | | <i>WQI Ranking:</i> 5.25 | 10 | 8 | 10 |
| <i>Description / Rotation Information:</i> Corn in a Corn-Soy rotation | | | <i>Weighting Factor:</i> 0.25 | 0.25 | 0.25 | 0.25 |
| <i>Pilot WS:</i> Whitewater River | | | <i>Weighted Value:</i> 1.31 | 2.5 | 2 | 2.5 |
| <i>County:</i> Olmsted | | | <i>Weighted Mean Value of Core Components:</i> 8.31 | | | |
| <i>Township:</i> <i>Range:</i> <i>Section:</i> | | | <i>Adjusted Mean Value with Irrigation & Tile Drainage:</i> 8.31 | | | |
| <i>Forty:</i> <i>Acres:</i> 40 | | | <i>Adjusted Mean Value with Conservation Practices:</i> 9.05 | | | |
| | | | <i>Final Score:</i> 9.05 | | | |
| | | | <i>Status (> 8.5 for Certification):</i> Certification Eligible | | | |
| Field Physical Sensitivity | | | Nutrient Management | | | |
| <i>Slope (%):</i> 5-10% | | | <i>Nitrogen Application Rate:</i> MN BMP recommendation | | | |
| <i>HSG:</i> C - moderately high runoff potential | | | <i>Phosphorus Application Rate:</i> UMN recommendation | | | |
| <i>K-factor:</i> 0.33 - 0.43 high erodibility | | | <i>Synthetic Fertilizer Timing:</i> Recommended | | | |
| <i>Organic Matter:</i> 2-4% | | | <i>Synthetic Fertilizer Source:</i> Recommended | | | |
| <i>Precipitation Station:</i> Elgin 2 SSW | | | <i>Synthetic Fertilizer Placement:</i> Recommended | | | |
| | | | <i>Manure Application Timing & Placement:</i> No Manure Applied | | | |
| Tillage Management | | | Pest Management | | | |
| Mulch Till with a STIR value of 31 to 60 | | | Advanced IPM: Low risk IPM plus cultural practices that minimize pests | | | |
| Tile Drain System & Irrigation Management | | | | | | |
| <i>Tile Drain System:</i> No Tile Drain (0%) | | | <i>Irrigation Method and Adjustment:</i> No Irrigation (0%) | | | |
| Conservation Practices | | | | | | |
| <i>Conservation Practice 1:</i> Grass Waterway | | | | | | |
| <i>Conservation Practice 2:</i> | | | | | | |
| <i>Conservation Practice 3:</i> | | | | | | |
| Certification Acknowledgement | | | | | | |
| This site has been reviewed for the Minnesota Agricultural Water Quality Program and meets certification requirements. | | | | | | |



* 10 year term of certification, with amendments and re-certification as desired.

Technical & Financial Assistance

- **Priority TA?**
- **Reimbursement for SWCD/TSA TA**
- **RCPP EQIP**
- **MDA Clean Water funds**
 - **Grant opportunity through MDA**
 - **75%, \$5,000 maximum**
 - **Flexible grant for practices with few cost share options, piggy backing on EQIP, etc**
- **Regional, county and private industry incentives**

Contract followup/review

- Tracking of implementation and maintenance of commitments
- Spot checks of producers to ensure compliance – minimum 10% or once during period of certification
- Audits of certifying agents



Questions?



MyLandMyLegacy.com

Brad Redlin

Brad.Redlin@state.mn.us



625 Robert Street North, St. Paul, MN 55155-2538
www.mda.state.mn.us

Pesticide and Fertilizer Management Phone 651-201-6489

Minnesota Agricultural Water Quality Certification Program Application

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| | | | |
|-----------------------------|-------|-------|--|
| Applicant Full Name (Print) | | Email | |
| Address | | Phone | |
| City | State | Zip | |

Minnesota Agricultural Water Quality Certified producers must be in compliance with all existing applicable state water protection rules and regulations at the time of Certification. Producers seeking certification must confirm compliance with the following existing requirements:

| | | | Circle One | |
|---|---|-----|------------|--|
| 1 | Are you in compliance with Minnesota Administrative Rules Chapter 7020 – Animal Feedlots and, if applicable, do you have a valid National Pollutant Discharge Elimination System (NPDES)/State Disposal System (SDS) permit for your feedlot operation? | Yes | N/A | |
| 2 | Are you in compliance with (not cited with any unresolved violations of) the Minnesota Wetlands Conservation Act (Minnesota Statutes Section 103G.221- 103G.2375)? | Yes | N/A | |
| 3 | Do you have a Subsurface Sewage Treatment System (septic system) that is deemed an Imminent Threat to Public Health and/or have been cited in violation of local ordinance thus requiring an immediate upgrade? | No | N/A | |
| 4 | Are you in compliance with the Federal Insecticide, Fungicide, and Rodenticide Act and Minnesota statutes (18B, 18C, 18D, 103H) regarding pesticide and fertilizer distribution, use, storage, handling and disposal? | Yes | N/A | |
| 5 | Are you in compliance with current State rules and statutes pertaining to shoreland and riparian protection? | Yes | N/A | |

If you are not in compliance and free of any violations per the above questions, your MAWQCP representative can assist you with information on technical and financial assistance to resolve eligibility.

When you are able to answer each of the above questions, you are eligible for MAWQCP certification. (Note: all MAWQCP-certified parties are subject to audit of compliance with the terms of your MAWQCP certification.)

I understand that at the time of certification I must be in compliance with and free of any unresolved violations of existing applicable state water protection rules and regulations. I understand that I will have access to technical and financial assistance to reach certification.

Applicant Name (Print)

Date

Applicant Signature

Certification of Identity

Privacy Act Statement. In accordance with 28 CFR Section 166.41 (d) personal data sufficient to identify the individuals submitting request by mail under the Privacy act of 1974, §U.S.C. Section 552a, is required. The purpose of this solicitation is to ensure that the records of individuals who are the subject of United States Department of Agriculture (USDA) systems of records are not wrongfully disclosed by the Department. Failure to furnish this information will result in no action being taken on the request. False information on this form may subject the requester to criminal penalties under 18 U.S.C. Section 1001 and or 5U.S.C. Section 552a(i)(3).

Full Name of Individual of whom the applicable record(s) pertain, which is the grantor of the consent to disclose records:

Grantor 1* _____

Current Address: _____

Last four digits of Grantor's Social Security Number: 2* _____

Authorization to Release Information to a Third Party

This section is to be completed by the individual (grantor) who is authorizing Farm Service Agency (FSA) information related to himself or herself to be released to a Third Party. Further, pursuant to 5 U.S.C. 552a(b).

Certification: I authorize the USDA, FSA to release information related to me as specified to:

_____ for the applicable program year(s) specified _____

Print or type Name of Third Party Recipient program year(s)

FSA/CCC (Commodity Credit Corporation) current program records as specified: *Please check applicable box(s)*

- CCC-502/CCC-902 and determination of program eligibility status
- Commodity/bushels under loan and payment records
- FSA-578 producer print and associated maps
- Farm stored facility loan balance and status information
- direct payment history print
- Farm ownership/operator and lease arrangements
- Conservation reserve program contract acre, practice, rental rate
- FSA-156 EZ farm data
- AD-1026 and determination of classification
- GIS land use data
- Disclosure of the FSA program document or producer/farm information as specified below:

FLP – Loan Balances and status information

FLP – Cash Flow Statement

FLP – Current Balance Sheet

FLP history – Balance sheet, income, expense, production

FSA Farm Data Report and FSA Farm Maps

Applicable to the farm numbers as specified: All My Farms specific farm number (s) _____

I (do / do not) want a copy of the information that is provided to the recipient prior to disclosure.

Please circle

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct, and that I am the person named above, and I understand that any falsification of this statement is punishable under the provisions of 18 U.S.C. 1001 by a fine of not more than \$10,000 or by imprisonment of not more than five years or both, and that requesting or obtaining any record(s) under false pretenses is punishable under the provisions of 5 U.S.C. 552a(i)(3) by a fine of not more than \$5000.

Signature 3* _____ Date _____

1* Name of individual who is granting disclosure of his/her records.

2* Providing your full social security number is voluntary. You are asked to provide the last four digits of your social security number only to facilitate the identification of the records related to you.

3* Signature of individual (Grantor).

Public reporting burden for this collection of information is estimated to average 0.50 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Suggestions for reducing this burden may be submitted to the Office of Information and Regulatory Affairs, Office of Management and Budget, Public Use Reports Project (1103-0016), Washington, DC 20503



Informed Consent to Release Private Data from the Minnesota Department of Agriculture

If it becomes necessary, or upon the data subject's request, for the Minnesota Department of Agriculture (MDA) to release an individual's private information/data to an outside entity or person, MDA must first get the individual's informed consent to do so.

EXPLANATION OF YOUR RIGHTS

- You have the right to choose what data we release. This means you can let us release all of the data, some of the data, or none of the data listed on this form.
You have the right to let us release the data to all, some, or none of the persons or entities listed on this form.
You have the right to ask us to explain the consequences for giving your permission to release the data.
You may give us permission to discuss the data released by this form with the outside entity.
You may withdraw your permission at any time.
If you have a question about anything on this form, or would like more explanation, please talk to Luis Rivera, Minnesota Department of Agriculture, 651-201-6435, before you sign it.

I, [Name of Individual Data Subject] give my permission for Minnesota Department of Agriculture to release data about me to [Name of Individual Data Subject]

the general public [Name of Other Entity or Person] as described on this form. I understand that my decision to allow release of the data to [Name of Other Entity or Person]

the general public [Name of Other Entity or Person] is voluntary.

1. The specific data that MDA may release to the general public [Name of Other Entity or Person] are: MAWQCP Certification status [Explanation of Data]

2. I understand MDA wants to release the data for this reason: to promote my MAWQCP certification status [Name of Other Entity or Person]

3. I understand that although the data are classified as private at MDA, the classification/treatment of the data by the general public [At or By Name of Other Entity or Person] depends on laws or policies that apply to the general public [Name of Other Entity or Person]

4. I give MDA permission to discuss the data released by this consent form with the general public [Name of Other Entity or Person]

[Signature line for Individual Data Subject's Signature]

[Signature line for Date]

[Signature line for Parent/Guardian's Signature if needed]

[Signature line for Date]



DEPARTMENT OF THE ARMY
ST. PAUL DISTRICT, CORPS OF ENGINEERS
180 FIFTH STREET EAST, SUITE 700
ST. PAUL, MN 55101-1678

REPLY TO ATTENTION OF
REGULATORY BRANCH

Regulatory File No. 2018-00095-CLJ

April 17, 2018

Mr. Myron Jesme
Red Lake Watershed District
1000 Pennington Avenue
Thief River Falls, Minnesota 56701

Dear Mr. Jesme:

This letter is in response to the draft prospectus that was submitted for the proposed Black River Mitigation bank, located in Pennington County, Minnesota. We have coordinated your proposal with the Interagency Review Team (IRT) and requested their comments on the potential for this site to generate mitigation credits that could be used to offset authorized impacts from Department of the Army permits. The comments we have received from the IRT to date are enclosed.

Based on our coordination with the IRT and our independent review of your draft prospectus, we have determined that the proposal may have potential to generate mitigation credits by restoring approximately 19.9 acres of wetland and 87.9 acres of upland buffer. While your proposal appears to have potential, we have identified a number of substantive issues that will need to be addressed in future submittals prior to a final decision.

1. Please clearly identify the boundary of the proposed mitigation bank. Boundaries should include the proposed easement area, wetland areas, and areas of upland buffer.
2. We understand the Red Lake Watershed District is proposing the mitigation bank to be located outside of the 100-yr pool of the proposed Black River Impoundment. Please discuss how features and operation of the potential impoundment project would impact the proposed bank site. This should include structures such as ditches or berms, as well as management of pool levels of the impoundment. In addition, please show the bank site in relation to the impoundment, the different event pool elevations, and all proposed structures (including water control structures) displayed on a figure. The extent to which hydrology in the impoundment may be actively managed and manipulated in the long-term is a concern. To be approvable, the bank site needs to be designed to be self-sustaining into the long-term and not reliant upon the impoundment.
3. In addition to the potential ecological challenges of establishing a mitigation bank in conjunction with a flood control impoundment, the manner that public funding, if any, will be used to establish the mitigation bank and associated flood control impoundment must be clearly addressed. Please describe the source, approximate extent and manner that public funding will be used to fund and operate the bank site and flood control impoundment. 33CFR 332.3(a)(2) requires that credits for compensatory mitigation projects on public land must be

based solely on aquatic resource functions provided over and above those provided by public programs already planned or in place.

4. The draft prospectus contains a thorough analysis of wetland hydrology through the offsite procedures. We agree that field verification is necessary to support the wetland determination made through offsite techniques. We suggest that in addition to verifying the offsite methodology, field verification should include transects to correlate the wetland boundary, and acreage, with topography and soils under normal circumstances. We request that agency staff be notified prior to conducting the field work so that agencies may participate as they see fit. This information is important when assessing future crediting.
5. We recommend the sponsor assess the potential for additional improvements to on site hydrology, including re-contouring the site to closely match historical conditions. We strongly prefer the complete removal of man-made ditches over strategic plug construction. As proposed in the draft prospectus, the goal is to reestablish a mosaic of seasonally flooded, shrub-scrub wetland, seasonally or temporarily flooded shallow marsh and mesic prairie. A review of historic imagery from the proposed bank site and reference area supports this goal. Many wetlands are oriented NW/SE with numerous small wetlands occupying depressions throughout the site. It is likely that hydrology could also be enhanced or restored by removing post-settlement (wind-deposited) alluvium from appropriate landscape positions. The bank site is predominately hydric soil, so sediment removal at strategic locations could result in a substantial gain to hydrologic function in addition to vegetative enhancement.
6. Please identify any public or private ditches outside the easement area that may affect the proposed bank.
7. The proposal includes installation of ditch plugs to restore hydrology. Please provide information on how hydrologic restoration may or may not effect adjacent properties.
8. We encourage you to consider installing monitoring wells at the reference site. This information could be used to make inferences on the degree of hydrologic restoration potential at the bank site. In addition, pre-project monitoring of the partially drained wetlands of the proposed bank site for a minimum of one full growing season may help assess the extent of functional lift anticipated in those areas. The extent of functional lift from baseline (current) conditions that can be demonstrated has a direct effect upon the amount of federal credit that may be generated from those areas. If hydrologic monitoring is undertaken, installation should be timed to provide results starting at green-up, the beginning of growing season.

If you choose to move forward and seek Corps of Engineers approval for your bank, you must next prepare and submit a prospectus. The prospectus must provide a summary of the information regarding the proposed mitigation bank at a level of detail sufficient to support informed public and IRT comment (a checklist outlining the information required for a complete prospectus is attached to this letter). In addition, to the extent possible at this phase of the review process, your prospectus should also address the substantive issues outlined previously in this letter. Once we confirm that a complete prospectus has been submitted we will issue a

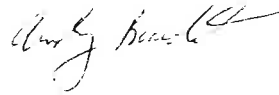
Regulatory Branch (File No. 2018-00095-CLJ)

public notice for your proposed mitigation bank and formally engage the IRT in the review of your prospectus.

If a revised prospectus is not submitted within 60 calendar days from the date of this letter, we will administratively withdraw your bank from consideration. When a prospectus is submitted, we will continue our review of the proposed bank. If the project is abandoned or if additional problems arise, please let us know.

If you have any questions, please contact Craig Jarnot in our Bemidji office at (651) 290-5337 or Craig.L.Jarnot@usace.army.mil. In any correspondence or inquiries, please refer to the Regulatory file number shown above.

Sincerely,



Andy Beaudet
Chief, Northwest Section

Enclosures: (3)
BWSR Comments
EPA Comments
Prospectus Checklist

cc w enclosures:
Mark Aanenson, Houston Engineering

cc w/o enclosures:
Andrew Horton, USFWS
Kerryann Weaver/Andrea Schaller, EPA, Region 5
Doug Norris/Pam Schense, DNR
Tim Smith, BWSR
Leslie Day, COE
John Overland, BWSR

From: [Smith, Tim J \(BWSR\)](#)
To: [Jarnot, Craig L CIV USARMY CEMVP \(US\)](#)
Cc: [Day, Leslie E CIV \(US\)](#); [Horton, Andrew](#); [Weaver, Kerryann](#); [Norris, Doug J \(DNR\)](#); [Overland, John \(BWSR\)](#); [Hofstad, Steve \(BWSR\)](#)
Subject: [Non-DoD Source] RE: 2018-00095-CLJ Black River Impoundment Site Bank draft prospectus (Pennington County)
Date: Monday, February 5, 2018 9:06:13 AM

Craig,

These comments are provided on behalf of the Board of Water and Soil Resources (BWSR) as a member of the IRT for the Black River Impoundment Wetland Bank in Pennington County.

Overall BWSR believes this site has potential to generate wetland replacement credits. More specific comments are provided in the remainder of this email.

1. The Sponsor conducted an offsite hydrology evaluation that is thorough and well documented. We suggest that the Corps request some additional information to complete this analysis which would then allow it to be used as the basis for the mitigation plan and site crediting. First, the Sponsor should provide some explanation of how the wetland boundaries were determined. This explanation is important from an agency standpoint to be able to approve the offsite procedures. Second, the draft prospectus indicates that field verification will be conducted to verify the results of the offsite determination. We fully support this approach and suggest that agency staff be allowed to participate in the site visit to potentially reduce further discussion and submission of comments on the delineation. Since the area proposed as a wetland bank seems to be that generally identified in Figure 2 of Attachment 3 we recommend that future work, for purposes of wetland bank documentation, focus on this area.

2. The crediting proposed for the areas shown on Figure 2 of Attachment 3 is conservative in that it represents the lower amount potentially awarded for rehabilitation and vegetative enhancement. We recommend the Sponsor provide additional information on the degree to which wetland functions may be improved at the site over the existing condition. In addition, if the potential exists for additional improvements to site hydrology by removing shallow field ditches and/or re-contouring the site then larger areas of the site may be creditable as rehabilitation as opposed to vegetative enhancement.

3. The proposed easement boundary should be clearly marked on maps contained in future submittals. The easement area can be estimated based on Figure 2 of Attachment 3 but the Sponsor should be asked to clearly identify it on maps so that potential issues can be identified and presented to the Sponsor as soon as possible in the review process.

4. We recommend the Sponsor consider establishing a reference well at the site used as a reference for vegetation (Figure 2 of Attachment 1). Hydrology data collected from a reference well can be used to assess improvements to site hydrology and justify crediting. If possible, the Sponsor should consider establishing and collecting data from the reference well during the 2018 growing season along with data from the proposed bank site that could be used to compare pre and post-project conditions.

Please let me know if you have any questions or need additional information,

Tim

-----Original Message-----

From: Jarnot, Craig L CIV USARMY CEMVP (US) [<mailto:Craig.L.Jarnot@usace.army.mil>]

Sent: Thursday, January 11, 2018 10:07 AM

To: Horton, Andrew <andrew_horton@fws.gov>; Weaver, Kerryann <weaver.kerryann@epa.gov>; Smith, Tim J (BWSR) <tim.j.smith@state.mn.us>; Norris, Doug J (DNR) <doug.norris@state.mn.us>

Cc: Day, Leslie E CIV (US) <Leslie.E.Day@usace.army.mil>

Subject: 2018-00095-CLJ Black River Impoundment Site Bank draft prospectus

IRT Members,

The Draft Prospectus for the Black River Impoundment Site bank in Pennington County has been posted on RIBITS. The Draft prospectus is located in the Cyber Repository under the Black River Impoundment Site folder. Let me know if you have questions or have trouble accessing the information. Also, please let me know if someone from your agency other than the designated IRT member will be reviewing the draft prospectus and I will forward them a copy directly. Please submit any comments by Friday January 26, 2018.

Please note, while the draft prospectus contains information on wetlands and crediting within the majority of the proposed impoundment area, the sponsor is only proposing to receive credits from areas higher than the 100-yr pool.

Thank you,

Craig Jarnot
Biologist
US Army Corps of Engineers
4111 Technology Drive NE Suite 295
Bemidji, Minnesota 56601
Office: (218) 444-6381
Direct: (651) 290-5337

**United States Environmental Protection Agency
Marco Finocchiaro, Life Scientist
312-886-7566
finocchiaro.marco@epa.gov**

Date: January 26, 2018

Subject: Prospectus for the proposed Black River impoundment site, Polk Centre Township, Pennington County, Minnesota.

Comment 1: The Sponsor indicates that a public ditch has altered wetlands within the project area but has not provided any information on public ditches on or off-site. The Sponsor should indicate the location of public ditches and calculate the distance of their lateral effects. Proposed wetland areas subject to the lateral effect of public ditches should not be eligible for wetland credit generation but may be eligible to generate buffer credit.

Comment 2: The Sponsor proposes to restore wetland hydrology on-site by using ditch plugs at multiple locations. The site and surrounding area are extensively ditched and ditch plugs on-site may affect hydrology on adjacent properties. The Sponsor should provide information on how hydrologic restoration on-site may or may not affect hydrology on surrounding properties.

Comment 3: The St. Paul District Policy for Wetland Compensatory Mitigation in Minnesota requires a minimum of 50 feet of upland buffer in non-municipal areas. The Sponsor has not depicted upland buffer crediting areas on project maps and some proposed wetland crediting areas fall within close proximity of the site boundary. The Sponsor should incorporate 50 feet of buffer crediting along the entirety of the project boundary to protect from incompatible adjacent land uses such as active farming and road right-of-way. This includes any wetland areas that fall within the 50-foot site boundary buffer area.

**RELEASE OF CLAIMS AND
INDEMNIFICATION AND HOLD HARMLESS AGREEMENT**

That Releasor, Mark Askeland, being of lawful age, for the sole consideration, allowing entry onto Brandt Impoundment and Euclid East Impoundment to remove hay, receipt of which is hereby acknowledged, do hereby and for his heirs, successors, and assigns release, acquit and forever discharge the Red Lake Watershed District, its Board Members, Employees, Representatives Staff and their successors and assigns, (hereinafter "the Red Lake Watershed District"), of and from any and all claims, actions, causes of action, demands, rights, damages, costs, expenses and compensation of whatever kind and of whatever nature, which now exist or which may hereafter accrue on account of or in anyway growing out any negligence on the part of the parties hereby released in regards to haying portions of the Brandt Impoundment, RLWD Project 60D and Euclid East Impoundment, RLWD Project 60C, by and between Releasor and the Red Lake Watershed District.

Furthermore, the Releasor, agree to indemnify and hold harmless the Red Lake Watershed District from any liability to third parties, including attorney's fees and costs, for any liability or claims against the Red Lake Watershed District in relation to the above referenced matter between Releasor and the Red Lake Watershed District.

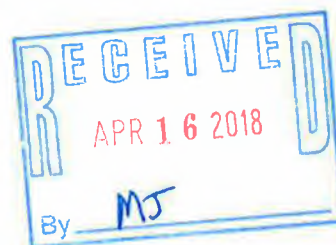
The Releasor hereby declares and represents that no promise, inducement or agreement not herein expressed has been made to the Releasor, and that this Release contains the entire agreement between the parties hereto, and that the terms of this Release are contractual and not a mere recital.

THE RELEASOR HAVE READ THE FOREGOING RELEASE AND FULLY UNDERSTAND IT.

DATED: 4-16-18

Mark Askeland
Releasor

Mark Askeland
24330 110th Street SW
Euclid, MN 56722
218-689-8111



April 16, 2018

Board of Managers
Red Lake Watershed District
1000 Pennington Avenue South
Thief River Falls, MN 56701

Re: BWSR Advisory Report for Red Lake WD RLWD Ditch No. 16, Red Lake Watershed District

Dear Watershed District Managers,

On behalf of the Board of Water and Soil Resources, I offer this advisory report in accordance with Minnesota Statutes, Section 103D.711, Subdivision 5. The following documents were provided for BWSR review:

- Engineer's Preliminary Survey Report by Pribula Engineering, Inc., dated 03/09/2018; and
- Project Plans, Sheets 1 - 23, by Pribula Engineering, Inc., dated 03/09/2018.

The subject report was reviewed by BWSR using Chapter 103D Watershed Districts, Chapter 103E Drainage and the *Minnesota Public Drainage Manual* (MPDM) https://drainage.pca.state.mn.us/index.php?title=Main_Page as key references. The primary focus of this review is to determine whether the report is complete, in accordance with Chapter 103D and 103E, whether the drainage project is practical, and to provide any recommendations for changes.

General Comments

It was difficult to ascertain the design methods and results of the engineer's preliminary survey report, due to the very limited technical information provided. It appears that the report outline and some of the text is copied from another engineer's report that may be outdated and not reflect information in the updated MPDM. [Section 103E.245 Preliminary Survey and Preliminary Survey Report](#) describes key elements for the preliminary survey and preliminary survey report. It would seem more helpful to the drainage authority to use the required elements of the survey report and the decisions that need to be made, as an outline for the report. The *Minnesota Public Drainage Manual* provides updated guidance in this regard. According to [Section 103E.261 Preliminary Hearing](#), the **drainage authority must decide**: that the drainage project is necessary; the project is of public utility, benefit or welfare, after consideration of the criteria in [Section 103E.015 Considerations Before Drainage Work is Done](#); the adverse environmental impact is not greater than the public benefit and utility; and the outlet is adequate. The report should provide sufficient succinct preliminary results for the drainage authority to make those decisions. While the proposed drainage project appears to be feasible and practical from an engineering perspective, the following comments are offered with the intent of increasing this report's support of drainage authority decision making, including providing a sound basis for project design and good record for future reference. The report provides little, if any, documentation of hydrologic analyses, hydraulic analyses, soils information, ditch profile and cross section design, design analyses for road crossing conduits, erosion control design, downstream effects and adequacy of the outlet.

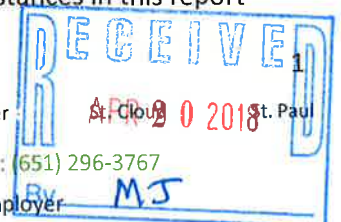
Specific Comments

Page 2, INTRODUCTION

Paragraph 1 - Per Section 103E.005 *Definitions, Subd. 11*, the proposed project is one of 4 different kinds of drainage proceedings that are called out as a "drainage project". There are multiple instances in this report

RLWD - Establishment of RLWD Ditch #16 - BWSR AR 4-16-18.docx

| | | | | | | | | |
|---------|-------------|--------------------------|---------------------|--------------------|-------------------------------|-----------------------|-----------|----------|
| Bemidji | Brainerd | Detroit Lakes | Duluth | Mankato | Marshall | Rochester | St. Cloud | St. Paul |
| | St. Paul HQ | 520 Lafayette Road North | | St. Paul, MN 55155 | | Phone: (651) 296-3767 | | |
| | | www.bwsr.state.mn.us | TTY: (800) 627-3529 | | An equal opportunity employer | | | |



where other descriptions are given to the project. Consistency with drainage law and accuracy of communication would indicate either “drainage project”, “establishment”, or “new drainage system” be used.

Paragraph 2 - It might be helpful to the drainage authority and for future reference to document that the petition has been amended in coordination with the WD administrator and the drainage authority attorney. Not sure the petition is in the most understandable order in the appendix.

Paragraph 5 - It might be helpful to place the authority references from Section 103D.625 Drainage Systems in Watershed District and Section 103D.711 Engineer’s Report (now on pages 6 and 7) early in the report to indicate why the project is being done in accordance with Chapter 103E Drainage. The correct Minnesota Statute citation should be 103E.212 *New Drainage System Projects*, not 103E.225 *Lateral*, as indicated in the petition.

Page 2, RECOMMENDED SOLUTIONS TO ALLEVIATE EXISTING FLOODING AND DRAINAGE PROBLEMS

The definition of the problem and need for a new drainage ditch isn’t documented well here, but is to some extent on pages 10 and 11 in paragraph D. There is very limited information provided about the project design. Is the drainage area the same as the benefited area shown on Sheet 1 of the Preliminary Construction Plans? Are the existing and design flows based on NOAA Atlas 14 rainfall frequency and an applicable rainfall distribution, or another method? The report does not indicate that design flows and average velocities are shown on the preliminary construction plans. Why are the design side slopes as proposed? Why is proposed channel bottom width 10 ft. for the entire length of the ditch, while the design flows decrease substantially from the downstream to upstream ends of the ditch (presumably related to ditch depth)? How were the proposed ditch profile and elevations determined? How were the culverts designed? Appendix C Estimated Costs indicates that riprap and filter is included, but the report does not say why and where erosion control is needed? What are the effects of existing adjacent drainage systems on the proposed drainage project, and the effects of the proposed project on adjacent drainage systems?

Pages 3 - 8, COMPATIBILITY WITH EXISTING PLANS AND STATE LAW

Neither Chapter 103E Drainage nor the *Minnesota Public Drainage Manual* requires quotation or paraphrasing of all applicable Chapter 103E and Chapter 103D provisions in a preliminary engineer’s report. Some of the information in this section seems to overlap with information in the following report section that addresses the considerations criteria in Section 103E.015.

Page 8

Please refer to the *Minnesota Public Drainage Manual* for guidance on early coordination with the DNR (and others), as well as the section related to permits and permission. While the drainage authority has authority to construct the proposed project, the new system will be outletting into a public water – Grand Marais Creek (Coulee). Public waters law speaks about the potential of substantial effects of a Chapter 103E drainage system on public waters (103G.245 WORK IN PUBLIC WATERS, Subd. 2, clause (2)). The DNR recently published (2-28-18) updated guidance regarding public waters and Chapter 103E drainage systems. It doesn’t appear to be available on the DNR website yet, but area hydrologists should have this guidance regarding DNR permits and permission. Also there is an overflow / diversion channel on Grand Marais Creek north of the drainage project outlet that flows directly into the Red River of the North. It is recommended that the report address the potential effects of the proposed project on the recent Grand Marais Creek Outlet Restoration project and the overflow channel. It would be prudent to know if there are any limitations on the design and construction **before** a detailed set of plans are created at the expense of the drainage system petitioners and owners.

Page 8, EVALUATION OF SOCIAL, ECONOMIC AND ENVIRONMENTAL IMPACT OF THE PROJECT

It appears that this report section is intended to address the considerations criteria and requirements in Section 103E.015, Subd. 1 and Subd. 1a. However, that is not clear based on the title or opening text of the section.

Page 9

In regard to project costs, it is noted in Appendix C Estimated Costs that **1W1P** funding is planned for use in cost-sharing side inlets for the new drainage system. Is that the Clean Water Funds discussed under the *External Sources of Funding* subsection J. on Page 12? This is not clear. Could this be Multipurpose Drainage Management Grant funds instead?

Pages 10 - 12, Items B-J

B. *Alternative Measures*: Alternative measures are narrowly defined in this section. Installation of side inlets, grassed waterways, water and sediment control basins, etc. can also be alternative measures.

D. *Flooding Characteristics*: It would be helpful to see a table of flows by frequency that support this section and descriptions of the hydrology and hydraulic design methods used. It's not clear how and why the drainage project is designed for an 8-yr. frequency event. The report does not indicate that design flows and average velocities are indicated on the preliminary construction plans. There is little to no discussion about how the proposed drainage project effects downstream waters and properties, including the outlet design into Grand Marais Creek, the Creek itself, or the farmstead near the outlet of the ditch. There doesn't seem to be any engineering analysis of the adequacy of the outlet in the report, which is one of the decisions the drainage authority must make. The reference to the IWI BTSAC paper should be called "Briefing Paper" and the RRBFRD Work Group Technical and Scientific Advisory Committee is "TSAC".

E. *Effects on Wetlands*: The text indicates that there are no wetlands within the project area, while Appendix B Wetland Inventory identifies several. Will wetlands downstream be effected by the project? The report points out multiple wetlands near the outlet of the project along Grand Marais Creek. What is the status of the two wetlands identified in a field upstream in Northland Twp., Sec. 35, and effects of the project on them?

G. *Effects on Fish and Wildlife*: The report indicates that all disturbed areas are to be seeded to grass, while the cross sections in Exhibit A Preliminary Construction Plans do not seem to indicate this.

I. *Overall Environmental Impact*: Potential downstream effects on water resources aren't addressed here. The referenced project sponsors should have no influence on what is said here. This should be an objective assessment by the engineer.

J. *Investigating External Funds*: The reference to Section 103E.001, Subd. 5 should be 103E.011. The report seems to indicate that a Clean Fund Grant program is a potential funding source for all permanent erosion and sediment control features of the drainage project, which is an incorrect implication.

Page 13

It is recommended that this subsection be referenced to Section 103E.015, Subd. 2. Some of the text that we've seen before in other engineer's reports doesn't seem particularly relevant to the requirements of Subd. 2 for this drainage project.

Plans Sheets 1 - 23

General: The scale of most of the drawings is very difficult to read. Side Inlets are of high value for erosion control into ditches. It is good to see a large number being proposed for this drainage project. It is recommended that a typical detail be included in the construction plans. It would also be helpful to see details of how the outlet of the proposed ditch will be connected to Grand Marais Creek.

Sheets 2 and 3: The sheets say "scale as shown", but there isn't any scale shown. The project title for these sheets is the wrong project and the wrong watershed district.

If you have questions about this advisory report, please call me at 651-297-8287, or email at tim.gillette@state.mn.us.

Sincerely,



Timothy A. Gillette, PE
Conservation Drainage Engineer

cc: John Jaschke, Executive Director
Dave Weirens, Assistant Director
Al Kean, Chief Engineer
Ryan Hughes, South Region Manager
Brett Arne, Board Conservationist
Steve Hofstad, Wetland Specialist
Stephanie Klamm, DNR Area Hydrologist



**NORTHWEST REGION
ECOLOGICAL & WATER RESOURCES
2115 BIRCHMONT BEACH RD NE
BEMIDJI, MN 56601**

April 24, 2018

Board of Managers
Red Lake Watershed District
c/o Myron Jesme, Administrator
1000 Pennington Avenue South
Thief River Falls, MN 56701

RE: Director's Advisory Report: Establishment of New Drainage System-RLWD Ditch No. 16, RLWD Project No. 177.

Dear Watershed District Managers:

On behalf of the Commissioner of the Department of Natural Resources (DNR), I offer the following comments on the Engineer's Preliminary Report for the above-cited project in accordance with Minnesota Statutes Section 103E.255.

1. The Preliminary Survey Report appears to be inadequate, however, updating the engineers report to address the comments provided below should result in an adequate report.
2. A soil survey is not needed.

DNR recommends that the final engineering report address the following comments:

General Comments

- The current plans indicate the new drainage will not follow the alignment of the township road ditch toward the project outlet and instead shift south at ~STA 12+00. Please explain this further and the reason for this altered alignment. Also, please clarify any planned channel work in the wetland area between the top of the river bank to the river channel centerline. This information is needed to determine whether the project will have substantial impacts and any DNR approvals.
- There is limited hydraulic information in the preliminary engineers report. Of general concern in all proposed ditch projects is the cumulative effect the project may have on downstream water resources and property owners in terms of quantity and quality of water received. Project specific and cumulative impacts from ditch projects can result in downstream flooding, erosion,

and decreased water quality. A general description of any expected stage increase downstream along with supporting information would be helpful.

- The preliminary engineer's report did not include table that depicts the before and after flow rates, flow % change, and the before and after flow depth for the proposed project for the 2, 5, 10, 25, 50, and 100 year flood frequencies. Page 3 references a graphical representation that doesn't appear to be provided. Ditch discharge info is provided but other than some mention of the existing road ditch having a 2-year capacity, no meaningful comparison that lends itself to impact assessment is provided.
- Describe whether the system will have continuous flows. If it does, this can affect channel stability and we would then recommend that the final report include consideration of measures such as the use of a two-stage ditch designs with a low-flow channel. Low-flow channels mimic natural stream design and prevents sedimentation build-up within the system. Trade-offs are they require additional right away and reduce maintenance needs.

Project Plans Sheets/Survey Project Plan Sheet 4

Please include the outlet for the new drainage system in the project plans. Sheet 4 at Station 2+00 to 0+00 should be reflected in the cross-sections on Page 9 of the cross-section sheets. It is unclear in the plans if there will be excavation down and into the Grand Marais Creek.

Specific comments for the Final Engineer's Report

Section C. Permit Requirements-State

DNR recommends that the Engineers Report provide information on the adequacy of the outlet in terms of whether stage increases are expected and if structures existing in areas that would see such increases.

More information on the construction of the outlet is also needed for determination on potential impacts to wetlands. If the drainage system will be excavated into the NWI wetland that exists below the bank of Grand Marais Creek, then a Public Waters Works permit and a 404 permit may be required. The Wetland Conservation Act (WCA) jurisdiction would also apply on any wetlands along the existing channel and above the Ordinary High Water Level (OHWL)/top of bank. DNR recommends that the RLWD consult with the US Army Corp of Engineers, MN DNR area hydrologist, and the West Polk SWCD to determine if permits or permissions will be needed to work along the Grand Marais Creek and the existing township road ditch. This consultation should have begun as early coordination prior to sending preliminary reports. All permits and permissions should be obtained prior to the start of the RLWD Project No. 177.

Section D: Conformance with Existing Water Management Plan

DNR recommends that the RLWD and the Engineer review other water management plans besides the RLWD Overall Plan (e.g., WRAPS, 1W1P). The new drainage system should also conform to the Red River Mediation Agreement, TSAC Technical Papers and State Floodplain Regulation. Describe how this project will affect flooding characteristics downstream in terms

contributing to flows on the Red River and whether it is compatible with efforts to reduce those flows by 20%.

Section A: Project Costs

Part of the Red River Mediation Agreement is that no new berms will be constructed to cause any rise in flood stages in the valley. A hydraulic analysis of the new drainage system and the berms should be completed to show no rise in flood stages due to this project.

DNR recommends that the RLWD consult with the State Historic Preservation Office (SHPO) to ensure that no archeological sites are along the alignment of the proposed drainage system or near the Grand Marais Creek. Documentation from SHPO should be received and kept on file for this project.

Section B: Alternative Measures

DNR recommends that the alternative measures section be explained in more detail. Understanding that the practices for alternatives are voluntary, it should be documented that the RLWD has consulted with the landowners on alternative practices that would not involve the establishment of the new drainage system.

Current and Potential Flooding Characteristic of the Property

The preliminary engineers report is calling for an 8-yr channel design. DNR recommends that the engineers report why an 8-yr design was chosen over the normal 10 year channel design for agricultural areas (as reference in the Mediation Agreement).

Section E: Effects of the proposed drainage on wetlands

DNR recommends that the final engineers report and the RLWD review the wetlands with the West Polk SWCD WCA administrator. A Notice of Decision on this project should be documented by the West Polk SWCD prior to the commencement of the project. NWI, though a good tool to use for preliminary or cursory review of wetlands should not be used as the final documentation on determining wetlands.

Section F: Effects of the Proposed Drainage Project on Water Quality

How will this project ensure there's no increase in sediment loads to Grand Marais Creek? DNR also recommends detailed description of piped and tiled inlets including a "typical drawing".

Section G: Effects on the Proposed Drainage Project on Fish and Wildlife Resources

DNR recommends that the seed mixes incorporate perennial flowers and forbs that are pollinator friendly. You can find native state seed mixes for the Prairie Parklands Eco-Region on the [Board of Soil and Water Resources](#) Website.

If there are any changes or work in public waters, the Red Lake Watershed District may need a public waters works permit, and any dewatering may need a water appropriations permit.

Thank you for your consideration of these comments. We look forward to continuing to work with the Red Lake Watershed District on this and other projects. DNR recommends that the Final Engineer's Report be coordinated with DNR Area Hydrologist Stephanie Klamm (218-681-0947) to ensure the project is permittable.

Thank you for your considerations of these comments.

Sincerely,

A handwritten signature in blue ink, appearing to read "Nathan Kestner".

Nathan Kestner
Regional Manager

Cc: Julie Ekman, Conservation Assistance and Regulation Section Manager
Stephanie Klamm, Area Hydrologist
Jaime Thibodeaux, EWR Regional Environmental Assessment Ecologist
Theresa Ebbenga, EWR Assistant Regional Manager

MSTRWD

Cumen +

Revised Rules of the Middle-Snake-Tamarac Rivers Watershed District Portions of Marshall, Polk, Pennington, Kittson & Roseau Counties

INTRODUCTION

The Rules and Regulations of the Middle-Snake-Tamarac Rivers Watershed District are to effectuate the purpose of Minnesota Statutes Chapter 103D, and the authority of the Managers prescribed therein. These regulations are deemed necessary to implement and make more specific the law administered by them.

