

**RED LAKE WATERSHED DISTRICT**  
**February 28, 2019**  
**Agenda**  
**9:00 a.m.**

|            |  |              |
|------------|--|--------------|
| 9:00 a.m.  | Call to Order  | Action       |
|            | Review and approve agenda  | Action       |
|            | Requests to appear   | Information  |
|            | January 24, 2019 Minutes   | Action       |
|            | Financial Report dated February 27, 2019   | Action       |
|            | Thief River Falls West Side FDR Project, RLWD Project No. 178  | Information  |
|            | Ditch 16, RLWD Project No. 177-Set Final Hearing Date  | Action       |
|            | Ditch 17, RLWD Project No. 179-Set Preliminary Hearing Date  | Action       |
|            | USGS Stream Gages – Cost Share Payments  | Action       |
|            | Agassiz National Wildlife Refuge-CPL Grant, Silt Removal Ditch 11<br>RLWD Project No. 180B                         | Information  |
|            | Red Lake River 1W1P, RLWD Project No. 149-Resolution   | Action       |
|            | Thief River 1W1P, RLWD Project No. 149A-March 13, 2019<br>Policy Committee Meeting-Legal Counsel Sparby Attendance | Information  |
|            | Black River Impoundment, RLWD Project No. 176-Update   | Information  |
| 10:00 a.m. | Hearing-Challenger Ditch Re-Alignment & Modification,<br>RLWD Proj. No. 122A                                       | Info./Action |
|            | Permit: 19005  | Action       |
|            | Pennington SWCD-Area 1 Envirothon  | Info./Action |
|            | Vehicle Maintenance  | Info./Action |
|            | RLWD Advisory Committee-Update   | Information  |

Administrators Update

Information

Legal Counsel Update

Information

Managers' updates

Information

Adjourn

Action

UPCOMING MEETINGS

March 14, 2019

RLWD Board Meeting, 9:00 a.m.

March 18, 2019

RLWD Advisory Committee Meeting, 9:30 a.m.

March 19, 2019

Red River Basin Drainage Conference, Moorhead

March 20-21, 2019

Joint Annual RRWMB & FDRWG Conference, Moorhead

March 28, 2019

RLWD Board Meeting, 9:00 a.m.

# DRAFT

RED LAKE WATERSHED DISTRICT  
Board of Manager's Minutes  
January 24, 2019

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

The Board reviewed the agenda. A motion was made by Ose, seconded by Dwight, and passed by unanimous vote that the Board approve the agenda. Motion carried.

The Board reviewed the January 10, 2019 minutes. Motion by Sorenson, seconded by Tiedemann, to approve the January 10, 2019 Board meeting minutes as presented. Motion carried.

The Board reviewed the Financial Report dated January 23, 2019. Motion by Tiedemann, seconded by Ose, to approve the Financial Report dated January 23, 2019 as presented. Motion carried.

The Conflict of Interest policy was reviewed by the Board. Motion by Dwight, seconded by Sorenson, to approve the Conflict of Interest Policy and have each Board member sign the Conflict of Interest policy and return it to staff member, Arlene Novak. Motion carried.

Dillion Nelson, EIT, HDR Engineering, Inc. updated the Board on the last coordination meeting with the City of Thief River Falls, Pennington County and MnDOT, for the Thief River Falls Westside Flood Damage Reduction Project, RLWD Project No. 178. Nelson discussed two options for work within the area of 130<sup>th</sup> Avenue, which is considered a township road and road ditch. Discussion was held on the replacement of culverts or possible urbanization of the downstream portion of the township road ditch, adequacy of the outlet, and potential of landowner's petitioning for a lateral to take the ditch farther north. Discussion was held on the utility conflicts with Sjoberg's and underground electric with the City of Thief River Falls. Nelson stated that the City of Thief River Falls has underground electric that supplies power to Sanford Hospital along the Highway 32 corridor. Staff from the City of Thief River Falls estimated a cost of \$40,000 to relocate the cable. Nelson reviewed two potential changes to the ditch alignment to avoid the underground utilities. It was the consensus of the Board, to have HDR Engineering, Inc., move forward with design to include the relocation of the underground utilities.

Engineer Jerry Pribula, Pribula Engineering, Inc., presented, for informational purposes, the proposed Preliminary Engineer's Report for the Improvement of Polk County Ditch No. 39, RLWD Ditch 17, RLWD Project No. 179. Polk County Ditch No. 39 is a nine-mile ditch that runs parallel to County Road 65, and outlets into the Grand Marais Creek. Pribula stated that he

met with staff from the Polk County Highway Department to discuss improvements to part or all of the ditch system. Pribula noted that when they designed the ditch system, they considered the overflow of waters that would come from Polk County Ditch 66. Discussion was held on the berm that was installed in Section's 11, 12, and 13, Keystone Township, where local landowners have installed berms to contain the water from overflowing. Another item of interest is a fiber optic and overhead power line at Highway 220. Pribula also indicated, the proposed improvement will move away from County Road 65 to allow construction of road side slopes. Pribula discussed the estimated cost of utilities and total project cost. Discussion was held on the inclusion of side water inlets (SWI). Pribula has approximately 83 SWI included in the design, with plans to pare it back to 45-50 installations. Administrator Jesme indicated that 83 SWI's appeared to be high for 9.25 miles of ditch. Considerable discussion was had on potential cost share funding for SWI's and future maintenance costs, should all 83 be installed. Motion by Tiedemann, seconded by Ose, to accept for information and filing, the proposed Preliminary Engineer's Report for the Improvement of Polk County Ditch No. 39, RLWD Ditch 17, RLWD Project No. 179. Motion carried.

Engineer Jerry Pribula, Pribula Engineering, Inc., presented, for informational purposes, the Detailed Engineer's Report for the Establishment of RLWD Ditch No. 16, RLWD Project No. 177. Pribula stated that Ditch 16 will be approximately 9 miles long and will run on the south side of 110<sup>th</sup> Street NW out letting into the Grand Marais Creek. Pribula stated that he has been working with MnDOT to resolve the issue of cutting Highway 220 for installation of a new box culvert, at which point the ditch will turn due to local utilities. Pribula discussed the need for an Archeological Cultural Survey to be completed this Spring and the need for a determination of wetlands at the outlet at the bottom of the ditch near the Grand Marais. Pribula stated that the estimated project cost is \$2.3 million. Administrator Jesme stated that the installation of SWI's and the number of SWI's will be addressed at the final hearing. Motion by Tiedemann, seconded by Dwight, to accept, for information and filing, the proposed Detailed Engineer's Report for Establishment of RLWD Ditch No. 16, RLWD Project No. 177. Motion carried.

Robert Wagner presented information on the Viewers' Report for the establishment of RLWD Ditch No. 16, RLWD Project No. 177 and submitted the proposed report for informational purposes and filing. Wagner stated that the Viewers determined that the total benefits of the project are \$3,058,689.00. Motion by Sorenson, seconded by Ose, to accept, for information and filing, the proposed Viewers' Report for the establishment of RLWD Ditch No. 16, RLWD Project No. 177. Motion carried.

Engineer Nate Dalager, HDR Engineering, Inc., discussed a meeting he attended along with Administrator Jesme, Board Managers Sorenson and Torgerson, Clearwater County Commissioner Mark Larson and Theresa Ebbenga, MnDNR regarding the Pine Lake Project, RLWD Project No. 26. Dalager discussed the various components of the project and a prior request to complete an Alternative Analysis Report. Dalager stated that he looked at every potential site and evaluated the impacts, with Sites D and E, having the least impact and being the most likely to be permitted. Site E is already a degraded stream, as it is the site of a 6' beaver dam, which is on-channel retention. Discussion was held on the issue of the trout stream designation and how it could affect the proposed FDR Project. Site F is also considered an on-

channel storage site. Dalager stated that the District gained 260 ac.ft. of storage by replacing the outlet structure on the Little Pine Lake WMA, which was considered as Site F. The Pine Lake area watershed is a steep watershed with ravines and valleys, where there is no flat land for off channel storage. To retain water, a dam would need to be built in the ravine or valley to hold water back. A meeting will be held later in February with all the DNR staff.

Administrator Jesme stated that District staff completed a benefitted area map that was submitted to Pennington County for the Challenger Ditch Re-Alignment and Modification, RLWD Project No. 122A. Legal advertising and notices will be submitted for the February 28, 2019 hearing.

Administrator Jesme stated that he was informed that the BWSR Board approved the Plan Amendment for inclusion of Water Management Districts for Black River Impoundment and Thief River Falls West Side FDR as they relate to the Red Lake River 1W1P, RLWD Project No. 149.

The Board reviewed the Memorandum of Agreement for the Thief River 1W1P, RLWD Project No. 149A. Motion by Ose, seconded by Dwight, to approve the Memorandum of Agreement for the Thief River 1W1P, RLWD Project No. 149A, pending review and approval of Legal Counsel Sparby. Motion carried.

The Board reviewed correspondence from the MnDNR regarding the domestic well interference complaint in Red Lake County. The MnDNR has determined that the complaint is not valid and that no further action will be taken by the DNR.

The Board reviewed the permits for approval. Motion by Page, seconded by Sorenson, to approve the following permits with conditions stated on the permit: No. 19001, Earl Pederson, Emarville Township, Red Lake County; No. 19002, Red Lake County Highway Department, Terrebonne Township, Red Lake County; No. 19003, Polk County Highway Department, Brandsvold Township, Polk County; and 19004, Garden Valley Technologies, Grove Park/Tilden and Woodside Townships, Polk County. Motion carried.

Discussion was held on the purchase of a conference call phone for the District Board room. Motion by Sorenson, seconded by Ose, to approve spending up to \$2,000, for the purchase of a conference call phone for the District Board room. Motion carried.

Administrator Jesme and staff member Tammy Audette stated that in 2012, the District purchased a used Canon copier for \$10,250, with a five-year equipment maintenance agreement. Due to the costs of repairing an aged machine, the District is spending an average of \$605.00 per month for service and supplies. The Board reviewed a quote using the MN State Contract Purchasing/Lease option for a new copier. It was the consensus of the Board, to receive additional quotes and report back to the Board.

Administrator Jesme requested updating of four District computers that were purchased in 2011. Motion by Dwight, seconded by Tiedemann, to authorize updating of four District computers. Motion carried.

Executive Director, Rob Sip, RRWMB updated on the Board on recent activities of the RRWMB. Sip stated that RRWMB Board is now in Phase II of the Strategic Plan. Sip explained that RRWMB held a special meeting in October 2018, to review how they fund non-retention projects. Sip was directed to send out a Strategic Plan Input questionnaire to the member Districts regarding funding of alternative flood damage reduction projects, cost-share levels of such projects, and development of a strategic plan. Sip encouraged the District to submit the questionnaire as a Board. Discussion was held on the current mission of the RRWMB, the principal and supporting objectives, outreach to County Boards, and RRWMB Budget. Sip reviewed the expenditures and levy receipts from 2013-2018 and history of RLWD projects funded through the RRWMB. Discussion was held addressing the additional benefits funded through the RRWMB. Discussion was held on the 2019 legislative priorities and changes to the RRWMB membership.

The MAWD Legislative Reception and Day at the Capital will be held February 20-21, 2019 at the Double Tree Hotel, St. Paul.

The RRWMB March Conference will be held March 20-21, 2019 at the Marriott in Moorhead. A Red River Basin Drainage Conference will be held the day prior to the start of the conference.

#### Administrators Update:

- Jesme and Manager Ose and Torgerson attended the RRWMB meeting in EGF on January 15, 2019, followed by the Red River Basin Commission Conference in Grand Forks. Jesme will participate in a RRWMB finance committee meeting in the District office after today's meeting.
- The Thief River 1W1P Advisory and Policy Committee meeting was held on January 9, 2019 at the District office. The main objective of the meeting was to review Section 4 to develop a draft which can be submitted to the Policy Committee for approval. The Plan Committee met on January 22 to review the Watershed Wide Implementation Worksheet. The next Thief River 1W1P meeting will be held March 13<sup>th</sup> at the District office.
- Jesme will sit on a MPCA Waters and Watershed round table panel on February 6<sup>th</sup> in Brainerd to discuss partnerships on developing projects. Jesme will share the partnerships for the Grand Marais Outlet Restoration and Cut Channel Projects.
- Jesme will be on vacation February 7<sup>th</sup> and 8<sup>th</sup>.
- Included in the packet was a September 2018 Water Quality Report.

Manager Ose discussed options that Bremer Bank would offer the Red River Management Board should they purchase Certificate of Deposits.

Manager Tiedemann inquired on the status of the JD 5, RLWD Project No. 102 (Four-Legged Lake) and if a response was sent to the Clearwater County Environmental Services office. Legal Counsel Sparby stated that there are no new developments on JD 5, and that a response had not been submitted to Clearwater County Environmental Services.

Red Lake Watershed District

January 24, 2019

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Discussion was held on cancelling the February 14, 2019 Board meeting due to the lack of a quorum of managers being available for this meeting. Motion by Ose, seconded by Dwight, to cancel the February 14, 2019 meeting due to the lack of a quorum. Motion carried.

Motion by Ose, seconded by Dwight, to adjourn the meeting. Motion carried.

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Terry Sorenson, Secretary

**RED LAKE WATERSHED DISTRICT**  
**Financial Report for February 27, 2019**

| <b>Ck#</b> | <b>Check Issued to:</b>             | <b>Description</b>  | <b>Amount</b> |
|------------|-------------------------------------|---|---------------|
| online     | EFTPS                               | Withholding for FICA, Medicare, and Federal taxes         | \$ 3,746.45   |
| online     | MN Department of Revenue            | Withholding taxes   | 538.02        |
| online     | Public Employees Retirement Assn.   | PERA contributions  | 2,474.63      |
| online     | Minnesota Department of Revenue     | Withholding taxes   | 165.16        |
| online     | EFTPS                               | Withholding for FICA and Medicare                         | 103.28        |
| online     | EFTPS                               | Withholding for FICA, Medicare, and Federal taxes         | 3,616.81      |
| online     | MN Department of Revenue            | Withholding taxes   | 671.55        |
| online     | Public Employees Retirement Assn.   | PERA contributions  | 2,406.16      |
| online     | EFTPS                               | Withholding for FICA, Medicare, and Federal taxes         | 3,351.02      |
| online     | MN Department of Revenue            | Withholding taxes   | 611.92        |
| online     | Public Employees Retirement Assn.   | PERA contributions  | 2,265.87      |
| online     | EFTPS                               | Withholding for FICA and Medicare                         | 256.58        |
| online     | MN Department of Revenue            | Withholding taxes   | 50.00         |
| 37296      | Corey Hanson                        | Reimburse for mileage for RRWMB TAC meeting               | 60.90         |
| 37297      | City of Thief River Falls           | Electricity, water, sewer, etc.                           | 901.15        |
| 37298      | Sjobergs Cable TV                   | Internet expense  | 116.30        |
| 37299      | Ameripride Services, Inc.           | Office rug rental   | 35.43         |
| 37300      | Centurylink                         | Telephone expense   | 275.84        |
| 37301      | Garden Valley Technologies          | Telephone expense   | 125.25        |
| 37302      | Marco                               | * See below for explanation                               | 2,647.55      |
| 37303      | MCI                                 | Telephone expense   | 57.78         |
| 37304      | MN Energy Resources Corp.           | Heating expense   | 197.35        |
| 37305      | NCPERS Minnesota                    | Life insurance premium                                    | 112.00        |
| 37306      | Northdale Oil Inc.                  | Gas for Traverse  | 36.85         |
| 37307      | Purchase Power                      | Postage plus processing fee                               | 502.67        |
| 37308      | Quill Corporation                   | Computer and copy paper                                   | 159.44        |
| 37309      | Sun Life Financial                  | Life insurance premium                                    | 128.56        |
| 37310      | Jerry Bennett                       | Appraiser's fees, mileage and meals-RLWD Proj. 177        | 3,133.45      |
| 37311      | Brady, Martz & Assoc., P.C.         | Progress payment for 2018 audit                           | 6,000.00      |
| 37312      | Cenex Credit Card                   | Gas for vehicle   | 48.50         |
| 37313      | Delta Dental                        | Dental insurance premium                                  | 409.75        |
| 37314      | Emmons & Olivier Resources, Inc.    | Charges for RLWD website for Clearwater, RL & Thief WRAPS | 129.00        |
| 37315      | Farmers Union Oil                   | Gas for Equinox   | 51.17         |
| 37316      | Further                             | FSA Account fees  | 8.85          |
| 37317      | HDR, Inc.                           | ** Engineering fees                                       | 63,809.11     |
| 37318      | Houston Engineering, Inc.           | *** Engineering fees                                      | 40,124.56     |
| 37319      | Hugo's #7                           | Board meeting and Proj. 149A supplies                     | 143.93        |
| 37320      | Myron Jesme                         | Mileage, per diem meals and shuttle expense               | 340.60        |
| 37321      | Les's Sanitation, Inc.              | Garbage pickup  | 34.70         |
| 37322      | Marco                               | Microsoft Office 365 monthly expense                      | 187.50        |
| 37323      | Dale M. Nelson                      | Mileage   | 42.92         |
| 37324      | Nendick Heating,Cooling, Plumb.Inc. | Spread black dirt per bid at White Birch Resort-Proj. 50E | 1,500.00      |
| 37325      | Northern State Bank                 | Safe deposit box rent                                     | 14.00         |
| 37326      | Northwest Beverage, Inc.            | H2O for office  | 45.50         |
| 37327      | Northwestern Mutual Financial       | Deferred Compensation                                     | 415.57        |
| 37328      | Olson Construction                  | Snow plow parking lot and spread sand in January          | 280.00        |
| 37329      | Rohlf-Tech Inc.                     | LeRoy Ose stamp   | 35.00         |
| 37330      | Rinke Noonan                        | Monthly legal services retainer                           | 200.00        |
| 37331      | Tony Salentine                      | Impoundment operations at Parnell, Euclid East and Brandt | 780.00        |
| 37332      | Sun Life Financial                  | Life insurance premium                                    | 128.56        |
| 37333      | TD Ameritrade Trust Company         | Deferred Compensation                                     | 415.57        |
| 37334      | Gene Tiedemann                      | Mileage   | 305.85        |
| 37335      | Robert Wagner                       | Appraiser's fees, mileage and meals-RLWD Proj. 177        | 1,439.57      |
| direct     | Further                             | Health FSA  | 429.02        |
| direct     | Blue Cross Blue Shield              | Health insurance premium                                  | 4,076.00      |



|        |                     |                           |                  |
|--------|---------------------|---------------------------|------------------|
| online | Aflac               | Staff paid insurances     | 613.46           |
| online | Cardmember Services | ****See explanation below | 1,353.38         |
| direct | Brian Dwight        | Mileage                   | 393.24           |
| direct | Terry Sorenson      | Mileage                   | 97.44            |
|        | <b>Payroll</b>      |                           |                  |
|        | Check #11587-11611  |                           | <u>34,522.01</u> |
|        | <b>Total Checks</b> |                           | \$ 187,122.73    |