SECTION 1 GENERAL POLICY

The Managers accept the responsibilities with which they are charged as a governing body. While there is no intention to usurp the authority or responsibilities of other agencies or governing bodies, neither will they shirk their responsibilities. They will cooperate to the fullest extent feasible with persons, groups, state and federal agencies and other governing bodies. It is the intention of the Managers that no person shall be deprived or divested of any previously established beneficial use or right, by any rule or regulation of the District, without due process of law and that all rules and regulations of the District shall be construed according to said intention.

It is the intention of the Managers to promote the use of the waters and related resources within the District in a provident and orderly manner to improve the general welfare and public health for the benefit of its present and future residents.

SECTION 2 SEVERABILITY AND OTHER LAWS

If any part of these regulations is for any reason held to be invalid, such decision shall not affect the validity of the remaining portion of these regulations.

If any rules herein contained are inconsistent with the provisions of M.S. 103D, or other applicable laws of the State of Minnesota, the provisions of said Chapter 103D or other applicable law shall govern.

SECTION 3 DEFINITIONS

For the purpose of these regulations, certain words and phrases shall be defined as follows:

A) **District** means the Middle-Snake Tamarac Rivers Watershed District.

B) **Managers** means the Board of Managers of the Middle-Snake-Tamarac Rivers Watershed District.

C) **Person** means an individual, firm, partnership, association or corporation except where the context clearly indicates otherwise does not include the District.

D) **Public Corporation** means a County, Town, School District or political subdivision or agency of the state. Public Corporation except where the context clearly indicates otherwise does not include the District.

E) The word "**shall**" is mandatory, not permissive.

F) **Legal Drainage System** means a watershed, county, judicial or other drainage system established under Minnesota Statutes Chapter 103D or Minnesota Statutes Chapter 103E.

G) **Private Drainage System** means an artificial drainage system constructed on private property.

H) **Drainageway** means an artificial or natural channel which provides a course for water flowing continuously or intermittently.

I) **Public Health** means any act or thing tending to improve the general sanitary conditions of the District.

J) **General Welfare** includes any act or thing tending to improve or benefit or contribute to the safety or well being of the public or benefit the inhabitants of the District.

K) **Work or works** means any construction, maintenance, repairs or improvements by a person or a public corporation.

L) **Waste** means garbage, municipal refuse, sewage sludge, chemical, agricultural wastes or other substances which may or tends to cause pollution of the waters of the District. Waste does not include animal manure when used as a fertilizer, earthen fill, rocks, boulders or other materials normally used in construction operations.

M) **Water pollution** means the contamination of any waters as to create a nuisance or render such waters unclean or noxious or impure so as to be actually or potentially harmful or detrimental or injurious to the public health, safety or welfare.

N) **Marsh** means a lowland covered with shallow and sometimes temporary or intermittent waters. This includes wetlands as described in the U.S. Fish and Wild Life Circular Number 39 excluding Type 1 and Type 2. Generally a marsh is an area where the soil is either waterlogged or covered with six inches or more of water during the growing season.

O) **Domestic purposes** refers to the use of water for common household and farm uses. The number of individual people served at any one time is limited to twenty-five.

P) **Normal High Water Mark** means the mark delineated by the highest water level which has been maintained for a sufficient period of time to leave evidence on the landscape.

Q) **Dike** - Any embankment or structure placed which has or is likely to cause change in the flow of water.

R) **Bed** - That portion of a drainageway which is below the normal high-water mark.

S) **Wetland Reclamation** - Wetland Reclamation shall be defined as any attempt to modify the hydrology of the Watershed for purposes of restoring or increasing wetland areas, including, but not limited to, plugging culverts, constructing dams or dikes, or any other method or procedure which would modify the hydrology of a watershed which would restore or increase wetland areas.

T) **Wetland** - Wetland means a lowland covered with shallow and sometimes temporary or intermittent water. This includes wetlands as described in U.S. Fish and Wildlife Circular No. 39 including Types 1 thru Type 8.

SECTION 4 RELATED ORDINANCES

The Managers will cooperate with public corporations and state and Federal agencies in the application of ordinances and rules concerning water and related resources within the District.

A) Copies of proposed county, municipal and town ordinances relating to surface water drainage, land use zoning, shoreland use and floodplain and waste disposal shall be submitted to the Managers at least thirty days prior to the first public hearing for their review and comment.

B) Copies of county, municipal and town ordinances relating to surface water drainage, land use zoning, shoreland use, floodplain zoning and waste disposal shall be submitted to the Managers within forty-five days of their effective date.

C) The Managers will endeavor to inform and assist any resident of the District with regards to filing applications for State and Federal permits for projects or works approved by the Board of Managers.

SECTION 5 PERMITS

The requirement for a permit from the Managers for certain uses of water or for certain works within the District is not intended to delay or inhibit development, rather the permits are needed so that the Managers are kept informed of planned projects. The Managers can advise, in some cases provide assistance and insure that development of the resources of the District is orderly and in accordance with the overall plan of the District.

A) General Instructions

An application for a permit must be submitted by the owner or owners of the lands involved or their agent. If the applicant is a public corporation the application may be submitted by the person designated to oversee the activity for which a permit is requested.

1) Applications submitted by a property owner on behalf of a lessee must be countersigned by the lessee.

2) Applications shall be filed with the Secretary or Engineer for the District.

3) A plan should accompany the application; if a plan lacks important information the Managers may request the applicant to furnish whatever additional information they deem appropriate.

4) All applications should be substantially in a form prescribed by the Managers which form the Managers reserve the right to change from time to time. A copy of the application form to be used at present is attached to these Rules.

B) General Conditions

1) No use or works requiring a permit from the Managers shall begin prior to the issuance of the permit.

2) Unless specified in the permit, works for which a permit is given must be completed within one year.

3) All permits shall be in writing and signed by the President of the Board of Managers or a person designated by him.

4) No permit shall be issued until the applicant has paid all fees and met all conditions under M.S. Chapter 103D.345.

5) The Managers will act upon a permit request within 60 days from the date the application and required data are received.

C) Additional Authorization

Obtaining a permit from the Managers does not relieve the applicant of the responsibilities of obtaining any other authorization required by law, or regulation or alter the applicant's responsibility or liability under statutory or common law.

Middle-Snake-Tamarac Rivers Watershed District
Revised Rules Adopted July 19, 2004, Page 2

D) Permit Fees

- 1) Application Fee - The Managers reserve the right to charge an application fee as set forth under Minnesota law.
- 2) Field Inspection Fee - If the nature of a permit application involves extraordinary expenses of the District the applicant shall pay the field inspection fee as determined by the Board pursuant to MSA 103D.345, Subd. 2.
- 3) Monitoring Fee - If the nature of an activity or works is such that, in the opinion of the Board, monitoring the activity or works is necessary the applicant shall pay as a condition of the permit all costs and expenses incurred for such monitoring as the Board deems appropriate.

SECTION 6 FLOOD CONTROL AND DRAINAGE

Every person shall use his land reasonably in disposing of surface water and may turn into a natural drainageway all the water that would naturally drain there. Surface water shall not be artificially removed from upper land to and across lower land without adequate provisions being made on the lower land for its passage, nor shall the natural flow of surface water be obstructed so as to cause an overflow into the property of others.

- A) No person or public corporation shall cut an artificial drainageway across a subwatershed and thereby deliver water into another subwatershed without a permit from the Managers.
- B) No person or public corporation shall divert water to or cast water by an artificial means into any legal drainage system without securing a permit from the Managers.
- C) No person or public corporation shall make any alteration or repair on any legal drainage system without a permit from the Managers.
- D) No person or public corporation shall construct a dike or levee without a permit from the Manager.
- E) No person or public corporation may construct, remove, abandon or alter the effectiveness of any reservoir of five acres or more without a permit from the Managers.
- F) No person or public corporation shall construct or reconstruct a bridge across a drainageway or place a culvert in a drainageway without a permit from the Managers.
- G) No person or public corporation shall make any change in the bed, banks or shores of any drainageway, lake or marsh without a permit from the Managers.
- H) No person or public corporation shall place obstructions such as trees, rocks and debris into a drainageway without a permit from the Managers.
- I) No person or public corporation shall perform any wetland reclamation works as said term is defined in Section 3 above without first obtaining a permit from the Managers.
- J) Any other acts that, in the opinion of the Watershed District, may tend to alter the quantity of runoff, affect the public health, or have any impact, whether adverse or not, upon the surface water or ground water resources of the District shall require a permit from the District.

SECTION 7 WASTE DISPOSAL

In the interest of sanitation and public health and to prevent the pollution of the waters of the District, no

wastes shall be disposed of directly or indirectly into a drainageway, lake, wetland or shall be placed in any location where the same would be caused to enter any of the waters of the District without a permit from the Managers.

- A) Municipal Sewers - All municipal sewer systems in operation on January 1, 2004, shall by January 1, 2007, obtain a permit from the Managers for the disposal of these wastes.
- B) Sanitary Landfills - No person or public corporation shall operate or construct a sanitary landfill without obtaining a permit from the Managers. All Sanitary Landfills in operation on January 1, 2004, shall by January 1, 2007, obtain a permit from the Managers for the operating these landfills.
- C) Other Waste Disposal Systems - No person or public corporation shall construct or operate any waste disposal facility which may or is likely to cause pollution to the waters of the District without obtaining a permit from the Managers.

D) The Board of Managers may, at its discretion, require each person or public corporation discharging wastes directly into any stream, lake or drainageway within the district to file with the Board a copy of its current NPDES permit issued by the Minnesota Pollution Control Agency describing the effluent standards and limitations prescribed by the Agency. The Board of Managers or its designate may enter upon any lands of the district for the purposes of inspection, monitoring, and testing the quantity and quality of the discharge, and may install whatever hydrological recording and testing devices it may deem necessary.

SECTION 8 WATER USES

All water used other than domestic use requires a permit from the Managers.

SECTION 9 UTILITIES

In order to minimize the effects the placement of utilities has on the drainageways; no utilities shall be constructed or placed across any drainageway, lake or marsh without a permit from the Managers. No underground utilities shall be constructed or placed within the District without a permit from the District.

SECTION 10 EROSION AND SEDIMENTATION

Runoff of needed moisture from sloping lands carrying with it sediment from those fields and from the banks of natural drainageways, constitutes a serious problem. It shall be the policy of the Managers to encourage the adoption of proper land use practices and other methods as outlined in the Watershed Management Plan of the District, to control and alleviate soil erosion and the siltation of the drainageways and lakes of the District:

- A) All drainageways therein shall be constructed with side slopes and grade as determined by proper engineering practice, so as to reasonably minimize soil erosion.
- B) Side slopes, above the low water mark, shall be planted with permanent grasses and no agricultural practices other than those required for maintenance of permanent growth of grass shall be permitted. The area to be planted to grass, as herein provided, is a minimum requirement and may be enlarged in any work of improvement or new construction. All works or repairs on any drainage system except private, will require the foregoing practice. Harvest of grass in any manner not harmful to the grass or the drainageway shall be the privilege of the owner or his assigns.
- C) Sloping lands, abutting drainageways, lakes, ponds, wetlands or reservoirs shall be used in such a

manner so as to provide reasonable control of sediment.

D) Erosion and sedimentation shall be considered by the Managers when issuing a permit. If necessary, erosion and sedimentation control measures will be made a part of the permit, if approved.

SECTION 11 ENFORCEMENT

In the event of a violation or a threatened violation of these Rules, the laws of the State of Minnesota or an order, the Managers may institute appropriate actions or proceedings to prevent, restrain, correct or abate such violations or threatened violations as provided for by Minnesota Statutes.

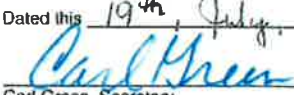
- A) A violation of Minnesota law, of these rules, order or a stipulation agreement made or a permit issued by the Managers is a misdemeanor.
- B) Any provision of these rules, order or a stipulated agreement made or a permit issued may be enforced by the Managers by criminal prosecution, injunction, action to compel performance, restoration, abatement and other appropriate action as determined by the Managers.
- C) In any civil action arising from or related to these rules, order or stipulation agreement made or a permit issued or denied by the Managers, the Court may award the prevailing party reasonable attorneys' fees and costs.

SECTION 12 APPEAL

Any party aggrieved by the adoption or enforcement of these rules and regulations or by any order of the Managers may appeal in accordance with the appellate procedures and review as provided in the Minnesota Statutes.

SECTION 13 EFFECTIVE DATE AND REPEAL OF EXISTING RULES

These rules and regulations shall become effective upon the passage by the Board of Managers and publication and hearings as required by law. These rules were hereby adopted pursuant to Minnesota Statutes on 19th day of July 2004.

Dated this 19th July, 2004

Carl Green, Secretary
Middle-Snake-Tamarac Rivers Watershed District

MSTRWD Current

FIELD DRAIN TILE PERMIT CHECKLIST
(Attach to permit application)

Applicant to fill out

Designer name: _____

Installer name: _____

Contact phone number/address: _____

Tiled water will outlet into: _____
(Twp-County-State road ditch / coulee / river / legal ditch & what # / other-explain)

Are there culverts downstream before the section corner such as a field crossing or a farmyard crossing? Is there a road centerline culvert which allows water in or out of the section? If so state if circular, arch, or box culverts & dimensions: _____

Size of downstream culvert at the section corner: _____

Size of upstream culvert at the section corner: _____

Lift station pump capacity (gallons per minute): _____

Lift station pump horsepower: _____

Is the pump a Variable Frequency Drive (VFD) Y or N: _____

What is the drainage coefficient: _____

Size of field: _____ How many acres will be tiled in field: _____

Is the land to be tiled already irrigated or is irrigation planned: _____

Tile spacing in field: _____

If an outlet pipe under a road or spoil is utilized, what is the pipe size: _____

Attach a detailed map showing field course & ditch/channel outlet course.

Applicant must inform and attempt to obtain affirming signatures of affected neighboring landowners. (A signature from an affected landowner is preferred, but not necessary for the Managers to review the permit application.)

- ▶ Tile outlet must be protected from erosion (rip rapped or other mechanical means)
- ▶ Tile outlet must be visibly marked to facilitate Right of Way mowing
- ▶ Elevation of outlet into legal ditch system must be reviewed & approved by the District
- ▶ Tile outlet installed thru a spoil bank must be reviewed and approved by the District
- ▶ Lift station pumps must be turned off during downstream flood events
- ▶ Lift station pumps must be off when downstream culverts may or could be frozen
- ▶ Lift station pumps and equipment must be outside of road and/or ditch ROW

▶ **Permitting by other agencies may be required. All MSTRWD permits are contingent upon applicant obtaining permits, if needed, from other agencies.** (Ex: NRCS, SWCD, Township, County, State, etc.) **The US Army Corps of Engineers has stated a permit is required.** The applicant must determine which agencies need to be contacted.

Signature of Permit Applicant _____

MSTRWD staff use:

Permit # _____ Date received: _____

Drain tile outlets to: _____

Legal system B.A.: _____

Adequate outlet: _____

- G. No one shall destroy all or any portion of the required sixteen and one-half foot (16.5') grass strip on drainage systems where such grass strips have previously been established under M.S. 103E. Where grass strips have been partially or completely destroyed, landowners shall be required to restore the destroyed area at their own expense. If the area is not restored, within a reasonable period of time after the provision of notice by the MSTRWD, the necessary work shall be performed by the MSTRWD and the costs subsequently collected with the landowner's real estate taxes in the following year.
- H. Obtaining a Permit from the MSTRWD does not relieve the applicant from responsibility to comply with any procedures or approvals that may be required by M.S. 103E or any other rules, regulations, requirements or standards of any applicable federal, state, county, township, local government or subdivision thereof, or local agency.

Subsurface Tile Drainage

Application

An application for a subsurface tile drainage or lift station Permit must meet the following requirements:

- A. If neighboring landowners may be affected by any proposed tile plans, the Permit applicant shall contact the potentially impacted neighbors.
- B. Accompanying the subsurface tile drainage Permit application will be an 8 ½ inch by 11-inch map of the area(s) proposed to be tiled. This map must show the number of acres proposed to be tiled.
- C. MSTRWD staff and/or the MSTRWD Engineer shall view the subsurface tile drainage system and/or lift station to see if the proposed work will overburden the capacity of the downstream drainageway or culverts.
- D. The Permit application must identify the estimated drainage coefficient.
- E. All subsurface tile outlets, including pumps, shall be located outside of a public drainage system and governmental right-of-way, unless approved by the MSTRWD or other appropriate government entity. All outlets and pumps must be visibly marked.
- F. All systems using a gravity outlet shall have a control structure installed to prevent flows during flooding or freezing conditions.
- G. All systems using pumps shall have either a Board approved **integrated on/off control technology, integrated control technology or a gap design**. The best option for each system should be determined in coordination with the tile contractor and other knowledgeable parties.
 - I. Integrated **on/off control** technology: The **integrated on/off control and integrated control technology** allows greater freedom in the design of the structure. However, there must be a sensor positioned into the outlet ditch at an elevation determined by the Board. This sensor is set to automatically trigger the pump to start operating in minimum maintenance mode during flooding conditions. This technology also allows for the pump to be controlled remotely.
 - II. Gap Design: The Board approved Gap design includes a minimum vertical separation between the pump's pipe and the underground road or spoil pipe of 3 inches. The

- underground road or spoil pipe must not be higher than 6" above natural ground elevation. The diameter of the underground road or spoil pipe must be larger than that of the pump's pipe (see page 22 for a diagram of the design).
- H. If a proposed system will use a pump, the Permit applicant shall provide the horsepower and capacity (expressed in gallons per minute) of the pump.
 - I. The height of subsurface tile outlets are subject to MSTRWD staff review. A minimum height of one and one-half feet (1.5'), measured from the bottom of the drainageway, is generally considered an acceptable height.
 - J. A Permit applicant shall describe a plan to minimize erosion at the system's outlet. The Watershed requires geotextile fabric and riprap to minimize erosion. For guidance, see the Erosion Control: Rip rap and Geotextile charts on pages 23, 24, 25.
 - K. Obtaining a Permit from the Board does not relieve the applicant from the responsibility of obtaining any other additional authorization or permits required by law. (EX. NRCS, SWCD, Township, County, State, etc.)

Operating Plan

An operating plan shall be signed and submitted along with the Permit application. The Operating Plan describes how the pump will be managed and who is to be contacted in the event of problems or emergencies. **An Operating Plan Template is available at the District office or upon request.**

The operating plan must include:

- A. The type of pump setup the landowner has: **integrated on/off control technology, integrated control** technology, or gap design.
- B. Who shall be the first to call when pumps need to be managed. Second, and so on.
- C. Installation Contractor's information.
- D. Can the tile contractor shut off **pump or reduce the pump's rate of discharge** if person(s) in (B) cannot be contacted.

Procedures/Guidance

- A. If none of the persons listed in the plan can be reached, Watershed staff or a Watershed designated third party may be contacted to **shut off pump or reduce the pump's rate of discharge**. Landowner will be charged costs.
- B. Landowner shall be responsible for monitoring weather conditions.
- C. No pumping during freezing conditions or when the downstream culverts could be plugged with snow or ice. Freezing conditions are defined as when the drainageways, culverts, bridges, etc. have ice building up. Subsurface tile drainage that close in the winter shall remain closed until spring floodwater conditions recede below Flood Stage at the closest downstream Prediction Site.
- D. The land owner shall be responsible to monitor National Weather Service Flood Probability for the Red River for the closest downstream Prediction Sites at:
<http://water.weather.gov/ahps2/index.php?wfo=fgf>
- E. **No pumping during flooding conditions. When a system or the outlet of a system is experiencing flooding, all pumping shall cease in that system until waters have subsided.**

- F. Subsurface tile drainage flows **will** be closed when the National Weather Service Flood Probability Prediction reaches **Major** Flood Stage at the closest downstream-Prediction Site. In Table 1, the prediction sites that are of importance to the MSTRWD are listed along with their Moderate Flood Stage and **Major** Flood Stage measurements. Landowners should be aware of the closest downstream prediction site and operate pumps accordingly to decrease impacts on the Red River.

NATIONAL WEATHER SERVICE FLOOD PROBABILITY

| PREDICTION SITE | “Moderate” Flood Stage (ft) | “Major Flood Stage” (ft) |
|--------------------|-----------------------------|--------------------------|
| @ EAST GRAND FORKS | 40.0 | 46.0 |
| @ OSLO | 30.0 | 36.0 |
| @ DRAYTON | 38.0 | 42.0 |

Table 1 – National Weather Service Prediction Site Flood Probability

- G. It is recommended that after harvest, tile outlet controls, including pumps, be opened or turned on to remove water from the system except when flooding or freezing conditions exist or are likely. This is to create storage capacity for spring melt and rain events.
- H. Consideration shall be made for turning off pumps for short period of times during the summer so maintenance can be performed on public drainage systems and other drainageways.
- I. By signing the Operating Plan, the landowner is acknowledging that he/she understands the procedures, Rules, and guidance for drain tile systems.

Enforcement and Financial Assurance

Manner of Enforcement

In the event of a violation or threatened violation of a MSTRWD Rule, Permit, order, stipulation, or a provision of M.S. 103D, the MSTRWD may take action to prevent, correct, or remedy the violation or any harm to water resources resulting from it. Enforcement action includes, but is not limited to injunction; action to compel performance, abatement or restoration; and prosecution as a criminal misdemeanor in accordance with M.S. 103D.545 and M.S. 103 D. 551.

No additional Permit shall be issued to any applicant who is in violation of MSTRWD Rules or a previously issued Permit until such violation has been remedied to the satisfaction of the Board.

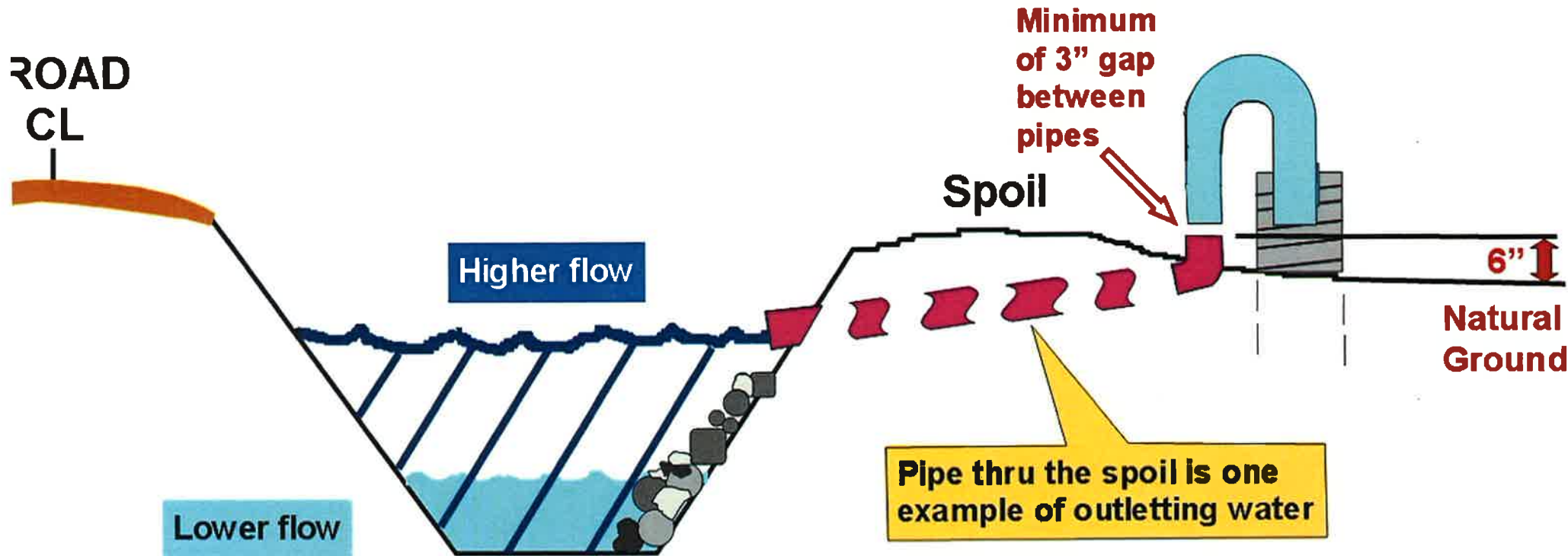
Investigation of Noncompliance

Statutes section 103D.335, subd. 14 allows the MSTRWD’s authorized representative to enter and inspect a property inside or outside the watershed district to make surveys and investigations to determine the existence of a violation or threatened violation. In all cases the MSTRWD will attempt to contact the landowner prior to entry. The MSTRWD is liable for actual damages resulting from entry.

When implementing a tile outlet pipe thru a road or spoilbank into a ditch there must be a gap of 3" between the pipe that comes from the sump hole (**BLUE**) and the pipe that goes thru the road or spoil (**PINK**).

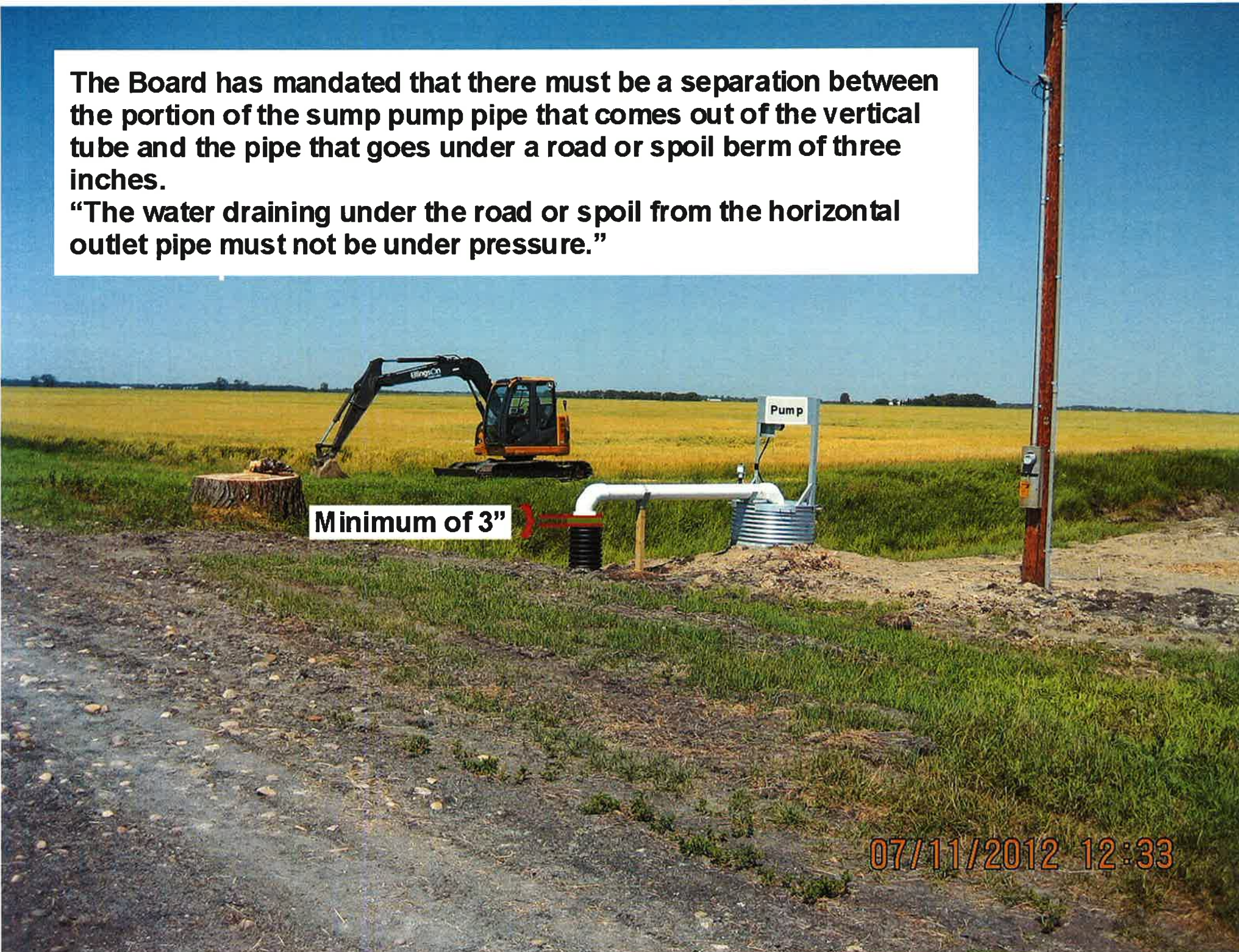
The inlet end of the pipe that goes thru the road or spoil cannot project higher than 6" from the natural ground in the vicinity.

Doing so will prevent water from entering the ditch during higher flows when the ditch has reached its capacity.



The Board has mandated that there must be a separation between the portion of the sump pump pipe that comes out of the vertical tube and the pipe that goes under a road or spoil berm of three inches.

“The water draining under the road or spoil from the horizontal outlet pipe must not be under pressure.”



07/11/2012 12:33

**RED LAKE WATERSHED DISTRICT
DISTRICT RULE**

SUBSURFACE TILE DRAINAGE

**Adopted August 27, 2015
Effective September 30, 2015**

1. **POLICY.** It is the policy of the Board of Managers to promote the sound construction and management of subsurface tile drainage systems in order to minimize downstream flooding and maximize soil storage and agricultural productivity.
2. **REGULATION**
 - A. No person shall install or construct any non-incidentals subsurface tile drainage system, **after the effective date** of adoption of these rules, without obtaining a required permit from the Watershed District.
3. **CRITERIA.** An application for a permit must meet the following requirements:
 - A. All subsurface tile drainage systems must protect from erosion and include RLWD approved erosion control measures.
 - B. All subsurface tile outlets including lift station pumps, must be located out of a legal drainage system and governmental roadway right of way unless approved by District and must be visibly marked.
 - C. It is recommended that after harvest, tile outlet controls, including lift station pumps, be opened or turned on to remove water from the system unless downstream culverts are freezing.
 - D. Obtaining a permit from the RLWD Managers does not relieve the applicant from the responsibility of obtaining any other additional authorization or permits required by law. (Ex: NRCS, SWCD, Township, County, State, etc.)
 - E. Upon completion of the project, "As Built" plans must be provided to the District.
 - F. Consideration must be made for turning off pumps for short period of times during the summer so maintenance can be performed on public, legal and private drainageways, such as road ditches or private natural field drains.
4. **EXHIBITS.** The following exhibits may be requested to accompany the permit application. Two copies, (standard paper size of 8.5 inches by 11 inches), which include:
 - A. Legal description and site map and/or GPS coordinates to accurate scale showing location of all tiles, surface water inlets, outlet(s), lift stations, pumps, and flow control devices;
 - B. Land area to be tiled (acres);

RED LAKE WATERSHED DISTRICT
SUBSURFACE TILE DRAINAGE APPLICATION

Date: _____

Applicant Name: _____

Contact Address: _____ Phone: _____

Is applicant landowner? (Y) (N) (if no, list landowner & ph. #): _____

Name of designer: _____ Phone: _____

Name of installer: _____ Phone: _____

Legal description and site map and/or GPS coordinates to accurate scale showing location of all tiles, surface water inlets, outlet(s), lift stations, pumps, and flow control devices; (att.maps): _____

Land area to be tiled (acres): _____

Type of tiling (circle) Pattern Tile Random Tile

Type of outlet (circle) Lift Station/Pump Gravity Other _____

Date proposed plan submitted: Month _____ Day _____ Year _____

Pump/lift station outlet flow capacity (GPM) _____

- All subsurface tile drainage systems must protect from erosion and include RLWD approved erosion control measures.
- All subsurface tile outlets including lift station pumps, must be located out of a legal drainage system and governmental roadway right of way unless approved by District and must be visibly marked.
- It is recommended that after harvest, tile outlet controls, including lift station pumps, be opened or turned on to remove water from the system unless downstream culverts are freezing.
- Obtaining a permit from the RLWD Managers does not relieve the applicant from the responsibility of obtaining any other additional authorization or permits required by law. (Ex: NRCS, SWCD, Township, County, State, etc.)
- Upon completion of the project, "As Built" plans must be provided to the District.
- Consideration must be made for turning off pumps for short period of times during the summer so maintenance can be performed on public, legal and private drainage ways, such as road ditches or private natural field drains.

EXHIBITS. The following exhibits may be requested to accompany the permit application. Two copies, (standard paper size of 8.5 inches by 11 inches), which include:

Signature of Owner or Authorized Agent _____

RLWD staff use:

Permit # _____ *Date received:* _____

Drain tile outlets to: _____

Legal System (Benefited Area): _____

Culvert size upstream and downstream of tile outlet: _____

April 26, 2018

Red Lake Watershed District

Board of Managers Meeting

Subsurface drain tile information

Loren Sanderson & Christina Slowinski

- Sept. 2015 - RLWD Board of Managers adopted rules for permitting Subsurface Tile Drainage *
- Sept. 2015 to present - 77 tile permits

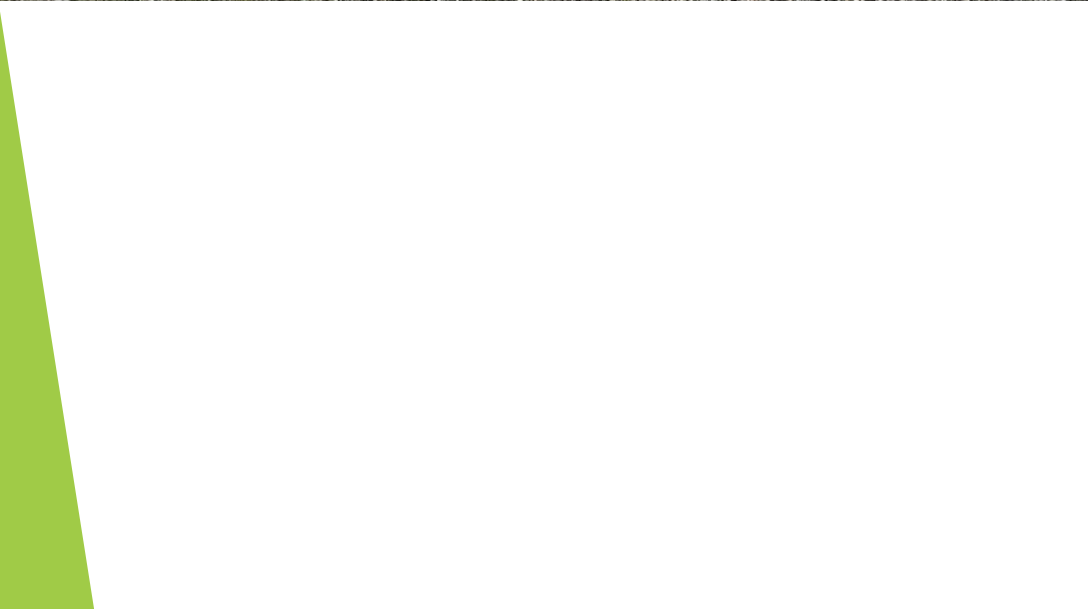














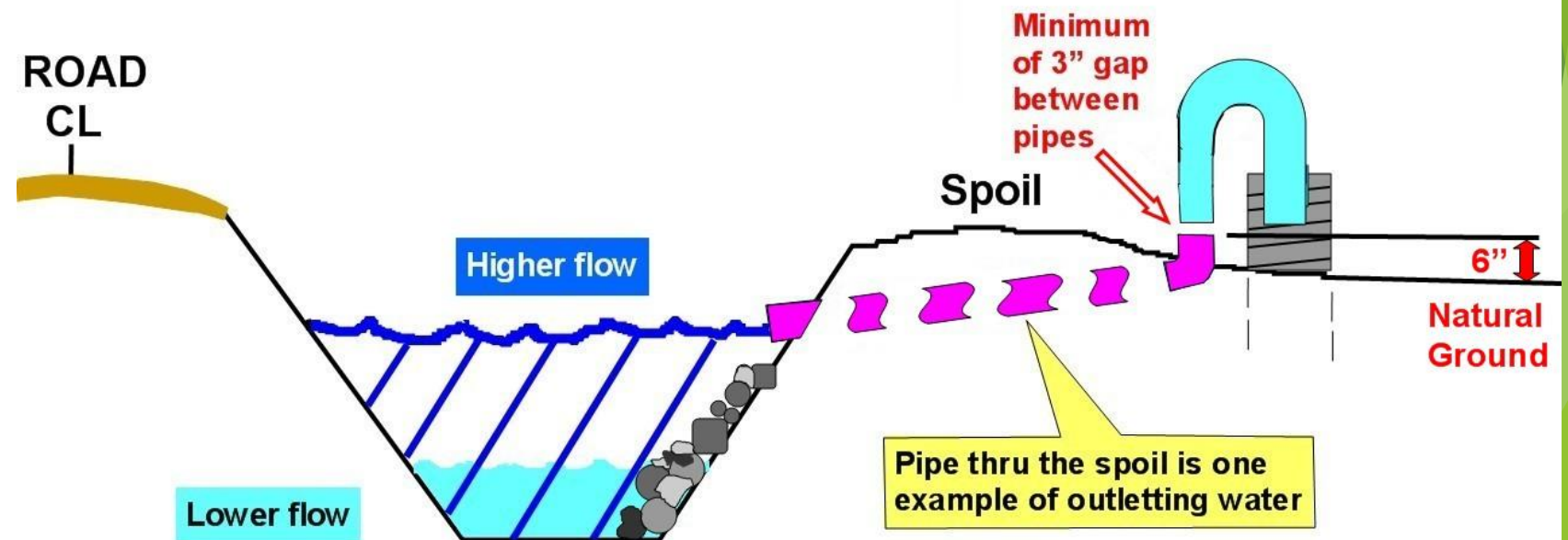




When implementing a tile outlet pipe thru a road or spoilbank into a ditch there must be a gap of 3" between the pipe that comes from the sump hole (BLUE) and the pipe that goes thru the road or spoil (PINK).

The inlet end of the pipe that goes thru the road or spoil cannot project higher than 6" from the natural ground in the vicinity.

Doing so will prevent water from entering the ditch during higher flows when the ditch has reached its capacity.



Slide from
Middle-Snake-Tamarac
Watershed District

Pump station slide from -
Middle-Snake-Tamarac
Watershed District

The Board has mandated that there must be a separation between the portion of the sump pump pipe that comes out of the vertical tube and the pipe that goes under a road or spoil berm of three inches.

“The water draining under the road or spoil from the horizontal outlet pipe must not be under pressure.”





Late April 2018 - Runoff storage

Brandt Imp.

Euclid East Imp.

Parnell Imp.

West Polk Co.

Typical occurrence during rapid melt with ditch systems restricted with snow





Fanny Twp.
Polk Co.



April 23, 2018

Brandt Imp.



Euclid East



Parnell Imp.





Permit # **18-006**

Status Report: **Denied**

Applicant Information

| Name | Organization | Address | Email | Phone Number(s) |
|---------------|---------------------|--|-------|-------------------------------------|
| Allan Merrill | Rogenes & Rye Farms | 16869 14th Street NE Buxton, ND 58218 | | tel:218-791-8216 mobile: fax: |

General Information

- (1) The proposed project is a:
Surface Drainage (New Ditch or Improvement)
Culvert Installation / Removal / Modification
- (2) Legal Description
- (3) County: **Polk** Township: **Vineland** Range: **48** Section: **2 1/4: NW1/4**
- (4) Describe in detail the work to be performed. **Remove 24" culvert and crossing and move to the east. Excavate ditch with a 4:1 slope.**
- (5) Why is this work necessary? Explain water related issue/problem being solved. **Improved drainage.**

Status

| Status | Notes | Date |
|---------------|--|-----------------------|
| Denied | Proposed area to be drained is currently not in the benefitted area of Red Lake Watershed District Ditch Project 119. | April 26, 2018 |
| Tabled | I recommend this permit be "tabled" until after the 2018 Spring melt. This will allow for adequate time to observe runoff conditions, water elevations, flow patterns and to determine existing culvert sizes. | Feb. 22, 2018 |
| Received | None | Feb. 16, 2018 |

Conditions

P.A. #18006 – Previously “Tabled” – ‘Deny’ - proposed area to be drained is currently not in the benefitted area of Red Lk. Watershed District ditch Proj. #119

NOTE: This permit does not relieve the applicant of any requirements for other permits which may be necessary from Township, County, State, or Federal Government Agencies.



Permit # 18-003

Status Report: **Approved**

Applicant Information

| Name | Organization | Address | Email | Phone Number(s) |
|------|-------------------------------------|--|-------|---------------------------------------|
| | Greater Minnesota Transmission, LLC | 202 South Main Street Le Suer, MN 56058 | | tel:1-888-931-3411 mobile: fax: |

General Information

(1) The proposed project is a:

Utility Installations

(2) Legal Description

(3) County: **Polk** Township: **Fanny** Range: **None** Section: **None** 1/4:

(4) Describe in detail the work to be performed. **Install natural gas line**

(5) Why is this work necessary? Explain water related issue/problem being solved. **Provide natural gas to the City of Fisher**

Status

| Status | Notes | Date |
|----------|--|----------------|
| Approved | None | April 26, 2018 |
| Tabled | I recommend this permit be "tabled" until after the 2018 Spring melt. This will allow for adequate time to observe runoff conditions, water elevations, flow patterns and to determine existing culvert sizes. | Feb. 22, 2018 |
| Received | None | Jan. 26, 2018 |

Conditions

P.A. #18003 – Previously "Tabled" - Greater MN Trans. – Polk Co. – Natural gas lines Red Lake Watershed District (RLWD) approval as per approval of all affected road and ditch authorities and utilities; new lines shall be installed at a minimum of at least 3 feet below the flowline (channel bottom) of rivers, streams, ditches, legal and natural drains. Applicant is responsible for utility locates by calling Gopher 1. (1-800-252-1166)

NOTE: This permit does not relieve the applicant of any requirements for other permits which may be necessary from Township, County, State, or Federal Government Agencies.



Permit # **18-004**

Status Report: **Approved**

Applicant Information

| Name | Organization | Address | Email | Phone Number(s) |
|---------------------|--------------|---|-------|--------------------------------------|
| Jamie Wyane Hegland | | 30375 160th Avenue NE Middle River, MN 56737 | | tel: mobile: 218-689-1606 fax: |

General Information

(1) The proposed project is a:

Culvert Installation / Removal / Modification

(2) Legal Description

(3) County: **Marshall** Township: **Holt** Range: **43** Section: **23 1/4**: **SE1/4**

(4) Describe in detail the work to be performed. **Install crossing**

(5) Why is this work necessary? Explain water related issue/problem being solved. **New crossing for field access.**

Status

| Status | Notes | Date |
|----------|--|----------------|
| Approved | None | April 26, 2018 |
| Tabled | I recommend this permit be "tabled" until after the 2018 Spring melt. This will allow for adequate time to observe runoff conditions, water elevations, flow patterns and to determine existing culvert sizes. | Feb. 22, 2018 |
| Received | None | Feb. 1, 2018 |

Conditions

P.A. #18004 – Previously "Tabled" Red Lake Watershed District (RLWD) approval to install a field entrance and 18 in. diameter culvert as per approval of Holt Township specs/conditions; proposed work is within township road Right-of Way. For proposed work on lands not owned by applicant, he/she must obtain, in writing, permission from the affected landowners to perform proposed work. Applicant is responsible for utility locates by calling Gopher 1. (1-800-252-1166)

NOTE: This permit does not relieve the applicant of any requirements for other permits which may be necessary from Township, County, State, or Federal Government Agencies.



Permit # 18-005

Status Report: **Approved**

Applicant Information

| Name | Organization | Address | Email | Phone Number(s) |
|-------------|---------------------|--|-------|--------------------------------------|
| Marc Hanson | Hanson Construction | 20988 Willchard Drive, PO Box 410 Thief River Falls, MN 56701 | | tel: 218-681-7064 mobile: fax: |

General Information

(1) The proposed project is a:

Culvert Installation / Removal / Modification

(2) Legal Description

(3) County: **Marshall Township: Excel Range: 43 Section: 9 1/4: NW1/4**

(4) Describe in detail the work to be performed. **Install culvert and driveway for access to property.**

(5) Why is this work necessary? Explain water related issue/problem being solved. **New home construction.**

Status

| Status | Notes | Date |
|----------|--|----------------|
| Approved | None | April 26, 2018 |
| Tabled | I recommend this permit be "tabled" until after the 2018 Spring melt. This will allow for adequate time to observe runoff conditions, water elevations, flow patterns and to determine existing culvert sizes. | Feb. 22, 2018 |
| Received | None | Feb. 12, 2018 |

Conditions

P.A. #18005 – Previously "Tabled" Red Lake Watershed District (RLWD) approval to install an entrance with a 15 in. diameter culvert as per approval of the road authority (Excel Twp. or Willchard subdivision) specs/conditions; proposed work is within road Right-of Way. For proposed work on lands not owned by applicant, he/she must obtain, in writing, permission from the affected landowners to perform proposed work. Applicant is responsible for utility locates by calling Gopher 1. (1-800-252-1166)

NOTE: This permit does not relieve the applicant of any requirements for other permits which may be necessary from Township, County, State, or Federal Government Agencies.



Permit # 18-007

Status Report: **Approved**

Applicant Information

| Name | Organization | Address | Email | Phone Number(s) |
|------|----------------|---|-------|--------------------------------------|
| | Wells Concrete | 12513 Center Street West Thief River Falls, MN 56701 | | tel: 218-964-5237 mobile: fax: |

General Information

(1) The proposed project is a:

Culvert Installation / Removal / Modification

(2) Legal Description

(3) County: **Pennington** Township: **Polk Centre** Range: **45** Section: **5 1/4: NW1/4**

(4) Describe in detail the work to be performed. **Install two approaches for access to gravel site. Dry crossing.**

(5) Why is this work necessary? Explain water related issue/problem being solved. **No current access.**

Status

| Status | Notes | Date |
|----------|---|----------------|
| Approved | None | April 26, 2018 |
| Tabled | P.A. #18007 – “Table” @ 3-13-2018 mtg. I recommend this permit be “tabled” until after the 2018 Spring melt. This will allow for adequate time to observe runoff conditions, water elevations, flow patterns and to determine existing culvert sizes. | March 13, 2018 |
| Received | None | Feb. 21, 2018 |

Conditions

P.A. #18007 – Previously “Tabled” Red Lake Watershed District (RLWD) approval to install two “dry” entrances as per approval of Pennington County specs/conditions; proposed work is in County Road #10 Right-of-Way. Contact persons at Pennington Co. Hwy. Dept. are Engineer Mike Flaagen or Assistant Mike Stennes at 218-683-7017. For proposed work on lands not owned by applicant, For he/she must obtain, in writing, permission from the affected landowners to perform proposed work. Applicant is responsible for utility locates by calling Gopher 1. (1-800-252-1166)

NOTE: This permit does not relieve the applicant of any requirements for other permits which may be necessary from Township, County, State, or Federal Government Agencies.



Permit # 18-012

Status Report: **Approved**

Applicant Information

| Name | Organization | Address | Email | Phone Number(s) |
|----------------|-----------------------|---------------------|-------|--------------------------------------|
| Jordey Marquis | 17433 240th Avenue NE | Goodridge, MN 56725 | | tel: 218-416-2231 mobile: fax: |

General Information

(1) The proposed project is a:

Culvert Installation / Removal / Modification

(2) Legal Description

(3) County: **Pennington** Township: **Silverton** Range: **42** Section: **13 1/4: SW1/4**

(4) Describe in detail the work to be performed. **Install crossing for access to property.**

(5) Why is this work necessary? Explain water related issue/problem being solved. **No current access.**

Status

| Status | Notes | Date |
|-----------------|-------------|-----------------------|
| Approved | None | April 26, 2018 |
| Tabled | None | April 12, 2018 |
| Received | None | March 20, 2018 |

Conditions

P.A. #18012 – Previously “Tabled” Red Lake Watershed District (RLWD) approval to install an entrance with a 36 in. diameter culvert, as per approval of Pennington Co. Hwy. Dept. specs/conditions; proposed work is within Penn. Co. Road #85 Right-of Way and Penn. Co. Ditch #35 Branch ‘A’ Right-of Way. Contact persons at Pennington Co. Hwy. Dept. are Engineer Mike Flaagen or Asst. Engineer Mike Stennes at 218-683-7017 For proposed work on lands not owned by applicant, he/she must obtain, in writing, permission from the affected landowners to perform proposed work. Applicant is responsible for utility locates by calling Gopher 1. (1-800-252-1166)

P.A. #18012 – “Table” @ 4-12-2018 mtg. I recommend this permit be “tabled” until after the 2018 Spring melt. This will allow for adequate time to observe runoff conditions, water elevations, flow patterns and to determine existing culvert sizes.

NOTE: This permit does not relieve the applicant of any requirements for other permits which may be necessary from Township, County, State, or Federal Government Agencies.



Permit # 18-015

Status Report: **Approved**

Applicant Information

| Name | Organization | Address | Email | Phone Number(s) |
|---------------|--------------|---|-------|--------------------------------------|
| Shirley Inman | | 30599 160th Avenue NE Middle River, MN 56737 | | tel: mobile: 218-686-6455 fax: |

General Information

(1) The proposed project is a:

Culvert Installation / Removal / Modification
Bridge Installation / Removal / Modification

(2) Legal Description

(3) County: **Marshall Township: Holt Range: 43 Section: 13 1/4: SW1/4**

(4) Describe in detail the work to be performed. **Install field entrance and culvert.**

(5) Why is this work necessary? Explain water related issue/problem being solved. **No existing access.**

Status

| Status | Notes | Date |
|-----------------|-------------|-----------------------|
| Approved | None | April 26, 2018 |
| Received | None | April 6, 2018 |

Conditions

P.A. #18015 Red Lake Watershed District (RLWD) approval to install a field entrance and 18 in. diameter culvert as per approval of Holt Township specs/conditions; proposed work is within township road Right-of Way. For proposed work on lands not owned by applicant, he/she must obtain, in writing, permission from the affected landowners to perform proposed work. Applicant is responsible for utility locates by calling Gopher 1. (1-800-252-1166)

NOTE: This permit does not relieve the applicant of any requirements for other permits which may be necessary from Township, County, State, or Federal Government Agencies.



Permit # 18-016

Status Report: **Approved**

Applicant Information

| Name | Organization | Address | Email | Phone Number(s) |
|------|-----------------------------|--|-------|--------------------------------------|
| | Burlington Northern SantaFe | 444 Cedar Street, Suite 1500 St. Paul, MN 55101 | | tel: 651-292-4545 mobile: fax: |

General Information

(1) The proposed project is a:

Culvert Installation / Removal / Modification

(2) Legal Description

(3) County: Polk Township: Crookston Range: 46 Section: 19 1/4: NW1/4

(4) Describe in detail the work to be performed. **Replace BNSF 28' long timber trestle with 3 lines of 54" diameter corrugated steel pipe culvert 38' long.**

(5) Why is this work necessary? Explain water related issue/problem being solved. **Current bridge is deteriorating.**

Status

| Status | Notes | Date |
|----------|-------|----------------|
| Approved | None | April 26, 2018 |
| Received | None | April 13, 2018 |

Conditions

P.A. #18016 BNSF RR – Polk Co. - Crookston 19 – remv. tmbr. brg. - Install 3 lines of – 54" csp - approve re-apply of previously approved per. #16189 (expired) – new permit is for the same scope of work

NOTE: This permit does not relieve the applicant of any requirements for other permits which may be necessary from Township, County, State, or Federal Government Agencies.



Permit # 18-018

Status Report: **Approved**

Applicant Information

| Name | Organization | Address | Email | Phone Number(s) |
|----------------|--------------|--|-------|--------------------------------------|
| Karl Tollefson | | 41492 270th Avenue SW Beltrami , MN 56517 | | tel: 218-280-0836 mobile: fax: |

General Information

(1) The proposed project is a:

Culvert Installation / Removal / Modification

(2) Legal Description

(3) County: Polk Township: Hammond Range: 47 Section: 5 1/4: SE1/4

(4) Describe in detail the work to be performed. **Replace three 24" failed culverts on south side of field.**

(5) Why is this work necessary? Explain water related issue/problem being solved. **Current culverts have separated and have become plugged.**

Status

| Status | Notes | Date |
|----------|-------|----------------|
| Approved | None | April 26, 2018 |
| Received | None | April 16, 2018 |

Conditions

P.A. #18018 Red Lake Watershed District (RLWD) approval to replace 3 – 18 in. diameter township road centerline culverts, with 24 in. diameter culverts, at approximately the same elevation(s), as per approval of Hammond Township specs/conditions; proposed work is within township road Right-of Way. For proposed work on lands not owned by applicant, he/she must obtain, in writing, permission from the affected landowners to perform proposed work. Applicant is responsible for utility locates by calling Gopher 1. (1-800-252-1166)

NOTE: This permit does not relieve the applicant of any requirements for other permits which may be necessary from Township, County, State, or Federal Government Agencies.



Permit # 18-019

Status Report: **Approved**

Applicant Information

| Name | Organization | Address | Email | Phone Number(s) |
|-------------------|--------------|--|-------|--------------------------------------|
| Russell Jaspersen | | 11674 240th Avenue SE Plummer, MN 56748 | | tel: 218-465-4561 mobile: fax: |

General Information

(1) The proposed project is a:

Culvert Installation / Removal / Modification

(2) Legal Description

(3) County: **Pennington** Township: **Wyandotte** Range: **42** Section: **12 1/4: SW1/4**

(4) Describe in detail the work to be performed. **Extend/replace existing driveway 18" culvert.**

(5) Why is this work necessary? Explain water related issue/problem being solved. **Current culvert is not long enough for equipment access.**

Status

| Status | Notes | Date |
|-----------------|-------------|-----------------------|
| Approved | None | April 23, 2018 |
| Received | None | April 20, 2018 |

Conditions

P.A. #18019 Red Lake Watershed District (RLWD) approval to extend existing 18 in. diameter culvert or replace existing 18 in. diameter culvert, at approximately the same elevation, as per approval of Wyandotte Township specs/conditions; proposed work is within township road Right-of Way. For proposed work on lands not owned by applicant, he/she must obtain, in writing, permission from the affected landowners to perform proposed work. Applicant is responsible for utility locates by calling Gopher 1. (1-800-252-1166)

NOTE: This permit does not relieve the applicant of any requirements for other permits which may be necessary from Township, County, State, or Federal Government Agencies.



Esri Inc
380 New York Street
Redlands CA 92373

Subject: Renewal Quotation

Date: 04/01/2018
To: Ashley Hitt
Organization: Red Lake Watershed District
Fax #: 218-681-5839 **Phone #:** 218-681-5800

From: Pete Bennett
Fax #: 909-307-3083 **Phone #:** 888-377-4575 Ext. 2063
Email: pbennett@esri.com

Number of pages transmitted
(including this cover sheet): 4

Quotation #25838851
Document Date: 04/01/2018

Please find the attached quotation for your forthcoming term. Keeping your term current may entitle you to exclusive benefits, and if you choose to discontinue your coverage, you will become ineligible for these valuable benefits and services.

If your quote is regarding software maintenance renewal, visit the following website for details regarding the maintenance program benefits at your licensing level
<http://www.esri.com/apps/products/maintenance/qualifying.cfm>

All maintenance fees from the date of discontinuation will be due and payable if you decide to reactivate your coverage at a later date.

Please note: Certain programs and license types may have varying benefits. Complimentary User Conference registrations, software support, and software and data updates are not included in all programs.

Customers who have multiple copies of certain Esri licenses may have the option of supporting some of their licenses with secondary maintenance.

For information about the terms of use for Esri products as well as purchase order terms and conditions, please visit
<http://www.esri.com/legal/licensing/software-license.html>

If you have any questions or need additional information, please contact Customer Service at 888-377-4575 option 5.

**esri**[®]

380 New York Street
 Redlands, CA 92373
 Phone: 888-377-45752063
 Fax #: 909-307-3083

Quotation

Date: 04/01/2018**Quotation Number:** 25838851**Contract Number:** 2014MPA1154

Red Lake Watershed District
 1000 Pennington Ave S
 Thief River Falls MN 56701
Attn: Ashley Hitt

Phone: 218-681-5800
Customer Number: 127165

For questions regarding this document, please contact Customer Service at 888-377-4575.

Send Purchase Orders To:

Environmental Systems Research Institute, Inc.
 380 New York Street
 Redlands, CA 92373-8100
 Attn: Pete Bennett

Please include the following remittance address on your Purchase Order:

Environmental Systems Research Institute, Inc.
 P.O. Box 741076
 Los Angeles, CA 90074-1076

| Item | Qty | Material# | Unit Price | Extended Price |
|------|-----|--|------------|----------------|
| 10 | 1 | 93094 ArcGIS Desktop Basic with Extensions Single Use Primary Maintenance Start Date: 07/01/2018 End Date: 06/30/2019 | 1,000.00 | 1,000.00 |
| 1010 | 1 | 87193 ArcGIS Desktop Basic Single Use Secondary Maintenance Start Date: 07/01/2018 End Date: 06/30/2019 | 300.00 | 300.00 |
| 2010 | 1 | 93095 ArcGIS Desktop Basic with Extensions Single Use Secondary Maintenance Start Date: 07/01/2018 End Date: 06/30/2019 | 900.00 | 900.00 |
| 3010 | 1 | 93095 ArcGIS Desktop Basic with Extensions Single Use Secondary Maintenance Start Date: 02/01/2019 End Date: 06/30/2019 | 369.86 | 369.86 |

Quotation is valid for 90 days from document date.

Any estimated sales and/or use tax has been calculated as of the date of this quotation and is merely provided as a convenience for your organization's budgetary purposes. Esri reserves the right to adjust and collect sales and/or use tax at the actual date of invoicing. If your organization is tax exempt or pays state taxes directly, then prior to invoicing, your organization must provide Esri with a copy of a current tax exemption certificate issued by your state's taxing authority for the given jurisdiction.

Esri may charge a fee to cover expenses related to any customer requirement to use a proprietary vendor management, procurement, or invoice program.

Issued By: Pete Bennett **Ext:** 2063

[CSBATCHDOM]

To expedite your order, please reference your customer number and this quotation number on your purchase order.



esri[®]

380 New York Street
Redlands, CA 92373
Phone: 888-377-45752063
Fax #: 909-307-3083

Quotation

Page 2

Date: 04/01/2018

Quotation Number: 25838851

Contract Number: 2014MPA1154

Item Qty Material#

Unit Price

Extended Price

| | |
|----------------------|---------------------|
| Item Subtotal | 2,569.86 |
| Estimated Tax | 0.00 |
| Total | USD 2,569.86 |

DUNS/CEC: 06-313-4175 CAGE: 0AMS3



esri[®]

380 New York Street
Redlands, CA 92373
Phone: 888-377-45752063
Fax #: 909-307-3083

Quotation

Page 3

Date: 04/01/2018 **Quotation No:** 25838851 **Customer No:** 127165 **Contract No:** 2014MPA1154

| Item | Qty | Material# | Unit Price | Extended Price |
|------|-----|-----------|------------|----------------|
|------|-----|-----------|------------|----------------|

IF YOU WOULD LIKE TO RECEIVE AN INVOICE FOR THIS MAINTENANCE QUOTE YOU MAY DO ONE OF THE FOLLOWING:

- RESPOND TO THIS EMAIL WITH YOUR AUTHORIZATION TO INVOICE
- SIGN BELOW AND FAX TO 909-307-3083
- FAX YOUR PURCHASE ORDER TO 909-307-3083
- EMAIL YOUR PURCHASE ORDER TO Service@esri.com

REQUESTS VIA EMAIL OR SIGNED QUOTE INDICATE THAT YOU ARE AUTHORIZED TO OBLIGATE FUNDS FOR YOUR ORGANIZATION AND THAT YOUR ORGANIZATION DOES NOT REQUIRE A PURCHASE ORDER.

If there are any changes required to your quotation please respond to this email and indicate any changes in your invoice authorization.

If you choose to discontinue your support, you will become ineligible for support benefits and services. All maintenance fees from the date of discontinuation will be due and payable if you decide to reactivate your support coverage at a later date.

The items on this quotation are subject to and governed by the terms of this quotation, the most current product specific scope of use document found at <http://www.esri.com/~ /media/Files/Pdfs/legal/pdfs/e300.pdf> and your signed agreement with Esri, if applicable. If no such agreement covers any item, then Esri's standard terms and conditions and product specific scope of use, found at <http://www.esri.com/legal/software-license> apply to your purchase of that item. Federal government entities and government prime contractors authorized under FAR 51.1 may purchase under the terms of Esri's GSA Federal Supply Schedule. Acceptance of this quotation is limited to the terms of this Quotation. State and local government entities in California or Maryland buying under the State Contract are also subject to the terms and conditions found at <http://www.esri.com/legal/supplemental-terms-and-conditions>. Esri objects to and expressly rejects any different or additional terms contained in any purchase order, offer, or confirmation sent to or to be sent by buyer. All terms of this quotation will be incorporated into and become part of any additional agreement regarding Esri's offerings.

In order to expedite processing, please reference the quotation number and any/all applicable Esri contract number(s) (e.g. MPA, ELA, SmartBuy ,GSA, BPA) on your ordering document.

By signing below , you are authorizing Esri to issue a software support invoice in the amount of USD _____ plus sales tax, if applicable.

Please check one of the following:

I agree to pay any applicable sales tax.

I am tax exempt. Please contact me if Esri does not have my current exempt information on file.

Signature of Authorized Representative

Date

Name (Please Print)

Title

E&A Services LLC
1011 Main Ave. N
Thief River Falls, MN 56701
218-689-4957
aj.qualls@hotmail.com



ESTIMATE

ADDRESS

Red Lake Watershed District
1000 Pennington Ave S
Thief River Falls, mn 56701

ESTIMATE # 1152

DATE 04/25/2018

| ACTIVITY | QTY | RATE | AMOUNT |
|--|--------|-------|--------------------|
| Sealcoat Clean and apply 2 coats of sealcoat | 21,160 | 0.13 | 2,750.80T |
| Striping Re-stripe Parking Lot | 21,160 | 0.015 | 317.40T |
| | | | Subtotal: 3,068.20 |

| | |
|--------------|-------------------|
| SUBTOTAL | 3,068.20 |
| TAX (6.875%) | 210.94 |
| TOTAL | \$3,279.14 |

Accepted By

Accepted Date



E&A Services LLC
1011 Main Ave. N
Thief River Falls, MN 56701
218-689-4957
aj.qualls@hotmail.com



ESTIMATE

ADDRESS

Red Lake Watershed District
1000 Pennington Ave S
Thief River Falls, mn 56701

ESTIMATE # 1153
DATE 04/25/2018

| ACTIVITY | QTY | RATE | AMOUNT |
|--|-----|------|---------|
| Crack Fill Cut and fill cracks with hot rubber | 320 | 1.25 | 400.00T |

| | |
|--------------|-----------------|
| SUBTOTAL | 400.00 |
| TAX (6.875%) | 27.50 |
| TOTAL | \$427.50 |

Accepted By _____

Accepted Date _____



Red Lake Watershed District - Administrators Report

April 26, 2018

Red River Watershed Management Board – Leroy and I attended the RRWMB meeting held at the at the RLWD office, at 9:30 am, April 17, 2018. The meeting was followed by the Strategic Plan update which lead to some interesting discussions. Leroy can update the Board as he sees fit.

The next RRWMB meeting will be held May 15th at the Sandhill Watershed District in Fertile.

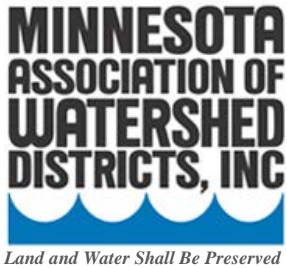
MAWD Legislative Update – I have included in your packet the MAWD update dated April 23, 2018. Emily indicated that some of the items in the document may already be incorrect as you read them but were current as of the day it was printed.

Thief River 1W1P- The Advisory Committee met at 9:00 am Tuesday, April 11th followed by the Policy Committee meeting at 11:00. There was also a meeting held at 1:00 pm with the Planning Workgroup to get an update on the Zonation process of the plan.

Upper/Lower Red Lake WRAP – Staff members Corey, Christina, Ashley and Board member Brian Dwight attended the WRAP public meeting held Tuesday, April 24th from 4 - 6:30pm at the North Beltrami Community Center in Kelliher. The purpose of the meeting is to show which lakes and streams within the watershed are in good condition and which are not. It should be noted that at the request of the Red Lake Watershed District, this WRAP is being completed in cooperation with the Red Lake DNR through the MPCA.

Impoundment update – Due to rapid snowmelt, Euclid East, Brandt and Parnell JD 60 weir were closed Thursday April 19th. Moose River and Good Lake remain closed and will be monitored as spring runoff continues.

Water Quality Report – I have included in your packet, Corey's water quality report dated February and March 2018.



MN Association of Watershed Districts
18681 Lake Drive East
Chanhassen MN 55317
(612) 790-0700
www.mnwatershed.org
Executive Director Emily Javens
exec.mawd@gmail.com

2018 Board of Directors
President Ruth Schaefer
Vice President Duane Willenbring
Secretary Mary Texer
Treasurers Craig Leiser, Sherry Davis White
Directors Tim Dritz, Peter Fjestad,
Gene Tiedemann, and Linda Vavra

MN Association of Watershed Districts LEGISLATIVE UPDATE: April 23, 2018

All committee deadlines have now come and gone. Bills are now being grouped together in larger omnibus bills. We have made progress on several initiatives but as Yogi Berra said, "It ain't over till it's over." Here are a few highlights:

Watershed Planning and Management. We have made significant progress on legislation that will reduce the duplicative efforts between the Total Maximum Daily Load (TMDL) studies, the Watershed Restoration and Protection Strategy (WRAPS) reports and One Watershed One Plan (1W1P) efforts. This is a joint effort between the Association of MN Counties (AMC), the MN Association of Soil and Water Conservation Districts (MASWCD), and the state agencies. Several other bills have been introduced by others with varying potential impacts to authorities of watershed districts, but those bills failed to get hearings and are now considered dead.

Levy Authorities. Although there has been little interest from legislators to sponsor a bill that would increase the general levy cap for rural watershed districts, there is movement on improving the flexibility of how the project tax levy authority can be used to match more types of grants, such as from the Clean Water Fund.

Drainage. We introduced two pieces of legislation this session. The first piece of legislation would remove impediments, identified by the drainage work group, that are standing in the way of getting buffers established on public ditches. The second piece of legislation would allow drainage authorities to use an optional "Runoff and Sediment Delivery" method to calculate how repair costs could be apportioned without doing a full redetermination of benefits. This second piece of legislation ran into political problems and will likely be revisited this summer by the drainage work group. If it moves ahead, outreach will be needed to correct misinformation that has spread about the bill.

Appropriations. Funding recommendations for the Clean Water Fund and the Lessard Sams Outdoor Heritage Council are moving through the legislature with money being allocated to several watershed district programs and projects.

Bonding. We are still waiting for some word on the progress of development of a capital investment (bonding) bill in both bodies. The Senate began hearing some bonding proposals last week and we view that as a good sign. There is much work yet to be done with these bills as they move through the process once they are laid on the table for all to see.

Water Resource Programs. Legislation providing limited liability protection to certified commercial salt applicators is still moving through the House and our efforts to be included in the stakeholder process on stormwater reuse was heard.

Electronic Meeting Attendance. Although we decided to pull our legislation that brought more clarification for allowing managers to attend meetings electronically, we will continue to provide the needed clarification administratively now rather than legislatively.

Lastly, although we have made every effort to provide the most accurate information as possible, this legislative update may already be out-of-date by the time you read this. Please give us a call if you have questions or concerns. And a big thanks to everyone who has helped advance our legislative priorities this session!

Watershed Planning and Management

COORDINATED WATERSHED MANAGEMENT

LEADING THIS EFFORT with AMC, MASWCD, BWSR, MPCA

MAWD Resolution 2017-01: Advocate for coordination and integration of state watershed programs with local watershed implementation.

- [HF 3908 Clean Water Legacy Act modified, and coordinated watershed management provided](#) (Fischer, Torkelson)
 - 4/17/18 – HF3908 was included in the **Environment & Natural Resources Policy & Finance Committee’s** Omnibus bill ([HF3502DE2](#) Article 2 Sections 28, 29, 31-32, 39-52, and 103)
 - 4/19/18 – Section 29 was **amended** and sent to the **Ways and Means** Committee.
- [SF 3647 Clean Water Legacy Act modified, and coordinated watershed management provided](#) (M. Johnson, Ruud)
 - 4/17/18 – SF3647 was included in the **Environment & Natural Resources Finance Committee’s** Omnibus bill
 - 4/18/18 – [SF3141 2nd Engrossment](#) (Article 2 Sections 33-34, 36-37, 49-62, and 105) was sent to the **Finance** Committee

METRO “SLOW THE FLOW”

PROPOSED BY OTHERS → MONITOR & ACT WHEN NECESSARY

MAWD Board Direction: Monitor and act on proposed changes to 103B.

Description: This bill would **require** metro watershed management programs to slow the movement of water to improve water quality and increase groundwater recharge, as well as protect and enhance surface water and groundwater used for drinking water.

- [HF 2989 Watershed management organization planning requirements modified, and WD purpose modified](#) (Wagenius, Hoppe, Hansen, Gunther, Bly, Anselmo)
 - 2/22/18 – Referred to **Environment and Natural Resources Policy and Finance** committee
 - No action, bill is dead for this session.
- [SF 3407 Watershed management organization planning requirements and district purposes modifications](#) (Dibble, Carlson, Cwodzinki, Hawj)
 - 3/15/18 – Referred to **Environment and Natural Resources Policy and Legacy Finance** committee
 - No action, bill is dead for this session.

DISTRICT PROVISIONS MODIFIED

PROPOSED BY OTHERS → MONITOR & ACT WHEN NECESSARY

MAWD Board Direction: Monitor and act on proposed changes to 103D.

Description: This bill would make significant changes to the rule-making procedures and authorities of WDs.

- [HF 3805 Watershed district provisions modified](#) (Heintzeman)
 - 3/14/18 – referred to **Environment and Natural Resources Policy and Finance** committee
 - No action, bill is dead for this session.
- [SF 3379 Watershed districts provisions modification](#) (Draheim)
 - 3/15/18 – referred to **Environment and Natural Resources Policy and Legacy Finance** committee
 - No action, bill is dead for this session.

UPDATE: These bills did not meet committee deadlines, so they should be dead for this session. MAWD has met with the developer pushing this legislation and have agreed to continue discussions to see if any resolutions can be found.

DISTRICT PLANNING REQUIREMENTS MODIFIED

PROPOSED BY OTHERS → MONITOR & ACT WHEN NECESSARY

MAWD Board Direction: Monitor and act on proposed changes to 103D.

Description: This bill recognizes that municipalities and counties affected by watershed management plans may make recommendations on the plan to the WD and notify affected property owners.

- [HF3603 Watershed district planning requirements modified](#) (Loon)
 - 3/12/18 - referred to **Environment and Natural Resources Policy and Finance** committee
 - Not heard in committee... bill is dead for this session (and no senate file was ever introduced.)

WATERSHED MANAGEMENT IN MN RIVER BASIN**PROPOSED BY OTHERS → MONITOR & ACT WHEN NECESSARY**

2015 MAWD Resolution: Support establishment of watershed-based water management organizations in the MN River basin

Description: This bill would convene a technical stakeholder group to design a comprehensive nutrient reduction strategy for point and nonpoint sources in the MN River basin.

- [HF 3940 Funding to reduce nutrients in the MN River basin, money appropriated](#) (C. Johnson, Considine)
 - 3/15/18 – referred to **Environment and Natural Resources Policy and Finance** committee
 - No action, bill dead for session
- [SF 3620 Minnesota River basin nutrient reduction strategy appropriation](#) (Frentz, Marty, Eaton)
 - 3/19/18 – referred to **Environment and Natural Resources Policy and Legacy Finance** committee
 - No action, bill dead for session

District Levy Authorities

PROJECT LEVY STATUTE MODIFICATION**LEADING THIS EFFORT**

2016 MAWD Resolution: Advocate for a statutory clarification to allow broader use of levy funds with new state sources of project funding. (Modify 103D.905, subd. 9 to allow the project tax levy to be used as match for more types of grants.)

- [HF 2456 Watershed district levy authority modified](#) (Baker, Marquart, Kunesh-Podein)
 - 2/21/18 – Referred to **Property Tax and Local Government Finance Division** committee
 - Committee hearing requested. Tax committee has no deadlines.
- [SF 3077 Watershed districts levy authority modification](#) (Lang, Sparks, Weber, Eken, Johnson)
 - 3/08/18 – Referred to **Taxes** committee
 - 4/25/18 – Bill will be heard in the **Taxes** Committee. Margaret Johnson, Middle Fork Crow River WD will testify on behalf of watershed districts. Thank you, Margaret!

GENERAL LEVY INCREASE**LEADING THIS EFFORT**

MAWD Resolutions: Modify/increase the general fund levy limit for all non-metro watershed districts to \$500,000 (2016) Support increasing the general fund levy limit for the Middle Fork Crow River Watershed District. (2017-05)

UPDATE: We discussed the general levy increase with several legislators. One suggested an inflationary increase to \$350k, but there was no real interest in authoring the tax increase legislation this year.

Drainage (MN Statute 103E)

DRAINAGE WORK GROUP LEGISLATION

MAWD Board Direction: Promote consensus legislation put forth by the drainage work group (DWG).

Description: There were two pieces of legislation brought forward this year – see details below.

DWG 1 – RECOMMENDATIONS FOR ASSISTING WITH DITCH BUFFER IMPLEMENTATION**LEAD w/ AMC, MASWCD**

Description: The legislation introduced was directly related to the [report](#) the drainage work group sent to the legislature on February 1, 2018: “Recommendations for Accelerating Public Drainage System Acquisition and Establishment of Buffer Strips and Alternative Practices” (See Recommendations F1, S1, S2, S3, S6, and P4.)

- [HF 3835 Cost-sharing funding provided to implement riparian buffer strips or alternative practices along public drainage ditches and outreach to landowners, drainage authorities, and their advisors; and money appropriated](#) (Torkelson)
 - Additional funding placed in legislation through the Clean Water Fund (\$5M)
- [HF 3836 \(Article 1\) Agricultural best management practice loan conditions modified to include environmental service providers, and drainage law modified to accelerate ditch buffer implementation](#) (Torkelson)
 - 4/17/18 – 3 provisions from HF3838 Article 1 were included in the **Environment & Natural Resources Policy & Finance Committee’s** Omnibus bill ([HF3502DE2](#) Sections 33, 34, 106) and sent to the **Ways and Means** Committee on 4/19/18

- Three sections of Article 1 that would allow drainage authorities to access larger loans from the Ag BMP Loan Program on behalf of multiple landowners was not included but may show up in another omnibus bill.
- [SF 3410 \(Article 1\) Agricultural best management practice loan conditions modifications to include environmental service providers; drainage law modification to accelerate ditch buffer strip implementation](#) (Weber, Sparks)
 - 4/17/18 – SF3410 was included in the **Environment & Natural Resources Finance Committee's** Omnibus bill
 - 4/18/18 – [SF3141 2nd Engrossment](#) (Article 3) was sent to the **Finance Committee**

DWG 2 – RUNOFF AND SEDIMENT DELIVERY OPTION (FOR REPAIR COST APPORTIONMENT) LEADING w/ AMC

Consensus was reached after the session began and the language was placed on HF3836 & SF3410 as Article 2 of both bills. This legislation has typically been noncontroversial, but due to the lingering controversy surrounding the buffer law, it has become a point of contention politically with some misinformation being spread about any bill dealing with water and especially drainage. The drainage work group will likely revisit over the summer and make sure everyone is on the same page before moving forward again.

- [HF 3836 \(Article 2\) Agricultural best management practice loan conditions modified to include environmental service providers, and drainage law modified to accelerate ditch buffer implementation](#) (Torkelson)
 - 3/15/18 – referred to **Agriculture Policy** committee
 - 3/20/18 – Heard in committee and passed on to the ENR Finance & Policy Committee. Agreed to work with author and several legislators on language.
 - Article 2 was dropped and did not move forward to the **Environment and Natural Resources Policy and Finance Committee's** Omnibus bill
- [SF 3410 \(Article 2\) Agricultural best management practice loan conditions modifications to include environmental service providers; drainage law modification to accelerate ditch buffer strip implementation](#) (Weber, Sparks)
 - 4/17/18 – SF3410 was included in the **Environment & Natural Resources Finance Committee's** Omnibus bill
 - 4/18/18 – SF3141 2nd Engrossment (Article 4) was sent to the **Finance Committee**, but we have been told it will be taken out

DNR PERMITS FOR 103E PROJECTS

PROPOSED BY OTHERS → MONITOR & ACT WHEN NECESSARY

MAWD Board Direction: Monitor and act on any changes to the 103E.

Description: This bill would clarify when DNR permits are required for ditch system repair projects.

- [HF 2687 Public waters and public drainage system laws clarified](#) (Fabian, Hamilton, Poppe, Green, P. Anderson, Grossell, Torkelson, Dettmer)
 - 5/18/17 – Referred to **Environment and Natural Resources Policy and Finance** committee
 - No action in committee, bill is dead for the session
- [SF 2419 Public waters and public drainage system laws clarification](#) (Westrom, Weber, Eken, Sparks, Ingebrigtsen)
 - 5/21/17 Referred to **Environment and Natural Resources Policy and Legacy Finance** committee
 - No action in committee, bill is dead for the session

NOTE: The DNR has issued a Guidance Memo on this topic. See March 23rd Leg update for more details.

DRAINAGE LIEN PRINCIPAL INTEREST RATE MODIFICATION

PROPOSED BY OTHERS → MONITOR / ACT

MAWD Board Direction: Monitor and act on any changes to the 103E.

Description: This bill would remove the interest rate cap set by the state court.

- [HF 3512 Drainage lien principal interest rate modified, definitions modified, and code references updated](#) (Davids)
 - 3/08/18 – referred to **Environment and Natural Resources Policy and Finance** committee
 - 3/15/18 – removed from hearing agenda

- [SF 3097 Drainage lien principle interest rate modification](#) (Chamberlain)
 - 3/08/18 – referred to **Taxes** committee
 - 3/15/18 – withdrawn and re-referred to **Judiciary and Public Safety Finance and Policy** committee
 - 3/20/18 – Heard by committee and amended and re-referred to Taxes

ALLOW BENEFITS TO BE UPDATED BASED ON MARKET VALUES FOR REPAIR PROJECTS

MONITOR/ACT

MAWD Board Direction: Monitor and act on any changes to the 103E.

- [HF 2876 Drainage system repair procedures modified](#) (Backer)
 - 2/20/18 – referred to **Environment and Natural Resources Policy and Finance** committee
 - No action, bill dead for session
- [SF 3181 Drain System repair procedures modification](#)
 - 3/12/18 – referred to **Agriculture, Rural Development, and Housing Policy** committee
 - 3/20/18 – Heard in committee, amended and re-referred to **ENR Policy & Legacy Finance** Committee
 - No further action on this bill

NOTE: BWSR sent a letter to Bois de Sioux WD on 3/16/18 explaining how they can do this without any changes to law.

Appropriations

CLEAN WATER FUND

SUPPORT/MONITOR/ACT

This bill specifies how the nearly \$26M extra Clean Water Funds are to be spent in FY 2019. There is currently \$3.67M for additional One Watershed One Plan “Fund the Plan” grants and \$3.5M for competitive grants.

- [HF 4269 Clean water fund money appropriated](#) (Torkelson)
 - 4/19/18 – Bill was included in the Legacy Funding Finance omnibus bill ([HF4167DE1_1](#) Article 2)
- There is currently no senate file with language for Clean Water Fund appropriations.