**\*Marco**

|                                       |               |
|---------------------------------------|---------------|
| Adobe Acrobat software-Corey's        | 310.00        |
| (15) Monthly Microsoft 365            | 187.50        |
| Monthly managed IT services           | 1,347.13      |
| Change firewall to new static address | 350.00        |
| Monthly copier expense                | <u>452.92</u> |
|                                       | 2,647.55      |

**\*\*HDR, Inc.**

|                                    |                  |
|------------------------------------|------------------|
| Proj. 26 Pine Lake PWT             | 4,951.77         |
| Proj. 178 Thief River Westside FDR | <u>58,857.34</u> |
|                                    | 63,809.11        |

**\*\*\*Houston Engineering, Inc.**

|                                   |                  |
|-----------------------------------|------------------|
| Proj. 149A TR1W1P                 | 12,141.35        |
| Proj. 149AA Thief River PTMApp    | 6,066.25         |
| Proj. 176 Black River Impoundment | <u>21,916.96</u> |
|                                   | 40,124.56        |

**\*\*\*\* Cardmember Services**

|                                  |               |
|----------------------------------|---------------|
| AT&T-Cell phone expense          | 236.69        |
| Proj. 149A meeting meals         | 81.01         |
| Registration for MAWD leg.-Myron | 100.00        |
| Registration for MAWD leg.-Gene  | 100.00        |
| Registration for MAWD leg.-LeRoy | 100.00        |
| AED Superstore-AED smartpads     | 119.70        |
| Americinn--Lodging-RRB-Les       | 102.18        |
| Canad Inns-Lodging-RRB-Les       | 205.52        |
| Canad Inns-Lodging-RRB-LeRoy     | 205.52        |
| Canad Inns-Lodging-RRB-Myron     | <u>102.76</u> |
|                                  | 1,353.38      |

**Banking****Northern State Bank**

|  |                     |
|--|---------------------|
| Balance as of January 23, 2019   | \$ 147,445.41       |
| Total Checks Written   | (187,122.73)        |
| Receipt #414502 Northern State Bank-Monthly interest                         | 139.14              |
| Receipt #414505 CDARS (Unity Bank) Monthly interest on CDS                   | 1,588.95            |
| Receipt #414506 State of Minnesota-Reimbursements for 3 water quality grants | 8,156.00            |
| Receipt #414507 Marshall County-Current and delinquent taxes                 | 1,209.07            |
| Receipt #414508 West Polk SWCD-Reimburse for Proj. 134/164 expenses          | 72,416.37           |
| Receipt #414509 Transfer in from American Federal Bank-Fosston               | 50,000.00           |
| Balance as of February 27, 2019  | <u>\$ 93,832.21</u> |

**Border State Bank**

|  |                     |
|--|---------------------|
| Balance as of December 31, 2018                    | \$ 18,201.46        |
| Receipt #414503 Border State Bank-Monthly interest | 7.71                |
| Balance as of January 31, 2019                     | <u>\$ 18,209.17</u> |

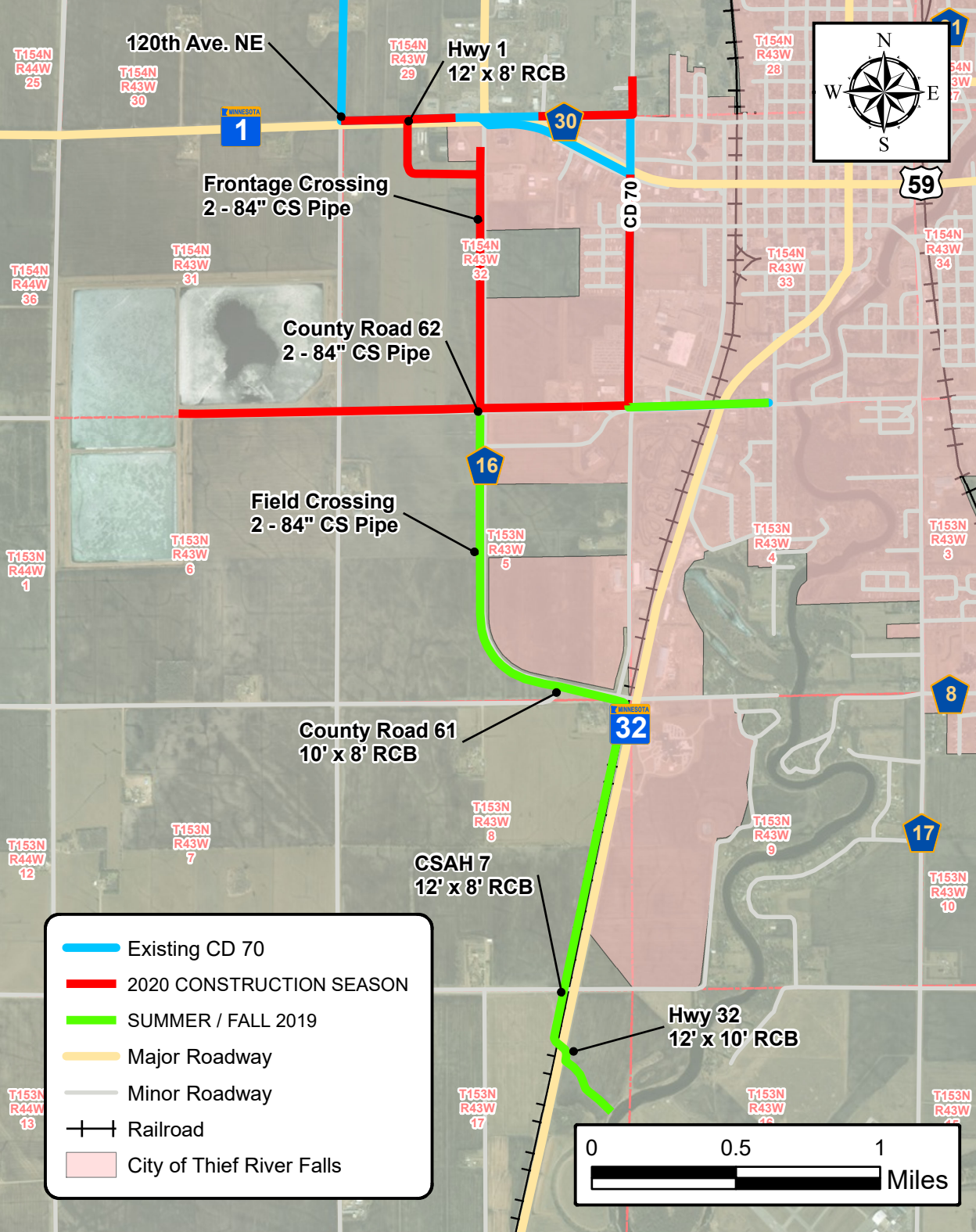
**American Federal Bank-Fosston**

|  |                        |
|--|------------------------|
| Balance as of January 9, 2019  | \$ 1,831,760.12        |
| Receipt #414491 Polk County-Second half of riparian aid                              | 6,667.50               |
| Receipt #414492 American Federal Bank-Matured CD with interest from American Federal | 201,944.02             |
| Receipt #414493 Red Lake County-Delinquent taxes and special revenue                 | 5,386.02               |
| Receipt #414494 Roseau County-Delinquent mobile home taxes                           | 3.11                   |
| Receipt #414495 American Federal-Receipt only to record monthly interest on CD       | -                      |
| Receipt #414496 Mahnomen County-Delinquent taxes                                     | 77.43                  |
| Receipt #414497 Pennington County-Delinquent taxes                                   | 17,836.08              |
| Receipt #414498 Polk County-Delinquent taxes   | 30,343.21              |
| Receipt #414499 Itasca County-Delinquent taxes                                       | 44.54                  |
| Receipt #414500 Beltrami County-Delinquent taxes                                     | 7,703.33               |
| Receipt #414501 Marshall County-Delinquent taxes                                     | 6,406.64               |
| Receipt #414504 American Federal Bank-Monthly interest                               | 2,508.00               |
| Receipt #414509 Transfer to Northern State Bank                                      | (50,000.00)            |
| Balance as of February 27, 2019  | <u>\$ 2,060,680.00</u> |

# Red Lake Watershed District

as of February 27, 2019

| <u>Name of Institution</u>   | <u>Purchase/<br/>Current Value</u> | <u>Int. Rate</u> | <u>Mat. Date</u> | <u>*Maturity Amount</u> |
|--|------------------------------------|------------------|------------------|-------------------------|
| 10010 Northern State Bank (checking)   | \$ 93,832.21                       | 0.80%            |                  | \$ 93,832.21            |
| 10020 Border State Bank (Investor savings)<br>Thief River Falls                | \$ 18,209.17                       | 0.50%            |                  | \$ 18,209.17            |
| 10030 American Federal Bank<br>Fosston   | \$ 2,060,680.00                    | 1.60%            |                  | \$ 2,060,680.00         |
| 10470 CDARS-Bank of America, Charlotte, NC<br>monthly interest payment via ACH | \$ 200,000.00                      | 1.95%            | 2/28/2019        | \$ 200,000.00           |
| 10740 CDARS-Signature Bank, New York<br>monthly interest payment via ACH       | \$ 200,000.00                      | 2.05%            | 7/18/2019        | \$ 200,000.00           |
| 10740 CDARS-Valley National Bank<br>monthly interest payment via ACH           | \$ 159,000.00                      | 2.05%            | 7/18/2019        | \$ 159,000.00           |
| 10740 CDARS-Signature Bank, New York<br>monthly interest payment via ACH       | \$ 41,000.00                       | 2.05%            | 7/18/2019        | \$ 41,000.00            |
| 10660 CDARS-Bank of America<br>6 mos. CD, int. paid monthly                    | \$ 44,500.00                       | 2.45%            | 7/18/2019        | \$ 44,500.00            |
| 10660 CDARS-St. Louis Bank<br>6 mos. CD, int. paid monthly                     | \$ 155,500.00                      | 2.45%            | 7/18/2019        | \$ 155,500.00           |
| 10870 American Federal-Fosston-12 month<br>monthly interest compounded         | \$ 202,118.80                      | 2.10%            | 7/26/2019        | \$ 204,200.00           |
| 10260 CDARS-SmartBank, Pigeon Forge, TN<br>(int.pd quarterly via ACH)          | \$ 200,000.00                      | 2.05%            | 9/5/2019         | \$ 204,100.00           |
| 10710 CDARS-BOKD, National Assn., Tulsa<br>(int.pd monthly via ACH)            | \$ 200,000.00                      | 2.33%            | 10/3/2019        | \$ 200,000.00           |
| 10880 Ultima Bank-Fosston<br>(int. compounded sem-annually)                    | \$ 600,000.00                      | 2.52%            | 10/22/2019       | \$ 615,120.00           |
| RiverWood Bank-Bemidji (Bagley)<br>Interest paid at maturity                   | \$ 200,000.00                      | 2.35%            | 11/8/2019        | \$ 204,700.00           |
| Edward Jones   | <u>\$ 200,000.00</u>               | 2.75%            | 12/27/2019       | <u>\$ 200,000.00</u>    |
|  | <u>\$ 4,574,840.18</u>             |                  |                  | <u>\$ 4,600,841.38</u>  |



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

February 12, 2019

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

**RE: Detailed Engineers Report for the 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 Detailed Engineer's Report for the above-cited project in accordance with Minnesota Statutes Section 103E.301.

1. The Detailed Engineer's Report is approved as an acceptable plan to drain the property affected, however, we ask for consideration of the following recommendations.

**Concerns and Recommendations**

The layout of the report was easy to read and understand and we appreciate the time and thoughtfulness put into the report. The Detailed Engineers Report covered many of the items of concern from our Preliminary Advisory Report, however, the DNR would like to make the following recommendations:

1. Please continue to work with the West Polk SWCD Wetland Conservation Act (WCA) Administrator and the US Army Corp of Engineers (USCOE) on completing a wetland delineation report in the project vicinity. This is a requirement on all projects that may impact wetlands. Using the NWI for identification of wetlands is a good starting point, but should not be relied on as the only source of information for identifying wetlands.
2. Please continue to consult with the State Historic Preservation Office on determining if any potential cultural resources are in the vicinity of the project.
3. Use wildlife-friendly erosion control practices to avoid wildlife entanglement.
4. Use as little herbicide, insecticide and fertilizers as possible in the management of this ditch. Pesticides may harm butterflies and other pollinators and can harm water quality.

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 considerations of these comments. We look forward to continuing to work with the Red Lake Watershed District on this and other projects. For any questions or further details on our concerns, please contact DNR Area Hydrologist, Stephanie Klamm at 218-681-0947 or [stephanie.klamm@state.mn.us](mailto:stephanie.klamm@state.mn.us).

Sincerely,

A handwritten signature in blue ink, appearing to read "Nathan Kestner". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Nathan Kestner  
Eco-Waters Regional Manager

Cc: Theresa Ebbenga, Assistant Regional Manager  
Jaimé Thibodeaux, Env. Assessment Ecologist  
Stephanie Klamm, Eco-Waters Area Hydrologist  
Julie Ekman, Conservation Assistance and Regulation Section Manager

February 27, 2019

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

Re: BWSR Advisory Report for Red Lake Watershed District Ditch No. 17, Project No. 179

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. Because the project is a Chapter 103E drainage project, the requirements of Chapter 103E also apply. The following documents were provided for BWSR review:

- Preliminary Engineer's Report for Improvement of Polk County Ditch No. 39, RLWD Ditch No. 17 by Pribula Engineering, PLLC, dated 1-18-2019.
- Preliminary Construction Plans for RLWD Ditch No. 17, January 2019 (42 sheets)

In accordance with Section 103E.711, Subd. 5, the focus of this advisory review is on the completeness of the report in relation to the requirements of Chapter 103D and Chapter 103E, the practicality of the proposed plan, and to provide any recommendations for changes considered advisable.

#### General Comments

The Preliminary Engineer's Report presents a good description of the improvement project and design, including reported use of the Minnesota Public Drainage Manual, TSAC Technical Papers No. 11 and No. 15, and BTSAC Briefing Paper No. 3, which is good. However, following are specific comments and recommendations.

#### Specific Comments

**Section 1) Introduction, Exhibit C - Original Right-of-way Map, and Exhibit F - Polk CD-66 Elevation Map:** It's not clear where the upstream end of existing CD-39 is located. Exhibit F seems to indicate that CD-39 extends into Section 13, Keystone Township, while the proposed improvement appears to end at Polk County Road 20 in the northeast corner of Section 15, Keystone Township. This question is not really a problem for the proposed improvement, but might affect the understanding of including overflow from the CD-66 drainage area upstream of Co. Rd. 20 in the design of the improvement of CD-39 / RLWD Ditch No. 17.

**Section 3) Condition of Existing Drain:** Presumably the reference to "reconstructed line and grade" refers to when Polk Co. Rd. 65 was constructed and CD-39 reportedly relocated approximately 50 ft. farther south than when it was established in 1903.

**Section 5) Petition for Improvement Project:** Section 103D.625 Drainage Systems in Watershed District, Subd. 4 Construction or Improvement, requires that a petition for establishment or improvement of a Chapter 103E drainage system, where there is a watershed district, is to be filed with the watershed district managers. The watershed district then becomes the drainage authority.

**Section 6) Intent of this Preliminary Report:** Both DNR and BWSR are required to provide advisory reports, per Section 103E.711, Subd. 5.

**Section 9) Conformance with Existing Water Management Plans:** The text is not clear about incorporation of WRAPS (how?) and conformance with One Watershed, One Plan.

**Section 12) Hydrologic and Hydraulic Considerations:** The text here and elsewhere in the report indicates that the project improvement is designed for a 10-yr. rainfall event. I believe the formula  $Q=27A^{5/6}$  is actually based on a 1" drainage coefficient, with an exponent adjustment for size of drainage area, rather than a hydrologic frequency. If the referenced NRCS M-Curve is Curve 1 on the MN SCS/NRCS Hydrology Guide (circa 1992), Fig. 5-5, it's also not for a specific hydrologic frequency. I believe the method referenced as USGS (2009) Minnesota, Region A - PK10 is based on stream gage data, which includes snowmelt, so is not a summer rainfall based method. I wonder how the peak flows would compare if the NOAA Atlas 14, 10-yr. rainfall for the project drainage area was used with a hydrologic modeling method.