UPDATE: MAWD sent a letter to legislators and the Governor in support of the recommendations of the Clean Water Council and although this legislation differs from what was proposed, the new appropriations are in line with general watershed priorities.

OUTDOOR HERITAGE FUND

SUPPORT/MONITOR/ACT

Description: These bills specify how \$113.9M is to be spent in FY 2019 with projects identified in the Shell Rock River, Buffalo-Red River, and Minnehaha Creek WDs.

- [HF2789 Outdoor heritage fund appropriations, and notice to local government required before acquiring land in fee](#) (Fabian, Hansen, Gunther, Lillie)
 - 4/19/18 – Bill was included in the Legacy Funding Finance omnibus bill ([HF4167DE1_1](#) Article 2)
- [SF 2688 Outdoor heritage fund appropriations](#) (Lang, Tomassoni, Ingebrigtsen)
 - 4/19/18 – Last action was a second reading in the **Finance** Committee

Bonding

FLOOD HAZARD PROGRAMS / BONDING

SUPPORT/MONITOR/ACT

MAWD Resolution 2017-06: Support stable funding for the DNR's Flood Damage Reduction Grant Program.

Support bonding requests from watershed districts for the Flood Hazard Mitigation Program (2016)

Support a \$500,000 request for flood water retention engineering in the Lac qui Parle Yellow Bank watershed (2013)

- [HF 3742 Cedar River WD funding provided, bonds issues, and money appropriated](#) (Pope)
 - 3/14/18 – referred to **Environment and Natural Resources Policy and Finance** committee
- [SF 3347 Cedar River WD bond issue and appropriation](#) (Sparks)
 - 3/14/18 – referred to **Capital Investment** committee
- [HF 2818 Buffalo-Red River WD flood hazard mitigation funding provided, bonds issued, \\$ appropriated](#) (Backer)
 - 2/20/18 – referred to **Environment and Natural Resources Policy and Finance** committee

- [SF 2509 Buffalo-Red River WD flood hazard mitigation bond issue and appropriation](#) (Westrom)
 - 2/20/18 – referred to **Capital Investment** committee
- [HF 1230 Lac qui Parle Yellow Bank WD funding provided, bonds issues, and money appropriated](#) (Swedzinski)
 - 2/15/17 – referred to **Environment and Natural Resources Policy and Finance** committee
- [SF 761 Lac qui Parle Yellow Bank WD grant bond issue and appropriation](#) (Dahms)
 - 2/09/17 – referred to **Capital Investment** committee

UPDATE: All capital investment bills will be sent directly to the bonding committees for their consideration. The Capital Investment committee in the House has begun to hear bills, the Senate side has not. We really don't know when to expect this bill to be made public.

Water Resource Programs

LIMITED LIABILITY FOR COMMERCIAL SALT APPLICATION

SUPPORT/MONITOR/ACT

MAWD Resolution 2017-04: Support limited liability protections for certified commercial salt applicators (17)

- [HF 3577 Certified salt applicator program established, and liability limited](#) (Anselmo, R. Barr, Haley, Smith, Fenton, Loon, Jurgens, Pugh, Metsa, Fischer, Poston, Heintzeman)
 - 4/17/18 – HF3908 was included in the **Environment & Natural Resources Policy & Finance** Committee's Omnibus bill (HF3502DE2: Article 1 Section 2 appropriates \$199k to the MPCA to administer the program and Article 2 Section 80 contains the policy language.)
 - 4/19/18 – Section 80 subdivision 3 was [amended](#) and sent to the **Ways and Means** Committee.
- [SF 3199 Certified salt applicator program establishment](#) (Ruud, Ingebrigtsen, P. Anderson, Hall, Tomassoni)
 - 3/22/18 – Last action was to refer this to the **Judiciary and Public Safety Finance and Policy** Committee

STORMWATER REUSE TASK FORCE

LEADING THIS EFFORT

MAWD Resolution 2017-07: Create a Stormwater Reuse Task Force that consists of local and state officials involved in water management.

UPDATE: The MN Department of Health released a report that have led us to conclude that our concerns have been heard to the degree we will continue to work with them in an administrative capacity instead of using legislative action at this time.

CRP in FARM BILL

SUPPORT/MONITOR/ACT

MAWD Resolution 2017-03: Support a strong Conservation Reserve Program (CRP) in the 2018 Federal Farm Bill

- Senator Tina Smith is holding listening sessions and asking for feedback on what Minnesotans want to see in the next Farm Bill. Contact your administrator for more information on how you can send feedback to the Senator. MAWD provided details through an email on how to submit comments.

Board Meetings and Manager Per Diems

ELECTRONIC MEETING ATTENDANCE

LEADING THIS EFFORT

MAWD Resolution: Amend the Open Meeting Law to allow electronic meeting participation by WD managers & outside of WD boundaries. (16)

- [HF 3834 WD board meeting requirements clarified for meetings conducted by interactive television](#) (Dettmer, Fischer, Torkelson)
 - 3/15/18 – referred to **Environment and Natural Resources Policy and Finance** committee
- [SF 3499 WD board meeting requirements for meetings conducted by interactive television](#) (Johnson, Sparks, Lang)
 - 3/15/18 – referred to **Environment and Natural Resources Policy and Legacy Finance** committee

NOTE: This legislative effort has been somewhat confusing because the League of MN Cities and some LGU's are presently interpreting the law that they can conduct meetings via interactive TV outside of their geographical boundary legally already. Those groups have asked us not to pursue the legislation and work with them to get the law clarified administratively over the summer and fall. We were scheduled to have a hearing on Monday, March 26th but have decided to pull the legislation at this time to work with LGUs to attain guidance from BWSR and the Attorney General's office on this law (13D).

MANAGER PER DIEMS

LEADING THIS EFFORT

2015 MAWD Resolution: Increase per diems for managers to \$100 per day.

- No action taken on this initiative. MASWCD has a similar resolution to increase per diems to \$150 per day. They have also elected not to pursue the issue this year.

Miscellaneous

AGENCY PERMITTING, WATERSHED TRADING CREDIT

MONITOR/ACT

- [HF 3120 Environmental agency permitting, rulemaking, and fees modified; watershed credit exchange program provided; compliance requirements modified; and money appropriated](#) (Fabian, Heintzeman, Lueck, Ecklund)
 - 2/26/19 – Referred to House ENR Policy & Finance Committee
 - 3/27/18 – Heard in committee and referred to the floor.
- [SF 2705 Environmental agencies permitting, rulemaking, and fees modifications; watershed credit exchange program establishment; effluent limitation compliance, appropriation](#) (Ingebrigtsen, Tomassoni, Ruud, Weber, Mathews)
 - 2/26/18 – Referred to Environmental and Natural Resources (ENR) Policy & Legacy Finance committee
 - 3/15/18 – Committee passed and re-referred to ENR Finance committee
 - Language placed in ENR Omnibus Bill SF3141

CONSERVATION EASEMENT TAX RELIEF

MONITOR/ACT

MAWD Resolution: Advocate for allowing more favorable tax treatment of conservations easements (2016)

- [HF 3512 Agricultural classification of land converted from agricultural use for environmental purposes allowed](#) (Davids)
 - 3/16/18 - Referred by Chair to **Property Tax and Local Government Finance Division** committee
 - No action, AMC opposes legislation
- [SF 3097 Agricultural classification of land converted from agricultural use to environmental purposes authorization](#) (Chamberlain)
 - 3/15/18 – referred to **Taxes** committee, re-referred to ENR Finance, amended, re-referred back to Taxes.
 - No action, AMC opposes legislation

AQUATIC INVASIVE SPECIES QUARANTINE

MAWD Resolution 2017-02: Support temporary quarantine authority to control the spread of aquatic invasive species.

- No action taken on this initiative

CLEAN WATER COUNCIL APPOINTMENTS

2015 MAWD Resolution: Protect the integrity of Clean Water Council appointments from undue influence by state agencies

- No action taken on this initiative



Red River Watershed Management Board
Meeting Highlights – April 17, 2018

1. **Financial Activity** – The RRWMB has accepted a proposal from its banking institution to raise the interest rates on all accounts and to reduce or eliminate several monthly fees. The RRWMB will be working on an investment strategy in the coming months to take advantage of higher interest rates.
2. **Joint Powers Agreement (JPA)** – The RRWMB held discussion about the JPA and continues its work towards enhanced communication and transparency.
3. **Treasurer** – RRWMB Manager Jason Braaten of the Roseau River Watershed District was asked to transition into the treasurer position as current RRWMB Treasurer Dan Wilkens moves towards retirement. Jason will be working with Dan and RRWMB staff over the coming months on the annual audit, monthly financial information, internal controls, and other general accounting and reporting activities.
4. **Office Location** – The RRWMB managers approved a lease with the Wild Rice Watershed District to provide office space for the principal place of business for the RRWMB. It is anticipated that remodeling of the Wild Rice Watershed District's current office space will begin this spring.
5. **Insurance Coverage** – The annual premium is approximately \$11,000 for RRWMB bond, directors/officer's liability, workers compensation, and various other insurance coverages. The RRWMB has obtained a preliminary quote that will significantly reduce the annual premium.
6. **Strategic Plan** – The RRWMB Managers held a strategic planning session in the afternoon. Input recently obtained from small group discussions at the annual conference in March was provided to the Managers. It was affirmed that a strategic plan is necessary and staff will continue to work with the Managers to move the plan forward.
7. **Benefit Cost Analysis (BCA)** – A presentation was given to the Managers regarding BCA of flood impoundment projects. This information and discussion was held in the afternoon as part of the strategic planning session and will help inform the Managers as they review the current mission and goals.
8. **Reports** – Several reports were given by RRWMB partners including the Red River Retention Authority, Red River Basin Commission, and the International Water Institute. In addition, a number of written reports were provided to the Managers by other partners.
9. **Upcoming Meetings:**
 - RRWMB Public Information Committee Meeting – April 30, 2018 in Ada.
 - Next RRWMB Board Meeting – May 15, 2018 at the Sand Hill River Watershed District in Fertile, MN.



RED LAKE DEPARTMENT OF
NATURAL RESOURCES

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ENVIRONMENTAL | FISHERIES | FORESTRY | FIRE | **WATER RESOURCES**

WATER RESOURCES

WATERSHED RESTORATION AND PROTECTION STRATEGY (WRAPS)

PUBLIC MEETING SCHEDULED FOR SPRING 2018

A public meeting for the Upper/Lower Red Lake WRAPS has been scheduled. The purpose of this meeting is to show which lakes and streams are in good condition and which are not within the watershed. A few brief presentations will be provided regarding the biological work, stressor identification process, and an overview of the WRAPS process. Cookies and refreshments will be served.

In addition to the presentations, representatives from various agencies will be in attendance to have one-on-one conversations to provide you with more information on the status of the biological community data, water chemistry, stream channel stability, geomorphology, stressor identification, and modeling from the watershed.

North Beltrami Community Center

220 Main St. E, Kelliher, MN

Tuesday, April 24th from 4:00-6:30 pm

For additional information or questions about this meeting, please contact Kayla Bowe at the Red Lake DNR: 218-679-1607 or kayla.bowe@redlakenation.org.



By Corey Hanson, Red Lake Watershed District Water Quality Coordinator. 4/12/2018.

- ✓ River Watch Forum
- ✓ Bartlett Lake paleolimnological study
- ✓ Continuous dissolved oxygen results from the 2017 monitoring season
- ✓ Thief River Watershed One Watershed One Plan
- ✓ Clearwater River Watershed Restoration and Protection Strategy Project

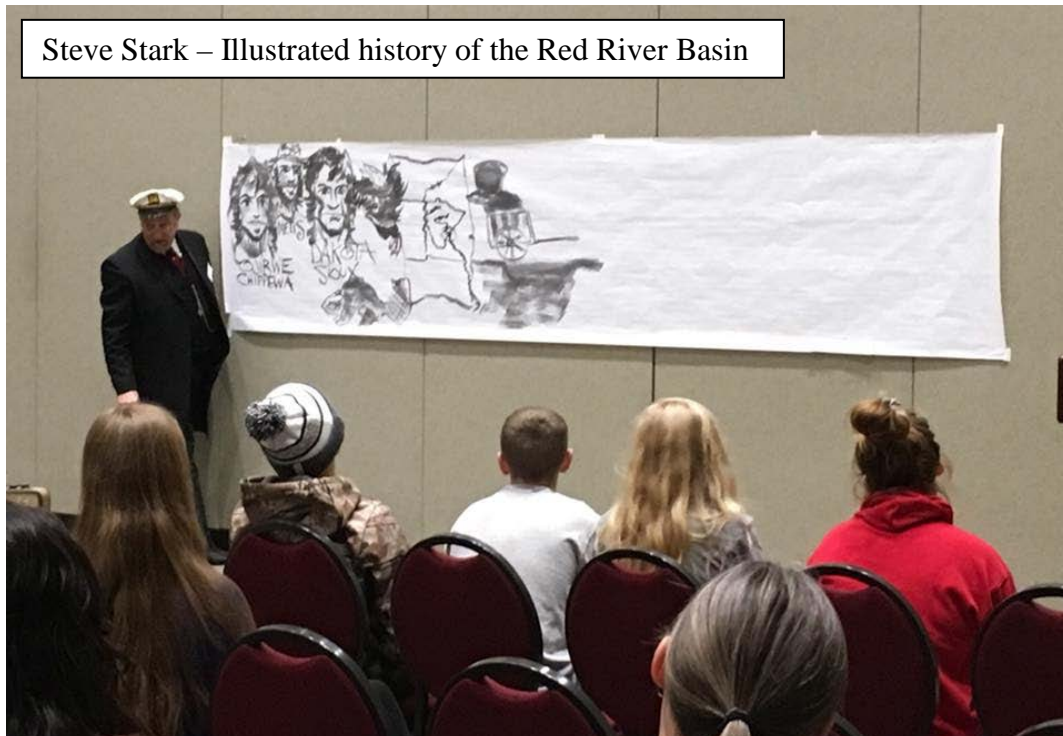
River Watch

The 23rd Annual River Watch Forum was held at the Alerus Center in Grand Forks. Ashley Hitt and Christina Slowinski attended the event and set up a booth with information about the District. Approximately 315 students, teachers, and presenters attended. The forum was international this year due to the attendance of students from Manitoba. The theme of the year was “River Watch in Action.” Students were asked to plan a service project and produce a video. Attendees were treated to presentations from Brad Durick (a Red River catfishing guide) and Steve Stark (illustrated history of the Red River Basin).

The River Watch teams’ videos can be viewed online on the International Water Institute website and YouTube channel. The keynote presentation and other information can also be viewed at the following link.

<http://iwinst.org/mesmerize/watershed-education/river-watch/forum-resources/2018-forum-resources/>

Steve Stark – Illustrated history of the Red River Basin



Bartlett Lake

District staff and Manager Dwight reviewed information from a paleolimnological investigation of Bartlett Lake, which is located in Koochiching County near Northome, MN. The lake is impaired and has suffered from high levels of nutrients, high concentrations of chlorophyll-a, low water clarity, and winter fish kills. The excess nutrients in the lake are attributed to historical impacts from sanitary sewer discharge into the lake, logging operations along the shore, and pollution from a creamery that operated from 1916 to 1974. Sediment cores were collected from the lake and analyzed for geochemical and biological clues that provide information about the lake and its history.

Sedimentation within the lake began to increase within the lake at the time of European settlement and has continued to increase. As much as 75% of the phosphorus in Bartlett Lake is coming from internal loading. Much of that internal loading phosphorus is from the historical pollutant sources (sewer, creamery, and logging). That historic sediment and phosphorus is mobile and can be mixed into the water column due to the relatively shallow maximum depth of the lake (16 feet). Some of that legacy phosphorus is being removed through burial in sediment, but the lake is still impaired. The lake has been slowly recovering since the creamery was closed and a new wastewater treatment system was constructed. Possible actions to speed the recovery process, like an alum treatment, will be explored by the city and the District.

Creamery near Bartlett Lake in Northome, MN



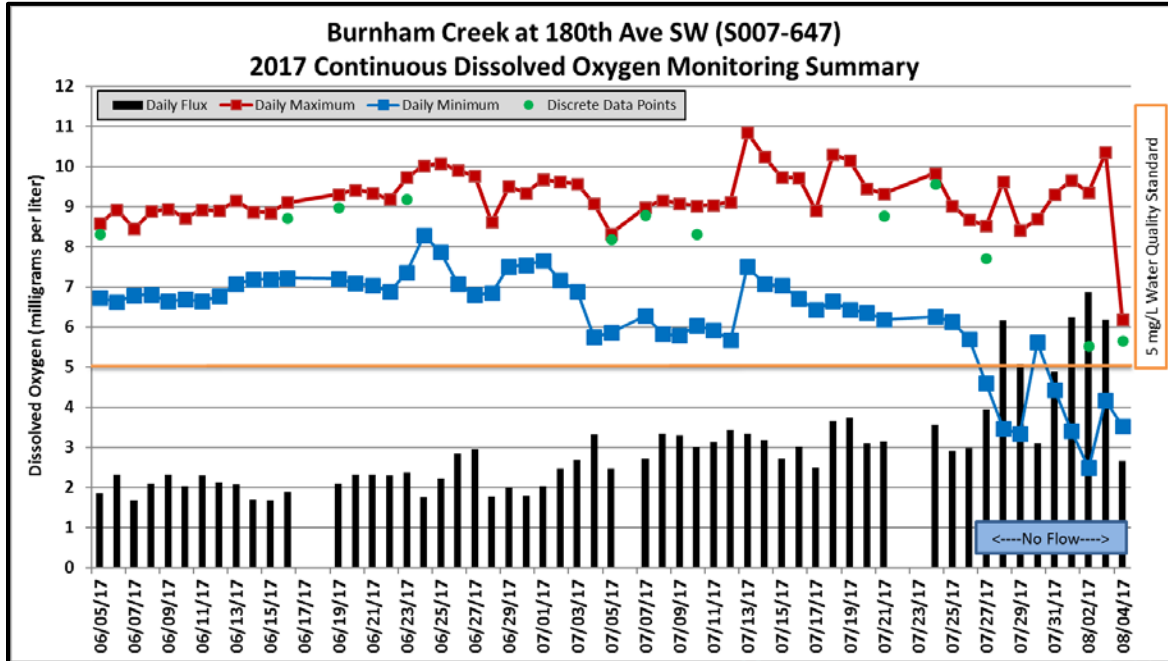
Red Lake Watershed District Long-Term Monitoring Program

2017 dissolved oxygen logger data from Burnham Creek (Polk County Ditch 79) at 180th Ave SW was compiled, corrected, and summarized. This location is the first road crossing downstream of the Spring Gravel Dam stream restoration project. A project has recently been completed to improve fish passage and habitat within the headwaters reaches of Burnham Creek. The dissolved oxygen logger deployment revealed that dissolved oxygen levels in this portion of the stream are good, as long as there is flow. When flow began to cease in late July, daily minimum dissolved oxygen levels began to fall below zero. The dissolved oxygen logger

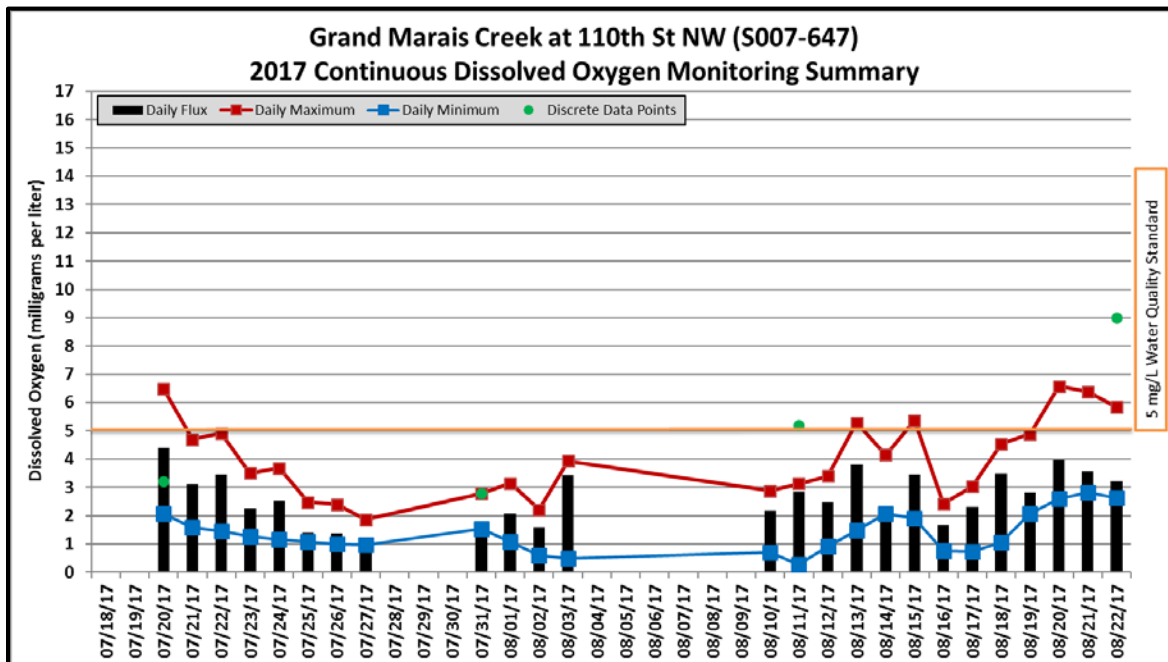
RED LAKE WATERSHED DISTRICT MONTHLY WATER QUALITY REPORT

February 2018

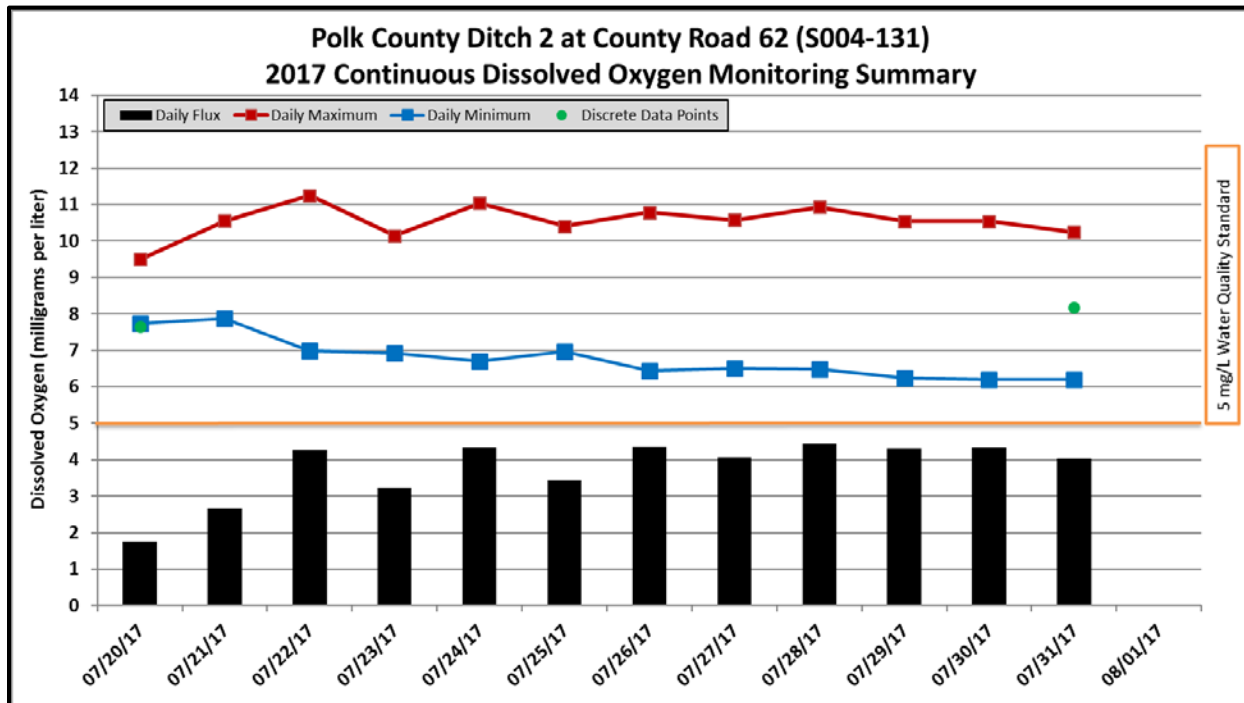
was deployed in a deeper part of the channel on the downstream end of the culvert. Minnows were often present in that little pool.



Dissolved oxygen loggers were also deployed within Grand Marais Creek (at 110th Street NW) in 2017. Unfortunately, conditions in that stream were not as good as those found in Burnham Creek. Daily maximum dissolved oxygen levels rarely rose above the 5 mg/L standard for daily minimums. Flows were very low in Grand Marais Creek during the summer of 2017.



2017 dissolved oxygen logger data from Polk County Ditch 2 at County Road 62 was compiled, corrected, and summarized. Flow in the channel only lasted long enough for one deployment, but all the daily minimum dissolved oxygen concentrations met the 5 mg/L standard.



The East Polk Soil and Water Conservation District’s 2017 monitoring data was received, reviewed, submitted to the Minnesota Pollution Control Agency, and stored in the state’s EQUIS database.

Thief River Watershed Prioritize, Target, and Measure Application (PTMApp) Development

District staff (Ashley Hitt) worked on preparing and performing quality assurance/quality control work on GIS data for the PTMApp process using the lakes routing and priority resource points that were created in January of 2018. Travel time (how long it takes for water to get from one point to another) GIS layers were developed.

Thief River One Watershed One Plan (1W1P)

- District staff reviewed and commented a technical memorandum on Thief River Watershed Protection and Restoration Mapping from Houston Engineering.
- District staff categorized streams in the Thief River watershed using water quality assessment statistics that were generated for the Thief River Watershed Restoration and Protection Strategy project and categorization methods that were similar to those that were proposed in the Houston Engineering Memorandum. Maps were created to help with prioritization for dissolved oxygen, total suspended solids, *E. coli* bacteria, and

RED LAKE WATERSHED DISTRICT MONTHLY WATER QUALITY REPORT

February 2018

aquatic biology.

- District staff reviewed a prioritization matrix (a table that prioritizes issues in the watershed, mainly based on the number of votes received during the public meetings) for the 1WIP. That prioritization table was reviewed in detail during a planning work group phone conference. Pennington SWCD and District staff worked together to edit the table based on the decisions that were made by the group during the phone conference.
- A meeting of the policy committee, advisory committee, and planning work group was held on February 14, 2018.
- After the February 14, 2018 meeting, Pennington County SWCD and District staff worked together to document the reasons behind the changes to the prioritization matrix that were made by the planning work group.
- After the February 14, 2018 meeting, a draft table was created to summarize the information in the Protection and Restoration maps and the methods that were used for the categorization of streams. A draft narrative was written for the protection and restoration section of the 1WIP by District staff.

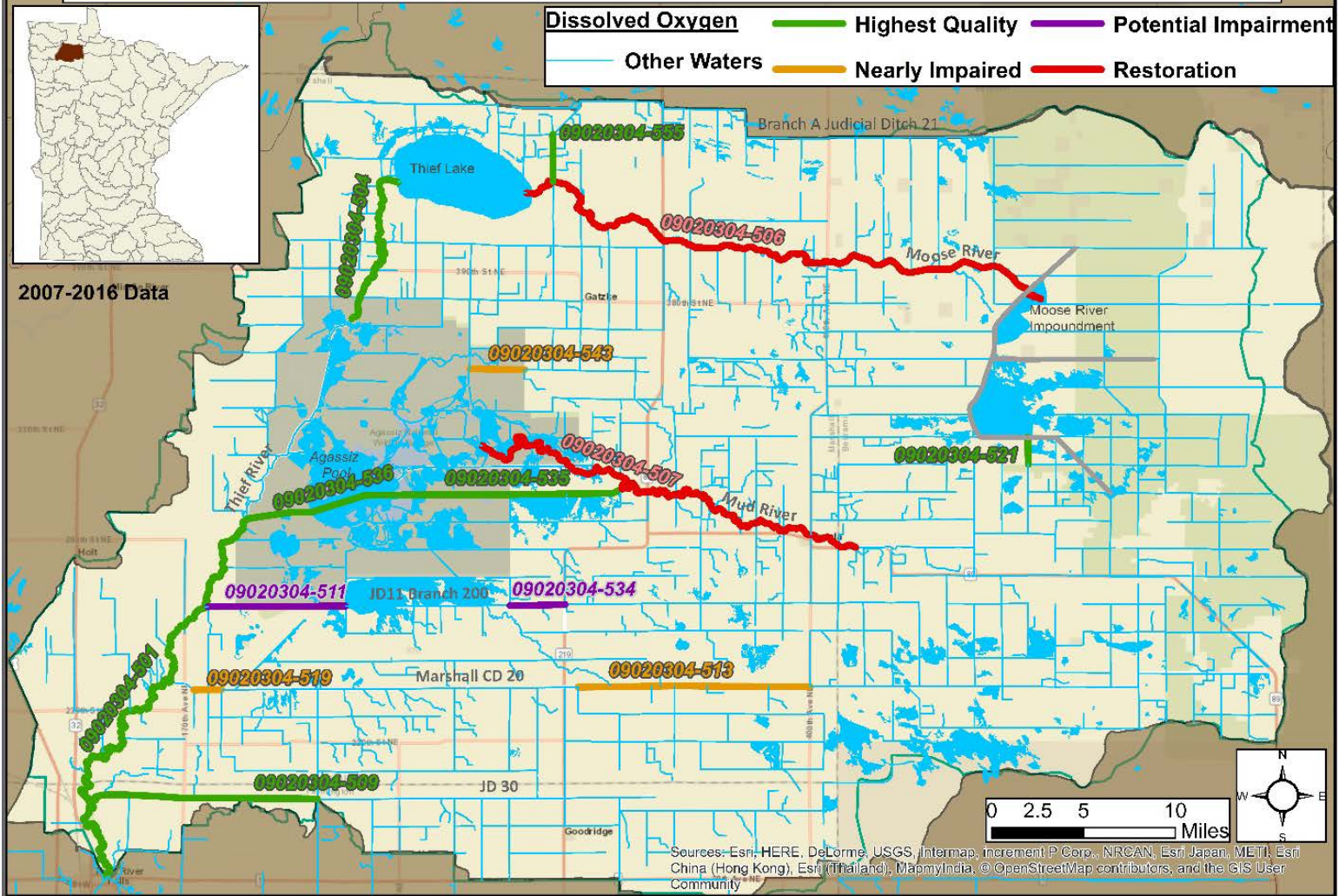
| Methods for Classification of Streams for Protection and Restoration | Restoration | Potential Impairment | Nearly Impaired | Highest Quality | Numerical Standard and Other Details |
|--|--|--|--|---|--|
| Meets MPCA Minimum Data Requirements | Yes | Yes | Yes | Yes | 20 TSS measurements 5 <i>E. coli</i> measurements/calendar month 20 DO measurements 12 TP measurements over 2 or more years |
| Assessment Period | 2007-2016 | 2007-2016 | 2007-2016 | 2007-2016 | |
| Included in the Draft 2018 List of Impaired | Yes | No | No | No | |
| Meets Standards? | No | No | Yes, borderline/uncertain | Yes, with confidence | |
| Total Suspended Solids (TSS) | >10% exceed the standard | >10% exceed the standard | 7.5-10% exceed the standard | <7.5% exceed the standard | 30 mg/L - Central River Nutrient Region 15 mg/L - North River Nutrient Region Uses April-September Daily Averages |
| <i>E. coli</i> Bacteria | >157.5 MPN/100ml | >126 MPN/100ml | >94.5 MPN/100ml | <94.5 MPN/100ml | 126 MPN/100ml monthly geometric mean |
| Dissolved Oxygen (DO) | >10% of discrete daily minimums are <5 mg/L | >10% of discrete daily minimums are <5 mg/L | 5-10% of discrete daily minimums are <5 mg/L | <5% of discrete daily minimums are <5 mg/L | 5 mg/L May-September Daily Minimums All discrete data |
| | and >10% of pre-9am daily minimums are <5 mg/L | | or >10% of pre-9am daily minimums are <5 mg/L | and <5% of pre-9am daily minimums are <5 mg/L | 5 mg/L May-September Daily Minimums Continuous and discrete data recorded earlier than 9:00am |
| Total Phosphorus (TP) | None - not assessed in 2013 | TP and at least one response variable exceed standards | >75 µg/L - Central >37.5 µg/L - North Response variables meet standards if TP exceeds the standard | <75 µg/L - Central <37.5 µg/L - North | Summer (June-September) Average 100 µg/L - Central River Nutrient Region 50 µg/L - North River Nutrient Region |
| Index of Biological Integrity (IBI) | None - not assessed in 2013 | Score is lower than the lower confidence limit | Score is between the lower and upper confidence limits | Score is higher than the upper confidence limit | Varies by location +/- 10-point F-IBI confidence limits +/- 13.5-point M-IBI confidence limits |

RED LAKE WATERSHED DISTRICT MONTHLY WATER QUALITY REPORT

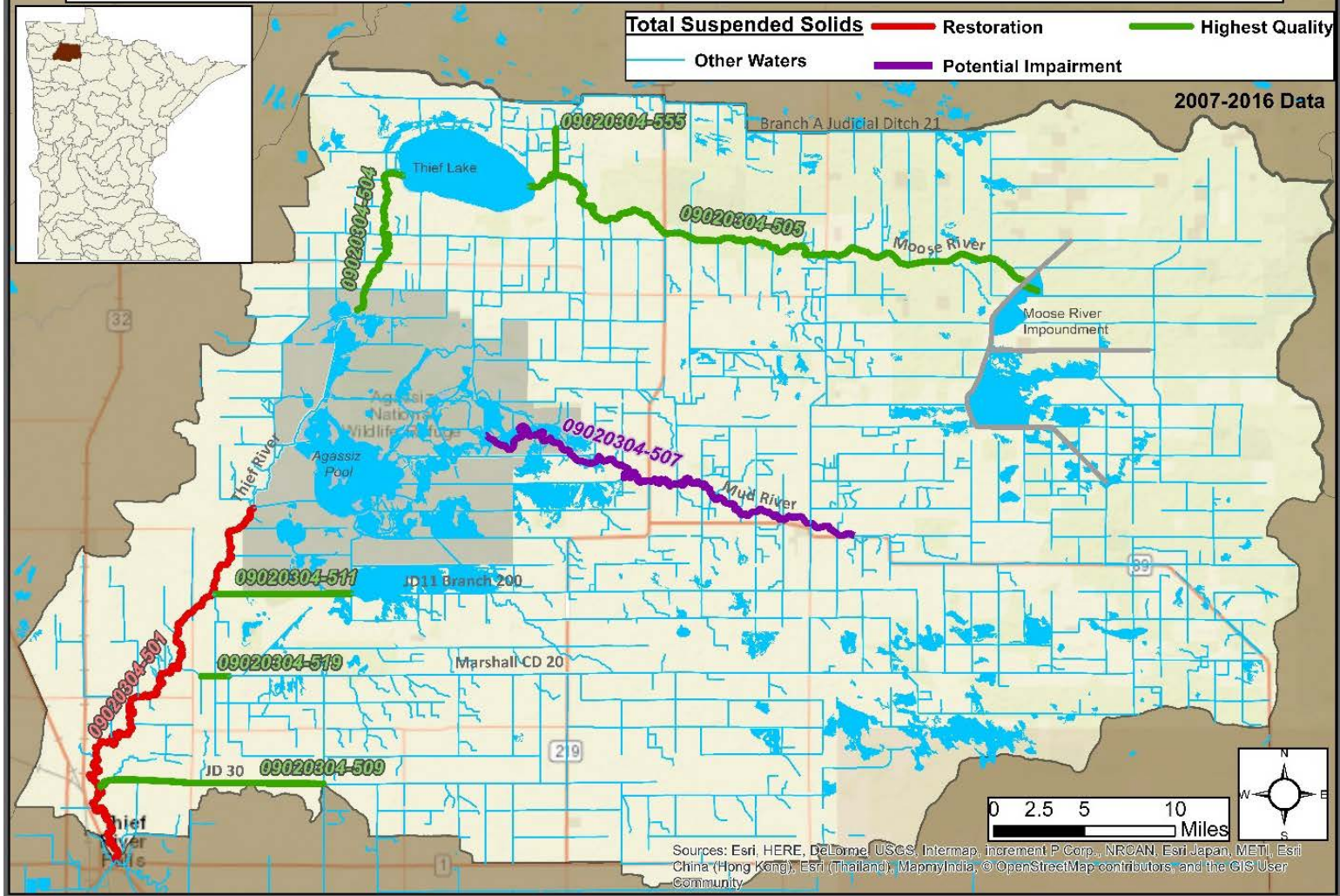
February 2018

| Assessment Unit ID | Waterbody Name | Reach Description | River Nutrient Region (Applied to Local Planning) | Total Suspended Solids | E. coli Bacteria | Dissolved Oxygen | Total Phosphorus and River Eutrophication | Index of Biological Integrity |
|--------------------|---------------------------------|--|---|------------------------|------------------------|------------------------|---|-------------------------------|
| 09020304-501 | Thief River (Natural) | Agassiz Pool to Red Lake R | Central | Restoration (Impaired) | Nearly Impaired | Highest Quality | Highest Quality | Nearly Impaired |
| 09020304-501 | Thief River (SD 83) | | Central | | | | | Nearly Impaired |
| 09020304-504 | Thief River | Thief Lake to Agassiz Pool | Central | Highest Quality | Highest Quality | Highest Quality | Highest Quality | Nearly Impaired |
| 09020304-505 | Moose River | Headwaters to Thief Lake | North | Highest Quality | Highest Quality | Restoration (Impaired) | Potential Impairment | Potential Impairment |
| 09020304-507 | Mud River | Headwaters to Agassiz Pool | North | Nearly Impaired | Restoration (Impaired) | Restoration (Impaired) | Potential Impairment | Nearly Impaired |
| 09020304-509 | Judicial Ditch 30 | T154 R42W S14, East Line (JD30) to Thief R | North | Highest Quality | Highest Quality | Highest Quality | Nearly Impaired | Potential Impairment |
| 09020304-511 | Br. 200 of JD 11 | 270th St NE (near Lost R Pool outlet) to 180th Ave NE ditch | North | Highest Quality | Highest Quality | Potential Impairment | Potential Impairment | Nearly Impaired |
| 09020304-513 | Marshall CD 20 | 400th Ave NE to CD 32 | North | | | Nearly Impaired | | Nearly Impaired |
| 09020304-519 | Marshall CD 20 | Branch A of CD 30 to Branch D of CD 20 | North | Highest Quality | Highest Quality | Nearly Impaired | Nearly Impaired | Nearly Impaired |
| 09020304-521 | Judicial Ditch 11 | S. Pool outlet of Moose R. Imp. to unnamed ditch along Benville Rd | North | | | Highest Quality | | |
| 09020304-527 | Tributary to Branch 95 of JD 11 | Unnamed ditch to Branch 95 of JD 11 | North | | | | | Highest Quality |
| 09020304-534 | Br. 200 of JD 11 | CSAH 219 to 290th Ave NE | North | | | Potential Impairment | | |
| 09020304-535 | Judicial Ditch 11 | 330th Ave NE (Mud R) to 290th Ave NE | North | | | Highest Quality | | |
| 09020304-536 | Judicial Ditch 11 | 290th Ave NE, through Agassiz Pool, to the Thief R. | North | | | | | Nearly Impaired |
| 09020304-537 | Judicial Ditch 13 | Br 3 of JD 13 to 330th Ave NE, north of Goodridge | North | | | | | Nearly Impaired |
| 09020304-540 | Judicial Ditch 13 | T154 R40W S16, east line to Br D of JD 18 | North | | | | | Potential Impairment |
| 09020304-541 | Judicial Ditch 18 | T154 R40W S27, midpoint to T154 R42W S13, west line | North | | | | | Nearly Impaired |
| 09020304-543 | Br 1 of JD 11 | Br 15 of JD 11 to Br 7 of JD 11 | North | | | Nearly Impaired | | Nearly Impaired |
| 09020304-548 | County Ditch 20 | Clifford Ln NW to an unnamed ditch east of Sharon Rd intersection | North | | | | | Potential Impairment |
| 09020304-549 | Trib to Marshall CD 20 | Bottom Rd NW to CD 20, near Jelle | North | | | | | Nearly Impaired |
| 09020304-550 | Lat 1 JD 23 | Headwaters to Thief River | Central | | | | | Nearly Impaired |
| 09020304-551 | Main JD 23 | Lat 2 JD 23 to Thief River | Central | | | | | Potential Impairment |
| 09020304-552 | County Ditch 27 | Unnamed ditch to Br 3 CD 20 | Central | | | | | Nearly Impaired |
| 09020304-554 | Marshall Co. Ditch 32 | E line of Sect. 19, Grand Plain Twp., Section 19 to CD 20 | Central | | | | | Nearly Impaired |
| 09020304-555 | Branch A of JD 21 | Br 6 of JD 21 To Moose River | North | Highest Quality | Nearly Impaired | Highest Quality | Highest Quality | Nearly Impaired |
| 09020304-557 | Branch A of JD 21 | 410th Ave NE to Br 29 of JD 21 | North | | | | | Nearly Impaired |
| 09020304-558 | Marshall CD 35 | Br 11 SD 83 to Thief River | Central | | | | | Nearly Impaired |
| 09020304-559 | Unnamed ditch | Headwaters to Mud Lake | Central | | | | | Nearly Impaired |

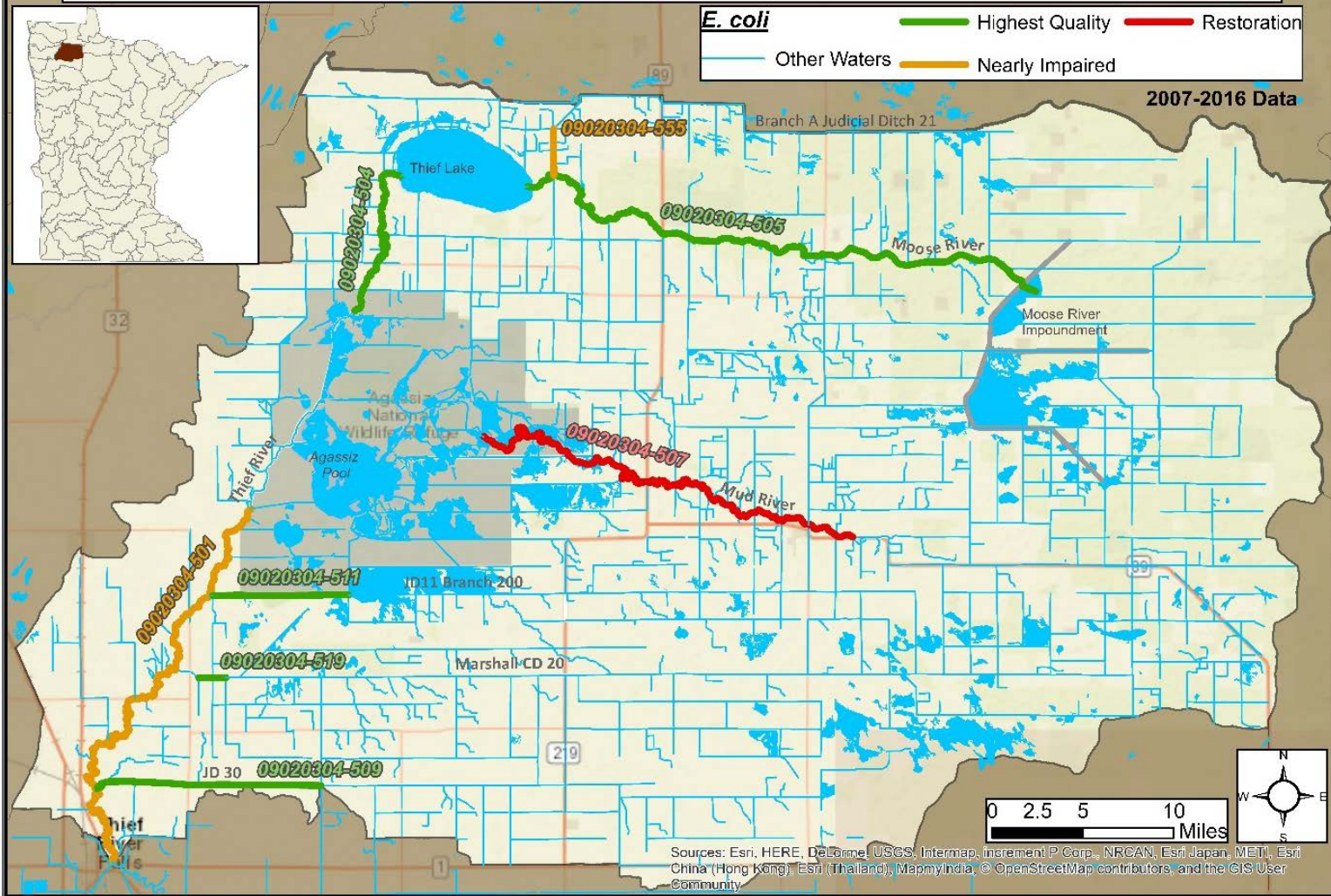
Thief River Watershed - Dissolved Oxygen Categorization of Waters for Restoration and Protection



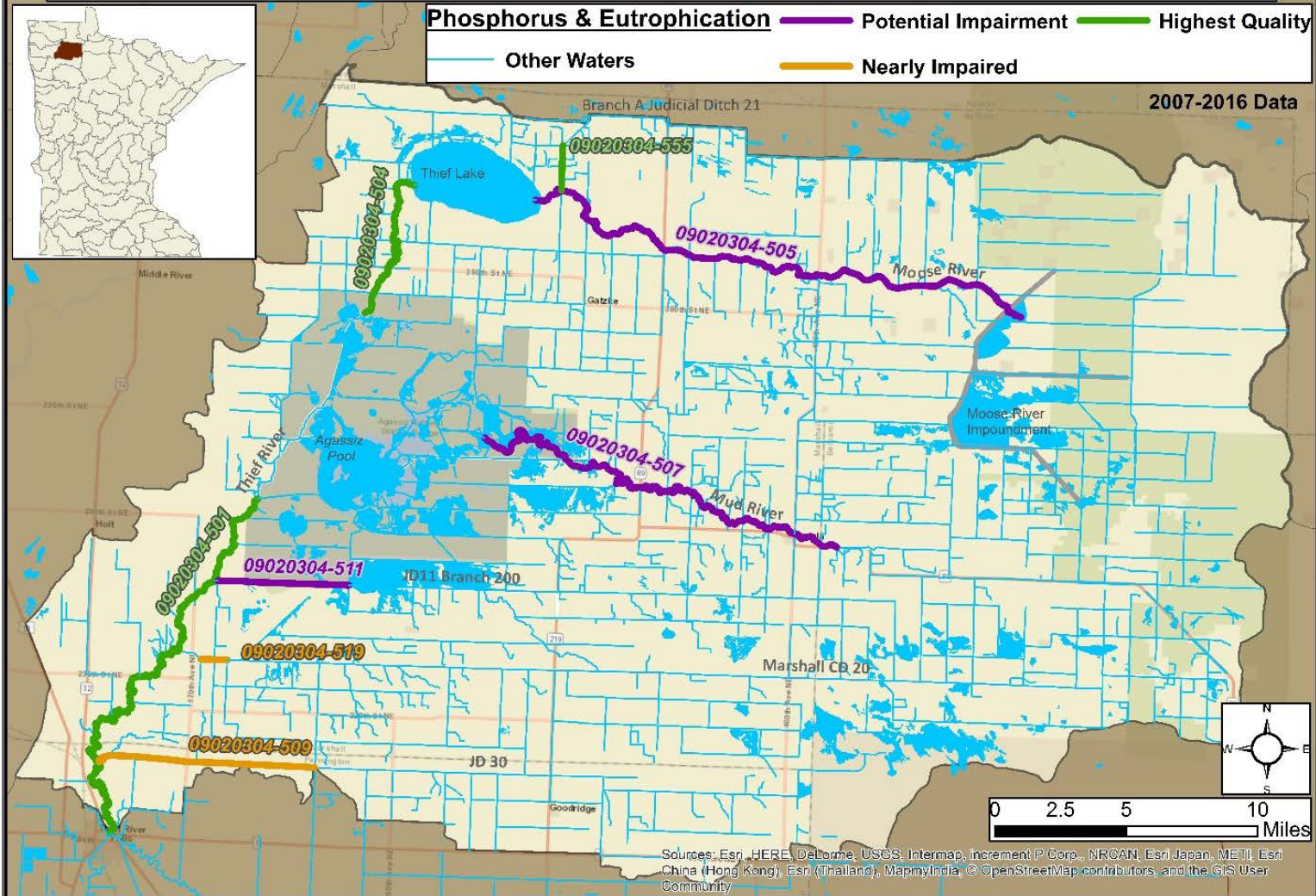
Thief River Watershed - Total Suspended Solids Categorization of Waters for Restoration and Protection



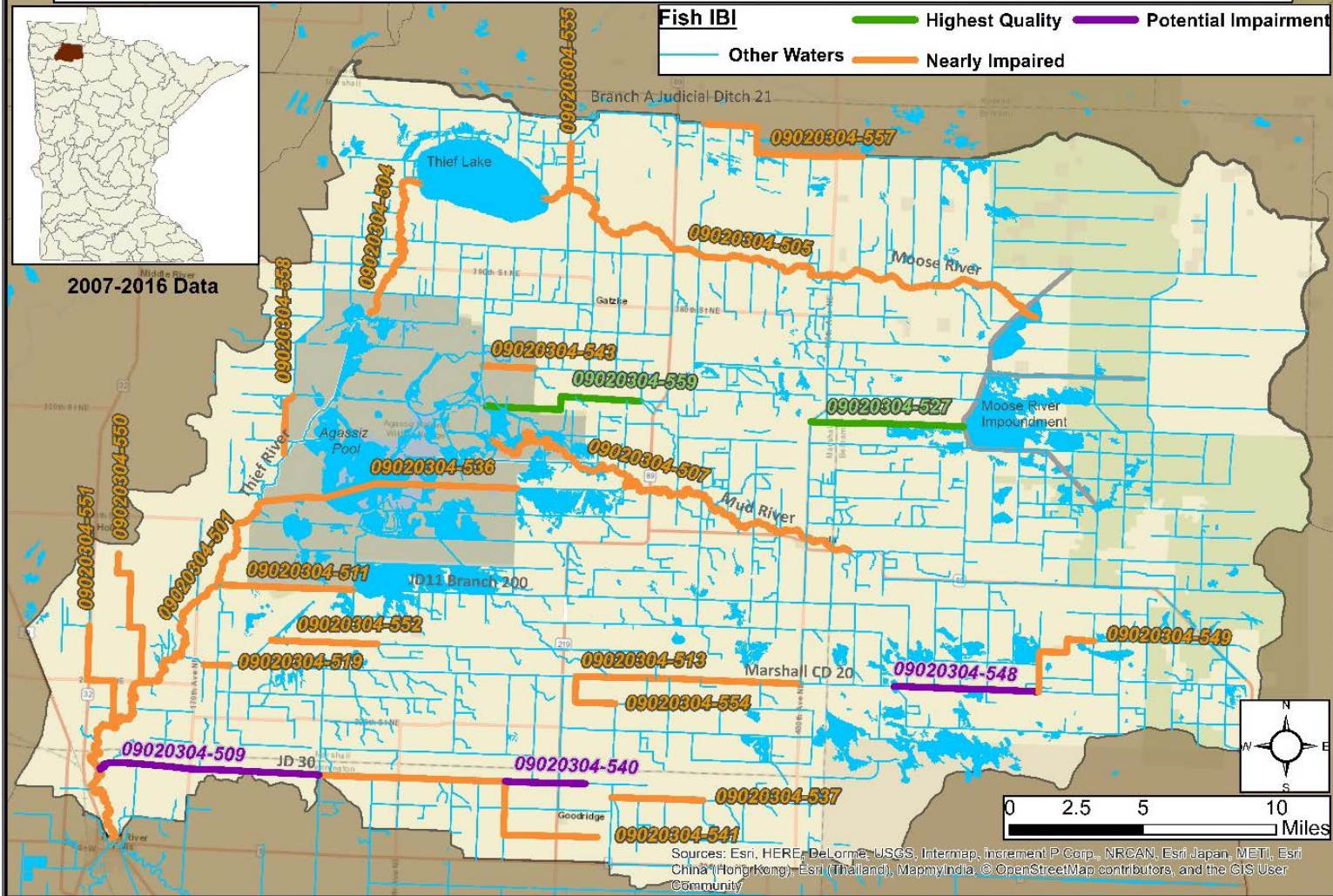
Thief River Watershed - E. coli Bacteria Categorization of Waters for Restoration and Protection



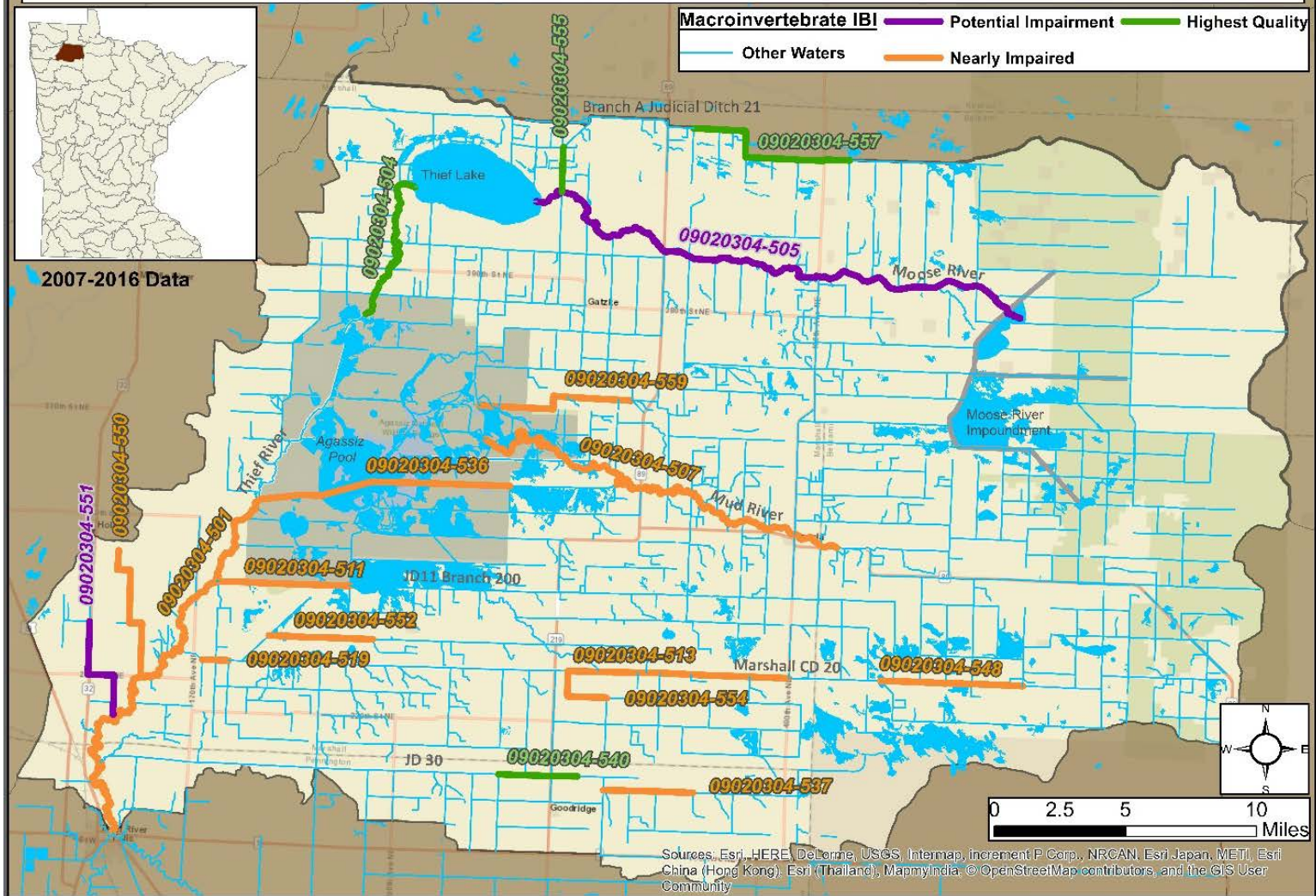
Thief River Watershed - Total Phosphorus and River Eutrophication Categorization of Waters for Restoration and Protection



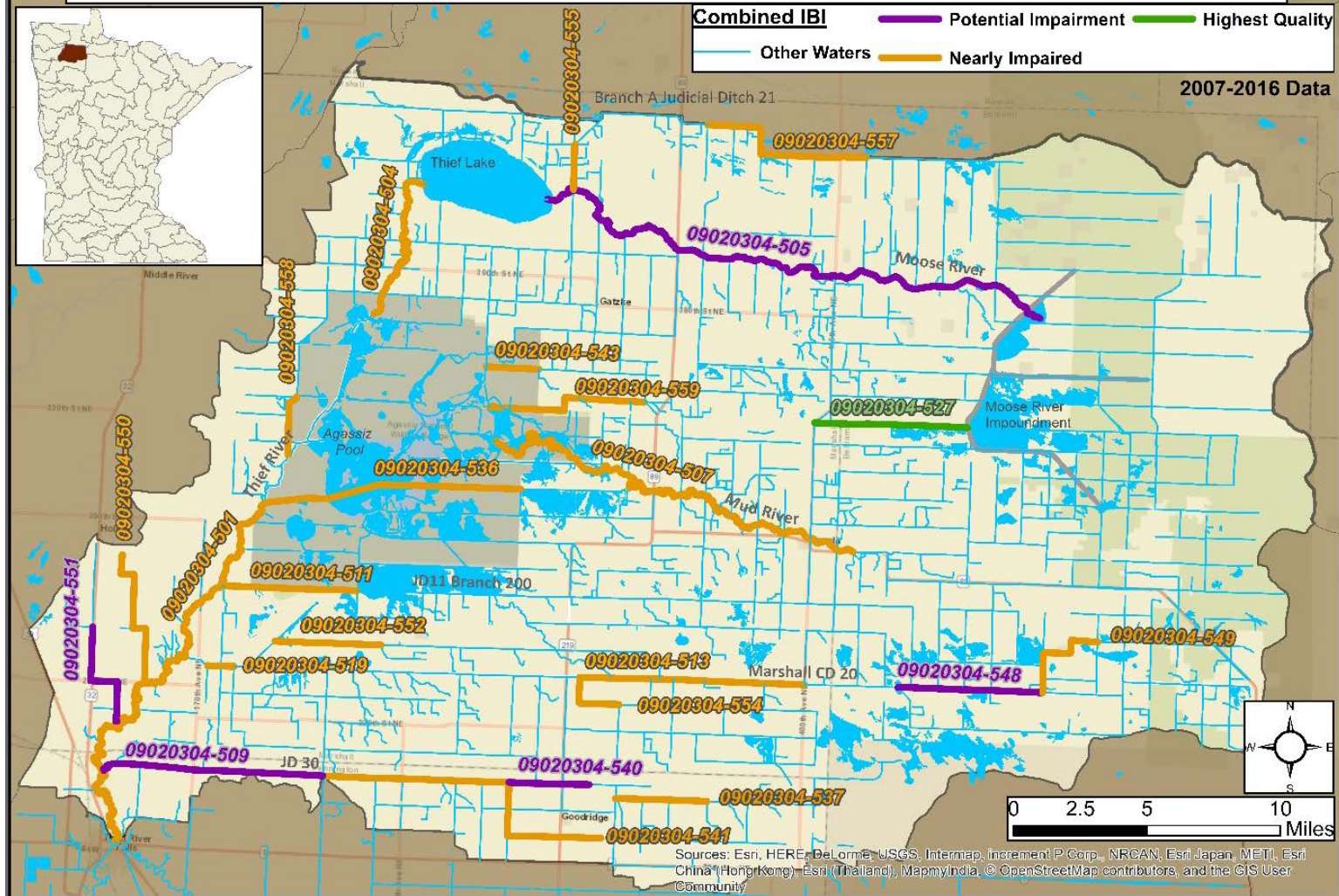
Thief River Watershed - Fish Index of Biological Integrity Prioritization of Waters for Restoration and Protection



Thief River Watershed - Macroinvertebrate Index of Biological Integrity Prioritization of Waters for Restoration and Protection



Thief River Watershed - Index of Biological Integrity Categorization of Waters for Restoration and Protection



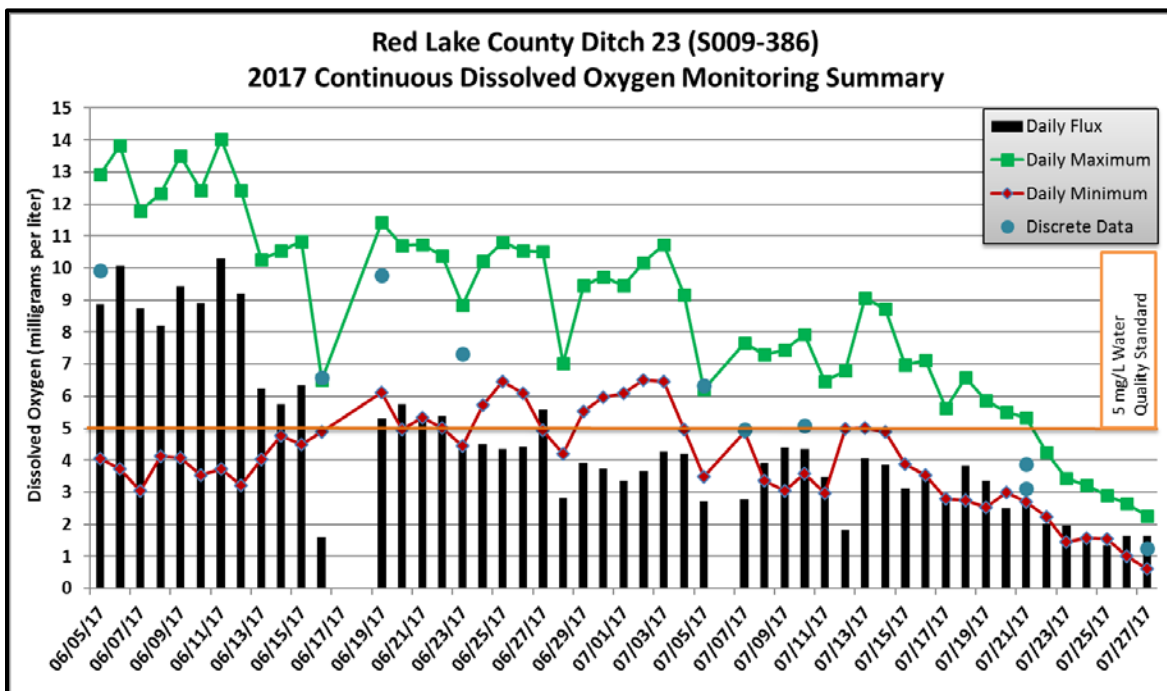
Red Lake River One Watershed One Plan (1W1P)

The Red Lake River 1W1P has been allocated \$677,551 from the Minnesota Board of Water and Soil Resources Clean Water Funding for implementation of the 1W1P. The Planning Work Group has been meeting periodically to develop an initial work plan that describes how that money will be spent.

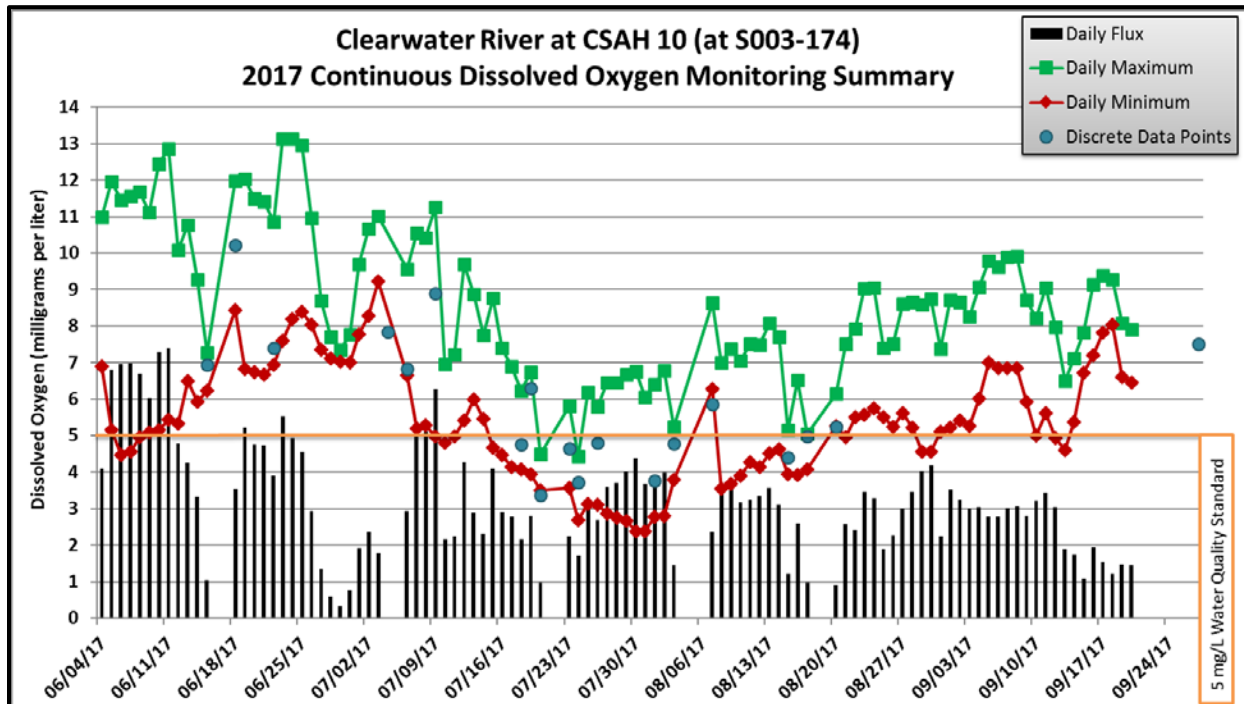
Clearwater River Watershed Restoration and Protection Strategy (WRAPS) Project

A draft work plan and budget for a contract extension were developed in February of 2018. The contract will be extended through March of 2019. Funds remaining in the budgets of completed objectives will be moved to the budget of the report writing objective.

- Objective 8 – Data Analysis
 - Nasset Creek dissolved oxygen data was examined to find clues about what is causing the low dissolved oxygen problem. Dissolved oxygen is okay at the furthest downstream monitoring site, but it is sometimes low at upstream monitoring sites. The creek runs through some beaver ponds in the upstream portions of the stream in which water may be relatively stagnant.
 - Flow data from Clear Brook (collected during a stormwater study) was combined with modeled flows to improve upon the accuracy of *E. coli* TMDL calculations.
 - 2017 dissolved oxygen logger data from Red Lake County Ditch 23 was compiled, corrected, and summarized. Daily minimum dissolved oxygen levels often dropped below the 5 mg/L standard. When flows ceased in the ditch, later in the summer, the daily minimums and maximums were both lower than 5 mg/L.

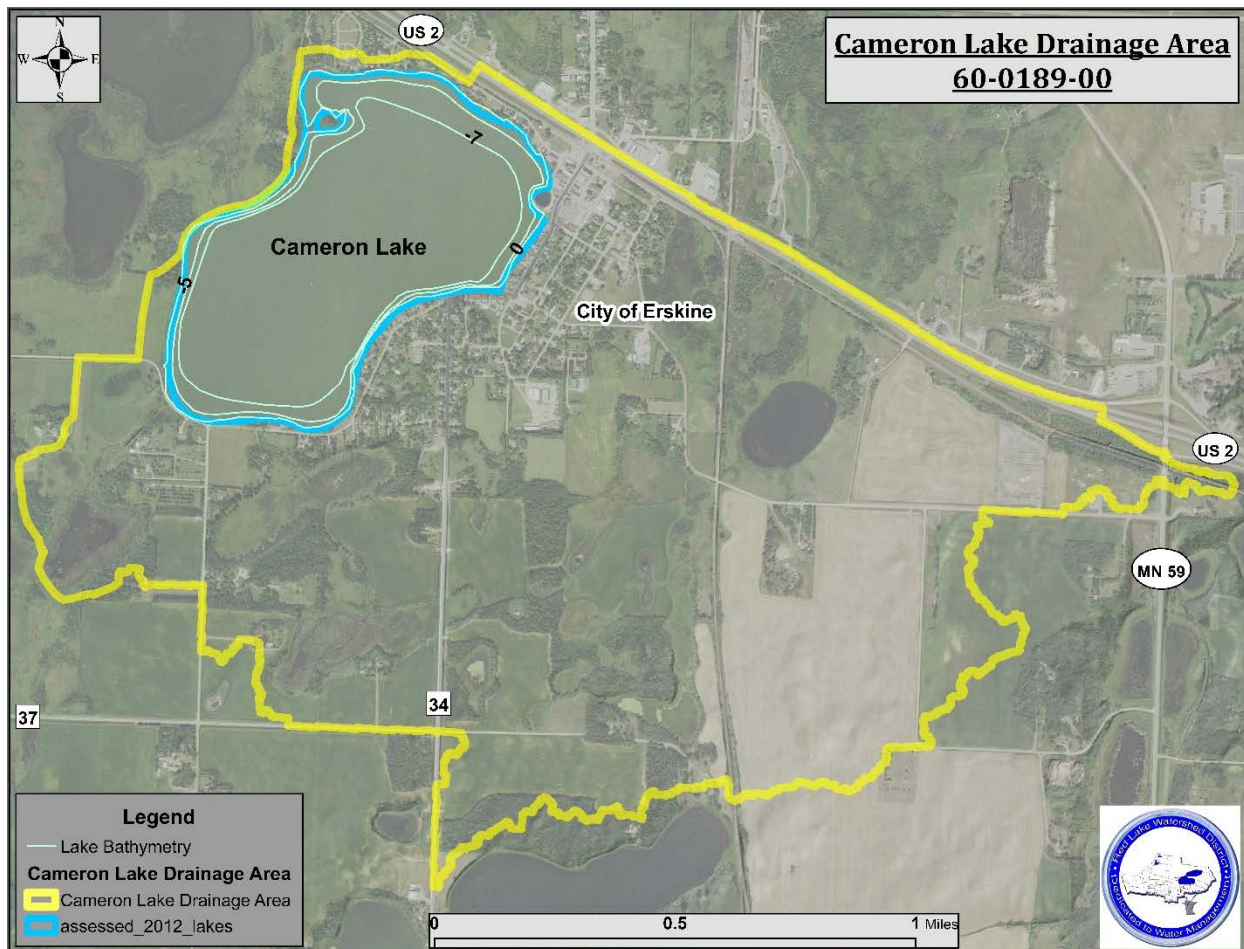


- 2017 dissolved oxygen logger data from the Clearwater River at CSAH 10 was compiled, corrected, and summarized. This site was monitored in response to complaints of late-summer fish kills and other issues like swimmer's itch in the river. Daily minimum dissolved oxygen levels began dropping below the 5 mg/L standard in the late summer, while wild rice paddies were discharging.



- Objective 9 – Civic Engagement
 - Staff from RMB Environmental Laboratories obtained MP3 audio files of the completed Water Minutes (read by Joel Heitkamp). District staff shared them with other local agency staff.
- Objective 10 – Reports
 - TMDL Section 4.4.8: Causes of low dissolved oxygen in Nasset Creek (Assessment Unit 09020305-545)
 - TMDL Section 4.4.10: Causes of low dissolved oxygen in the Lost River (Assessment Unit 09020305-645, Anderson Lake to CSAH 28)
 - TMDL Section 4.4.9: Causes of low dissolved oxygen in Judicial Ditch 73 (Assessment Unit 09020305-550)
 - TMDL Section 1.3: Priority Ranking
 - An impaired waters table was created for Section 1.2 of the TMDL.
 - A table was created to show the seasonality of *E. coli* concentrations in impaired streams of the Clearwater River watershed (total of 58 impairments).
 - TMDL Section 4.3.4: Stressors of fish index of biological integrity in a tributary of the Poplar River Diversion (Gerdin Lake outlet channel, AUID 09020305-561).
 - TMDL Section 4.3.6: Stressors of fish index of biological integrity in Beau Gerlot Creek (AUID 09020305-652).

- TMDL Section 4.3.7: Stressors of macroinvertebrate index of biological integrity in Beau Gerlot Creek (AUID 09020305-652).
- Information was added to Section 2.5.2 of the WRAPS (Protection Considerations for the Middle Clearwater River HUC10 Subwatershed).
- TMDL Section 4.4.4: Causes of Low Dissolved Oxygen in Clear Brook (AUID 09020305-652).
- Section 3.2, Lake Characterization (Cameron Lake portion)
 - Drainage area delineation
 - Map of the Cameron Lake drainage area



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The following table shows the months in which exceedances of the *E. coli* standard have occurred, flow levels at which they have occurred, and possible sources of excess bacteria.

| <i>E. coli</i> Seasonality | | Timing of Exceedances (Flow) | | | | | | | | Seasonal Variation | | | | | Identifiable Sources | | | | |
|----------------------------|--------------------|-----------------------------------|-----------------|------------|-----------------|-----------|-----------------------------|---------|-------|--------------------|-------|--------|-----------|-----------|----------------------|------------|-----------|-------------------|--|
| Assessment Unit | Stream Name | Flow and Water Quality Station ID | Very High Flows | High Flows | Mid-Range Flows | Low Flows | Very Low Flows (or No Flow) | Unknown | May | June | July | August | September | Livestock | Birds | Stormwater | Waterfowl | Septic/Wastewater | |
| 09020305-502 | Lower Badger Creek | S004-837 | 208.1 | 98.4 | 94.3 | 125.1 | IF | IF | 35.7 | 159.2 | 171.7 | 52.5 | 101.2 | | | | | | |
| 09020305-504 | Poplar River | S007-608 | 206.5 | 104.0 | 62.3 | 83.7 | IF | IF | 23.0 | 145.3 | 226.3 | 101.2 | 78.5 | | | | | | |
| 09020305-512 | Lost River | S007-607 | 190.8 | 100.0 | 93.7 | 124.1 | 28.1 | IF | 7.8 | 80.0 | 139.7 | 117.8 | 47.3 | | | | | | |
| 09020305-513 | Ruffy Brook | S008-057 | 813.0 | IF | 163.6 | IF | IF | IF | 147.3 | 216.6 | 304.5 | 270.0 | 252.8 | | | | | | |
| 09020305-526 | Clear Brook | S004-044 | 66.3 | 155.7 | IF | 9.3 | 140.2 | 16.9 | IF | 128.9 | 111.6 | 73.4 | IF | | | | | | |
| 09020305-527 | Silver Creek | S002-082 | 88.3 | 37.7 | 86.5 | 105.0 | 124.2 | IF | 24.5 | 146.5 | 543.7 | 369.5 | 164.1 | | | | | | |
| 09020305-529 | Lost River | S005-283 | 60.5 | 67.8 | 193.7 | 293.4 | IF | IF | 49.0 | 131.3 | 107.2 | 72.1 | 105.0 | | | | | | |
| 09020305-530 | Lost River | S005-501 | IF | IF | IF | IF | IF | 116.5 | 28.2 | 74.6 | 142.7 | 148.5 | 71.8 | | | | | | |
| 09020305-539 | Hill River | S002-134 | IF | 113.0 | 12.1 | 149.4 | 90.2 | IF | 35.4 | 288.0 | 298.7 | 182.0 | 148.3 | | | | | | |
| 09020305-545 | Nassett Creek | S004-205 | IF | IF | IF | IF | IF | 128.5 | 25.0 | 207.8 | 425.7 | 248.6 | 113.6 | | | | | | |
| 09020305-550 | JD73 | S003-318 | 297.2 | 140.2 | 162.8 | IF | 115.6 | IF | IF | 118.3 | 233.3 | 318.5 | 230.8 | | | | | | |
| 09020305-574 | Terrebonne Creek | S004-819 | 212.1 | IF | IF | IF | 328.9 | 8.1 | 39.4 | 260.8 | 410.1 | 338.0 | 239.8 | | | | | | |
| 09020305-578 | Brooks Creek | S005-506 | IF | IF | IF | IF | IF | 145.6 | IF | 147.6 | 148.9 | 315.2 | IF | | | | | | |
| 09020305-647 | Clearwater River | S002-916 | IF | 65.9 | IF | 120.8 | IF | IF | 12.8 | 77.5 | 112.2 | 164.2 | 91.9 | | | | | | |
| 09020305-651 | Beau Gerlot Creek | S004-816 | IF | 63.4 | 335.8 | 105.0 | IF | 88.9 | 22.2 | 94.2 | 531.1 | 292.0 | 53.8 | | | | | | |

Concentrations are shown in MPN/100ml.
 All concentrations are geometric means.
 Geometric Monthly geometric means were calculated from 2007-2016 data.
 Flow-based geometric means are site-specific (flow monitoring and TMDL calculation sites).
 Monthly geometric means are calculated for aggregate data from all sites along an assessment unit.
 Concentrations greater than 126 MPN/100ml exceed the impairment threshold for monthly geometric means.
 IF = Insufficient Data (<5 samples)
 Highlighted numerical values exceed the 126 MPN/100ml standard.