It's unclear where the three 36" RCP culverts through Co. Rd. 20 are located. Preliminary Construction Plan page 16 seems to indicate only one 36" culvert through Co. Rd. 20 at the upstream end of the planned improvement. Because the design ditch bottom profile and water surface elevation are several feet below the top of CSAH 65 and what I believe is a proposed continuous spoil berm / levee with flap-gated side inlets, the hydraulic capacity of the Ditch No. 17 channel appears to be significantly greater than the reported design frequency. Although, it seems that substantial ponding on the adjacent fields, and in the upstream reaches of the ditch would be required to push water through the side inlets and utilize that capacity.

**Section 13) Project Watershed Area:** Because the Ditch No. 17 drainage area is a critical variable for the design flow determination, I wonder about the drainage area boundary, particularly between CD-39 and CD-40, as shown on Exhibit B. Also, the area shown does not seem to add up to 16.5 square miles. I also wonder if the viewers will agree with the benefited area boundary mentioned in this section and shown on pages 1 and 2 of the Preliminary Construction Plans.

**Section 14) Polk County Ditch No. 66 – Watershed Concerns:** This section refers to berms that have washed out, but does not indicate where the berms are located.

**Section 15) Proposed Channel Alignment:** It is indicated that Ditch No. 17 will "begin" 65 feet easterly of the NE corner of Section 15, Keystone Township, while the plan and profile drawings on page 16 of the Preliminary Construction Plans do not seem to agree.

**Section 16) Size and Character of Proposed Drain:** It would be helpful for the report to discuss the proposed continuous spoil berm along the south side of the channel, which will include the required 16.5 ft. buffer strip of perennial vegetation. There is no discussion about how the spoil berm profile is designed, including its top elevation in relation to CSAH 65 and other roads. Continuous berm / levee overtopping at the downstream end of each section first to back water into the floodplain outside the berm / levee for large events typically is much better than overtopping at the upstream end first, which is prone to cause field erosion.

**Section 17) Outlet – Grant Marais Creek a Public Waterway:** The first paragraph mentions temporary and permanent erosion control measures proposed at the Ditch No. 17 outlet, but does not describe the measures and there are no associated detail drawings in the Preliminary Construction Plans. While the early water explanation in relation to the mainstem of the Red River is correct, the local effects of the increased hydraulic capacity of Ditch No. 17 on flows in Grand Marais Creek, including at CSAH 65 and CSAH 21 are not discussed.

**Section 22) Wetlands and Public Lands Affected:** Section 3) Condition of Existing Drain mentions cattails in the bottom of the lower sections of the existing CD-39, and Section 24), E. indicates that no fill will be placed in any wetland, but this section does not mention any Wetland Conservation Act applicability, or not.

**Section 24) Evaluation of Social, Economic and Environmental Impacts:** It's not clear in subsection A.3. why the project might need to acquire spoil bank right-of-way for 2 years. Could construction be staged to avoid this? It's good that the separate considerations in Section 103E.015, Subd. 1 and 1a are each addressed. Subsection D. does not really address or reference other sections regarding how the project will affect flooding characteristics for the 25-yr., 50-yr. (and larger) events. Subsection H. doesn't explain why there will be little or no affects.



**Section 25) Evaluation of Public Utility, Benefit or Welfare of the Project – Section 103E.015, Subd. 2.:** The proposed side inlets are not mentioned as a component of erosion control and surface runoff metering in paragraph 3. Paragraph 6 indicates part of the continuous spoil berms will include the required 16.5 ft. buffer strip of perennial vegetation, which implies that the remainder will be farmed, but this is not clear. I'm not clear why public navigation potential and Scientific and Natural Areas (SNAs) need to be addressed.

#### **Preliminary Construction Plans**

It would be helpful to include titles on each of the pages / sheets.

**Pages 3, 4 and 17 - 41:** The Typical Cross Sections do not agree with the specific cross sections at 200-ft. stations. The typical sections indicate a uniform 4H:1V field side channel side slope, while the specific cross sections indicate broken slopes, up to 2H:1V on many cross sections. This also disagrees with what's indicated in the report and on Page 5 of the Preliminary Construction Plans. A related concern is where the required 16.5 ft. buffer strip will be measured from. It's clear on the typical cross sections, but not as clear on the specific cross sections, which don't identify the buffer strip. I would consider the "top edge of the constructed channel resulting from the proceeding" (103E.021, Subd. 1) to be at the top edge of the spoil berm.

**Page 5:** The Typical Section Along Centerline of CMP Conduit indicates a consistent 16.5 ft. spoil berm top width, which seems to disagree with the Typical Cross Sections for Station 100+00 to Station 218+47. Grading for the proposed insets of the inlets and outlets of the Surface Water Inlets is not clear. A plan view seems needed.

**Pages 7 - 16:** It seems that a top of continuous spoil berm profile should be added to the profile drawings to better understand the relationship with the top of CSAH 65 and the township and county roads crossed by Drain No. 17, and how flows greater than the design flow will interact with the floodplain fields. As mentioned above, overtopping of the continuous spoil berm / levee at the downstream ends of sections of land to back water into the fields / floodplain is much better than overtopping at the upstream ends of sections, to avoid field / floodplain erosion. It might also be helpful to include the design invert elevations of the proposed side inlets on these drawings for the construction contractor.

If you have questions about this advisory report, please call me at 651-297-2907, or email at [al.kean@state.mn.us](mailto:al.kean@state.mn.us).

Sincerely,



Allan M. Kean, PE  
Chief Engineer

cc: John Jaschke, Executive Director  
Dave Weirens, Assistant Director  
Ryan Hughes, North 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**

February 26, 2019

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: Improvement of Polk County Ditch No. 39, RLWD Project No. 179.**

Dear Watershed District Managers:

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

1. The Preliminary Engineer's Report appears to be acceptable plan, however, we ask for consideration of the following recommendations.
2. A soil survey is not needed.

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

**General Comments**

- Please consult with the West Polk SWCD Wetland Conservation Act (WCA) Administrator and the US Army Corps of Engineers (USACE) on the need for a wetland delineation report in the project vicinity. This is a requirement on all projects that may impact wetlands. Using the National Wetlands Inventory for identification of wetlands is a good tool to use for preliminary or cursory review of wetlands, but should not be used as the final documentation on determining wetlands. A Notice of Decision (NOD) on this project should be documented by the West Polk SWCD prior to the commencement of the project.
- Please consult with the State Historic Preservation Office (SHPO) to ensure that no archeological sites are along the alignment of the drainage system or near the Grand Marais Creek. Documentation from SHPO should be received and kept on file for this project. Based on past projects in the Grand Marais Creek general area, there is potential for cultural resources concerns.
- 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.

- DNR recommends more information in the Final Engineer's Report on the sediment and erosion control measures or special design considerations mentioned in Section 17 of the Preliminary Engineers Report for the outlet to the Grand Marais Creek.
- To prevent wildlife entanglement in webbing, DNR recommends using wildlife-friendly erosion control. These are Category 3N or 4N in the 2016 & 2018 MnDOT Standards Specifications for Construction. Visit the MN DNR online handout on [Wildlife Friendly Erosion Control](#) for additional information.
- Hydro-mulch products frequently contain plastic fibers to aid in its matrix strength. These loose fibers re-suspend and make their way into waterbodies. DNR recommends utilizing cellulose-based hydro mulch. Products containing plastic/polypropylene fiber additives should be avoided. Additionally, the dye Malachite Green is an industrial colorant used in some hydro-mulch presents an ecotoxicity concern for aquatic species with a potential for bioaccumulation in insects, amphibians, and fish. DNR recommends products with Malachite Green also be avoided.
- 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. If permits will be required, please coordinate the Final Engineers Report with DNR Area Hydrologist Stephanie Klamm (218-681-0947) to ensure the project is permissible.

We look forward to continuing to work with the Red Lake Watershed District on this and other projects.

Thank you for your consideration of these comments.

Sincerely,



Theresa Ebbenga  
EWR Assistant Regional Manager

Cc: Nathan Kestner, EWR Regional Manager  
Jaimé Thibodeaux, EWR Env. Assessment Ecologist  
Stephanie Klamm, EWR Area Hydrologist  
Julie Ekman, Conservation Assistance and Regulation Section Manager

Links: Wildlife Friendly Erosion Control:  
<https://files.dnr.state.mn.us/eco/nongame/wildlife-friendly-erosion-control.pdf>  
Native seed mixes:  
[http://www.bwsr.state.mn.us/native\\_vegetation/seed\\_mixes/index.html](http://www.bwsr.state.mn.us/native_vegetation/seed_mixes/index.html)



# Red River Watershed Management Board

**DATE:** February 12, 2019  
**TO:** Watershed Administrators  
**FROM:** Robert Sip, RRWMB Executive Director  
**SUBJECT:** Cost-Share Payments Due for USGS Stream Gages

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The individual cost-share responsibilities for the last two years and for this year's contract are listed below.

The cost-share time period for which watershed district payment is now due is for operation of gages from October 1, 2018 through September 30, 2019 (Fiscal Year 2019).

|  | <u>2016-2017 (FY17)</u> | <u>2017-2018 (FY18)</u> | <u>(AMOUNT DUE)<br/>2018-2019(FY19)</u> |
|--|-------------------------|-------------------------|---|
| <b><u>Red Lake</u></b>                   |                         |                         |   |
| Lost River at Oklee                      | 4,475.00                | 4,425.00                | 4,500.00                                |
| Thief River near Thief River Falls       | 4,325.00                | 4,425.00                | 4,500.00                                |
| Red Lake River at Fisher                 | <u>2,317.50</u>         | <u>2,352.50</u>         | <u>2,352.50</u>                         |
|  | \$11,117.50             | \$11,202.50             | \$11,352.50                             |
| <b><u>Wild Rice</u></b>                  |                         |                         |   |
| Marsh River near Shelly                  | \$3,400.00              | 3,475.00                | 3,500.00                                |
| Wild Rice River at Hendrum               | 3,701.00                | 3,845.50                | 3,908.00                                |
| South Branch Wild Rice River near Felton | 4,325.00                | 4,425.00                | 4,500.00                                |
| Wild Rice River at Twin Valley           | <u>665.00</u>           | <u>680.50</u>           | <u>726.50</u>                           |
|  | \$12,091.00             | \$12,426.00             | \$12,634.50                             |
| <b><u>Middle River-Snake River</u></b>   |                         |                         |   |
| Middle River at Argyle                   | \$4,325.00              | 4,425.00                | 4,500.00                                |
| Snake River above Warren                 | <u>4,325.00</u>         | <u>4,425.00</u>         | <u>4,500.00</u>                         |
|  | \$8,650.00              | \$8,850.00              | \$9,000.00                              |
| <b><u>Two Rivers</u></b>                 |                         |                         |   |
| So. Branch Two Rivers at Lake Bronson    | \$2,162.50              | \$2,212.50              | 2,250.00                                |
| <b><u>Sand Hill River</u></b>            |                         |                         |   |
| Sand Hill River at Climax                | \$2,967.50              | \$3,083.50              | 0.00                                    |
| <b><u>Roseau River</u></b>               |                         |                         |   |
| Roseau River at Ross                     | \$4,325.00              | \$4,425.00              | 4,500.00                                |
| Roseau River near Caribou                | 0.00                    | 0.00                    | 0.00                                    |
| Sprague Creek near Sprague               | 4,325.00                | 4,425.00                | 4,500.00                                |
| Roseau River near Malung                 | <u>2,173.00</u>         | <u>2,223.00</u>         | <u>2,373.50</u>                         |
|  | \$10,823.00             | \$11,073.00             | \$11,373.50                             |
| <b>Watershed District Totals</b>         | <b>\$47,811.50</b>      | <b>\$48,847.50</b>      | <b>\$46,610.50</b>                      |
| <b><u>RRWMB</u></b>                      |                         |                         |   |
| RRWMB (50% match)                        | \$47,811.50             | \$48,847.50             | \$46,610.50                             |
| Red River at Grand Forks, ND             |                         |                         |   |
| Bois de Sioux River near Doran           | 5,767.00                | 5,900.00                | 5,900.00                                |
| Red River at Halstad, MN                 | 9,970.00                | 10,260.00               | 10,260.00                               |
| Red River at Enloe Bridge, ND            | 4,630.00                | 4,680.00                | 4,680.00                                |
| Red River at Pembina, ND                 | 0.00                    | 0.00                    | 0.00                                    |
| Red River at Hickson, ND                 | <u>0.00</u>             | <u>0.00</u>             | <u>0.00</u>                             |
| <b>RRWMB Totals</b>                      | <b>\$68,178.50</b>      | <b>\$69,687.50</b>      | <b>\$67,450.50</b>                      |
| USGS Contract Amount                     | \$115,990.00            | \$118,535.00            | \$114,061.00                            |

**Resolution to Adopt and Implement  
the Amended Red Lake River  
Comprehensive Watershed Management Plan**

**Whereas**, the Red Lake Watershed District has been notified by the Minnesota Board of Water and Soil Resources that the Red Lake River Comprehensive Watershed Management Plan (Plan) Amendment has been approved according to Minnesota Statutes §103B.101, Subdivision 14 and §103B.801, and Board Resolution #18-14:

**Now, Therefore, Be it Resolved**, the Red Lake Watershed District hereby adopts and will continue implementation of the approved Amended Red Lake River Planning Comprehensive Watershed Management Plan.

---

**CERTIFICATION**

**STATE OF MINNESOTA  
Red Lake Watershed District**

I do hereby certify that the foregoing resolution is a true and correct copy of a resolution presented to and adopted by Red Lake Watershed District at a duly authorized meeting thereof held on the 28th of February 2019.

---

**Dale M. Nelson, President**



# Public Hearing for Modification of a Portion of the Existing Drainageway and Outlet of RLWD Project 122

# PETITION

**BEFORE THE RED LAKE WATERSHED DISTRICT  
PETITION FOR RE-ALIGNMENT AND MODIFICATION OF A PORTION OF  
THE EXISTING DRAINAGEWAY AND OUTLET OF RED LAKE WATERSHED  
DISTRICT PROJECT NO. 122 UNDER MINN. STAT. 103D.705**

WHEREAS, the petitioners are requesting a proposed project to provide roadway, bridge and transportation benefits; and

WHEREAS, the proposed location of said roadway, bridge and transportation services would affect the alignment, outlet and a portion of the present location of Red Lake Watershed District Project No. 122, an existing drainage project; and

WHEREAS, Petitioners propose that the proposed project will be located and pass over that certain real property as described and represented in the attached Exhibit "A"; and

WHEREAS, a general description of the area of the Red Lake Watershed District that will be affected by the proposed project is all or portions of the benefitted areas as shown in the attached Exhibit "B"; and

WHEREAS, said proposed project is necessary to prevent flooding of agricultural lands and urban infrastructure and urban and residential real property and improvements in the event of a rain or storm event and to facilitate transportation, roadway and bridge project location and drainage; and

WHEREAS, Petitioner is interested in having an Engineer appointed to make an engineering report for the proposed project; and

WHEREAS, the proposed project will be conducive to public health, convenience and welfare; and

WHEREAS, Petitioner understands that it will pay all costs and expenses that may be incurred if the proceedings are dismissed or a construction or implementation contract is not awarded for the proposed project.

WHEREAS, a Petitioner's bond is not required by statute due to the standing of the Petitioner as a County Board in the State of Minnesota.

NOW, THEREFORE, the Petitioner requests the Red Lake Watershed District to accept this petition under Minnesota State Statute 103D.705 and begin the process for the examination and possible construction of the proposed realignment of the existing drainageway and modification of the existing outlet of Red Lake Watershed District Project No. 122, as allowed by statute.