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The following tables contain a list of the impaired waters within the Clearwater River Watershed.

| Clearwater River Watershed (09020305) Rivers, Streams, and Ditches on the Draft 2018 303(d) List of Impaired Waters | | | | | | | | |
|---|-----------------------|----------------------------------|--|-------------------------|-----------------------|-------------|----------------------------|----------------------------|
| Affected Use: Pollutant/Stressor | Assessment Unit ID | Stream or Lake Name | Location/Reach Description | Designated Use Class | HUC10 Subwatershed | Year Listed | Target Start/Completion | Addressed in This TMDL? |
| <i>Aquatic Recreation: Nutrient/Eutrophication Biological Indicators (Phosphorus)</i> | 04-0295-00 | Long Lake | 85-acre lake, 2 miles north of Pinewood | 2B, 3C | 0902030501 | 2018 | 2016/2019 | Yes |
| | 15-0156-00 | Stony Lake | 67-acre lake, 4 miles south of Gonvick | 2B, 3C | 0902030505 | 2018 | 2016/2019 | Yes |
| | 60-0189-00 | Cameron Lake | 226-acre lake, in Erskine | 2B, 3C | 0902030506 | 2018 | 2016/2019 | Yes |
| <i>Aquatic Recreation: Escherichia coli Bacteria</i> | 09020305-502 | Lower Badger Creek | CD 14 to Clearwater River | 2B, 3C | 0902030506 | 2018 | 2016/2019 | Yes |
| | 09020305-504 | Poplar River | Highway 59 to Lost River | 2B, 3C | 0902030504 | 2018 | 2016/2019 | Yes |
| | 09020305-512 | Lost River | Pine Lake to Anderson Lake | 2B, 3C | 0902030505 | 2018 | 2016/2019 | Yes |
| | 09020305-513 | Ruffy Brook | Headwaters to Clearwater R | 2B, 3C | 0902030502 | 2008 | 2014/2019 | Yes |
| | 09020305-526 | Unnamed Creek (Clear Brook) | Headwaters to Silver Creek | 2B, 3C | 0902030505 | 2018 | 2016/2019 | Yes |
| | 09020305-527 | Silver Creek | Headwaters to Anderson Lake | 2B, 3C | 0902030505 | 2006 | 2014/2019 | Yes |
| | 09020305-529 | Lost River | T148 R38W S17, south line to Pine Lake | 2B, 3C | 0902030505 | 2018 | 2016/2019 | Yes |
| | 09020305-530 | Lost River | Unnamed Cr to T148 R38W S20, north line | 1B, 2Ag, 3B | 0902030505 | 2018 | 2016/2019 | Yes |
| | 09020305-539 | Hill River | Hill River Lake to Lost River | 2B, 3C | 0902030503 | 2018 | 2016/2019 | Yes |
| | 09020305-545 | Unnamed Creek (Nassett Creek) | T148 R38W S28, south line to Lost River | 1B, 2Ag, 3B | 0902030505 | 2018 | 2016/2019 | Yes |
| | 09020305-550 | Judicial Ditch 73 | Unnamed ditch (Near 187th Ave SE) to Tamarack Lk | 2B, 3C | 0902030506 | 2018 | 2016/2019 | Yes |
| | 09020305-574 | Terrebonne Creek | CD 4 to CD 58 | 2B, 3C | 0902030507 | 2010 | 2014/2019 | Yes |
| | 09020305-578 | Brooks Creek | Unnamed cr to Hill River | 2B, 3C | 0902030503 | 2018 | 2016/2019 | Yes |
| | 09020305-647 | Clearwater River | Ruffy Brook to JD1 | 2B, 3C | 0902030502 | 2018 | 2016/2019 | Yes |
| | 09020305-651 | Beau Gerlot Creek | Upper Badger Cr to -96.1947 47.8413 | 2B, 3C | 0902030507 | 2018 | 2016/2019 | Yes |

RED LAKE WATERSHED DISTRICT MONTHLY WATER QUALITY REPORT

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| Clearwater River Watershed (09020305) Rivers, Streams, and Ditches on the Draft 2018 303(d) List of Impaired Waters | | | | | | | | |
|---|-------------------------|--|--|-------------------------|-----------------------|-----------------|----------------------------|----------------------------|
| Affected Use: Pollutant/Stressor | Assessment Unit ID | Stream or Lake Name | Location/Reach Description | Designated Use Class | HUC10 Subwatershed | Year Listed | Target Start/Completion | Addressed in This TMDL? |
| Aquatic Life: Total Suspended Solids/Turbidity | 09020305-501 | Clearwater River | Lower Badger Creek to Red Lake River | 2B, 3C | 0902030507 | 2006 | 2014/2019 | Yes |
| | 09020305-510 | Clearwater River | Ruffy Brook to Lost River | 2B, 3C | 0902030502 | 2010 | 2014/2019 | No* |
| | 09020305-511 | Clearwater River | Lost R to Beau Gerlot Crk | 2B, 3C | 0902030507 | 2008 | 2014/2019 | Yes |
| | 09020305-545 | Unnamed Creek (Nassett Creek) | T148 R38W S28, south line to Lost River | 1B, 2Ag, 3B | 0902030505 | 2018 | 2016/2019 | Yes |
| | 09020305-647 | Clearwater River | Ruffy Brook to JD1 | 2B, 3C | 0902030502 | 2008 | 2014/2019 | Yes |
| | 09020305-648 | Clearwater River | JD1 to Lost River | 2B, 3C | 0902030502 | 2008 | 2014/2019 | Yes |
| Aquatic Life: Low Dissolved Oxygen | 09020305-508 | (Red Lake) County Ditch 57 | Unnamed ditch to Clearwater River | 2B, 3C | 0902030507 | 2002 | n/a | No**** |
| | 09020305-509 | Walker Brook | Walker Brook Lake to Clearwater River | 2B, 3C | 0902030501 | 2002 | n/a | No***** |
| | 09020305-517 | Clearwater River | Headwaters to T148 R36W S36, east line | 2B, 3C | 0902030501 | 2006 | 2014/2019 | No*** |
| | 09020305-518 | Poplar River | Spring Lake to Highway 59 | 2B, 3C | 0902030504 | 2002 | 2014/2019 | No*** |
| | 09020305-526 | Unnamed Creek (Clear Brook) | Headwaters to Silver Creek | 2B, 3C | 0902030505 | 2018 | 2016/2019 | No*** |
| | 09020305-529 | Lost River | T148 R38W S17, south line to Pine Lake | 2B, 3C | 0902030505 | 2006 | 2014/2019 | No*** |
| | 09020305-541 | Unnamed Creek (Bee Lake Inlet) | Eighteen Lake to Bee Lake | 2B, 3C | 0902030506 | 2006 | n/a | No**** |
| | 09020305-542 | Unnamed Creek (Poplar River Div.) | Mitchell Lake to Badger Lake | 2B, 3C | 0902030506 | 2006 | n/a | No**** |
| | 09020305-543 | Poplar River Diversion | Unnamed ditch to Badger Lk | 2B, 3C | 0902030506 | 2006 | 2014/2019 | No***** |
| | 09020305-545 | Unnamed Creek (Nassett Creek) | T148 R38W S28, south line to Lost River | 1B, 2Ag, 3B | 0902030505 | 2018 | 2016/2019 | No*** |
| | 09020305-550 | Judicial Ditch 73 | Unnamed ditch (Near 187th Ave SE) to Tamarack Lk | 2B, 3C | 0902030506 | 2018 | 2016/2019 | No*** |
| | 09020305-645 | Lost River | Anderson Lake to Unnamed Cr | 2B, 3C | 0902030505 | 2018 | 2016/2019 | No*** |
| | 09020305-656 | Hill River | Unnamed Cr to Hill River Lake | 2B, 3C | 0902030503 | 2018 | 2016/2019 | No*** |

*This specific reach is not listed on the draft 2016 List of Impaired waters because it has been recommended for delisting (meets standards) or because it has been split into multiple reaches that now have unique AUIDs.

**Mercury impairments have been addressed by a statewide mercury TMDL that was approved by the EPA in 2007: <https://www.pca.state.mn.us/sites/default/files/wq-iw4-01b.pdf>

***An examination of data and physical features of the watercourse's drainage area revealed that the impairment is caused by non-pollutant factors.

****EPA category changed from 5 to 3. AUID was removed from the Draft 2018 List of Impaired Waters

*****EPA category changed from 5 to 4D. AUID was removed from the Draft 2018 List of Impaired Waters

*****EPA category changed to 4C. AUID will remain on the Draft 2018 List of Impaired Waters, but a TMDL is not required.

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| Clearwater River Watershed (09020305) Rivers, Streams, and Ditches on the Draft 2018 303(d) List of Impaired Waters | | | | | | | | |
|---|-------------------------|---|--|-------------------------|---------------------------------------|-----------------|----------------------------|----------------------------|
| Affected Use: Pollutant/Stressor | Assessment Unit ID | Stream or Lake Name | Location/Reach Description | Designated Use Class | HUC10 Subwatershed | Year Listed | Target Start/Completion | Addressed in This TMDL? |
| Aquatic Life: Poor Fish Index of Biological Integrity | 09020305-518 | Poplar River | Spring Lake to Highway 59 | 2B, 3C | 0902030504 | 2018 | 2016/2019 | No*** |
| | 09020305-539 | Hill River | Hill River Lake to Lost River | 2B, 3C | 0902030503 | 2018 | 2016/2019 | No*** |
| | 09020305-561 | Unnamed creek (Tributary to Poplar River Diversion) | Gerdin Lake to Poplar River Diversion | 2B, 3C | 0902030506 | 2018 | 2016/2019 | No*** |
| | 09020305-645 | Lost River | Anderson Lake to Unnamed Cr | 2B, 3C | 0902030505 | 2018 | 2016/2019 | No*** |
| | 09020305-652 | Beau Gerlot Creek | -96.1947 47.8413 to Clearwater River | 2B, 3C | 0902030507 | 2018 | 2016/2019 | No*** |
| | 09020305-656 | Hill River | Unnamed Cr to Hill River Lake | 2B, 3C | 0902030503 | 2018 | 2016/2019 | No*** |
| | 09020305-658 | (Red Lake) County Ditch 23 | -96.1479 47.8855 to Clearwater River | 2B, 3C | 0902030507 | 2018 | 2016/2019 | No*** |
| Aquatic Life: Poor Aquatic Macroinvertebrate Index of Biological Integrity | 09020305-518 | Poplar River | Spring Lake to Highway 59 | 2B, 3C | 0902030504 | 2018 | 2016/2019 | No*** |
| | 09020305-527 | Silver Creek | Headwaters to Anderson Lake | 2B, 3C | 0902030505 | 2018 | 2016/2019 | No*** |
| | 09020305-652 | Beau Gerlot Creek | -96.1947 47.8413 to Clearwater River | 2B, 3C | 0902030507 | 2018 | 2016/2019 | No*** |
| Aquatic Life: Nutrient/Eutrophication Biological Indicators (Phosphorus) | 09020305-647 | Clearwater River | Ruffy Brook to JD1 | 2B, 3C | 0902030502 | 2018 | 2016/2019 | Yes |
| Aquatic Consumption: Mercury in Fish Tissue | 15-0149-00 | Pine Lake | 1240-acre lake, 2.5 miles south of Gonvick | 2B, 3C | 0902030505 | 2006 | 2008/2021 | No** |
| | 09020305-510 | Clearwater River | Ruffy Brook to Lost River | 2B, 3C | 0902030502 | 1998 | 2007/2008 | No* |
| | 09020305-514 | Clearwater River | Clearwater Lake to Ruffy Brook | 2B, 3C | 0902030501, 0902030502 | 1998 | 2007/2008 | No* |
| | 09020305-516 | Clearwater River | T148 R35W S31, west line to Clearwater Lake | 1B, 2A, 3B | 0902030501 | 1998 | 2007/2008 | No* |
| | 09020305-647 | Clearwater River | Ruffy Brook to JD1 | 2B, 3C | 0902030502 | 1998 | 2007/2008 | No** |
| | 09020305-648 | Clearwater River | JD1 to Lost River | 2B, 3C | 0902030502 | 1998 | 2007/2008 | No** |
| | 09020305-649 | Clearwater River | Clearwater Lake to Unnamed Creek | 2B, 3C | 0902030501 | 1998 | 2007/2008 | No** |
| | 09020305-653 | Clearwater River | T148 R35W S31, west line to Unnamed Cr | 1B, 2Ag, 3B | 0902030501 | 1998 | 2007/2008 | No** |
| | 09020305-654 | Clearwater River | Unnamed cr to Clearwater Lk | 1B, 2Ag, 3B | 0902030501 | 1998 | 2007/2008 | No** |
| 09020305-650 | Clearwater River | Unnamed cr to Ruffy Brook | 2B, 3C | 0902030502 | 1998 | 2007/2008 | No** | |
| ‡This specific reach is not listed on the draft 2016 List of Impaired waters because it has been recommended for delisting (meets standards) or because it has been split into multiple reaches that now have unique AUIDs. | | | | | | | | |
| **Mercury impairments have been addressed by a statewide mercury TMDL that was approved by the EPA in 2007: https://www.pca.state.mn.us/sites/default/files/wq-iw4-01b.pdf | | | | | | | | |
| ***An examination of data and physical features of the watercourse's drainage area revealed that the impairment is caused by non-pollutant factors. | | | | | | | | |
| ****EPA category changed from 5 to 3. AUID was removed from the Draft 2018 List of Impaired Waters | | | | | | | | |
| *****EPA category changed from 5 to 4D. AUID was removed from the Draft 2018 List of Impaired Waters | | | | | | | | |

Other Notes

- Edits were made to a water quality training presentation about water quality parameters to shorten the length of the presentation. Ashley Hitt gave the presentation at the training session this year.
- A water quality report for the months of September and October of 2017 was completed.
- Water quality related notes from the February 8, 2018 Red Lake Watershed District Board of Mangers meeting:
 - The District agreed to assist the West Polk SWCD for the Red Lake River One Watershed One Plan Ditch Inventory Project, that would identify sites in need of side water inlet culverts within Polk County ditches. Pennington County SWCD received a Clean Water Fund Drainage Ditch Inventory Grant and were able to transfer the remaining funds to the West Polk SWCD. Administrator Jesme state that the grant in the amount of \$44,540.82 requires a 25% match. Jesme indicated that under the Red Lake River One Watershed One Plan concept, this project would identify sites for erosion control/sediment reduction projects, that could be funded under the District's Erosion Control Funds, RLWD Project No. 164. The Board voted to approve the 25% match for the Red Lake River One Watershed One Plan Ditch Inventory Project (not to exceed \$12,500).
 - The Board reviewed a letter from the City of Thief River Falls regarding the development of a pilot project to explore a flexible permitting requirement for the Thief River Falls municipal wastewater treatment system. Administrator Jesme stated that the wastewater treatment system releases high phosphates into the Red Lake River, but when they look at the upstream and downstream water numbers it has no effect on the water quality. Jesme stated that the MPCA can require that the city improve the phosphate limits. The City is proposing a potential project within the Red Lake River subwatershed, to implement with the District, to find a project that will provide "more bang for the buck", rather than buy low-value/high-cost upgrades to the waste water treatment system. Administrator Jesme stated that the District could complete a PTMapp study that would determine locations to reduce sediment loads within the subwatershed. It was the consensus of the Board to gather more information and report back to the Board.
 - Staff member Loren Sanderson that the Sportsman Club notified that aeration on Pine Lake will begin next week due to low oxygen levels. The District is the permit holder for the aeration permit, with the Sportsman Club responsible for notification, signage and operation.
- Based upon discussion with local agencies (including the RLWD, Red Lake DNR, and the International Water Institute), the MPCA is making some changes to that way that the Surface Water Assessment Grant program is managed.
 - Budgeting for equipment and supplies may be more flexible. Unlike other programs, SWAG grants have required itemization of expenses for the smallest of items and required a change order for the purchase of anything that was slightly different than the specific things listed in the work plan. They are planning to change that system to only require line itemization for purchases over \$500.

- Staffing costs will be broken down by person rather than objective. This is being done in an attempt to eliminate the need for moving funds from one objective to another through contract amendments.
- Contracts will no longer require lake and stream sample analysis to be reported as separate line items.
- Minnesota Board of Water and Soil Resources (BWSR) staff compiled a list of themes, lessons learned, and actions that could improve the 1W1P process from their notes that were compiled during the December 2017 1W1P/WRAPS focus group meeting in Rogers (attended by a member of the District staff).
 - Lessons Learned:
 - Resolution process is beneficial to LGUs.
 - Early conversations or activities (e.g. Bus tour of watershed) during pre-planning help to strengthen relationships.
 - Exit interviews of LGUs (and state agency staff) involved in a 1W1P process by non-BWSR staff can help strengthen the program and help identify adaptations needed.
 - Actions related to the 1W1P policy committee:
 - Associations (AMC, MAWD, MASWCD, etc.) could send letters to constituents that explain reasons for support of the 1W1P program and benefits of participating. The letters could remind everyone about background of program (Local Government Water Round Table). This should include commenting on the pilot watershed-based funding. Note: it is particularly important for county commissioners to understand the benefits to their organization from participation in multiple watershed plans versus one county water plan.
 - Allow the expenditure of planning grant dollars to hire an unbiased, external facilitator in addition to a plan writer consultant (may be within same consulting firm, but someone specifically assigned to facilitate based on their background and expertise in facilitating). While this is a current eligible use of funds, this should be made more explicit and encouraged. BWSR guidance should be developed to help planning groups determine if they need a facilitator, as all groups may not need one. Note: Depending on the people involved, we (BWSR) have heard that a facilitator could be used for ~30-60% of meetings and may be needed for multiple committees.
 - BWSR document "Operating Procedures" should be revised to include:
 - Better descriptions of options for governance structures
 - A description of each individual board's role in 1W1P development and implementation
 - How individual boards interact with the 1W1P Policy Committee
 - Actions related to the role and influence of BWSR:
 - The planning grant RFP process is being reevaluated and adapted to be more transparent and to encourage more information sharing/pre-planning to occur before applying for a grant.

- Develop more BWSR staff training/guidance on items they assist with during scoping and other 1W1P planning stages.
- Actions related to the role of a consultant:
 - BWSR should assist LGUs/planning groups with selecting and managing a consulting firms.
- Actions related to preparation for a 1W1P process
 - BWSR staff should be more intentional about informing local partners that they are available to attend Board meetings to share information on the 1W1P program early in the pre-planning process. Note: this could include development of a presentation w/"myth-busters" as well as statements that address why LGUs should participate in the 1W1P program.
 - Current discussions of adaptations to the RFP process should encourage more pre-planning conversations.
- Actions related to coordination between the 1W1P and WRAPS processes:
 - BWSR and MPCA should continue to explore opportunities to streamline planning processes and avoid duplication.
 - Examine ways to connect public participation processes in the WRAPS and 1W1P programs. This should include ideas for involving potential 1W1P Policy Committee members before the 1W1P process begins.

February 2018 Meetings and Events

- **February 2, 2018** – Thief River One Watershed One Plan Coordination Call
- **February 5, 2018** – Red Lake River One Watershed One Plan meeting at the Pennington Soil and Water Conservation District
- **February 7, 2018** – River Watch Forum at the Alerus Center
- **February 8, 2018** – Thief River 1W1P Prioritization Matrix phone conference
- **February 14, 2018** – Thief River 1W1P Meeting (Policy Committee, Advisory Committee, and Planning Work Group)
 - Priority Issues
 - Introduction
 - Protection and restoration strategies
 - Identify and prioritize issues
 - Altered hydrology
 - Capital projects
 - Strategies and actions
 - PTMApp
 - Governance
- **February 15, 2018** – East Polk County SWCD Annual Planning Meeting
 - Maps of Clearwater River Watershed water quality impairments were printed and shared with the group.
 - The group was very interested in finding ways to improve water quality in Cameron Lake (an impaired lake).

- The group was also interested in expanding sediment basin implementation from the Sand Hill river Watershed to the Clearwater River Watershed.
- **February 21, 2018** – Red Lake River 1W1P Policy Committee meeting (Corey Hanson)
- **February 21, 2018** – 15th Annual Red River Basin Water Quality Monitoring Training (Ashley Hitt and Christina Slowinski)
 - Water Quality Parameters and What They Mean (Ashley Hitt, RLWD)
 - Why We Sample and What These Data are Used for (Evelyn Ashiamah, MPCA)
 - Standard Operating Procedures (Danni Halvorson, IWI)
 - AIS and Infested Water Sampling (Andy Ulven, IWI)
 - Lab Quality Control and Chain of Custody (Moriya Rufer, RMB Labs)
 - Hands-on, break-out sessions for sonde calibration and collection of field measurements
 - Certification test
- **February 27, 2018** – Thief River 1W1P phone conference
- **February 27, 2018** – Bartlett Lake Meeting at the Northome City Hall (Brian Dwight attended)

Quote of the Month:

“Hungry dogs run faster.”
- Jason Kelce

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

Learn more about the Red Lake Watershed District at www.redlakewatershed.org.

Learn more about the watershed in which you live (Red Lake River, Thief River, Clearwater River, Grand Marais Creek, or Upper/Lower Red Lakes) at www.rlwdwatersheds.org.

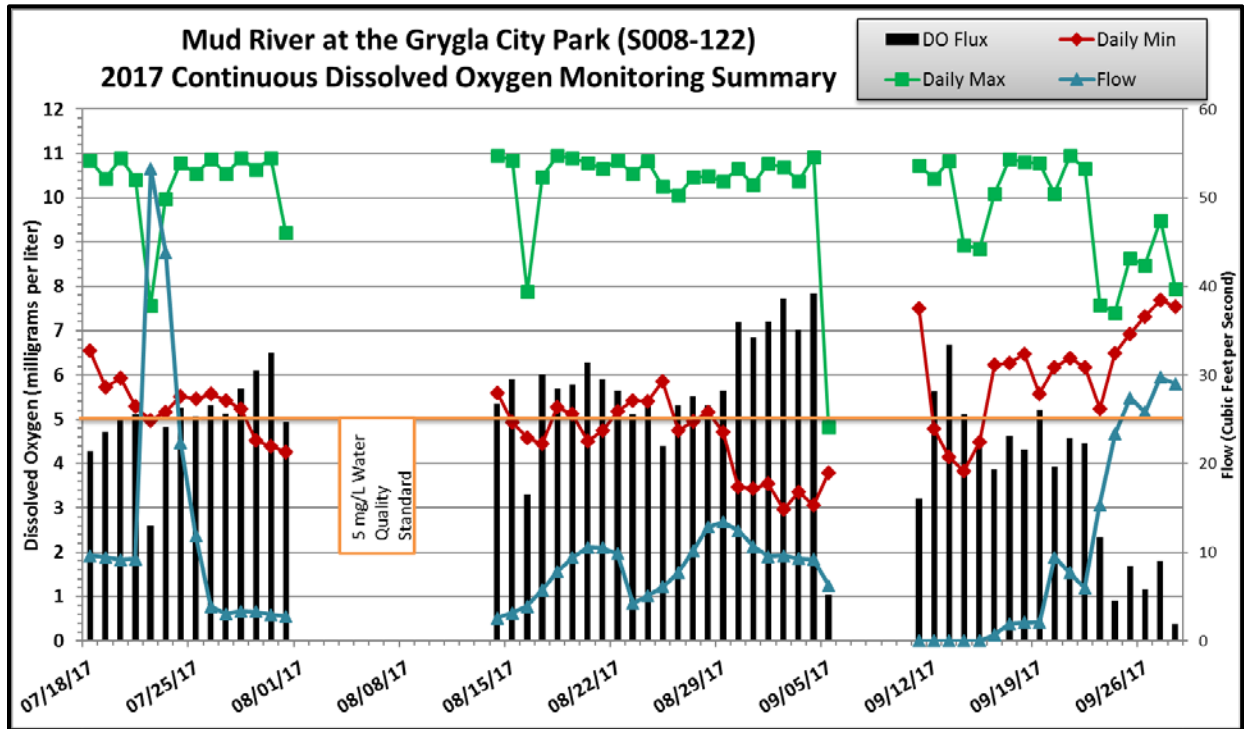
“Like” the Red Lake Watershed District on [Facebook](https://www.facebook.com/redlakewatershed) to stay up-to-date on RLWD reports and activities.

By Corey Hanson, Red Lake Watershed District Water Quality Coordinator. 4/18/2018.

- ✓ Continuous dissolved oxygen monitoring results from the 2017 monitoring season
- ✓ Clearwater River Watershed Restoration and Protection Strategy Project
- ✓ Thief River Falls Stormwater Water Quality Study
- ✓ Clearwater River Watershed Lakes Stressor Identification Report

Red Lake Watershed District Long-Term Monitoring Program

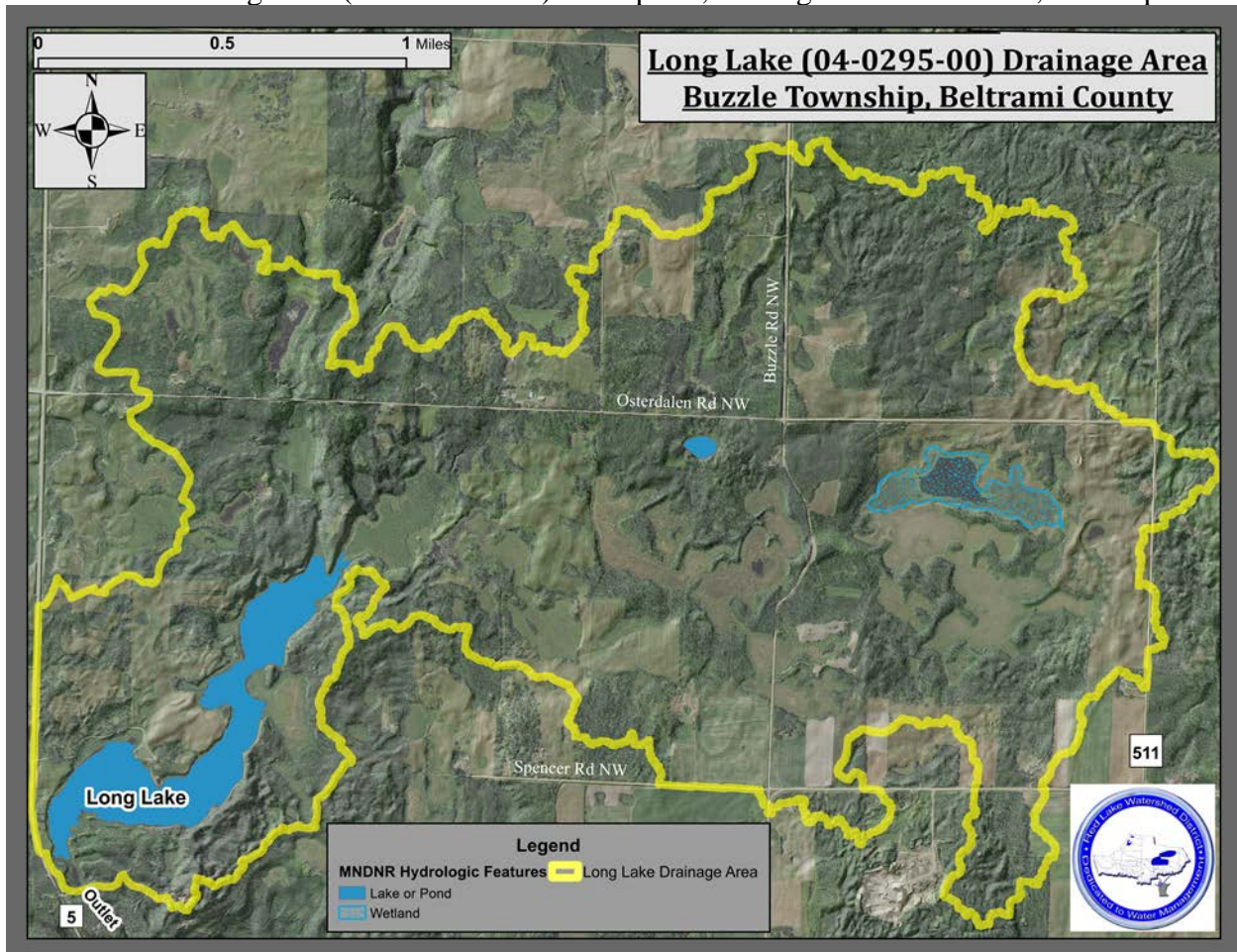
2017 dissolved oxygen logger data from the Mud River in Grygla was compiled, corrected, and summarized. Dissolved oxygen levels frequently (21 of 50 days with flow, 42%) dropped below 5 mg/L. As shown in the following chart, low dissolved oxygen levels typically coincided with low flows. Flow dropped to zero cubic feet per second at Highway 89 for five days in September.



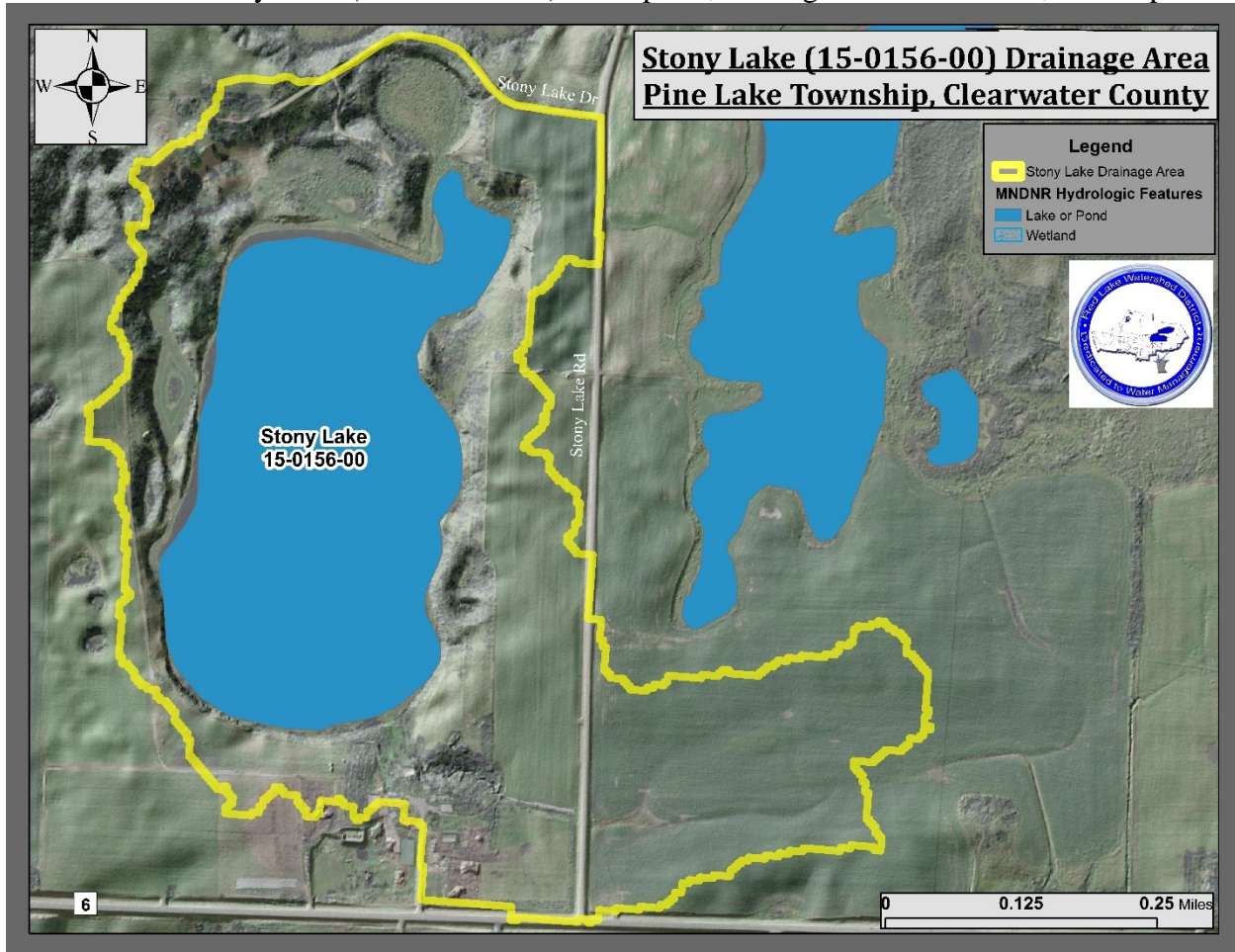
Clearwater River Watershed Restoration and Protection Strategy (WRAPS) Project

- Objective 10 – Reports
 - Streams in the Clearwater River Watershed were classified for the prioritization of restoration and protection efforts using impairment status, fish index of biological integrity scores, macroinvertebrate index of biological integrity scores, *E. coli* data, dissolved oxygen, total phosphorus, Minnesota Stream Habitat Assessment scores, and total suspended solids data. Lakes were classified for restoration or protection priorities based on impairment status, total phosphorus

- data, chlorophyll-a data, and Secchi disk transparency data.
- A monitoring plan was written for inclusion in the Clearwater River WRAPS and TMDL reports. Maps of long term water quality and flow monitoring sites were created for that section.
 - A map of Pfankuch streambank stability rating results was created.
 - District staff reviewed a stressor identification report that was described the results of an investigation of factors that could be negatively affecting biology in Cross Lake and Hill River Lake. Neither Lake was officially impaired, but the lakes were relatively close to violating standards.
 - When completed, Section 3.1 of the Clearwater River WRAPS was shared with core team members.
 - Comments on Section 3.1 were received from MN DNR staff and the WRAPS report was edited to address those comments.
 - Long Lake (near Pinewood) description, drainage area delineation, and maps.



- Stony Lake (near Pine Lake) description, drainage area delineation, and maps.



- MN DNR staff provided the District with a draft Clearwater River Watershed Fluvial Geomorphology Report and shared a completed Upper/Lower Red Lakes Watershed Fluvial Geomorphology Report. District staff reviewed the Clearwater River geomorphology report and added information from the report to sections in the WRAPS report about protection considerations, sediment sources, targeting of geographic areas, and restoration/protection strategies.

RED LAKE WATERSHED DISTRICT MONTHLY WATER QUALITY REPORT

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Summary of methods used for a data-based categorization and prioritization of streams for restoration and protection:

| Parameter: | Total Suspended Solids | <i>E. coli</i> Bacteria | Dissolved Oxygen | River Total Phosphorus and River Eutrophication | Fish Index of Biological Integrity | Macro-invertebrate Index of Biological Integrity | Habitat Minimum MSHA | Pfankuch Stability |
|-------------------------------|------------------------|-------------------------|---|---|--------------------------------------|--|---|---|
| Statistical Measurement: | Exceedance rate | Maximum monthly geomean | Percentage of days with <5 mg/L daily minimums (DO_5) | Summer average TP, BOD, Chl-a, and/or DO Flux | IBI score minus impairment threshold | IBI score minus impairment threshold | Minnesota Stream Habitat Assessment (MSHA) score & rating | Pfankuch stability rating |
| Poor Quality (not impaired) = | n/a | n/a | >10% | n/a | <0 | <0 | Poor score (<45), no IBI impairment | <0 |
| Restoration (Impaired) = | >12.5% | >157.5 | >15% | >(125% of Std) | <-21.7 | <-12.89 | Poor score (<45) & IBI Impairment | TSS Impairment & Unstable |
| Nearly Restored (Impaired) = | 10%<x<12.5 % | 126<x<157.5 | 10%<x<15% | Std<x<(125% of Std) | <0 | -12.89<x<0 | Fair score (<66) or better and an IBI impairment | TSS impairment & moderately unstable |
| Nearly Impaired = | 7.5%<x<10% | 94.5<x<126 | >5% | >Std | <10.85 | 0<x<12.89 | Fair score (45<MSHA<66) | No TSS impairment & moderately unstable, unstable, or mixed results |
| Highest Quality = | <7.5% | <94.5 | <5% | <(75% of Std) | >10.85 | >12.89 | Good score (>66) | Stable |

RED LAKE WATERSHED DISTRICT MONTHLY WATER QUALITY REPORT

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Categorization and prioritization of streams for restoration and protection (AUIDs '501 through '523):

| Assessment Unit ID | Waterbody Name | Reach Description | River Nutrient Region (Applied to Local Planning) | Total Suspended Solids | E. coli Bacteria | Dissolved Oxygen | River Total Phosphorus and River Eutrophication | Fish Index of Biological Integrity | Macro-invertebrate Index of Biological Integrity | Habitat Minimum MSHA | Pfankuch Stability |
|---|------------------|--|---|----------------------------|----------------------------|------------------------|---|------------------------------------|--|------------------------------------|---------------------|
| 09020305-501 | Clearwater River | Lower Badger Cr to Red Lake R | Central | Restoration (Impaired) | Highest Quality | Highest Quality | Nearly Impaired | | | 63, Fair | Unstable |
| 09020305-502 | Lower Badger Crk | CD 14 to Clearwater R | Central | Nearly Impaired | Restoration (Impaired) | Highest Quality | Highest Quality | Nearly Impaired | Nearly Impaired | 48.6, Fair | |
| 09020305-504 | Poplar River | Highway 59 to Lost R | Central | Highest Quality | Restoration (Impaired) | Nearly Impaired | Nearly Impaired | Highest Quality | Nearly Impaired | 69.3, Good | |
| 09020305-508 | County Ditch 57 | Unnamed ditch to Clearwater R | Central | Highest Quality | Nearly Impaired | Poor Quality | Nearly Impaired | | | | |
| 09020305-509 | Walker Brook | Walker Brook Lk to Clearwater R | North | | | Poor Quality | | | | | |
| 09020305-511 | Clearwater River | Lost R to Beau Gerlot Cr | Central | Nearly Restored (Impaired) | Nearly Impaired | Highest Quality | Nearly Impaired | Highest Quality | Highest Quality | 57.8, Fair | Moderately Unstable |
| 09020305-512 | Lost River | Pine Lk to Anderson Lk | Central | Highest Quality | Nearly Restored (Impaired) | Highest Quality | Highest Quality | Nearly Impaired | Nearly Impaired | 66.5, Good | |
| 09020305-513 | Ruffy Brook | Headwaters to Clearwater R | Central | Highest Quality | Restoration (Impaired) | Nearly Impaired | Nearly Impaired | Highest Quality | Nearly Impaired | 73.8, Good | |
| 09020305-517 | Clearwater River | Headwaters to T148 R36W S36, east line | North | Highest Quality | Nearly Impaired | Restoration (Impaired) | Nearly Impaired | | | | |
| 09020305-518 | Poplar River | Spring Lk to Highway 59 | Central | Highest Quality | Nearly Impaired | Restoration (Impaired) | Nearly Impaired | Nearly Restored (Impaired) | Restoration (Impaired) | 52.9, Fair | Stable |
| 09020305-523 | Polk CD 14 | Maple Lake to Lower Badger Cr | Central | Highest Quality | Highest Quality | Highest Quality | Highest Quality | Nearly Impaired | Nearly Impaired | 43, Poor | |
| Poor Quality = AUID failed to meet numerical standards due to non-pollutant factors, but it is not on the Draft 2018 List of Impaired Waters. | | | | | | | | | | Poor quality | |
| Restoration (Impaired) = AUID is listed on the Draft 2018 List of Impaired Waters | | | | | | | | | | Poor quality and Impaired | |
| Nearly Restored = AUID failed to meet numerical standards, but is relatively close to the impairment threshold | | | | | | | | | | Fair to Good quality and impaired | |
| Nearly Impaired = AUID met numerical standards, but only by a small margin | | | | | | | | | | Poor to fair quality, not impaired | |
| Highest Quality = AUID met numerical standards by a relatively significant margin | | | | | | | | | | Good quality, not impaired | |

RED LAKE WATERSHED DISTRICT MONTHLY WATER QUALITY REPORT

March 2018

| Assessment Unit ID | Waterbody Name | Reach Description | River Nutrient Region (Applied to Local Planning) | Total Suspended Solids | E. coli Bacteria | Dissolved Oxygen | River Total Phosphorus and River Eutrophication | Fish Index of Biological Integrity | Macro-invertebrate Index of Biological Integrity | Habitat Minimum MSHA | Pfankuch Stability |
|---|--------------------------------|---|---|----------------------------|----------------------------|------------------------|---|------------------------------------|--|------------------------------------|-----------------------------|
| 09020305-526 | Unnamed Creek (Clear Brook) | Headwaters to Silver Cr | Central | Highest Quality | Nearly Restored (Impaired) | Restoration (Impaired) | Nearly Impaired | | | | |
| 09020305-527 | Silver Creek | Headwaters to Anderson Lk | North | Nearly Impaired | Restoration (Impaired) | Highest Quality | Nearly Impaired | Nearly Impaired | Nearly Restored (Impaired) | 56.1, Fair | Stable, Moderately Unstable |
| 09020305-529 | Lost River | T148 R38W S17, south line to Pine Lk | Central | Highest Quality | Restoration (Impaired) | Restoration (Impaired) | Highest Quality | Highest Quality | Highest Quality | 53, Fair | |
| 09020305-530 | Lost River | Unnamed cr to T148 R38W S20, north line | Central | | Restoration (Impaired) | Nearly Impaired | | | | 48.7, Fair | |
| 09020305-539 | Hill River | Hill River Lk to Lost R | Central | Highest Quality | Restoration (Impaired) | Highest Quality | Highest Quality | Nearly Restored | Nearly Impaired | 59.5, Fair | |
| 09020305-541 | Unnamed Creek (Bee Lake Inlet) | Eighteen Lk to Bee Lk | Central | | | Poor Quality | | | | | |
| 09020305-542 | Unnamed Creek (JD73) | Mitchell Lk to Badger Lk | Central | | | Poor Quality | | | | | |
| 09020305-543 | Poplar River Diversion | Unnamed ditch to Badger Lk | Central | | | Poor Quality | | | | | |
| 09020305-545 | Unnamed crk (Nassett Creek) | T148 R38W S28, south line to Lost R | Central | Nearly Restored (Impaired) | Restoration (Impaired) | Restoration (Impaired) | | | | | |
| 09020305-549 | Unnamed Creek (JD73) | Tamarack Lk to Maple Lk | Central | Highest Quality | Highest Quality | Poor Quality | Highest Quality | | | | |
| Poor Quality = AUID failed to meet numerical standards due to non-pollutant factors, but it is not on the Draft 2018 List of Impaired Waters. | | | | | | | | | | Poor quality | |
| Restoration (Impaired) = AUID is listed on the Draft 2018 List of Impaired Waters | | | | | | | | | | Poor quality and Impaired | |
| Nearly Restored = AUID failed to meet numerical standards, but is relatively close to the impairment threshold | | | | | | | | | | Fair to Good quality and impaired | |
| Nearly Impaired = AUID met numerical standards, but only by a small margin | | | | | | | | | | Poor to fair quality, not impaired | |
| Highest Quality = AUID met numerical standards by a relatively significant margin | | | | | | | | | | Good quality, not impaired | |