Dated: 1-8-19

PENNINGTON COUNTY BOARD OF COMMISSIONERS

BY: Bruce Lawrence

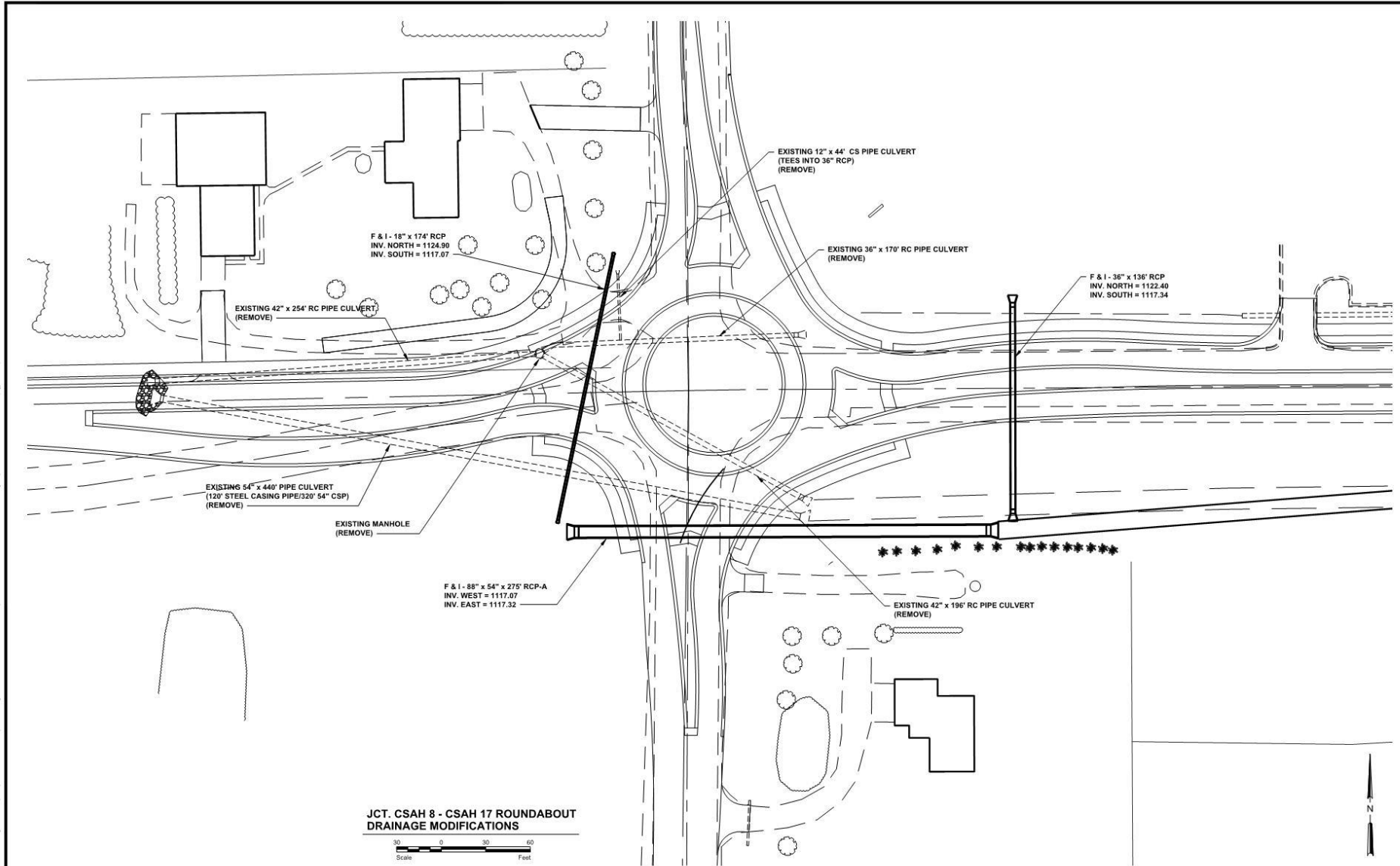
ITS: Chairman

Dated: 1-8-19





# MODIFICATIONS – INTERSECTION PENNINGTON AVE. S/CSAH 8



**JCT. CSAH 8 - CSAH 17 ROUNDABOUT  
DRAINAGE MODIFICATIONS**



H:\Thief River Falls\JRA\3816\3816 Pennington County Hwy\3816-013 PenCity New Bridge and Consider CAD Email for Support\EAST ROUNDABOUT DRAINAGE.dwg, Layer: 12/27/2018 11:04 AM (jgibson)

| No. | Revision | Date | By |
|-----|----------|------|----|
|     |          |      |    |



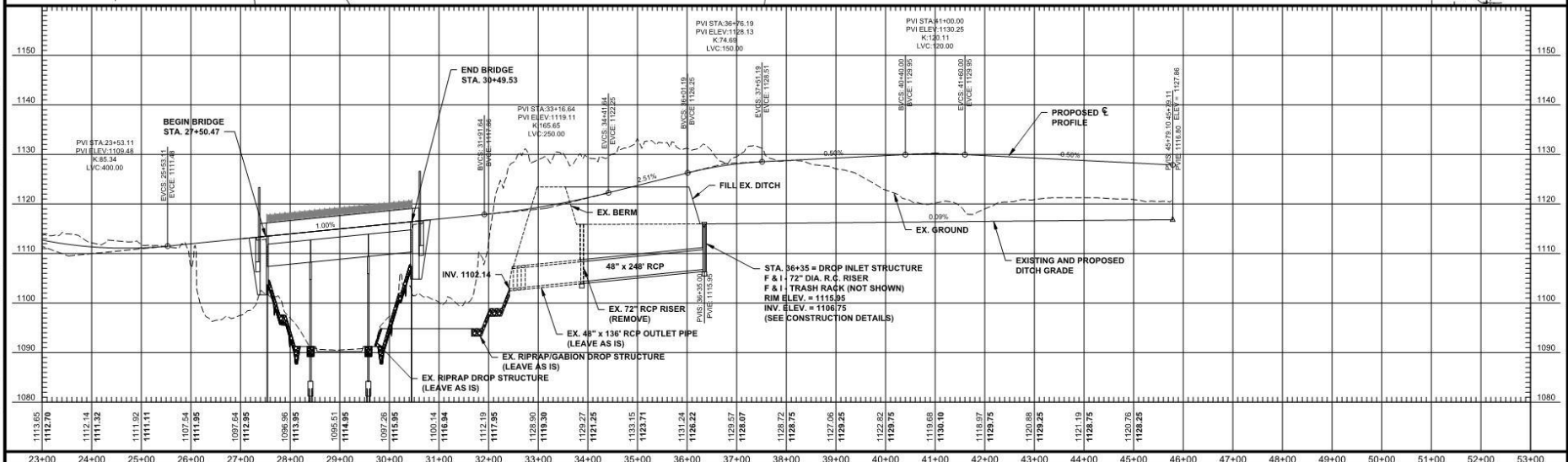
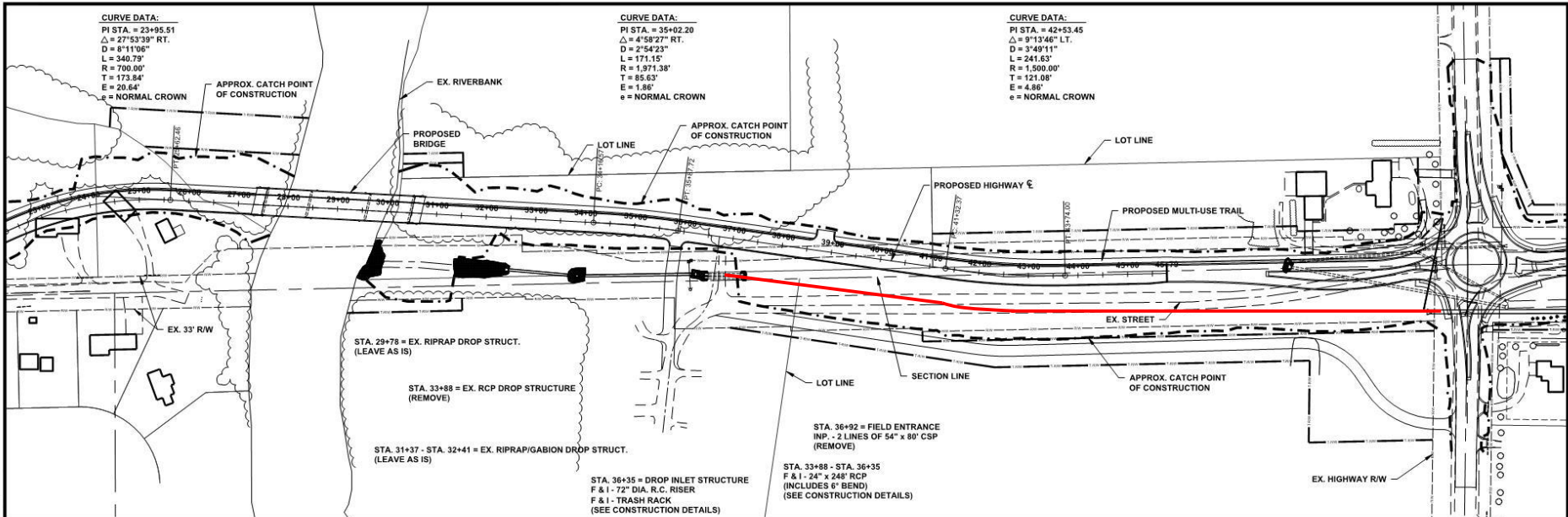
|                   |                   |                   |
|-------------------|-------------------|-------------------|
| Thief River Falls | Drawn by<br>BGJ   | Date<br>12-5-18   |
| P: 218.681.2951   | Checked by<br>JJL | Scale<br>AS SHOWN |
| F: 218.681.2987   |                   |                   |

|        |             |
|--------|-------------|
| S.A.P. | 057-608-009 |
| S.P.   |             |

CONSTRUCTION DETAILS  
PROJECT NO. 3816-013

**Fig. 1**

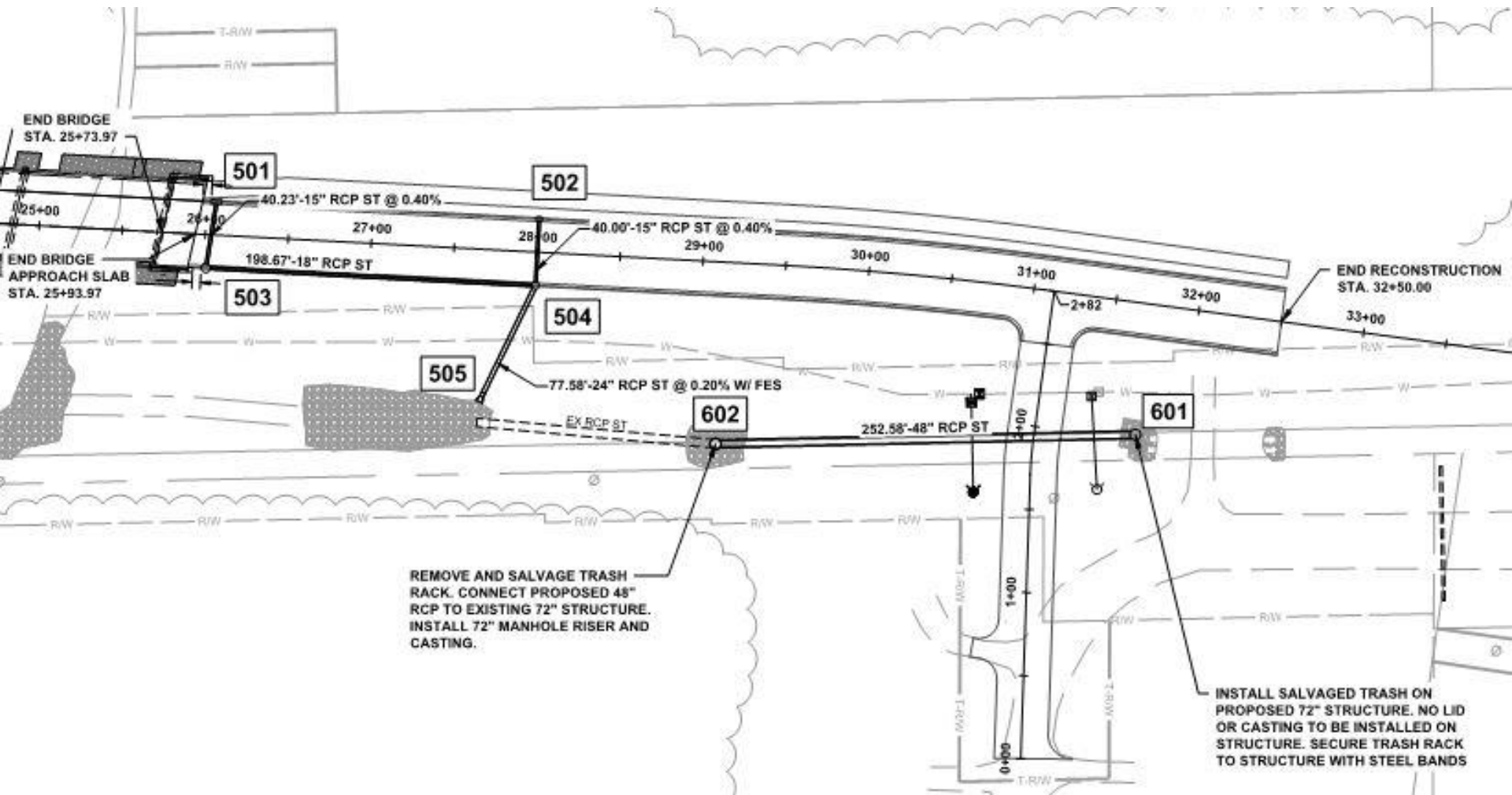
# DITCH ALIGNMENT MODIFICATION



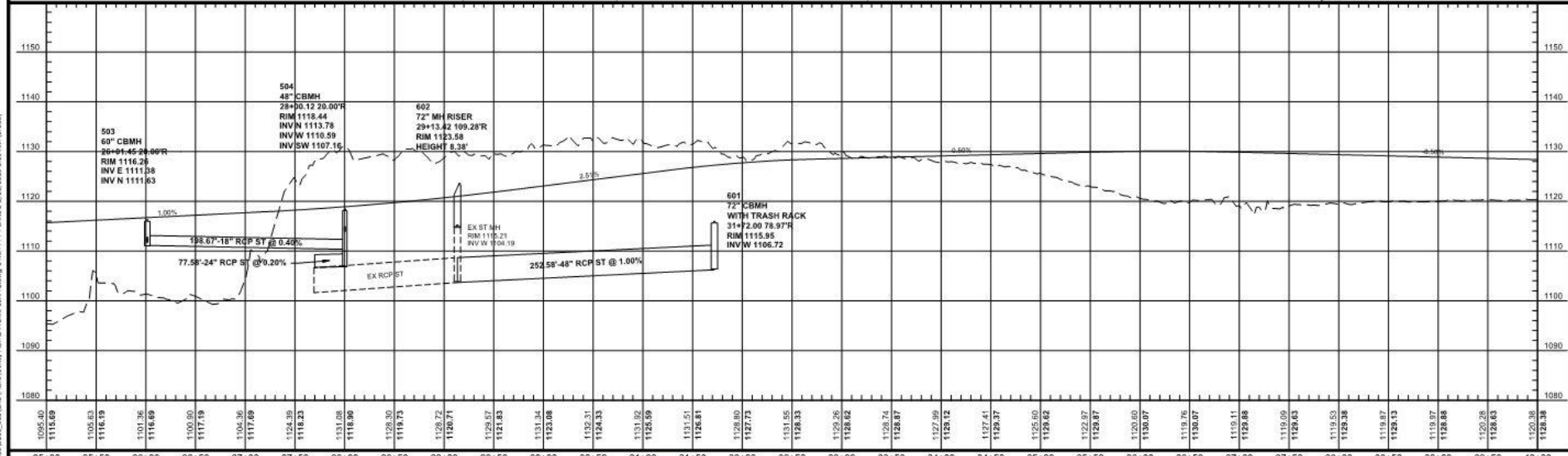
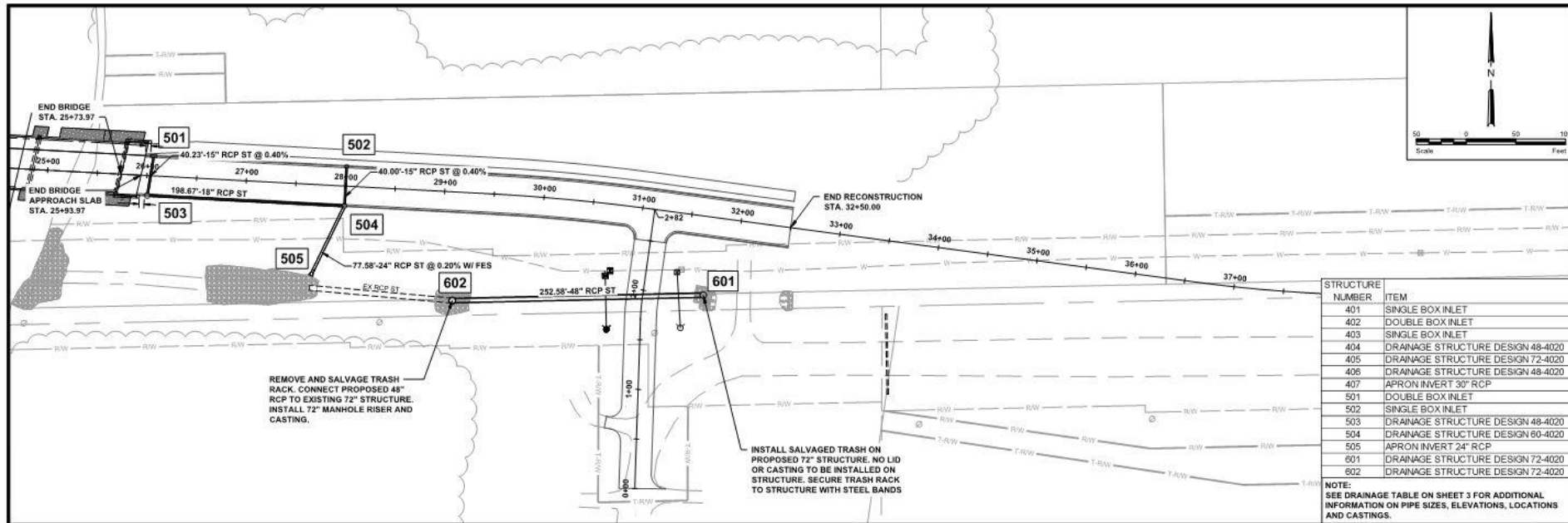
|                          |          |      |    |                                    |                   |                |                    |  |        |
|--------------------------|----------|------|----|------------------------------------|-------------------|----------------|--------------------|--|--------|
| No.                      | Revision | Date | By | Thief River Falls                  | Drawn by B.G.J.   | Date 12-5-18   | S.A.P. 057-608-009 | PLAN & PROFILE<br>PROJECT NO. 3816-013 | Fig. 2 |
| Houston Engineering Inc. |          |      |    | P: 218.681.2951<br>F: 218.681.2987 | Checked by J.J.L. | Scale AS SHOWN | S.P.               |  |        |

H:\Thief River Falls\3816 Remington County Hwy\3816-013 Thief River Falls New Bridge and Corridor\CAD\Eng\Preliminary North of Ditch.dwg FIG 2.12/5/2018 11:05 AM (hghinson)

# OUTLET STRUCTURE MODIFICATIONS



# OUTLET STRUCTURE MODIFICATIONS



|     |          |      |    |  |      |  |   |  |                                       |   |  |                  |
|-----|----------|------|----|--|------|--|---|--|---------------------------------------|---|--|------------------|
| No. | Revision | Date | By | I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision, and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.<br>Jeffery J. Longan<br>License No. 22805 | Date |  | Thief River Falls<br>P: 218.681.2951<br>F: 218.681.2987 | Drawn by<br>CAO<br>Checked by<br>AMR/JLL | Date<br>02-19-19<br>Scale<br>AS SHOWN | S.A.P. _____ S.A.P. 057 - 608 - 009<br>S.P. _____ 57526 | CASH 8<br>UTILITY PLAN & PROFILE<br>PROJECT NO. 3816-013 | SHEET<br>6 of XX |
|-----|----------|------|----|--|------|--|---|--|---------------------------------------|---|--|------------------|