RED LAKE WATERSHED DISTRICT MONTHLY WATER QUALITY REPORT

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| Assessment Unit ID | Waterbody Name | Reach Description | River Nutrient Region (Applied to Local Planning) | Total Suspended Solids | E. coli Bacteria | Dissolved Oxygen | River Total Phosphorus and River Eutrophication | Fish Index of Biological Integrity | Macro-invertebrate Index of Biological Integrity | Habitat Minimum MSHA | Pfankuch Stability |
|---|-----------------------------------|--|---|------------------------|----------------------------|----------------------------|---|------------------------------------|--|------------------------------------|---------------------|
| 09020305-550 | JD 73 | Private ditch near 187th Ave NE to Tamarack Lk | Central | Highest Quality | Restoration (Impaired) | Restoration (Impaired) | Highest Quality | Highest Quality | Nearly Impaired | 27.8, Poor | |
| 09020305-551 | Unnamed crk (Bee Lake Outlet) | Bee Lk to JD 73 | Central | | | Poor Quality | | | | | |
| 09020305-561 | Trib. To Poplar R. Diversion | Gerdin Lk to Poplar R Diversion | Central | | | | | Nearly Restored (Impaired) | | 28.5, Poor | |
| 09020305-574 | Terrebonne Creek | CD 4 to CD 58 | Central | Highest Quality | Restoration (Impaired) | Nearly Impaired | Highest Quality | | | | |
| 09020305-578 | Brooks Creek | Unnamed cr to Hill R | Central | | Nearly Restored (Impaired) | | | | | | |
| 09020305-590 | SD 61 | Unnamed ditch to Lost R | Central | | | | | Nearly Impaired | Highest Quality | 45, Fair | |
| 09020305-592 | Unnamed ditch | Near Red Lake Nation Wild Rice | Central | | | | | Poor Quality | | | |
| 09020305-641 | Unnamed ditch (Hill R. tributary) | Ditch draining wetlands by S. Connection Lake | Central | | | | | Poor Quality | Poor Quality | | |
| 09020305-643 | JD 72 Outlet | Unnamed ditch to Lost R | Central | | | | | Highest Quality | Nearly Impaired | 37.5, Poor | |
| 0920305-645 | Lost River | Anderson Lk to Unnamed cr | Central | Highest Quality | Nearly Impaired | Nearly Restored (Impaired) | Highest Quality | Nearly Restored (Impaired) | Highest Quality | 47.5, Fair | Moderately Unstable |
| Poor Quality = AUID failed to meet numerical standards due to non-pollutant factors, but it is not on the Draft 2018 List of Impaired Waters. | | | | | | | | | | Poor quality | |
| Restoration (Impaired) = AUID is listed on the Draft 2018 List of Impaired Waters | | | | | | | | | | Poor quality and Impaired | |
| Nearly Restored = AUID failed to meet numerical standards, but is relatively close to the impairment threshold | | | | | | | | | | Fair to Good quality and impaired | |
| Nearly Impaired = AUID met numerical standards, but only by a small margin | | | | | | | | | | Poor to fair quality, not impaired | |
| Highest Quality = AUID met numerical standards by a relatively significant margin | | | | | | | | | | Good quality, not impaired | |

RED LAKE WATERSHED DISTRICT MONTHLY WATER QUALITY REPORT

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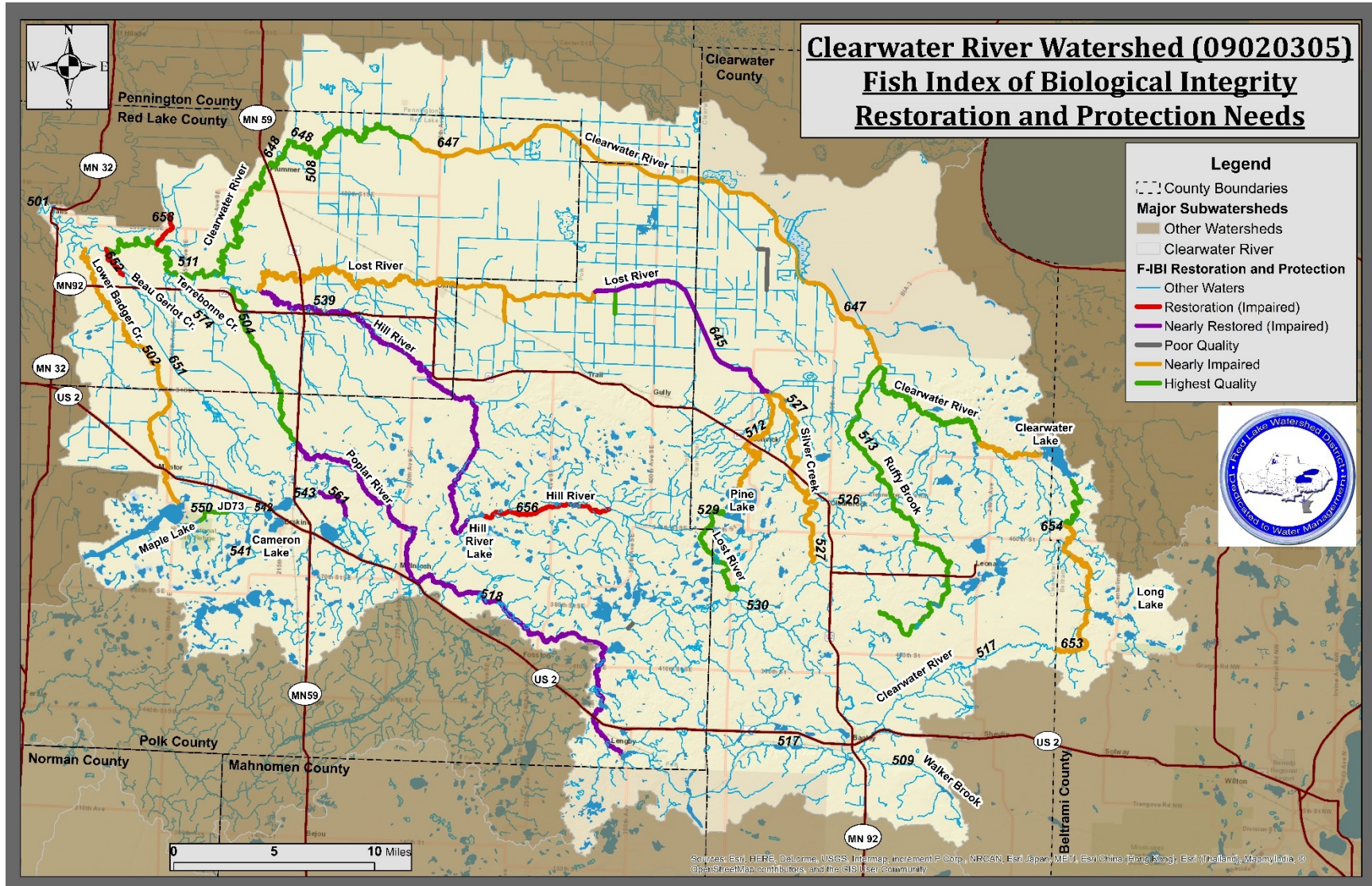
| Assessment Unit ID | Waterbody Name | Reach Description | River Nutrient Region (Applied to Local Planning) | Total Suspended Solids | E. coli Bacteria | Dissolved Oxygen | River Total Phosphorus and River Eutrophication | Fish Index of Biological Integrity | Macro-invertebrate Index of Biological Integrity | Habitat Minimum MSHA | Pfankuch Stability |
|---|-----------------------------|--|---|----------------------------|------------------------|------------------------|---|------------------------------------|--|------------------------------------|-----------------------------|
| 09020305-646 | Lost River | Unnamed cr to Hill R | Central | Nearly Impaired | Nearly Impaired | Highest Quality | Highest Quality | Nearly Impaired | Nearly Impaired | 43.5, Poor | Stable, Moderately Unstable |
| 09020305-647 | Clearwater River | Ruffy Bk to JD 1 | Central | Nearly Restored (Impaired) | Restoration (Impaired) | Nearly Impaired | Restoration (Impaired) | Nearly Impaired | Nearly Impaired | 39, Poor | Moderately Unstable |
| 09020305-648 | Clearwater River | JD 1 to Lost R | Central | Restoration (Impaired) | Highest Quality | Highest Quality | Nearly Impaired | Highest Quality | Highest Quality | 54.5, Fair | Stable |
| 09020305-649 | Clearwater River | Clearwater Lk to Unnamed cr | North | Highest Quality | Highest Quality | Highest Quality | Highest Quality | Nearly Impaired | Nearly Impaired | 70.5, Good | |
| 09020305-650 | Clearwater River | Unnamed cr to Ruffy Bk | North | | Highest Quality | Highest Quality | Highest Quality | Highest Quality | Highest Quality | 64.1, Fair | Unstable, Stable |
| 09020305-651 | Unnamed crk (Bee L. Outlet) | Bee Lk to JD 73 | Central | Highest Quality | Restoration (Impaired) | | Highest Quality | | | | |
| 09020305-652 | Beau Gerlot Creek | -96.1947 47.8413 to Clearwater R | Central | | | Highest Quality | | Restoration (Impaired) | Nearly Restored (Impaired) | 56.4, Fair | Moderately Unstable |
| 09020305-653 | Clearwater River | T148 R35W S31, west line to Unnamed cr | North | Highest Quality | Highest Quality | Restoration (Impaired) | Nearly Impaired | Nearly Impaired | Nearly Impaired | 44, Poor | Stable |
| 09020305-654 | Clearwater River | Unnamed cr to Clearwater Lk | North | | | | | Highest Quality | Highest Quality | 63.4, Fair | |
| 09020305-655 | Hill River (CD68/81) | Cross L. to Br 4 CD 81 near Olga | Central | | | Nearly Impaired | | | | | |
| 09020305-656 | Hill River | Unnamed cr to Hill River Lk | Central | Highest Quality | Nearly Impaired | Restoration (Impaired) | Nearly Impaired | Restoration (Impaired) | Nearly Impaired | 59.6, Fair | |
| 09020305-658 | Red Lake CD 23 | -96.1479 47.8855 to Clearwater R | Central | | | | | Restoration (Impaired) | | 55, Fair | Stable |
| Poor Quality = AUID failed to meet numerical standards due to non-pollutant factors, but it is not on the Draft 2018 List of Impaired Waters. | | | | | | | | | | Poor quality | |
| Restoration (Impaired) = AUID is listed on the Draft 2018 List of Impaired Waters | | | | | | | | | | Poor quality and Impaired | |
| Nearly Restored = AUID failed to meet numerical standards, but is relatively close to the impairment threshold | | | | | | | | | | Fair to Good quality and impaired | |
| Nearly Impaired = AUID met numerical standards, but only by a small margin | | | | | | | | | | Poor to fair quality, not impaired | |
| Highest Quality = AUID met numerical standards by a relatively significant margin | | | | | | | | | | Good quality, not impaired | |

| | |
|---|-------------------|
| RED LAKE WATERSHED DISTRICT MONTHLY WATER QUALITY REPORT | March 2018 |
|---|-------------------|

| Lake ID | Lake Name | TP Standard (mg/L) | Summer Average TP (mg/L) | TP Classification | Chlorophyll-a Standard (µg/L) | Summer Avg Chlorophyll-a (µg/L) | Chlorophyll-a Classification | Secchi Standard (m) | Secchi Depth (m) | Secchi Class |
|------------------------------------|---------------------------|---------------------------------|--------------------------|------------------------|---------------------------------|---------------------------------|------------------------------|---------------------------------|------------------|----------------------------|
| 04-0295-00 | Long Lake (Buzzle Twp.) | 0.03 | 0.044 | Restoration (Impaired) | 9 | 18.90 | Restoration (Impaired) | 2 | 2.04 | Nearly Restored (Impaired) |
| 04-0297-00 | Buzzle Lake | 0.03 | 0.009 | Highest Quality | 9 | 2.22 | Highest Quality | 2 | 4.03 | Highest Quality |
| 04-0298-00 | Little Buzzle | 0.03 | 0.010 | Highest Quality | 9 | 2.25 | Highest Quality | 2 | 4.62 | Highest Quality |
| 04-0299-00 | Funkley | 0.03 | 0.019 | Highest Quality | 9 | 4.11 | Highest Quality | 2 | 2.69 | Highest Quality |
| 04-0300-00 | Whitefish | 0.03 | 0.019 | Highest Quality | 9 | 5.37 | Highest Quality | 2 | 3.15 | Highest Quality |
| 04-0303-00 | Spring Lake (Buzzle Twp.) | 0.03 | 0.014 | Highest Quality | 9 | 6.33 | Highest Quality | 2 | 3.24 | Highest Quality |
| 04-0343-00 | Clearwater Lake | 0.03 | 0.019 | Highest Quality | 9 | 7.01 | Nearly Impaired | 2 | 2.82 | Highest Quality |
| 15-0027-00 | East Four-Legged Lake | 0.06 | 0.014 | Highest Quality | 20 | 2.67 | Highest Quality | 1 | 2.03 | Highest Quality |
| 15-0028-00 | West Four-Legged Lake | 0.06 | 0.013 | Highest Quality | 20 | 3.87 | Highest Quality | 1 | 2.28 | Highest Quality |
| 15-0035-00 | Spike Lake | 0.03 | 0.028 | Nearly Impaired | 9 | 7.83 | Nearly Impaired | 2 | 2.94 | Highest Quality |
| 15-0037-00 | Nels Olson Lake | 0.06 | 0.026 | Highest Quality | 20 | 4.25 | Highest Quality | 1 | 2.60 | Highest Quality |
| 15-0038-00 | Falk Lake | 0.04 | 0.022 | Highest Quality | 14 | 6.44 | Highest Quality | 1.4 | 3.05 | Highest Quality |
| 15-0040-00 | Bagley Lake | 0.03 | 0.021 | Highest Quality | 9 | 6.78 | Nearly Impaired | 2 | 3.00 | Highest Quality |
| 15-0050-00 | Long Lake (Clover Twp.) | 0.03 | 0.010 | Highest Quality | 9 | 2.56 | Highest Quality | 2 | 5.52 | Highest Quality |
| 15-0060-00 | Walker Brook L. | 0.03 | 0.024 | Nearly Impaired | 9 | 9.49 | Nearly Impaired | 2 | 3.30 | Highest Quality |
| 15-0081-00 | Lomond Lake | 0.03 | 0.022 | Highest Quality | 9 | 6.84 | Nearly Impaired | 2 | 3.20 | Highest Quality |
| 15-0083-00 | Peterson Lake | 0.04 | 0.020 | Highest Quality | 14 | 18.99 | Nearly Impaired | 1.4 | 3.70 | Highest Quality |
| 15-0086-00 | Johnson Lake | 0.03 | 0.026 | Nearly Impaired | 9 | 11.48 | Nearly Impaired | 2 | 2.36 | Nearly Impaired |
| 15-0090-00 | Deep Lake | 0.04 | 0.009 | Highest Quality | 14 | 2.50 | Highest Quality | 1.4 | 4.63 | Highest Quality |
| 15-0104-00 | Lone Lake | 0.04 | 0.009 | Highest Quality | 14 | 1.67 | Highest Quality | 1.4 | 6.11 | Highest Quality |
| 15-0137-00 | Minnow Lake | 0.03 | 0.019 | Highest Quality | 9 | 6.95 | Nearly Impaired | 2 | 3.09 | Highest Quality |
| 15-0138-00 | Sabe Lake | 0.03 | 0.020 | Highest Quality | 9 | 3.30 | Highest Quality | 2 | 2.50 | Nearly Impaired |
| 15-0139-00 | First Lake | 0.03 | 0.023 | Nearly Impaired | 9 | 9.33 | Nearly Impaired | 2 | 2.75 | Highest Quality |
| 15-0140-00 | Second Lake | 0.03 | 0.028 | Nearly Impaired | 9 | 10.92 | Nearly Impaired | 2 | 2.37 | Nearly Impaired |
| 15-0144-00 | Lindberg Lake | 0.04 | 0.035 | Nearly Impaired | 14 | 11.71 | Nearly Impaired | 1.4 | 2.92 | Highest Quality |
| 15-0149-00 | Pine Lake | 0.06 | 0.025 | Highest Quality | 20 | 6.80 | Highest Quality | 1 | 2.28 | Highest Quality |
| 15-0156-00 | Stony Lake | 0.06 | 0.137 | Restoration (Impaired) | 20 | 46.40 | Restoration (Impaired) | 1 | 2.10 | Nearly Restored (Impaired) |
| 60-0012-00 | Spring Lake (Lengby) | 0.04 | 0.034 | Nearly Impaired | 14 | 9.90 | Highest Quality | 1.4 | 1.94 | Highest Quality |
| 60-0015-00 | Whitefish Lake | 0.06 | 0.065 | <12 Data Points | 20 | 35.23 | Nearly Impaired | 1 | 1.18 | Nearly Impaired |
| 60-0027-02 | Cross Lake (Main Basin) | 0.06 | 0.059 | <12 Data Points | 20 | 20.08 | Nearly Impaired | 1 | 1.33 | Nearly Impaired |
| 60-0032-00 | Turtle Lake | 0.06 | 0.033 | Highest Quality | 20 | 23.87 | Nearly Impaired | 1 | 1.00 | Nearly Impaired |
| 60-0189-00 | Cameron Lake | 0.06 | 0.094 | Restoration (Impaired) | 20 | 57.94 | Restoration (Impaired) | 1 | 0.41 | Restoration (Impaired) |
| 60-0214-00 | Badger Lake | 0.06 | 0.022 | Highest Quality | 20 | 7.32 | Highest Quality | 1 | 2.69 | Highest Quality |
| 60-0305-00 | Maple Lake | 0.06 | 0.039 | Highest Quality | 20 | 14.14 | Highest Quality | 1 | 1.29 | Nearly Impaired |
| Classification Calculation: | | Concentration / Standard | | | Concentration / Standard | | | Standard / Average Depth | | |
| Restoration (Impaired) | | >1.25 Impaired | | | >1.25 Impaired | | | >1.25 Impaired | | |
| Nearly Restored (Impaired) | | <1.25 Impaired | | | <1.25 Impaired | | | <1.25 Impaired | | |
| Nearly Impaired | | >.75 Not impaired | | | >.75 Not impaired | | | >.75 Not impaired | | |
| Highest Quality | | <.75 Not impaired | | | <.75 Not impaired | | | <.75 Not impaired | | |

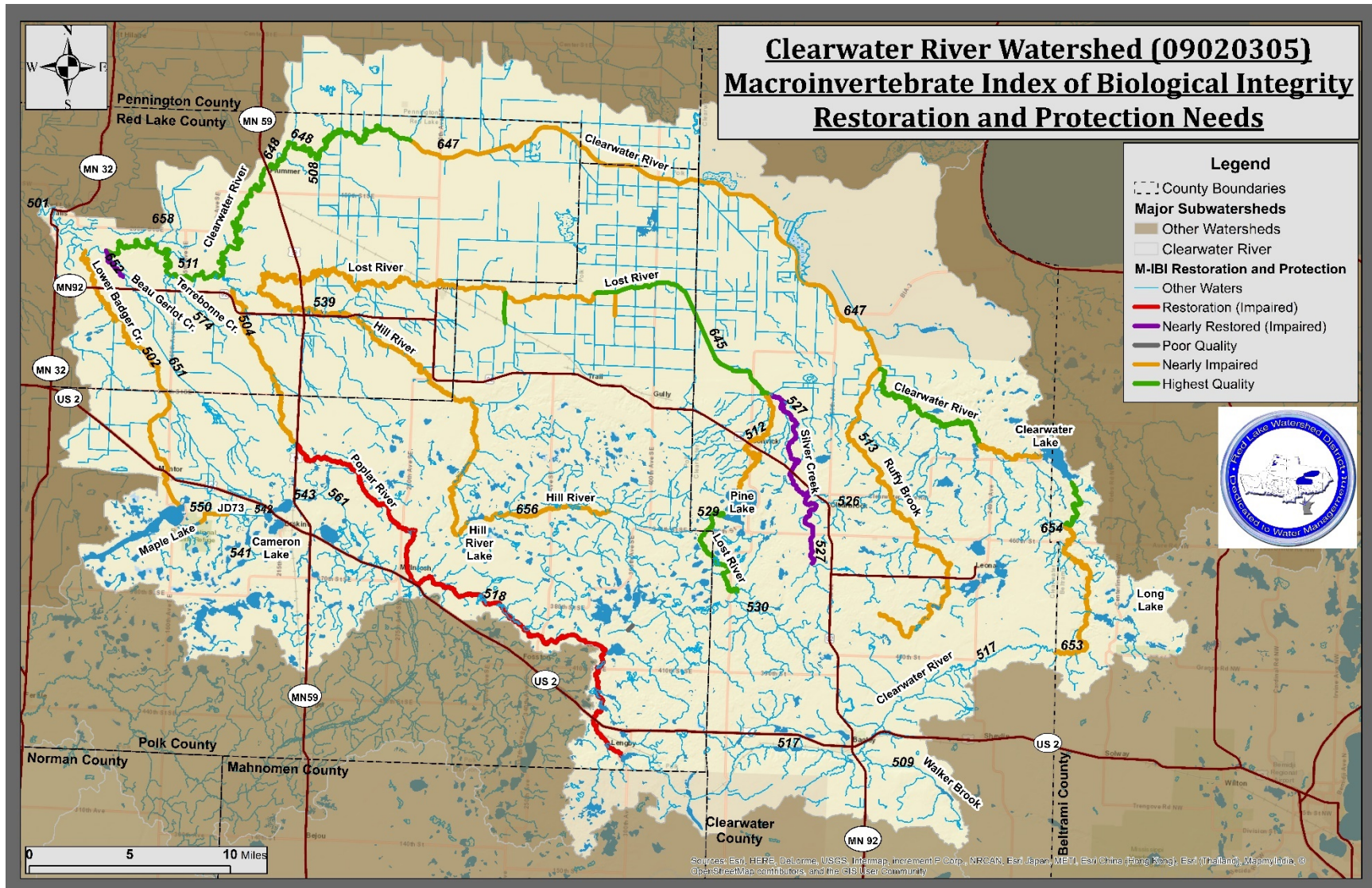
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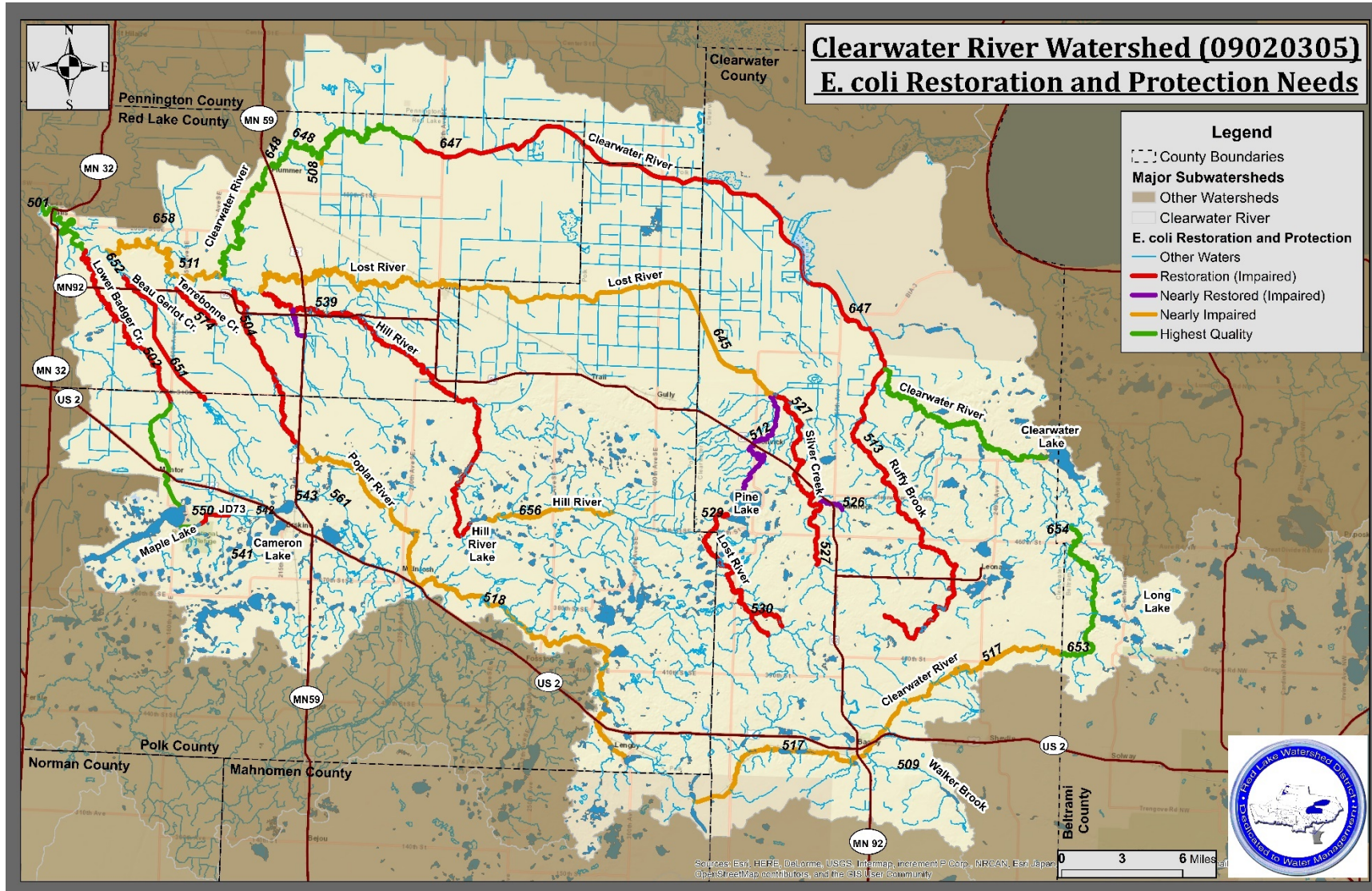
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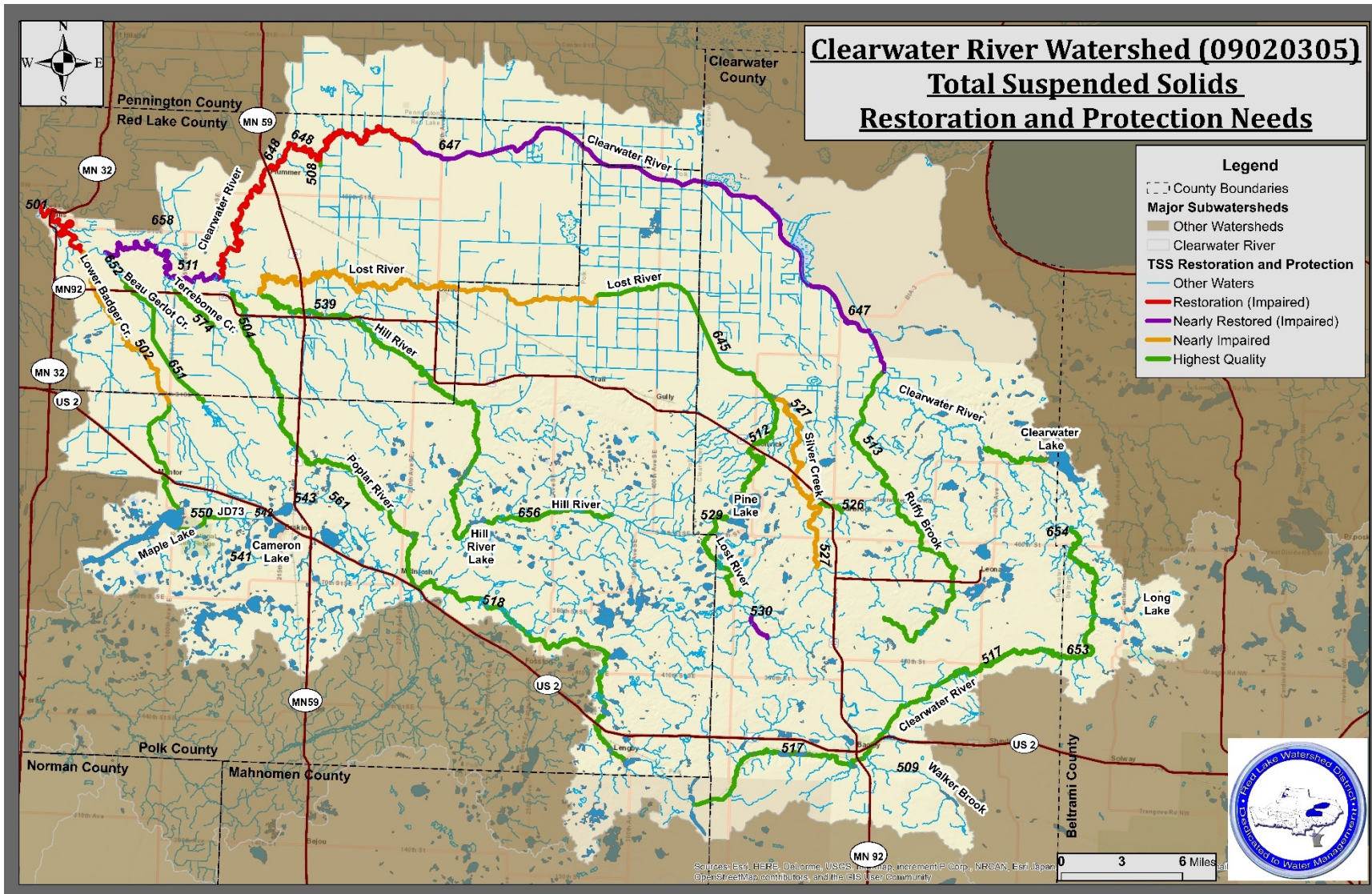
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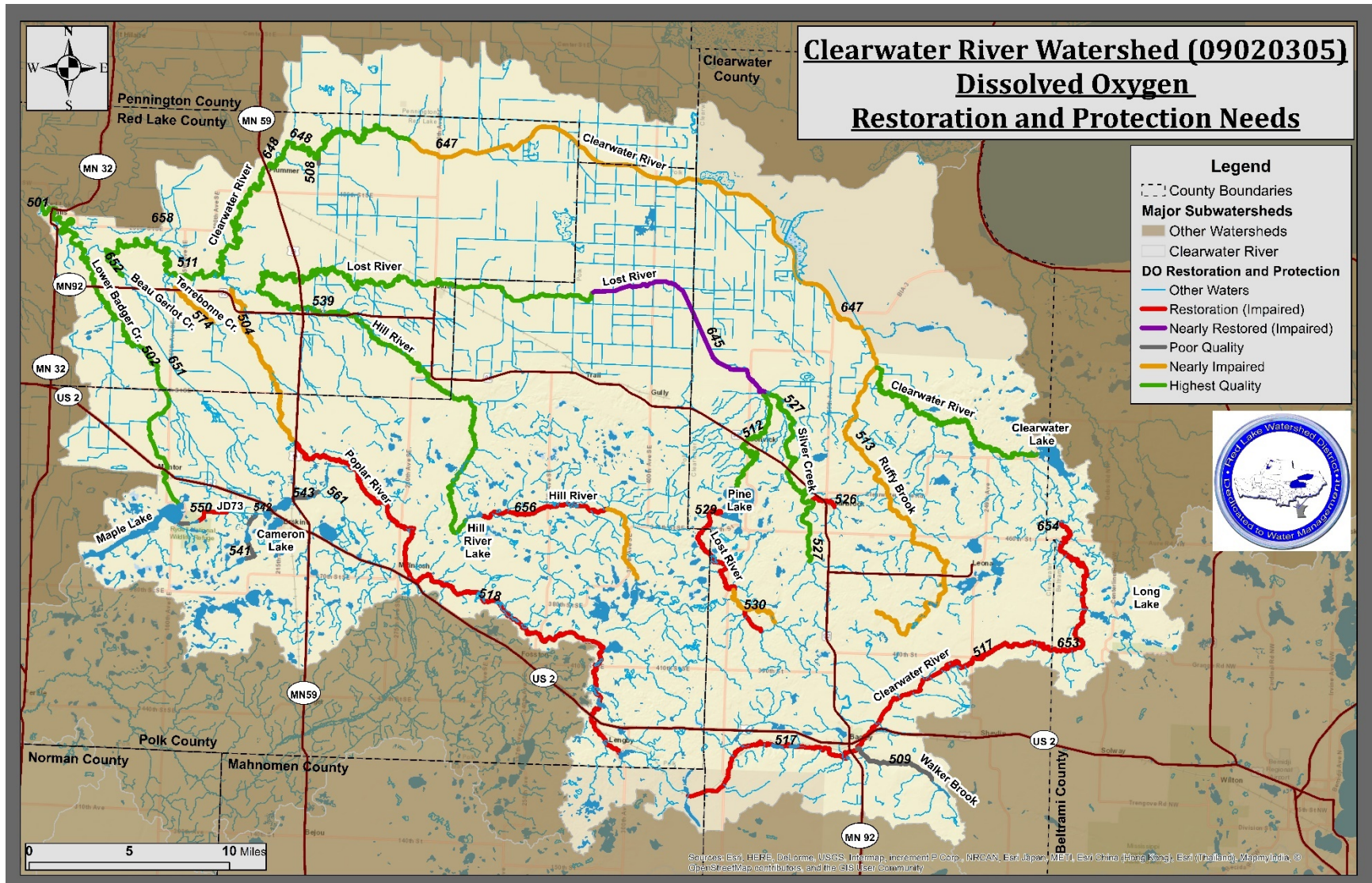
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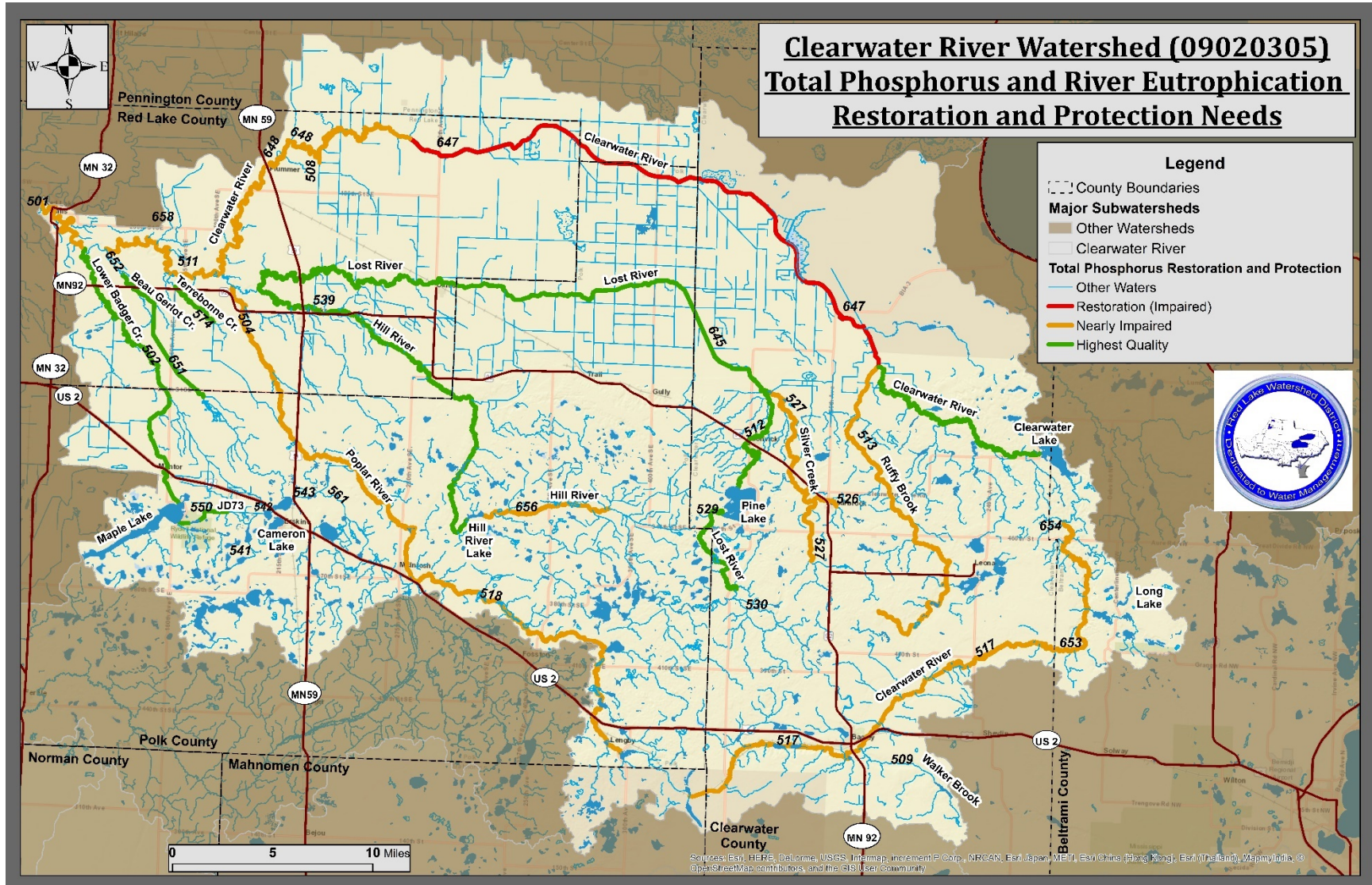
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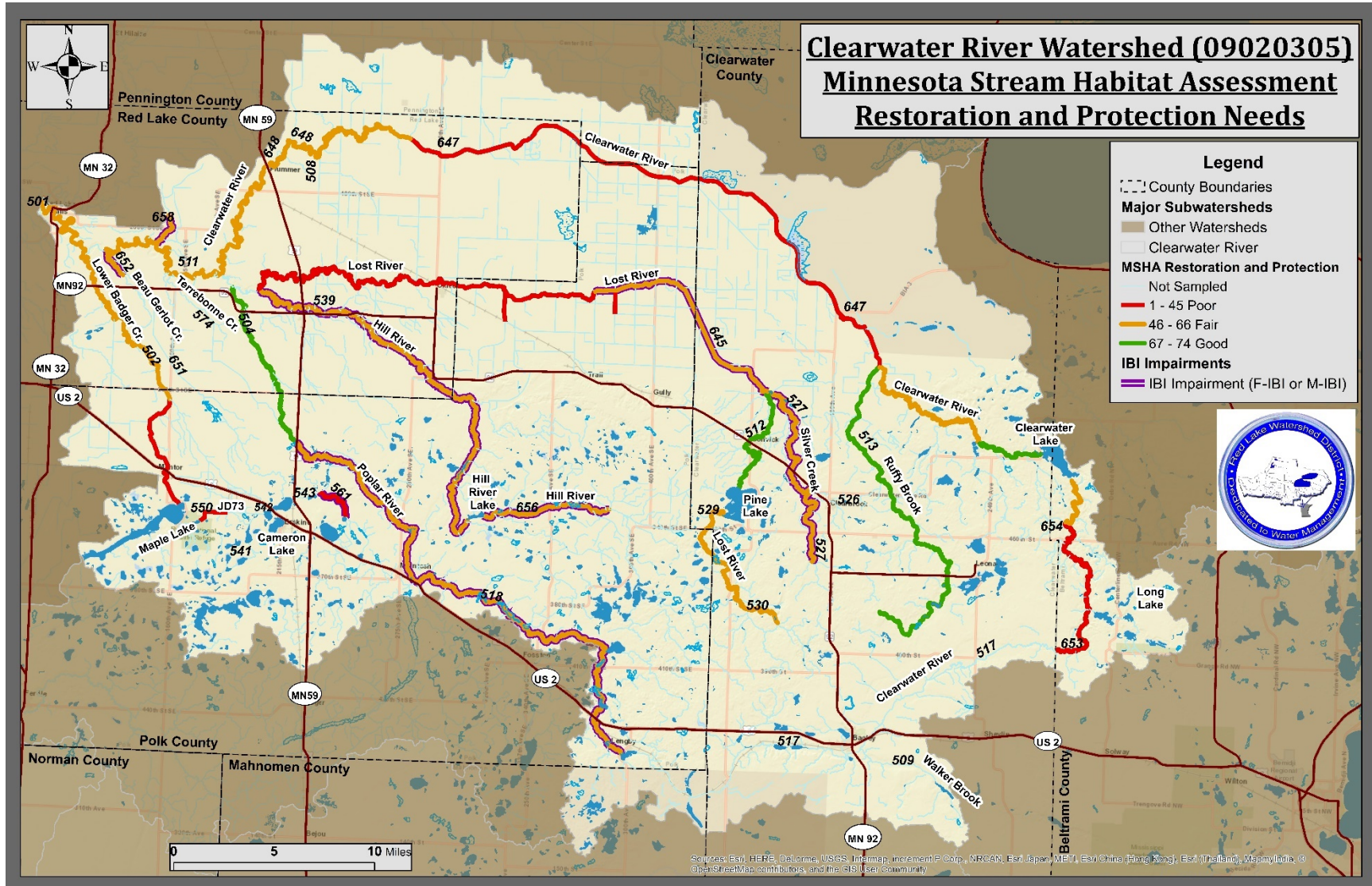
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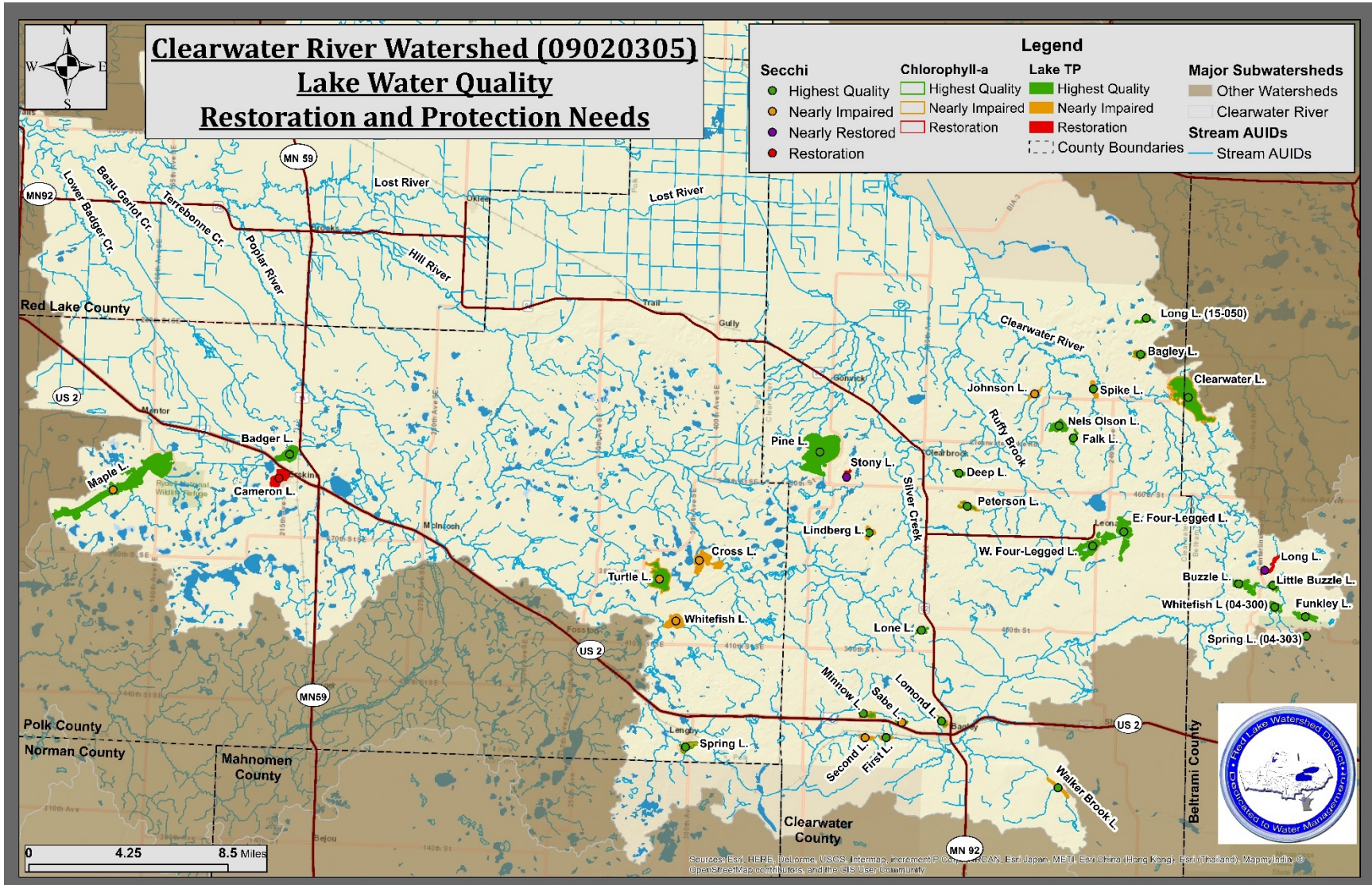
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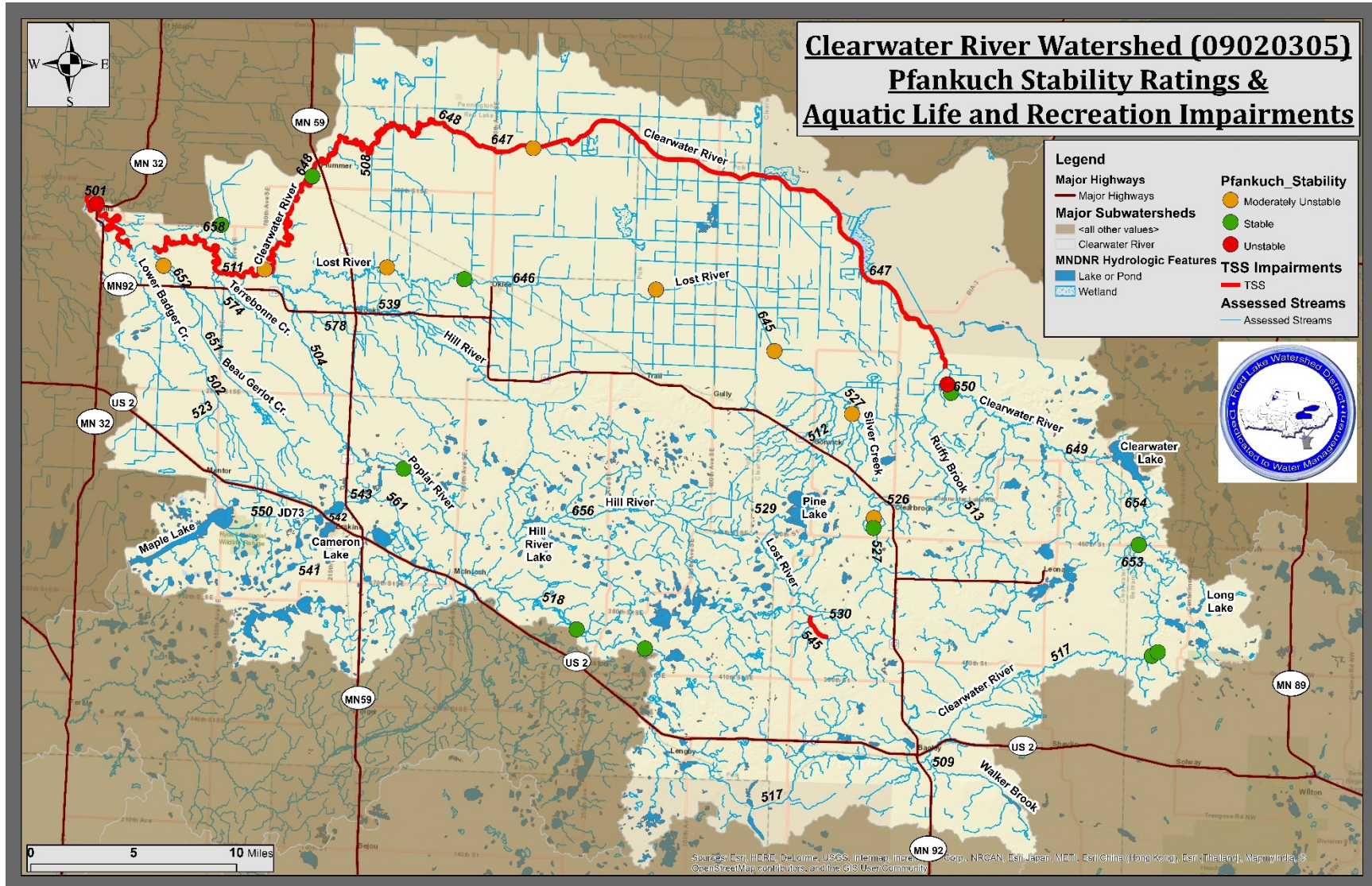
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March 2018