H:\Projects\3816-013\CAD\Profile\Utility Plan & Profile\CASH 8.dwg, UTILITY PLAN & PROFILE 2/21/2019 6:10:04 AM (nsuul)

# HYDRAULIC & HYDROLOGIC MODELING

## Storm and Wastewater Management Model (SWMM)

- Existing Conditions model developed by HDR 2010 for TRF FDR Project – RLWD Project 171A
- 10 Year and 100 Year 24-Hour Rainfall Events

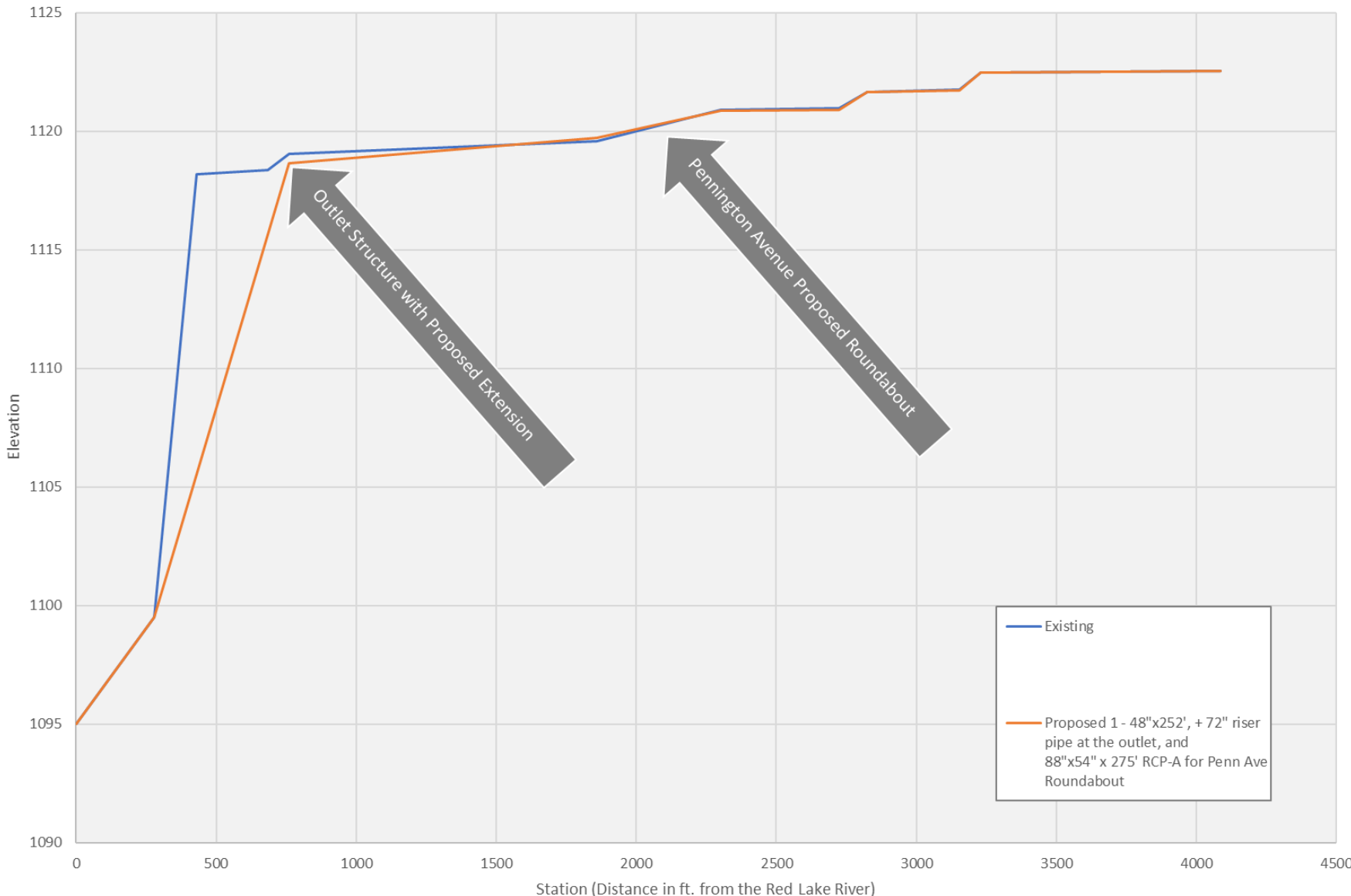
## Outlet Alternatives Reviewed

- Leave existing riser, bury 78” RCP
- Armored Open Channel
- Extend 48” RCP and Install New 72” Riser Upstream



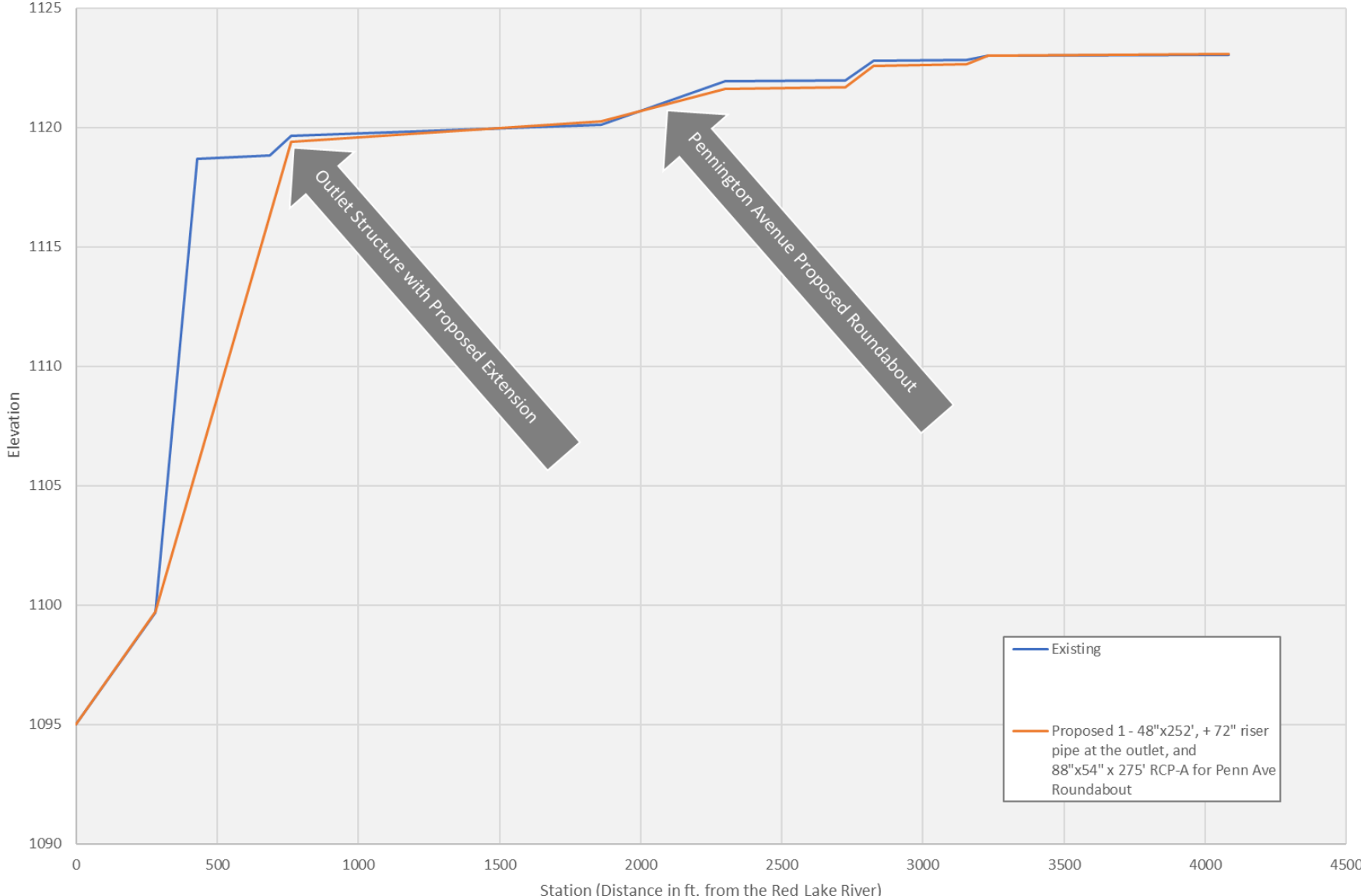
# HYDRAULIC & HYDROLOGIC MODELING

Figure 3 - 10yr - 24hr Profile Comparison

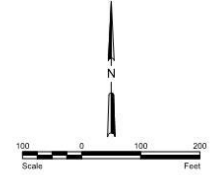


# HYDRAULIC & HYDROLOGIC MODELING

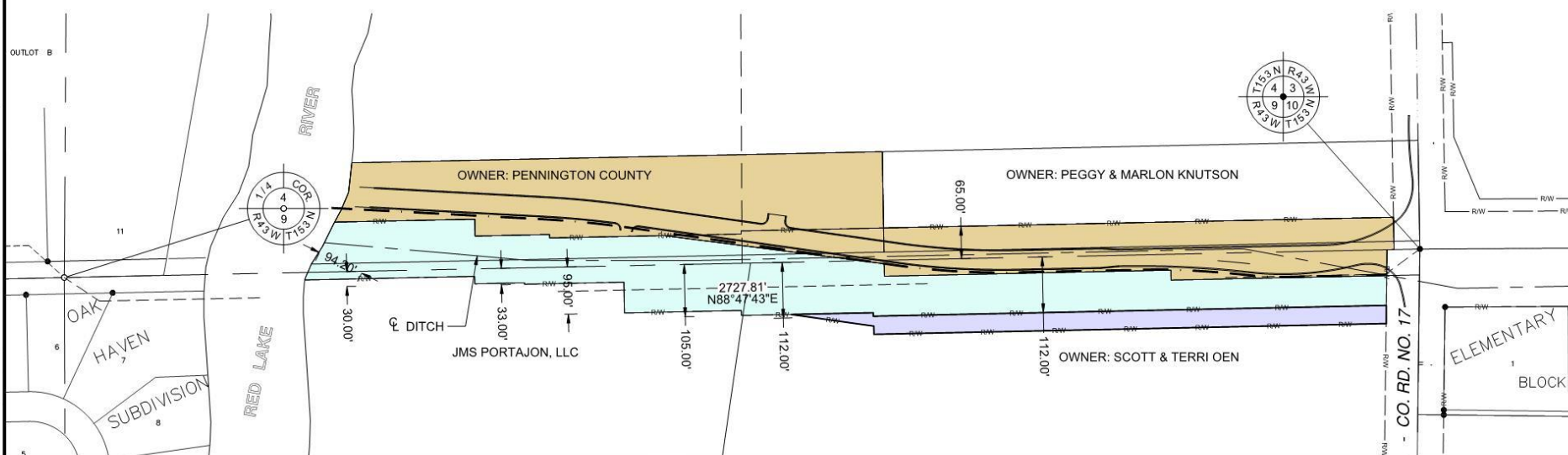
Figure 4 - 100yr - 24hr Profile Comparison



# EASEMENT BREAKDOWN



- FOUND IRON MONUMENT ●
- 1/2" I.D. IRON PIPE SET ○
- MEASURED BEARING N88°06'54"E
- MEASURED DISTANCE 151.04'
- MEASURED BEARINGS SHOWN ARE BASED ON THE PENNINGTON COUNTY COORDINATE SYSTEM.
- MEASURED DISTANCES SHOWN ARE GROUND DISTANCES IN TERMS OF U.S. SURVEY FEET.
- COORDINATES SHOWN ARE BASED ON THE PENNINGTON COUNTY COORDINATE SYSTEM.
- EXISTING DITCH R/W = 4.72 ACRES
- PROPOSED PERMANENT DITCH R/W = 0.92 ACRES
- PROPOSED PENNINGTON COUNTY R/W = 6.50 ACRES



H:\Thief River Falls\3816\3816 Pennington County Hwy\3816\013 PenCo New Bridge and Corridor\CAD\Easements\RLWD RW.Avg.13/26/2018 1:13 PM (Monday)

|  |  |  |  |   |   |   |  |                 |
|--|--|--|--|---|---|---|--|-----------------|
|  |  | I hereby certify that this survey, plan, or report was prepared by me or under my direct supervision, and that I am a duly Licensed Land Surveyor under the laws of the State of Minnesota.<br>James A. Schlieman<br>MN Lic. No. 44867 |  | Fargo<br>P: 701.237.5065<br>F: 701.237.5101 | Drawn by PAJ<br>Checked by JAS<br>Date 12/27/18<br>Scale AS SHOWN | PENN. CO. DITCH NO. 1 - RLWD DITCH NO. 1<br>RED LAKE WATERSHED DISTRICT<br>THIEF RIVER FALLS, MINNESOTA | CERTIFICATE OF SURVEY<br>PROJECT NO. 3816-0013 | SHEET<br>1 of 1 |
|--|--|--|--|---|---|---|--|-----------------|



# Questions / Discussion

# Existing Conditions vs Proposed Conditions

## Outlet Structure

72" Riser w/48"x136' RCP (Leave) F&I 48"x252' RCP & new 72" Riser

## Field Crossing

2-lines 54"x80' CSP (Remove)

## Jct. CSAH 8-CSAH 17

54"x440' (120' Steel Casing, 320' CSP) (Remove) F&I 88"x54"x275' RCP-A  
36"x170' RCP & 42"x196' RCP Inlet to Manhole (Remove) F&I 36"x136' RCP  
Manhole Outlet to 42"x254' RCP (Remove)  
12"x44' CSP (Remove) F&I 18"x174' RCP



Permit # 19-005

Status Report: **Approved**

**Applicant Information**

| Name | Organization                   | Address                                     | Email | Phone Number(s)         |
|------|--------------------------------|---|-------|-------------------------|
|      | Polk County Highway Department | 820 Old Hwy 75 South<br>Crookston, MN 56716 |       | tel:<br>mobile:<br>fax: |

**General Information**

(1) The proposed project is a:

**Road Grading**

(2) Legal Description

(3) County: **Polk** Township: **Brandsvold** Range: **40** Section: **21 1/4**:

(4) Describe in detail the work to be performed. **Grade, Bituminous, surface and aggregate shoulders from CSAH 30 to CSAH 6, two miles north of Fosston. CSAH 3**

(5) Why is this work necessary? Explain water related issue/problem being solved. **The existing roadway is structurally deficient and not to state standards.**

**Status**

| Status   | Notes | Date          |
|----------|-------|---------------|
| Approved | None  | Feb. 28, 2019 |
| Received | None  | Jan. 31, 2019 |

**Conditions**

**P.A. #19005 Polk Co. Hwy. Dept. (Co. Hwy. #3) – Brandsvold Twp. – road project; (overlay, widen, shouldering, & culvert work) - approve**

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.



# PENNINGTON SOIL & WATER CONSERVATION DISTRICT

201 Sherwood Avenue South • Suite 3  
Thief River Falls, MN 56701-3407  
Phone: (218) 683-7075  
[www.penningtonswcd.org](http://www.penningtonswcd.org)

---

February 5, 2019

Dear Envirothon Sponsor:

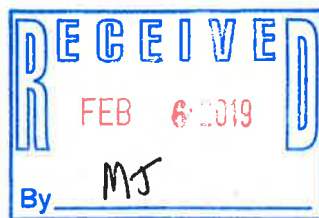
The Area I Envirothon is Wednesday, April 24<sup>th</sup> at Lake Bronson State Park. It's a popular outdoor environmental learning event for Minnesota high school students. Last year we had 19 teams from 8 local schools participate.

We want to thank you for your past financial support, and would like you to consider it again this year. **We are asking for donations of \$25 - \$300.** This money will help finance trophies, prizes, noon lunch for the students, and advancement to the state competition in May. **If you would like to donate to help support this fun learning event for our students, please send a check to our office (made payable to the Area I Envirothon) by April 15th.**

If you have any questions, please call me at 218-683-7075.

Sincerely,

Donna Christianson  
Outreach Coordinator



# RLWD Advisory Committee Survey

1. Topics and Issues, you would like to see presented at the RLWD Advisory Committee meeting.

*New projects + costs*  
*Input from local business*

2. In your opinion, what makes a meeting worth attending and a good use of your time?

*Learning new ideas + projects*  
*Costly projects*      *Listening & others*

3. Has past meeting information been informative and what changes may you suggest?

Yes     No (please explain)

4. Does enough communication reach the Advisory Committee? If no, what can we do better?

Yes     No (please explain)

*Like the Monthly meeting*      *Very Informative*

5. Have past meetings been the right amount of time?

Yes     No (please explain)

6. Is appropriate time given to allow feedback and discussion.

Yes     No (please explain)

7. Additional comments:

*Mary  
Lynn*

# RLWD Advisory Committee Survey

1. Topics and Issues, you would like to see presented at the RLWD Advisory Committee meeting.

---

---

2. In your opinion, what makes a meeting worth attending and a good use of your time?

*If it can keep my attention it is worth while.*

---

---

3. Has past meeting information been informative and what changes may you suggest?

Yes  No (please explain)

*Less time spent on water quality tests.  
Some is needed, but not as much as in past.*

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4. Does enough communication reach the Advisory Committee? If no, what can we do better?