RED LAKE WATERSHED DISTRICT MONTHLY WATER QUALITY REPORT

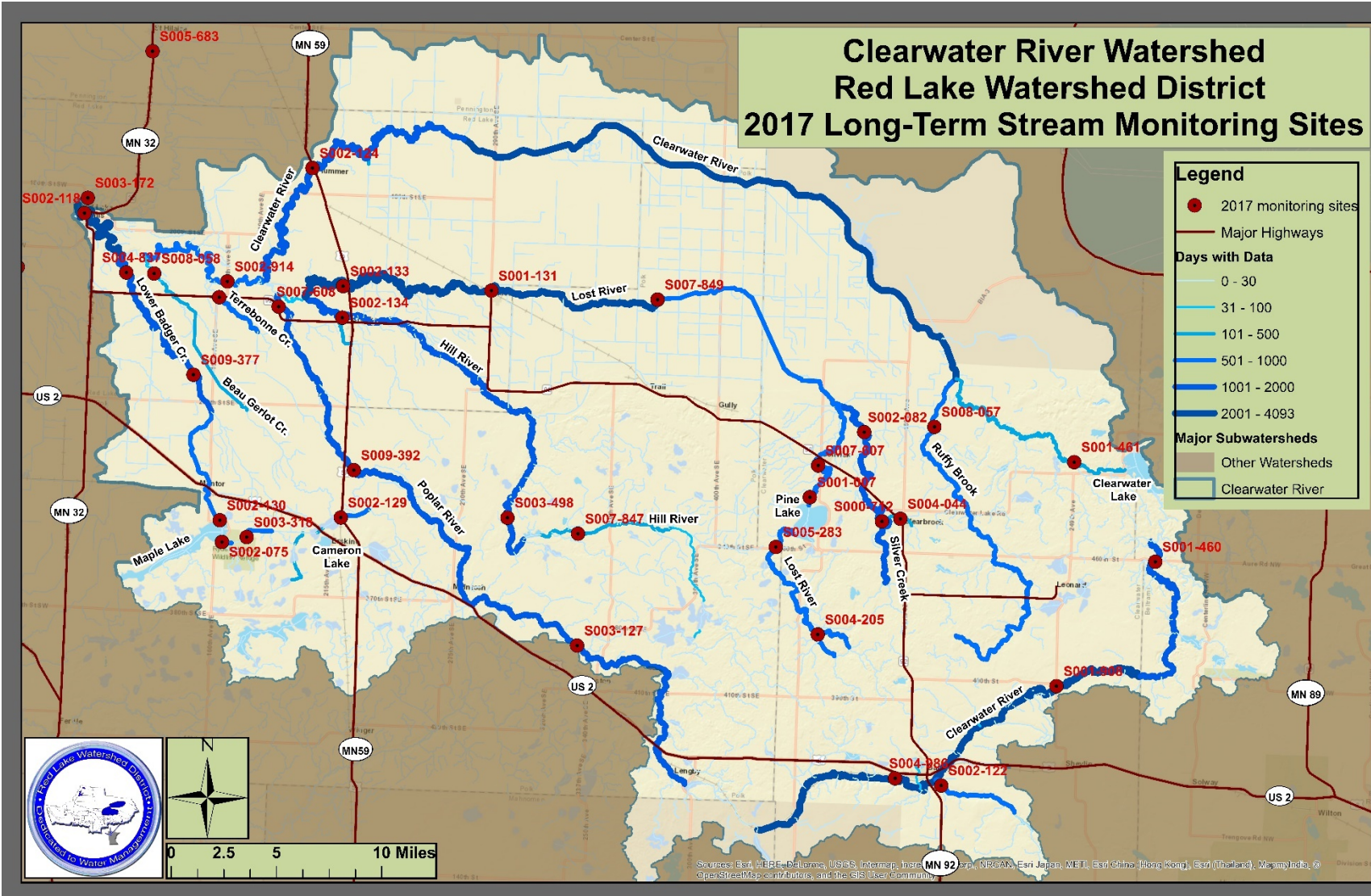
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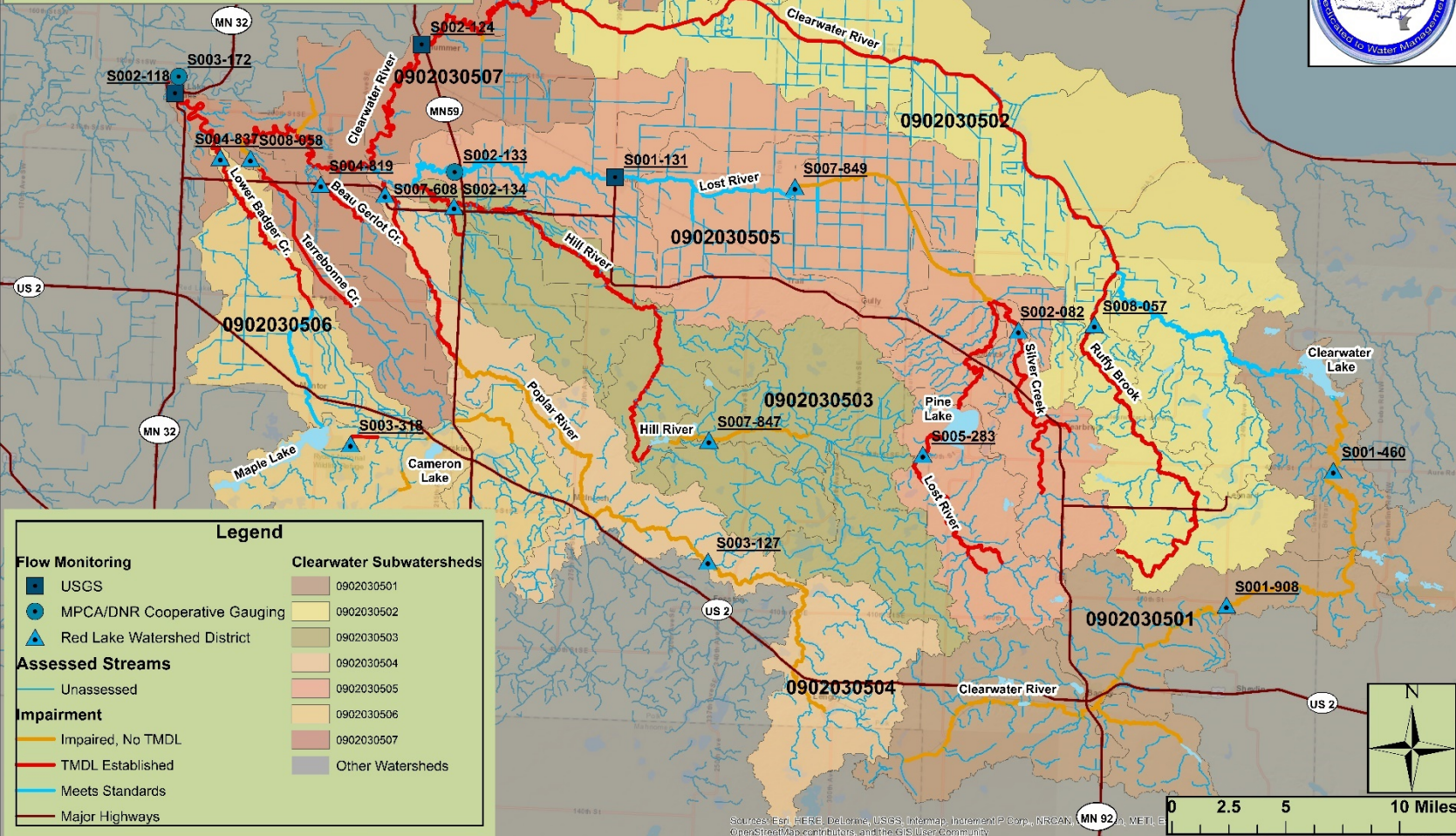
Clearwater River Watershed Red Lake Watershed District 2017 Long-Term Stream Monitoring Sites



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Clearwater River Watershed 2017 Flow Monitoring Sites



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Clearwater Lakes Stressor Identification Report

The MPCA and MN DNR coordinated to collect and assess biological data from lakes in the Clearwater River Watershed. Index of biological integrity (IBI) scores were calculated to assess the quality of fish populations within lakes. Of the lakes that were formally assessed, no lakes were found to be impaired during the assessment. There were some lakes that had low fish IBI scores but were not assessed due to recent winterkills (Pine Lake and Badger Lake). Cross Lake and Hill River Lake were considered vulnerable due to their proximity to the impairment threshold. Those lakes were the focus of the stressor identification report due to their vulnerability to future impairment.

The shoreline habitat of Cross and Hill River Lakes has been only minimally altered by development. Connectivity could be an issue that is affecting the fish populations in these lakes. The Hill River connects those two lakes and portions of the river are impaired by low dissolved oxygen levels and poor fish IBI scores downstream of each of those lakes. Evidence suggests that land use and nutrient loading from the contributing watersheds of those two lakes may be having the greatest impact upon fish communities. The report recommends water quality data collection within the lakes, enhancement of lakeshore habitat, improvement of lakeshore buffers, and an examination of fish passage at the Hill River Lake Dam.

| DOW | Lake Name | County | Nearshore Survey Year(s) | Notes | MNDNR GIS Acres | FIBI Tool | % Littoral | FIBI Score(s) | Below Impairment Threshold |
|---|--------------|------------|--------------------------|---|-----------------|-----------|------------|---------------|----------------------------|
| 04-0300-00 | Whitefish | Beltrami | 2015 | Repeated within year (June and August) | 125 | 4 | 42 | 77, 66 | No, No |
| 04-0343-00 | Clearwater | Beltrami | 2013 | | 999 | 2 | 34 | 73 | No |
| 15-0060-00 | Walker Brook | Clearwater | 2015 | Small; Low effort – 1 of 10 stations seined | 95 | 4 | 42 | 48 | No |
| 15-0081-00 | Lomond | Clearwater | 2013 | Small; Low effort – 1 of 10 stations seined | 95 | 4 | 47 | 59 | No |
| 15-0137-00 | Minnow | Clearwater | 2014 | Low effort – 4 of 10 stations seined | 110 | 5 | 87 | 71 | No |
| 15-0149-00 | Pine | Clearwater | 2014 | Low effort – 7 of 18 stations seined; recent winterkill | 1238 | 5 | 100 | 15 | Yes |
| 60-0012-00 | Spring | Polk | 2014 | | 130 | 4 | 33 | 67 | No |
| 60-0015-00 | Whitefish | Polk | 2015 | Repeated within year (June and August) | 243 | 7 | 81 | 43, 43 | No |
| 60-0027-00 | Cross | Polk | 2014 | | 166 | 7 | 90 | 40 | No |
| 60-0142-00 | Hill River | Polk | 2014 | | 103 | 5 | 68 | 28 | No |
| 60-0214-00 | Badger | Polk | 2010 | Not assessable – recent winterkill | 255 | 5 | 100 | 6 | Yes |
| 60-0305-00 | Maple | Polk | 2010, 2015 | | 1576 | 7 | 100 | 31, 67 | Yes, No |
| ≤ lower CL > lower CL & ≤ Threshold > threshold & ≤ upper CL > upper CL NA = Not available | | | | | | | | | |

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Thief River Stormwater Study

The Pennington SWCD received funding from BWSR to complete a study of stormwater runoff within the City of Thief River Falls. The project was a partnership among the SWCD and the city. Houston Engineering, Inc. was hired as a consultant. The study found that a majority of the city's stormwater runoff enters the Thief and Red Lake Rivers untreated. Eroding river banks are also contributing large amounts of sediment and phosphorus to the rivers. The study targeted, identified, and prioritized surface water treatment projects based on feasibility, potential water quality benefits, and cost effectiveness. The information in the report can be used to apply for grant funding.

The potential projects and best management practices were ranked based on their cost effectiveness for reducing sediment and phosphorus runoff. Detailed maps were created to identify locations where the most pollutant runoff is occurring and where treatment projects would be most effective.

Table 11. Ranking of BMP's.

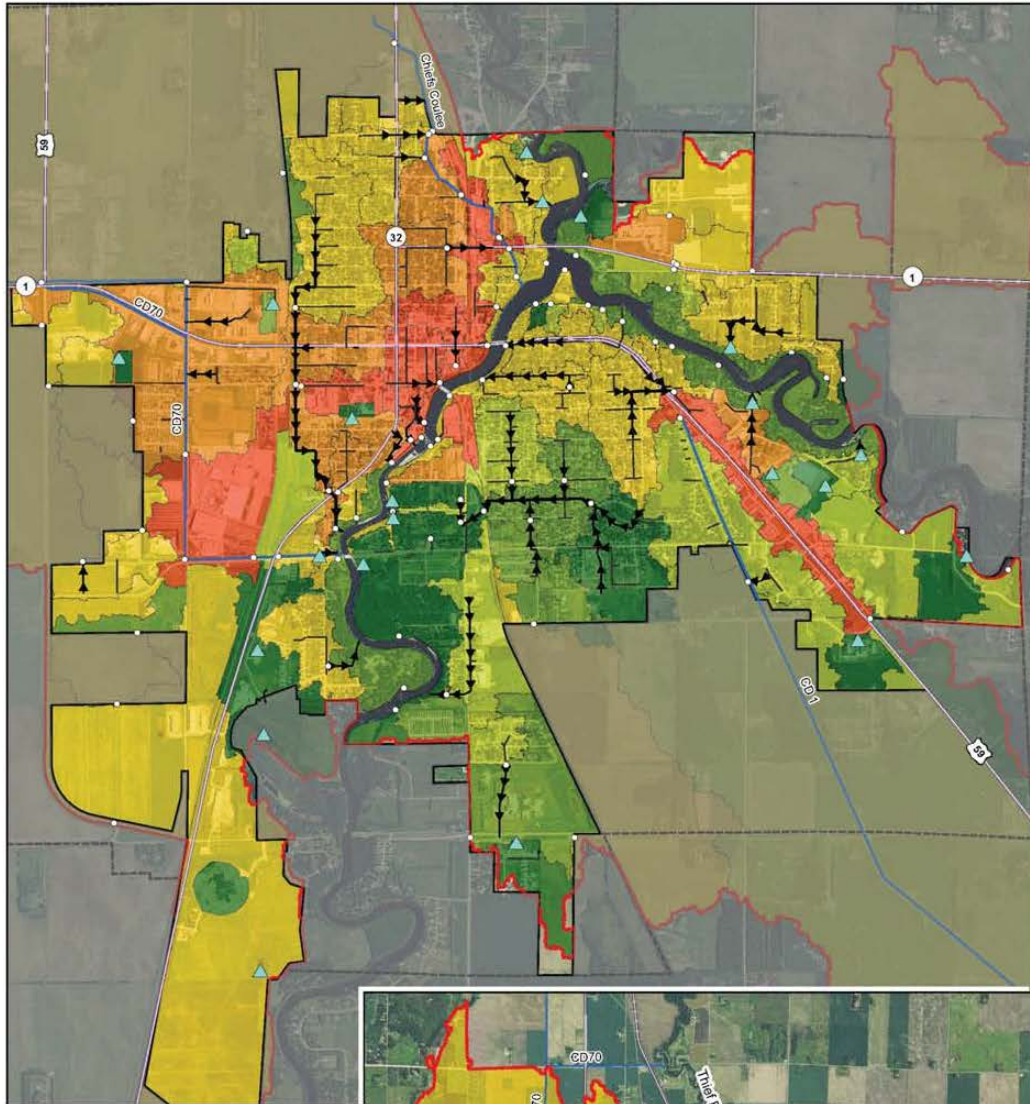
| Rank | BMP | | Land Authority | TSS | TP | Capital Cost Est. | TSS | TP | Rank Scale ^c (0-10) |
|------|-----|-----------------------------------|----------------|---------------------|--------------------|-------------------|-------------------|-------------------|-----------------------------------|
| | ID | Project Name | | Reduction (tons/yr) | Reduction (lbs/yr) | | Value (\$/ton/yr) | Value (\$/lbs/yr) | |
| 1 | SS2 | Hartz Park | City | 165.0 | 140.0 | \$ 144,240 | \$ 870 | \$ 1,030 | 9.7 |
| 2 | SS3 | Greenwood | City | 137.0 | 157.0 | \$ 121,410 | \$ 890 | \$ 770 | 9.6 |
| 3 | SS1 | Wenzloff | City | 83.0 | 70.0 | \$ 140,160 | \$ 1,690 | \$ 2,000 | 7.3 |
| 4 | 4 | Hwy 59 Pond ^A | Private | 20.6 | 56.3 | \$ 360,200 | \$ 17,520 | \$ 6,400 | 6.1 |
| 5 | 5 | Arctic Cat Wetland | Private | 4.3 | 19.0 | \$ 251,000 | \$ 57,980 | \$ 13,220 | 5.0 |
| 6 | 9 | Oxbow Wetland ^B | City Easement | 3.3 | 24.4 | \$ 389,000 | \$ 116,760 | \$ 15,960 | 4.9 |
| 7 | 11 | NCTC 2 Pond w/Reuse | College | 3.3 | 15.2 | \$ 235,000 | \$ 71,620 | \$ 15,480 | 4.9 |
| 8 | 3 | Hartz Park Filter | City | 4.2 | 24.9 | \$ 530,000 | \$ 125,120 | \$ 21,310 | 4.8 |
| 9 | 8 | Fairgrounds Pond | County | 2.7 | 11.2 | \$ 179,000 | \$ 67,240 | \$ 16,040 | 4.8 |
| 10 | 2 | Hartz Warehouse Pond ^A | Private | 2.4 | 9.4 | \$ 161,800 | \$ 68,690 | \$ 17,170 | 4.8 |
| 11 | 12 | Labree & 12th St Pond | City | 1.2 | 4.8 | \$ 78,000 | \$ 63,230 | \$ 16,090 | 4.7 |
| 12 | 7 | Sherwood Ave Filter | City | 1.8 | 9.7 | \$ 169,000 | \$ 92,690 | \$ 17,380 | 4.7 |
| 13 | 1 | Sports Field UG Reuse | School | 2.3 | 5.7 | \$ 242,000 | \$ 104,890 | \$ 42,470 | 4.3 |
| 14 | 10 | NCTC 1 Biofiltration | College | 0.4 | 2.0 | \$ 85,000 | \$ 204,360 | \$ 42,400 | 3.9 |
| 15 | 6 | Downtown Tree Trench | City | 0.4 | 2.0 | \$ 397,000 | \$ 942,100 | \$197,040 | 0.0 |

^A Includes the cost of required private land acquisition cost based on 2017 tax appraisal (see Table 6).

^B Does not include the cost of lime-sludge disposal (see Table 6).

^C Rank Scale is the equal rating of rank for four categories: TSS Reduction, TP Reduction, TSS Value, and TP Value. The values in each category were proportionally scaled to fit a range of 0 to 10 (0 being the least desirable) so that values could be averaged across all categories. For example, if a BMP had the highest value for each category, it would be assigned a 10 for each category and, thus, a Rank Scale of 10.

Figure 3: Existing average annual TSS delivered yield



Legend

- ▲ Treatment Device
- Pipe
- Study Area
- Thief RF Boundary
- Thief RF - Future

Stormsewer Diameter (in)

- 0 - 12
- 13 - 21
- 22 - 35
- 36 - 84
- Major Roads
- Major Watercourses

Delivered TSS Yield (lbs/ac/yr)

- 0.0 - 20.0
- 20.1 - 40.0
- 40.1 - 60.0
- 60.1 - 120.0
- 120.1 - 240.0
- 240.1 - 400.4

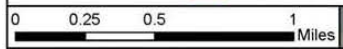
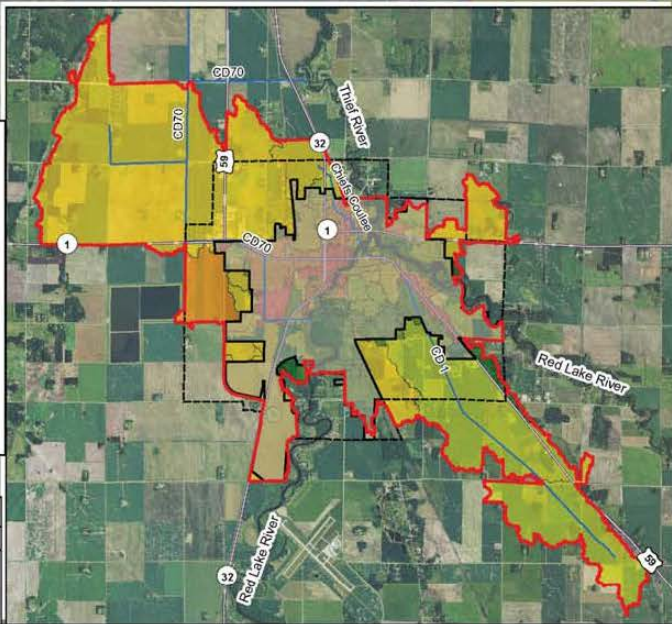


Figure 4 - TSS Delivered Yield

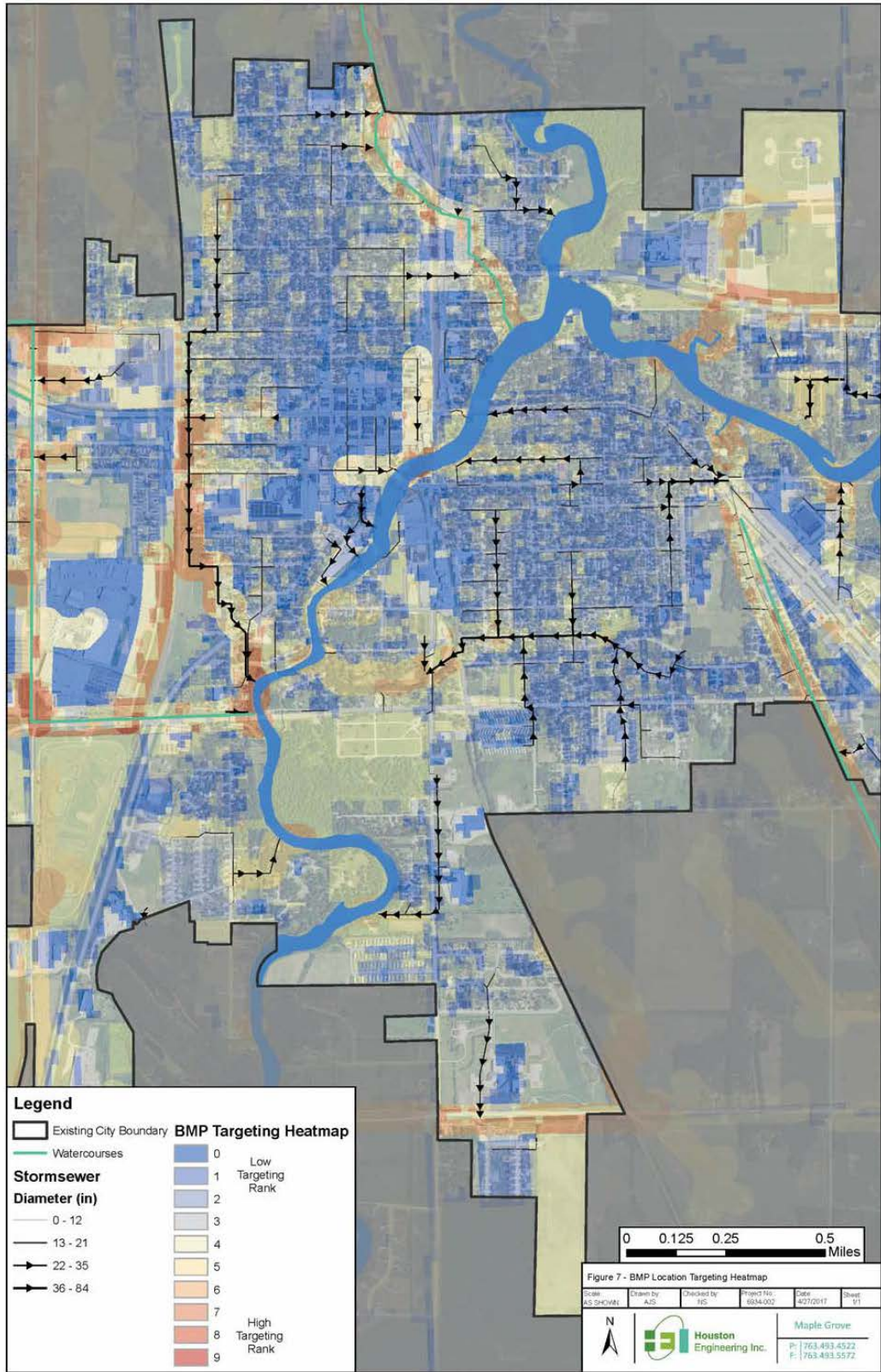
| | | | | | |
|-----------------|---------------|---|-----------------------|-----------------|------------|
| Scale: AS SHOWN | Drawn by: AJS | Checked by: RES | Project No: 15934-002 | Date: 4/24/2017 | Sheet: 1/1 |
| | | Maple Grove P: 763.493.4522 F: 763.493.5572 | | | |



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Figure 7: BMP Location Targeting Heatmap and Potential BMP's



Thief River One Watershed One Plan (1W1P)

- A meeting of the policy committee, advisory committee, and the project work group was held on March 14, 2018.
- District staff reviewed and commented on the rough draft Strategies and Actions tables.
- District staff reviewed a draft Section 2 of the Thief River 1W1P.

Other Notes

- A water quality report for November – December 2017 was completed.
 - <http://www.redlakewatershed.org/waterquality/MonthlyWQReport/2017%2011%2012%20Nov-Dec%20Water%20Quality%20Report.pdf>
- Water quality related notes from the March 13, 2018 Red Lake Watershed District Board of Mangers meeting:
 - Administrator Jesme stated that the District and Agassiz National NWR received the signed grant agreement for a Conservation Partners Legacy Grant in the amount of \$242,000 for cattail management to enhance wildlife habitat and increase biodiversity in more than 26,000 acres of non-forested wetlands. Work will also consist of repairs to water control structures.
 - Manager Dwight stated that he attended a meeting regarding the Bartlett Lake near Northome. Dwight indicated that the MPCA completed a sediment study and has hired Emmons and Olivier Resources, Inc. to identify projects for implementation to help the lake recover.
- District staff provided MPCA staff with additional information and photos about the Poplar River Diversion channel. The Polar River Diversion between the Poplar River and Badger Lake was listed as impaired by low dissolved oxygen on the Draft 2018 List of Impaired Waters. The MPCA has decided to change the classification of the reach so that it is still listed as impaired but will not require a TMDL. The impairment is caused by non-pollutant factors.
- Articles were written for the 2017 Red Lake Watershed District Annual Report.
- Contract extension amendments for the Thief River WRAPS and Red Lake River WRAPS were received from the MPCA and signed by the District Administrator. The MPCA is preparing the Thief River WRAPS and TMDL for the public notice process. The MPCA will then finish a review of the Red Lake River WRAPS so that it can also progress to the public notice phase.
- District staff reviewed the Thief River Falls (Stormwater) Water Quality Study that was completed by the Pennington SWCD and the City of Thief River Falls.

March 2018 Meetings and Events

- **March 1, 2018** – Thief River 1W1P Planning Work Group conference call
- **March 12, 2018** – Pennington County Water Resources Advisory Committee meeting
 - SSTS Grants: The Pennington SWCD is working to get a homeowner with septic issues hooked up to the city sewer.

- Ditch Inventory Grant: RLWD staff will be working on the Polk County ditch inventory.
- City of Thief River Falls Stormwater Assessment: SWCD staff shared the results (Table 11 and the maps shown earlier in this report).
- The SWCD is working on a gully control and buffer implementation in the CD 96, CD 221, and CD 16 drainage systems. They will be starting with the CD 16 system and working with the county (drainage authority).
- Ditch outlet analysis with drones: Weather complications prevented the completion of the flyovers last year. Many days were too windy to fly the drones.
- Thief River PTMApp: Ashley Hitt reported that PTMApp is running and generating output data (catchments, loading, BMP suitability, and cost analysis).
- Updates on the Thief River and Red Lake River One Watershed One Plans
- An Ecofootprint Grant will be used to install side water inlets in Pennington County.
- The SWCD is getting ready for tree planting and 12,000 trees have been ordered.
- The Annual Pennington SWCD Banquet is scheduled for April 12.
- BWSR has hired someone to conduct compliance work in the northern part of the state that did not elect to take jurisdiction over implementation of the Buffer Law.
- The next meeting was scheduled for June 11, 2018 at the RLWD meeting room.
- **March 14, 2018** – Thief River 1W1P Advisory Committee, Policy Committee, and Project Work Group Meeting(s)
- **March 15, 2018** – East Polk Soil and Water Conservation District Board Meeting
 - District staff attended the meeting to discuss potential projects in the Clearwater River Watershed. The board chose to focus on initiating projects to improve water quality within Cameron Lake and to install sediment basins in the Clearwater River Watershed portion of the county (as they have recently done in the Sand Hill River Watershed).
- **March 19, 2018** – Red Lake Watershed District Overall Advisory Committee meeting
- **March 28, 2018** – Polk County Water Resources Advisory Committee Meeting
 - A Minnesota Conservation Corps crew will be cleaning out the Sand Hill River in 2017 (clearing and snagging).
 - Jenilynn Marchand gave a presentation on Wellhead Protection Plans.
 - The aquifer that supplies drinking water for the City of Crookston is recharged in the Maple Lake area.
 - Cameron Lake is part of the Erskine Drinking Water Supply Management Area (DWSMA). Even though it is downstream of the town in terms of surface runoff, seepage from Cameron Lake recharges the aquifer that supplies the town's drinking water. Maybe historical residents of the city would have thought differently about disposing wastewater into the lake if they knew it would eventually be recycled into their drinking water.
 - Crookston used to get its drinking water from surface water.
 - Most public wells were old railroad water stop wells. Early steam engine trains had to stop to get water for steam once every 7-10 miles.
 - Polk County groundwater generally follows the path of Highway 2 (or vice-versa)

- The Minnesota Well Index can be viewed online. Wells can be located using an interactive map. <http://www.health.state.mn.us/divs/eh/cwi/>
- The Polk County Wellhead Protection Plan is almost done.
- The “age” of drinking water (how long it has been underground in an aquifer) varies by location. The water used by the towns of Beltrami and Shelly has been in the ground for more an estimated 10,000 years.
- Grants are available from the Minnesota Department of Health for source water protection and well management. Those grants can be used to help fund educational water festivals.
- It is important to attend public hearings and information meetings for source water protection plans. Local protection teams are created from the attendees of those meetings.
- The different levels of well vulnerability were discussed. Wells that are protected by at least 50 feet of clay are considered to have a low level of vulnerability. Water supplies that are shallow and have interaction between surface and groundwater are considered have a high vulnerability.
- Water within the Erskine wellhead protection area takes 10 years to reach the well. That is a relatively short period of time. The Erskine water supply is considered to be very vulnerable.
- Nicole Bernd provided an update on the “We are Water” traveling exhibit. The exhibit is currently on display at the Hjemkomst Center in Moorhead, MN.
- Sarah Mielke is the Lakes Program Coordinator for the East Polk SWCD and will be collecting monthly (May through September) lakes samples during the summer of 2018.
- The next meeting was scheduled for June 12, 2018.
- **March 29, 2018** - Thief River 1W1P Planning Work Group conference call

Quote of the Month:

“The common denominator for success is work.”
- John D. Rockefeller

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

Learn more about the Red Lake Watershed District at www.redlakewatershed.org.

Learn more about the watershed in which you live (Red Lake River, Thief River, Clearwater River, Grand Marais Creek, or Upper/Lower Red Lakes) at www.rlwdwatersheds.org.

“Like” the Red Lake Watershed District on [Facebook](https://www.facebook.com/redlakewatershed) to stay up-to-date on RLWD reports and activities.