Yes  No (please explain)

---

---

5. Have past meetings been the right amount of time?

Yes  No (please explain)

---

---

6. Is appropriate time given to allow feedback and discussion.

Yes  No (please explain)

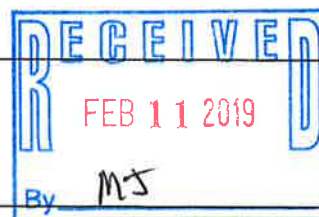
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7. Additional comments:

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THE SHOP-AUTO BODY REPAIR  
703 N ATLANTIC AVENUE  
THIEF RIVER FALLS, MN 56701  
PHONE 218-681-8531 FAX 218-681-2715

\*\*\* PRELIMINARY ESTIMATE \*\*\*

02/11/2019 10:47 AM

**Owner**

**Owner:** redlake watershed  
**Address:**

**Work/Day:** (218)681-5800

**Inspection**

**Inspection Date:** 02/11/2019 10:47 AM  
**Primary Impact:** Right Rear Side

**Inspection Type:**  
**Secondary Impact:**

**Appraiser Name:** Jeff A Brouse  
**Address:** 703 N Atlantic Ave  
**City State Zip:** Thief River Falls, MN 56701  
**Email:** theshopautobody@msn.com

**Appraiser License # :**  
**Work/Day:** (218)681-8531  
**Home/Evening:** (218)686-1255  
**FAX:** (218)681-2715

**Repairer**

**Repairer:** The Shop  
**Address:** 703 N. Atlantic

**Contact:** Jeff A Brouse  
**Work/Day:** (218)681-8531  
**Home/Evening:** (218)686-1255  
**FAX:** (218)681-2715

**City State Zip:** Thief River Falls, MN 56701-1641

**Target Complete Date/Time:**

**Days To Repair:** 8

**Vehicle**

**OEM Part Price Quote ID:** \*\*\*\*

2015 Ford F-150 XLT 4 DR Ext Cab Short Bed  
8cyl Gasoline 5.0 Flex  
6-Speed Automatic

**Lic Expire:**  
**Veh Insp# :**  
**Condition:**  
**Ext. Color:** gray  
**Ext. Refinish:** Two-Stage

**VIN:** 1FTFX1EFXFKE50006  
**Mileage Type:** Actual  
**Code:** P8355B  
**Int. Color:**  
**Int. Refinish:** Two-Stage

**Options**

1st Row LCD Monitor(s)  
AM/FM CD Player  
Alarm System  
Auto Headlamp Control  
Carpeting  
Cruise Control  
Electric Parking Brake  
Electronic Transfer Case  
Full Size Spare Tire  
Intermittent Wipers

2nd Row Head Airbags  
Active Grille Shutter  
Aluminum/Alloy Wheels  
Auto Locking Hubs (4WD)  
Chrome Grille  
Daytime Running Lights  
Electric Steering  
Floor Mats  
Halogen Headlights  
Keyless Entry Keypad

4-Wheel Drive  
Air Conditioning  
Anti-Lock Brakes  
Auxiliary Audio Input  
Chrome Step Bumper  
Dual Airbags  
Electronic Compass  
Fog Lights  
Head Airbags  
Keyless Entry System

|                          |                          |                         |
|--------------------------|--------------------------|-------------------------|
| Lighted Entry System     | MP3 Decoder              | Overhead Console        |
| Power Brakes             | Power Door Locks         | Power Mirrors           |
| Power Windows            | Privacy Glass            | Pwr Accessory Outlet(s) |
| Side Airbags             | Split Folding Rear Seat  | Split Front Bench Seat  |
| Stability Cntrl Suspensn | Strg Wheel Radio Control | Tachometer              |
| Theft Deterrent System   | Tilt & Telescopic Steer  | Tire Pressure Monitor   |
| Tow Hooks                | Traction Control System  | USB Audio Input(s)      |
| Velour/Cloth Seats       | Wireless Audio Streaming | Wireless Phone Connect  |

**Damages**

| Line       | Op | Guide | MC | Description                      | MFR.Part No.  | Price    | ADJ% B% | Hours | R  |
|------------|----|-------|----|----------------------------------|---|----------|---------|-------|----|
| <b>Bed</b> |    |       |    |                                  |   |          |         |       |    |
| 1          | E  | 390   |    | Panel,Bedside Outer RT Aluminum  | FL3Z9627840A  | \$613.88 |         | 14.0  | SM |
| 2          | L  | 390   | 13 | Panel,Bedside Outer RT           | Refinish<br>3.2 Surface<br>0.5 Edge<br>0.6 Two-stage setup<br>0.7 Two-stage |          |         | 5.0   | RF |
| 3          | E  | 594   | 01 | Decal,Bedside Panel RT           | FL3Z9925622AA   | \$32.40  |         | 0.2   | SM |
| 4          | I  | 392   |    | Pnl,Wheelhouse Outer RT Aluminum | Repair  |          |         | 1.5*  | SM |
| 5          | L  | 392   |    | Pnl,Wheelhouse Outer RT          | Refinish<br>0.3 Surface<br>0.1 Two-stage                                    |          |         | 0.4   | RF |
| 6          | E  | 1396  |    | Brace,Bedside Panel R/R          | FL3Z9928260B  | \$33.50  |         | 0.4   | SM |
| 7          | L  | 1396  |    | Brace,Bedside Panel R/R          | Refinish<br>0.1 Surface   |          |         | 0.1   | RF |
| 8          | RI | 578   |    | Compl Bed Assy R & I Aluminum    | R & I Assembly  |          |         | 2.0*  | SM |

| <b>Manual Entries</b> |    |     |  |                         |                 |          |  |      |     |
|-----------------------|----|-----|--|-------------------------|-----------------|----------|--|------|-----|
| 9                     | I  | M14 |  | Corrosion Protection    | Sublet Repair   | \$10.00* |  | 0.5* | SM* |
| 10                    | P  | M17 |  | Cover Car Exterior      | Check           | \$5.00*  |  | 0.0* | RF  |
| 11                    | P  | M60 |  | Hazardous Waste Removal | Check           | \$5.00*  |  | 0.0* | SM  |
| 12                    | EC |     |  | glue bond               | Replace Economy | \$35.00* |  |      | SM* |
| <b>12 Items</b>       |    |     |  |                         |                 |          |  |      |     |

| MC | Message  |
|----|--|
| 01 | CALL DEALER FOR EXACT PART # / PRICE               |
| 13 | INCLUDES 0.6 HOURS FIRST PANEL TWO-STAGE ALLOWANCE |

**Estimate Total & Entries**

|                         |                     |          |          |
|-------------------------|---------------------|----------|----------|
| Gross Parts             |                     | \$679.78 |          |
| Other Parts             |                     | \$45.00  |          |
| Paint & Materials       | 5.5 Hours @ \$36.00 | \$198.00 |          |
| Parts & Material Total  |                     |          | \$922.78 |
| Tax on Parts & Material | @ 6.875%            |          | \$63.44  |

| Labor            | Rate    | Replace Hrs | Repair Hrs | Total Hrs |            |
|------------------|---------|-------------|------------|-----------|------------|
| Sheet Metal (SM) | \$58.00 | 16.6        | 2.0        | 18.6      | \$1,078.80 |
| Mech/Elec (ME)   | \$76.00 |             |            |           |            |
| Frame (FR)       | \$77.00 |             |            |           |            |



|                       |         |     |            |          |                   |
|-----------------------|---------|-----|------------|----------|-------------------|
| <b>Refinish (RF)</b>  | \$58.00 | 5.5 | 5.5        | \$319.00 |                   |
| <b>Labor Total</b>    |         |     | 24.1 Hours |          | \$1,397.80        |
| <b>Sublet Repairs</b> |         |     |            | \$10.00  |                   |
| <b>Gross Total</b>    |         |     |            |          | <b>\$2,394.02</b> |
| <b>Net Total</b>      |         |     |            |          | <b>\$2,394.02</b> |

Alternate Parts Y/00/00/00/00/00 CUM 00/00/00/00/00 Zip Code: 56701 Default  
 OEM Part Prices DT 02/11/2019 10:47 AM EstimateID 524266388890591232 QuoteID \*\*\*\*  
 Rate Name Default

**Audatex Estimating 8.0.225 ES 02/11/2019 10:51 AM REL 8.0.225 DT 01/01/2019 DB 02/08/2019**  
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**1.4 HRS WERE ADDED TO THIS ESTIMATE BASED ON AUDATEX'S TWO-STAGE REFINISH FORMULA.**

THIS ESTIMATE HAS BEEN PREPARED BASED ON THE USE OF ONE OR MORE CRASH PARTS SUPPLIED BY A SOURCE OTHER THAN THE MANUFACTURER OF YOUR MOTOR VEHICLE. WARRANTIES APPLICABLE TO THESE REPLACEMENT PARTS ARE PROVIDED BY THE PARTS MANUFACTURER OR DISTRIBUTOR RATHER THAN BY THE MANUFACTURER OF YOUR VEHICLE. A PERSON WHO FILES A CLAIM WITH INTENT TO DEFRAUD OR HELPS COMMIT A FRAUD AGAINST AN INSURER IS GUILTY OF A CRIME.

**Op Codes**

- |                            |   |                                |
|----------------------------|---|--------------------------------|
| * = User-Entered Value     | ^ = Labor Matches System Assigned Rates | E = Replace OEM                |
| NG = Replace NAGS          | EC = Replace Economy                    | OE = Replace PXN OE Srpis      |
| UE = Replace OE Surplus    | ET = Partial Replace Labor              | EP = Replace PXN               |
| EU = Replace Recycled      | TE = Partial Replace Price              | PM = Replace PXN Reman/Reblt   |
| UM = Replace Reman/Rebuilt | L = Refinish                            | PC = Replace PXN Reconditioned |
| UC = Replace Reconditioned | TT = Two-Tone                           | SB = Sublet Repair             |
| N = Additional Labor       | BR = Blend Refinish                     | I = Repair                     |
| IT = Partial Repair        | CG = Chipguard                          | RI = R & I Assembly            |
| P = Check                  | AA = Appearance Allowance               | RP = Related Prior Damage      |



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WESTSIDE MOTORS  
1730 HWY 59 & 1 / P.O. BOX 617  
THIEF RIVER FALLS, MN 56701  
OFFICE: 218-681-4303 FAX: 218-681-6541  
FEDERAL ID #41-1297762

\*\*\* PRELIMINARY ESTIMATE \*\*\*

02/11/2019 11:28 AM

**Owner**

**Owner:** RED LAKE WATERSHED DISTRICT  
**Address:** 100 PENNINGTON AVE  
**City State Zip:** Thief River Falls, MN 56701

**Work/Day:** (218)681-5800  
**FAX:**

**Control Information**

**Loss Date/Time:**  
**Deductible:** None

**Loss Type:** Collision

**Inspection**

**Inspection Date:** 02/11/2019 11:27 AM  
**Inspection Location:** Westside Motors, Inc.  
**Address:** 1730 3rd St West  
**City State Zip:** Thief River Falls, MN 56701  
**Email:** autobody@westsidemotors.net  
**Primary Impact:** Right Rear Side  
**Driveable:** Yes

**Inspection Type:** Drive In  
**Contact:**  
**Work/Day:** (218)681-4303x  
**FAX:** (218)681-6541x

**Appraiser Name:** IRA JOHNSON

**Secondary Impact:**  
**Rental Assisted:**  
**Appraiser License # :**

**Repairer**

**Repairer:** Westside Motors, Inc.  
**Address:** 1730 3rd St West  
**City State Zip:** Thief River Falls, MN 56701  
**Email:** autobody@westsidemotors.net

**Contact:**  
**Work/Day:** (218)681-4303  
**FAX:** (218)681-6541

**Target Complete Date/Time:**

**Days To Repair:** 8

**Vehicle**

**OEM Part Price Quote ID:** \*\*\*\*

2015 Ford F-150 XLT 4 DR Ext Cab Short Bed  
8cyl Gasoline 5.0 Flex  
6-Speed Automatic

**Lic.Plate:** 948992  
**Lic Expire:**  
**Prod Date:**  
**Veh Insp# :**  
**Condition:** Excellent  
**Ext. Color:** CHARCOAL  
**Ext. Refinish:** Two-Stage  
**Ext. Paint Code:** HN

**Lic State:** MN  
**VIN:** 1FTFX1EFXFKE50065  
**Mileage:** 42,543  
**Mileage Type:** Actual  
**Code:** P8355B  
**Int. Color:**  
**Int. Refinish:** Two-Stage  
**Int. Trim Code:**

**Options**

|                          |                          |                         |
|--------------------------|--------------------------|-------------------------|
| 1st Row LCD Monitor(s)   | 2nd Row Head Airbags     | 4-Wheel Drive           |
| AM/FM CD Player          | Active Grille Shutter    | Air Conditioning        |
| Alarm System             | Aluminum/Alloy Wheels    | Anti-Lock Brakes        |
| Auto Headlamp Control    | Auto Locking Hubs (4WD)  | Auxiliary Audio Input   |
| Carpeting                | Chrome Grille            | Chrome Step Bumper      |
| Cruise Control           | Daytime Running Lights   | Dual Airbags            |
| Electric Parking Brake   | Electric Steering        | Electronic Compass      |
| Electronic Transfer Case | Floor Mats               | Fog Lights              |
| Full Size Spare Tire     | Halogen Headlights       | Head Airbags            |
| Intermittent Wipers      | Keyless Entry Keypad     | Keyless Entry System    |
| Lighted Entry System     | MP3 Decoder              | Overhead Console        |
| Power Brakes             | Power Door Locks         | Power Mirrors           |
| Power Windows            | Privacy Glass            | Pwr Accessory Outlet(s) |
| Side Airbags             | Split Folding Rear Seat  | Split Front Bench Seat  |
| Stability Cntrl Suspensn | Strg Wheel Radio Control | Tachometer              |
| Theft Deterrent System   | Tilt & Telescopic Steer  | Tire Pressure Monitor   |
| Tow Hooks                | Traction Control System  | USB Audio Input(s)      |
| Velour/Cloth Seats       | Wireless Audio Streaming | Wireless Phone Connect  |

**Damages**

| Line                         | Op | Guide | MC | Description                         | MFR.Part No.        | Price    | ADJ% | B% | Hours | R   |
|------------------------------|----|-------|----|-------------------------------------|---------------------|----------|------|----|-------|-----|
| <b>Stripes And Mouldings</b> |    |       |    |                                     |                     |          |      |    |       |     |
| 1                            | RI | 1379  |    | Mldg,Bedside Pnl Lwr R/R            | R & I Assembly      |          |      |    | 0.2   | SM  |
| <b>Bed</b>                   |    |       |    |                                     |                     |          |      |    |       |     |
| 2                            | E  | 390   |    | Panel,Bedside Outer RT<br>Aluminum  | FL3Z9627840A        | \$613.88 |      |    | 14.0  | SM  |
| 3                            | L  | 390   | 13 | Panel,Bedside Outer RT              | Refinish            |          |      |    | 5.0   | RF  |
|                              |    |       |    |                                     | 3.2 Surface         |          |      |    |       |     |
|                              |    |       |    |                                     | 0.5 Edge            |          |      |    |       |     |
|                              |    |       |    |                                     | 0.6 Two-stage setup |          |      |    |       |     |
|                              |    |       |    |                                     | 0.7 Two-stage       |          |      |    |       |     |
| 4                            | RI | 467   |    | Mldg,Bedside Pnl UpR RT             | R & I Assembly      |          |      |    | INC   | SM  |
| 5                            | E  | 594   | 01 | Decal,Bedside Panel RT              | FL3Z9925622AA       | \$32.40  |      |    | 0.2   | SM  |
| 6                            | I  | 392   |    | Pnl,Wheelhouse Outer RT<br>Aluminum | Repair              |          |      |    | 4.0*  | SM  |
| 7                            | L  | 392   |    | Pnl,Wheelhouse Outer RT             | Refinish            |          |      |    | 0.4   | RF  |
|                              |    |       |    |                                     | 0.3 Surface         |          |      |    |       |     |
|                              |    |       |    |                                     | 0.1 Two-stage       |          |      |    |       |     |
| 8                            | E  | 1396  |    | Brace,Bedside Panel R/R             | FL3Z9928260B        | \$33.50  |      |    | 0.4   | SM  |
| 9                            | L  | 1396  |    | Brace,Bedside Panel R/R             | Refinish            |          |      |    | 0.1   | RF  |
|                              |    |       |    |                                     | 0.1 Surface         |          |      |    |       |     |
| 10                           | RI | 1332  |    | Guard,Stone RT                      | R & I Assembly      |          |      |    | INC   | SM  |
| 11                           | RI | 1114  |    | Guard,Mud RT                        | R & I Assembly      |          |      |    | INC   | SM  |
| 12                           | E  | 518   |    | Bolt,Bed                            | MULTI-PART          | \$80.00* |      |    |       | SM  |
| <b>Manual Entries</b>        |    |       |    |                                     |                     |          |      |    |       |     |
| 13                           | N  | M14   |    | Corrosion Protection                | Additional Labor    |          |      |    | 0.2*  | RF  |
| 14                           | L  | M17   |    | Cover Car Exterior                  | Refinish            | \$5.00*  |      |    |       | RF  |
| 15                           | SB | M60   |    | Hazardous Waste Removal             | Sublet Repair       | \$5.00*  |      |    |       | SM  |
| 16                           | E  |       |    | RIVET KIT FOR BOX                   | Replace OEM         | \$74.00* |      |    |       | SM* |
| 17                           | RI |       |    | TOOL BOX                            | R & I Assembly      |          |      |    | 0.5*  | SM* |
| <b>17 Items</b>              |    |       |    |                                     |                     |          |      |    |       |     |

MC Message

01 CALL DEALER FOR EXACT PART # / PRICE  
13 INCLUDES 0.6 HOURS FIRST PANEL TWO-STAGE ALLOWANCE

**Estimate Total & Entries**

|                                   |                     |          |            |
|-----------------------------------|---------------------|----------|------------|
| <b>Gross Parts</b>                |                     | \$833.78 |            |
| <b>Other Parts</b>                |                     | \$5.00   |            |
| <b>Paint &amp; Materials</b>      | 5.7 Hours @ \$38.00 | \$216.60 |            |
| <b>Parts &amp; Material Total</b> |                     |          | \$1,055.38 |

| <b>Labor</b>            | <b>Rate</b> | <b>Replace Hrs</b> | <b>Repair Hrs</b> | <b>Total Hrs</b> |                   |
|-------------------------|-------------|--------------------|-------------------|------------------|-------------------|
| <b>Sheet Metal (SM)</b> | \$60.00     | 15.3               | 4.0               | 19.3             | \$1,158.00        |
| <b>Mech/Elec (ME)</b>   | \$80.50     |                    |                   |                  |                   |
| <b>Frame (FR)</b>       | \$78.00     |                    |                   |                  |                   |
| <b>Refinish (RF)</b>    | \$60.00     | 5.5                | 0.2               | 5.7              | \$342.00          |
| <b>Labor Total</b>      |             |                    |                   | 25.0 Hours       | \$1,500.00        |
| <b>Sublet Repairs</b>   |             |                    |                   |                  | \$5.00            |
| <b>Gross Total</b>      |             |                    |                   |                  | <b>\$2,560.38</b> |
| <b>Less: Deductible</b> |             |                    |                   |                  | None-             |
| <b>Net Total</b>        |             |                    |                   |                  | <b>\$2,560.38</b> |

Alternate Parts Y/00/00/00/00/00 CUM 00/00/00/00/00 Zip Code: 56701 Default  
OEM Part Prices DT 02/11/2019 11:29 AM EstimateID 524276892866453504 QuoteID \*\*\*\*  
Rate Name Default

**Audatex Estimating 8.0.035 ES 02/11/2019 11:38 AM REL 8.0.035 DT 01/01/2019 DB 02/01/2019**  
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**1.4 HRS WERE ADDED TO THIS ESTIMATE BASED ON AUDATEX'S TWO-STAGE REFINISH FORMULA.**

THIS ESTIMATE HAS BEEN PREPARED BASED ON THE USE OF ONE OR MORE CRASH PARTS SUPPLIED BY A SOURCE OTHER THAN THE MANUFACTURER OF YOUR MOTOR VEHICLE. WARRANTIES APPLICABLE TO THESE REPLACEMENT PARTS ARE PROVIDED BY THE PARTS MANUFACTURER OR DISTRIBUTOR RATHER THAN BY THE MANUFACTURER OF YOUR VEHICLE. A PERSON WHO FILES A CLAIM WITH INTENT TO DEFRAUD OR HELPS COMMIT A FRAUD AGAINST AN INSURER IS GUILTY OF A CRIME.

**Op Codes**

|                           |   |                               |
|---------------------------|---|-------------------------------|
| * = User-Entered Value    | ^ = Labor Matches System Assigned Rates | E = Replace OEM               |
| NG= Replace NAGS          | EC= Replace Economy                     | OE= Replace PXN OE Srpls      |
| UE= Replace OE Surplus    | ET= Partial Replace Labor               | EP= Replace PXN               |
| EU= Replace Recycled      | TE= Partial Replace Price               | PM= Replace PXN Reman/Reblt   |
| UM= Replace Reman/Rebuilt | L = Refinish                            | PC= Replace PXN Reconditioned |
| UC= Replace Reconditioned | TT= Two-Tone                            | SB= Sublet Repair             |
| N = Additional Labor      | BR= Blend Refinish                      | I = Repair                    |
| IT = Partial Repair       | CG= Chipguard                           | RI = R & I Assembly           |
| P = Check                 | AA= Appearance Allowance                | RP = Related Prior Damage     |



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## **Red Lake Watershed District - Administrators Report**

**February 28, 2019**

**Red River Watershed Management Board** – LeRoy, Les and I attended the RRWMB meeting held at the Red Lake Watershed District office at 9:30 am, February 19, 2019. Upon completion of the meeting, I left for St. Paul to attend the Minnesota Association of Watershed District Administrators as well as the two-day Legislative Briefings and meeting legislators.

February 26<sup>th</sup>, I attended the RRV Region 1 Administrators meeting held at the Red Lake Watershed District Board Room. This meeting was intended to compile ideas as to how we can better get our message out to legislators for future funding of projects as well as how to better accomplish Watershed objectives in a more comprehensive approach.

**Thief River 1W1P** – Advisory and Policy Committee meeting will be held at 9:30 am, Wednesday March 13, 2019 at the Red Lake Watershed District Board Room. The Planning Committee had a telephone conference on Friday February 15<sup>th</sup> and again at 1:00 pm yesterday to go over Section 4 as well as incorporate comments to the section so we could send out to Advisory and Policy Committee members for review prior to the meeting held March 13. The goal on the 13<sup>th</sup> will be to get Advisory Committee approval for Section 4, get changes added to final draft, and submit to the Policy Committee approval.

**USFWS** – I have included in your packet, a letter from Laurie Fairchild, informing us of her upcoming retirement. Laurie ran the Partners for Fish and Wildlife Program for the USFWS which we utilized on the Thief River Flood Damage Reduction Project as well as RLWD Ditch #14 in about 2010. At that time, utilizing that program saved the local partners approximately \$35,000 with the installation of buffers along the improved channel to RLWD Ditch #14 and the FDR Project.

**Parnell Impoundment Advisory Committee** – Loren, Christina, Alan and I attended the Parnell Advisory meeting held yesterday at 10:00 am. Staff did a great job in explaining and comparing past information with present information. Christina also gave an update on the installation of the kiosks in conjunction with the Pine to Prairie Bird Trail. RLWD staff receive praise from landowners as well as Polk County Commissioner as to how helpful these yearly meetings are in developing a great working relationship in the operation of this project.

**MPCA Waters and Watershed Meeting** – February 6<sup>th</sup> I attended the MPCA Waters and Watershed meeting in Brainerd. I was one of four local units of government that were part of a roundtable group brought together to discuss partnerships while developing and constructing projects. My part in the discussion will be sharing partnerships that we had while developing and constructing the Grand Marais Outlet Restoration and Cut Channel.

**Water Quality Report** – I have included in your packet the October 2018 Water Quality Report submitted by Corey.

## Farm-caused pollution worsening on the Red River

Dan Gunderson · Moorhead, Minn. · Feb 26, 2019

Environment



Elias Aipperspach on the banks of the swollen Red River in Moorhead's Woodlawn Park. *Nathaniel Minor | MPR News 2013*

The Red River has more big fluctuations in water level, more sediment that blocks sunlight and more phosphorus to feed big algal blooms downstream. And in a report evaluating the health of major rivers across the state, the Minnesota Pollution Control Agency has identified farmland drainage as a key factor in the Red River's worsening pollution.

MPCA regional manager Jim Ziegler said the analysis found that "flash flows" are increasing because of more intense rainfall and very efficient farmland drainage.

The result: A surge of water after a rainfall bringing a heavy load of sediment and phosphorus into the river. They're often followed by low flows that limit oxygen in the water, making it difficult for aquatic life to survive, especially in tributaries.

Fish and other aquatic life are doing reasonably well in the Red River, but Ziegler said aquatic life declines by 40 percent between the headwaters of the Red River in Breckenridge and the Canadian border, an indication pollution is having a detrimental effect. More people are using the river for recreation, and the catfish population is a strong draw for anglers.

But the farm drainage — with its high levels of phosphorus from fertilizer — is causing significant algal blooms downstream in Lake Winnipeg.

"That's something that we really need to take a close look at. Some of the data indicate that about 60 percent of the phosphorus that goes into Lake Winnipeg comes from the Red River, so that's a pretty serious issue, I think, for us," said Ziegler.

- **2010: Red River pollution threatening Lake Winnipeg** (<https://www.mprnews.org/story/2010/06/17/lake-winnipeg>)
- **2012: Lake Winnipeg's dead zone expanding** (<https://www.mprnews.org/story/2012/01/29/lake-winnipeg-dead-zone>)

The MPCA report said climate change is causing more intense rainfall, but river flow rates have increased five times faster than precipitation. A big reason: The Red River basin is an area that relies on artificial drainage more than any other place in the world.

A vast network of drainage ditches has been in place for many decades, but there's been a significant increase in underground tile drainage on farmland in the past few years. Ziegler said state officials don't know enough about the extent of the tile drainage to understand how the expanded use might impact the river.

The report says that key to addressing river pollution is storing more water in wetlands and improving soil health in farm fields, which would slow the surge of water and pollutants from farm fields after a rain.

- **Random acts of conservation: Water quality depends on farmers' willingness, not regulation** (<https://www.mprnews.org/story/2016/05/17/water-buffalo-red-river-agriculture-erosion>)

"The soil with more carbon content stores an incredible amount of water compared to the soil with lower carbon content, and so just simply improving soil health will reduce those high flows off the land," said Ziegler.

A number of water storage projects are underway across the Red River Valley, but Ziegler said more will need to be done to offset the growing impact of big fluctuations in river levels caused by flash runoff from fields.

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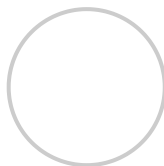
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## About the author



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Dan Gunderson is based in Moorhead, Minn.





February 8, 2019

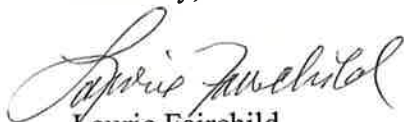
Red Lake Watershed District  
1000 Pennington Ave S  
Thief River Falls, MN 56701

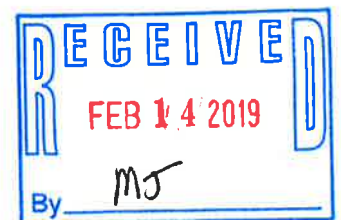
I'm contacting you with an update on the Partners for Fish and Wildlife Program in northwest Minnesota. I'm retiring soon; February 15, 2019 to be exact! It's been a pleasure to partner with you on wildlife and habitat projects in our area. I've gained a great respect for the long-term vision you have for your land and its role in a part of Minnesota with many diverse interests.

As a private landowner, you have been a great conservation partner. Your efforts are part of the more than 3700 acres of prairie and wetland habitat either restored or enhanced in northwest Minnesota through the Partners for Fish and Wildlife Program, just in the time I've been the Private Lands Biologist in this area. Together, we have completed prescribed burns, used brush-mowing to maintain prairie habitat, and restored wetland habitat through cattail removal and ditch remediation. We have cleared brush from sharp-tail grouse and prairie chicken habitat and addressed invasive species issues in a variety of habitats. We've also built outdoor classroom habitat and pollinator gardens for the enjoyment and education of future generations.

I'll continue to be your contact through February 15, but if you have subsequent questions regarding projects or future possibilities, please contact Sheldon Myerchin, our State Coordinator, at (320) 253-4682, or email [Sheldon\\_Myerchin@fws.gov](mailto:Sheldon_Myerchin@fws.gov). Thank you, for recognizing the importance of habitat in a healthy landscape, and for trusting the Partners for Fish and Wildlife Program to assist in meeting your land use goals.

Sincerely,

  
Laurie Fairchild  
Private Lands Biologist  
701-425-9080 (cell)

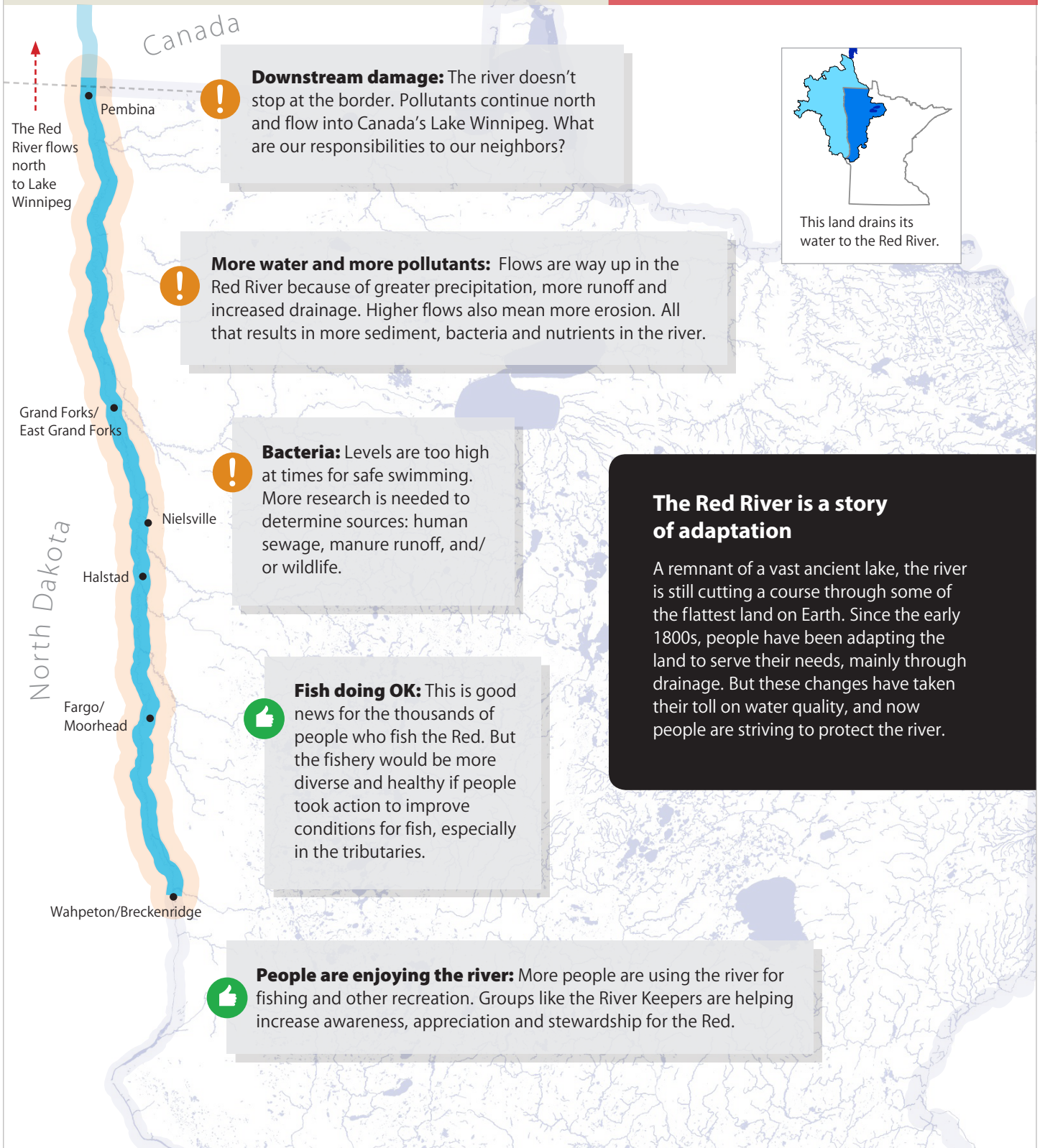


# The Red River of the North

## Evaluating the health of the river

- From Breckenridge, Minnesota, to the Canadian border

Despite being a popular recreation river, worries about water quality are growing.





# The big picture

## Major trends in the Red River

### A big river in a big basin

**A long river.** The Red River is 550 miles long, with 400 miles on the U.S. side that form the border between Minnesota and North Dakota. It flows north, ending at Lake Winnipeg in Canada.

**A big land area.** Nearly 40,000 square miles in the United States drain to the river, with an additional 5,000 in Canada. The U.S. portion drains a significant portion of Minnesota and North Dakota. About 17,800 miles of streams in Minnesota flow to the river.

**Mostly cloudy.** Like all rivers, the Red River has always carried sediment, but row cropping is adding to the sediment levels.

**Flat and flood-prone.** The drainage area is very flat, meaning when the river floods, it spills over many acres of land. It floods frequently because the water takes so long to flow downstream, especially if the northern areas are still frozen when the southern parts begin their spring thaw. Many ways to mitigate flooding also help water quality, such as temporarily holding water in places so runoff doesn't flush pollutants from the land to the river.

**A highly altered water landscape**  
Red lines show where stream courses have been moved or straightened (green is unaltered). This region is one of the most artificially drained areas in the world.



### More water and flow, more pollutants

Climate changes have led to more rain and more storms. More drainage, through ditches and more recently subsurface tiling, brings much more water into the Red River:

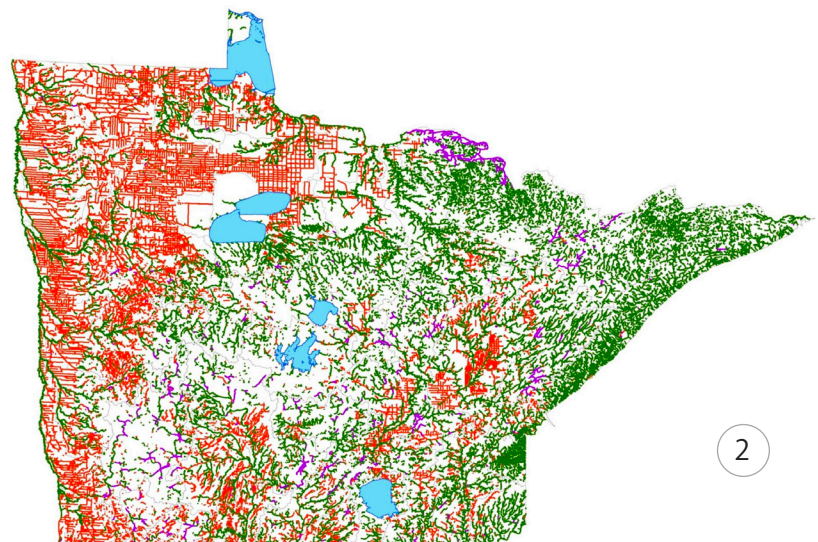
- Drainage increases the peak flows and intensifies the low flows. These fluctuations are hard on fish and other aquatic life.
- Phosphorus, which can lead to algae, usually flows with the sediment in runoff and from eroded streambanks. While the river itself is often too cloudy for algae to grow, downstream Lake Winnipeg is suffering.
- Tile drainage leaches nitrogen fertilizer from cropland to the tributaries and the river.

There are ways to drain the land for farming while not overwhelming the main river channel and tributary streams: restoring wetlands, using controlled drainage, and taking marginal land out of production.



### Tributaries in trouble

In some of the smaller watersheds flowing to the Red River, people have changed every stream to drain the land. The drainage is so effective that many streams run dry in the summer, forcing fish and other river life to move downstream or die. Meanwhile, the tributaries bring high levels of sediment and nutrients into the Red River. The nutrients can lead to lower oxygen levels for fish and other aquatic life.



# The big picture



## Sediment high, nutrients high

The Red River has too much sediment to meet the standards designed to protect fish and other aquatic life. Cloudy water makes it harder for many fish to find food, detect predators and reproduce. The fish and bugs are doing OK, but the populations would be more diverse and healthier in clearer water.

Phosphorus levels are high in the Red River and are having a detrimental effect downstream. Nitrogen levels are increasing, a concern because of the impact to river life and drinking water sources.



## Hurting Lake Winnipeg

Canada's giant Lake Winnipeg suffers severe algae, fueled in a large part by high nutrient levels from the Red River. Based on water monitoring, Minnesota and North Dakota together send 2,600 tons of phosphorus a year to Lake Winnipeg, with roughly half coming from each state. To help the lake and honor a treaty between the U.S. and Canada, phosphorus loads need to be cut in half on both sides of the border. The two countries are implementing a plan to do that.

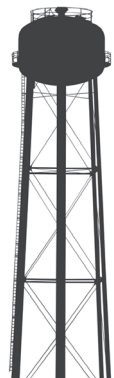


At nearly 9,500 square miles, Lake Winnipeg is the 10th largest lake in the world. The lake suffers severe algae that impacts its water quality.



## A river we drink: watching for contamination

The Red River, along with two groundwater aquifers, supplies drinking water for tens of thousands of people, including residents of Moorhead, Minn., and Fargo, N.D. Big fluctuations in flow — flooding in wet years slowing to a trickle in dry years — create wide swings in water quality that increase challenges and costs for water treatment. While there are occasional spikes in nitrate, average levels are not a concern for people's health at this time. But the river is also susceptible to contamination from activities like spills and leaks, stormwater runoff, and a wide range of contaminants either from runoff or shallow groundwater in-flow.



## Major pollutants in the Red River



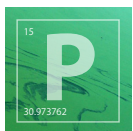
**Sediment** is soil from runoff and erosion that clouds the water. Sediment makes it hard for aquatic life like fish to breathe, find food, reproduce and avoid predators.



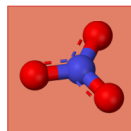
**Bacteria** from malfunctioning septic systems, manure, and wildlife feces can make water unsafe for swimming and other recreation.



**Mercury, PCBs, other toxins** can accumulate in fish, leading to limits on how much to eat. They come from burning coal, as well as industrial products and processes.



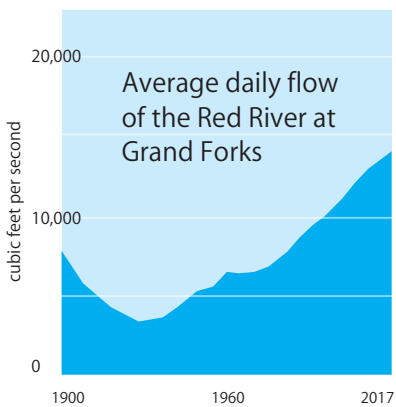
**Phosphorus**, from wastewater, manure and fertilizer, is a nutrient that causes algae that are detrimental to aquatic life and recreation like fishing and swimming.



**Nitrate** is from runoff of agricultural fertilizer and manure, and can make water unsafe for drinking. It can also be toxic to fish and other river life.

# Evidence

## Flow levels

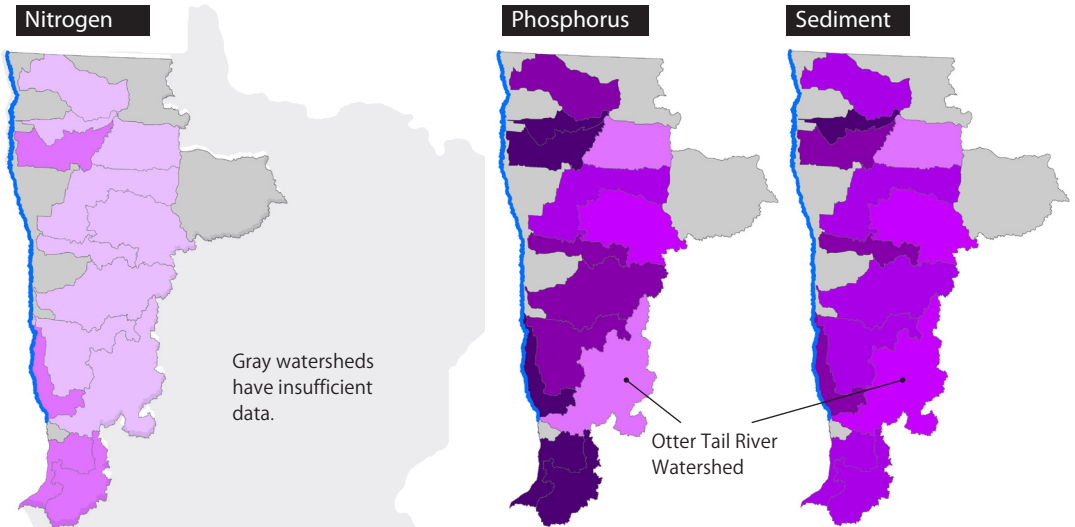


### Increasing flow

Flow is increasing across the Red River basin. People have drained wetlands and ponds while installing extensive tiling and ditch systems. And a changing climate means more heavy rains.

At Grand Forks, flow appears to be increasing five times faster than precipitation over the last seven decades. This points to drainage as the primary driver of the flow increase.

## Current pollution levels



### Nitrogen a rising concern

Though still below the health concern for drinking water, nitrogen levels are creeping up at three sites in the Red River basin: Kragnes, Hendrum, and Robbin, Minnesota.

Many communities, including Fargo and Moorhead, draw water from the Red River and treat it for drinking. Removing nitrogen is expensive. It's easier and cheaper to prevent nitrogen contamination through fertilizer management and better drainage practices.

### Phosphorus and sediment high

Phosphorus and sediment levels are consistently high in the Red River. Levels appear to be stable based on the data assessed.

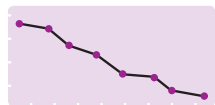
Some watersheds, like the Otter Tail River, have lower pollutant levels because of geography and land use. Row crops are one of the major land uses in the Otter Tail River watershed, but there are also significant natural wetlands, grasslands, and forests — much of it in protected status because of local efforts. Sediment levels are still a problem, but less so than in other parts of the Red River basin.

## How are fish and bugs doing? OK in Red River but not so well in tributaries



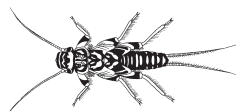
### A resilient fishery.

The fish in the main part of the Red River are doing OK. Their numbers and diversity meet the expectations for a river of its kind. In the tributaries, a number of factors are stressing the fish and bug life.



### Less fish diversity northward.

Scientists found an average of 22 species near the headwaters. But as the river flows north, through a more cultivated and drained landscape, the habitat declines and so does the diversity of the fish population. By the time the river reaches Canada, that average drops to 13 species.



### Pollution-hardy bugs are OK.

Another marker of river health is bugs, especially if there are species sensitive to pollution such as caddisflies. Field work shows that the bug population is doing all right, though many of them are tolerant of pollution. There is a lack of diversity in bugs that likely impacts other parts of the ecosystem, like fish.



### Too much, too little.

In the tributaries that feed the Red River, flow levels — too much and way too little — are really stressing the fish and aquatic insects. Water temperature, habitat access, and other factors fluctuate with the flow, and the extreme fluctuations are hurting the aquatic life.

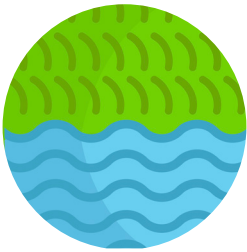


### A good fishing spot.

The Red is a popular fishing river offering channel catfish, walleye, and northern pike. For fish to continue to survive in the river and support this recreation, people must make changes to prevent the extreme fluctuations in flow, reduce pollutants, and increase habitat.

# How to adapt for water quality

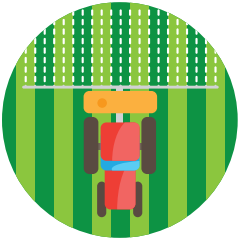
## ACTIONS TO TAKE



### Invest in water storage

Methods that filter and store precipitation lead to cleaner water in rivers:

- Increase areas to temporarily store water
- Manage drainage with outlet controls, grass waterways, ditch buffers
- Install more stormwater treatment basins



### Improve fertilizer management

Use the **Four R's** for fertilizer management:

- **Right source:** Match fertilizer type to crop needs
- **Right rate:** Match amount of fertilizer type to crop needs
- **Right time:** Make nutrients available when crops need them
- **Right place:** Keep nutrients where crops can use them

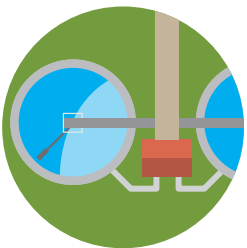
Also, follow setback rules for applications.



### Build soil health

Increasing soil health and organic matter also helps the land absorb more water:

- Expand use of cover crops and keep roots in the soil for more of the year
- Reduce tillage to keep valuable soil in farmers' fields



### Invest in wastewater treatment

Communities have been working to reduce the phosphorus they discharge to the river from their wastewater treatment facilities. Minnesota may seek further reductions from some facilities as part of the effort to prevent algae in the river and downstream waters, including Lake Winnipeg. Some communities may be able to achieve the same phosphorus reductions more cost-effectively through a trading system. For example, a community might choose to meet its phosphorus goals by working with an upstream landowner to restore eroded streambanks.

## Protecting beach ridges will help fish and bugs

The Red River is what's left of ancient Lake Agassiz that once covered much of the basin. The shoreline of Lake Agassiz is now represented by a series of sandy and rocky ridges. These ridges provide some of the best habitat for fish and aquatic insects in the Red River basin. Some fish and insect species need coarse substrate, like pebbly bottoms and riffles, to reproduce and otherwise survive. Streams that flow through these ridges are especially prone to erosion caused by increased flows from drainage and other changes in hydrology, which can result in losses in these important habitats.



# Adapting and learning



## Help fish reconnect to spawning habitat

Connectivity — how water features are connected and allow fish to move within a river system — is a major issue in the Red River basin. Several dams and culverts block fish passage in the Red and its tributaries. Local partners have replaced many dams in the basin with rock riffles and other structures that allow fish movement.

One example is the Sand Hill River which has some of the best spawning habitat in the Red River basin. The problem for fish was getting there. An MPCA study showed many fish species were only found downstream from control structures like dams. The Sand Hill River Watershed District replaced the barriers with rock riffles bordered with riprap. Primary funding came from the Clean Water, Land and Legacy Amendment, with local partners contributing, too.

## Watch, and learn

The Red River basin River Watch program started in 1995 for students from four schools in the Sand Hill River watershed. Today students from 29 schools monitor water quality and aquatic insects at more than 150 sites. Teams also kayak nearby streams to better document river and shoreland conditions. Students meet each year to share findings and learn about trends. The program helps identify problem areas and pollution sources, not to mention educate and inspire students. As one student said, “We just turn on our water, and we don’t care, but we need to think about where it’s coming from — that’s why River Watch is important.”



## Landowners’ investments yield 450% boost in water clarity



In July 2008, clarity readings in Boyer Lake near Detroit Lakes were a paltry 2.9 feet. Chlorophyll and phosphorous levels, indicators of algae problems, were high. In 2013 the Becker County SWCD began working with landowners to install 23 water and sediment control basins, a grade control structure, and seven buffer strips. Farmers converted many acres to no-till with cover crops, to perennial alfalfa, and to native perennial grasses. Eight landowners implemented voluntary practices through contracts and cost-sharing that impacted 78% of the land draining to the lake. The result? Clarity readings in Boyer Lake in July 2017 were 16 feet, a 450% improvement from 2008.

# Reach by reach

- ✔ Supports standards
- ✘ Fails standards

The Red River has been divided into “reaches” for the purpose of determining if water quality standards are being met. These standards are the benchmarks used to determine the ability of waters to support healthy aquatic life, swimming (aquatic recreation), and eating fish (aquatic consumption).



| Reach description   |              |                    |                     | Impairments   |
|---|--------------|--------------------|---------------------|---|
|   | Aquatic life | Aquatic recreation | Aquatic consumption |   |
| <b>Pembina</b> Unnamed Creek to Canadian border             | ✘            | ✔                  | ✘                   | <ul style="list-style-type: none"> <li>Aquatic life: Sediment</li> <li>Consumption: Mercury, PCBs, arsenic</li> </ul>   |
| <b>Drayton</b> Park River, ND to Unnamed Creek, ND          | ✘            | ✔                  | ✘                   | <ul style="list-style-type: none"> <li>Aquatic life: Sediment</li> <li>Consumption: Mercury, PCBs, arsenic</li> </ul>   |
| <b>Oslo</b> Turtle River, ND to Park River, ND              | ✘            | ✔                  | ✘                   | <ul style="list-style-type: none"> <li>Aquatic life: Sediment</li> <li>Consumption: Mercury, PCBs, arsenic</li> </ul>   |
| <b>Judicial Ditch 68</b> English Coulee to Turtle River, ND | ✘            | ✔                  | ✘                   | <ul style="list-style-type: none"> <li>Aquatic life: Sediment</li> <li>Consumption: Mercury, PCBs, arsenic</li> </ul>   |
| <b>Buxton</b> Buffalo Coulee, ND to English Coulee, ND      | ✘            | ✔                  | ✘                   | <ul style="list-style-type: none"> <li>Aquatic life: Sediment and low dissolved oxygen levels</li> <li>Consumption: Mercury, PCBs</li> </ul>  |
| <b>Nielsville</b> Marsh River to Buffalo Coulee, ND         | ✘            | ✔                  | ✘                   | <ul style="list-style-type: none"> <li>Aquatic life: Sediment</li> <li>Consumption: Mercury, PCBs</li> </ul>  |
| <b>Halstad</b> Elm River to Marsh River                     | ✘            | ✔                  | ✘                   | <ul style="list-style-type: none"> <li>Aquatic life: Sediment</li> <li>Aquatic recreation: Bacteria at threshold (If it goes up, it won't meet the standard)</li> <li>Consumption: Mercury, PCBs</li> </ul> |
| <b>Perley</b> Buffalo River to Elm River                    | ✘            | ✘                  | ✘                   | <ul style="list-style-type: none"> <li>Aquatic life: Sediment and low dissolved oxygen levels</li> <li>Aquatic recreation: Bacteria</li> <li>Consumption: Mercury, PCBs, arsenic</li> </ul>                 |
| <b>Fargo</b> Wild Rice River to Buffalo River               | ✘            | ✘                  | ✘                   | <ul style="list-style-type: none"> <li>Aquatic life: Sediment</li> <li>Aquatic recreation: Bacteria</li> <li>Consumption: Mercury, PCBs</li> </ul>  |
| <b>Wahpeton</b> Otter Tail River to Wild Rice River         | ✘            | ✘                  | ✘                   | <ul style="list-style-type: none"> <li>Aquatic life: Sediment</li> <li>Aquatic recreation: Bacteria</li> <li>Consumption: Mercury, PCBs, arsenic</li> </ul>   |

**Aquatic life:**  
Measurement of fish and water insects or a pollutant that affects them.

**Aquatic recreation:**  
Measurement of conditions that affect swimming and boating.

**Aquatic consumption:**  
Contaminants that affect how much fish people can safely eat.  
See [www.health.state.mn.us/fish](http://www.health.state.mn.us/fish)



# About this study

The Minnesota Pollution Control Agency (MPCA) studied pollutant levels and aquatic life of the Red River from its origin at the outlet of the Otter Tail River to the Canadian border near Pembina, ND. While the agency has studied the smaller Minnesota watersheds that drain to the Red River, this is Minnesota's first comprehensive look at the entire 400 miles of the river as a whole on the U.S. side.

While flooding is often the focus of Red River studies, this effort focuses on water quality for recreation, human health, and fish and insects. The purpose of this study is to collect data that government agencies and citizen-led groups can use to plan for protecting good water quality and restoring poor water quality.

## Monitoring

The MPCA and partners study lakes and streams for:

- Levels of nutrients, sediment, bacteria, toxics, dissolved oxygen, chloride, pH, ammonia
- Communities of fish and macroinvertebrates such as aquatic insects
- Flow of rivers and streams
- Contaminants in fish such as mercury

**Assessment** – The MPCA and local partners use the data and determine whether the condition of water bodies meets water quality standards. Water quality standards are the thresholds used to determine the suitability of waters for swimming and boating, and their overall biological health. Water quality standards are not “one size fits all.” In many cases they are regionalized for different parts of the state, and tailored to different types of water bodies.

**Data** – This study includes data spanning 10 years, gathered from 37 monitoring sites along the river. The study also used data from state agencies in Minnesota and North Dakota, as well as local partners.

## Additional resources

*A River Runs North: Managing an International River*  
Red River Basin Commission

Minnesota Nutrient Reduction Strategy, an MPCA study

More information is available here:

[www.pca.state.mn.us/red-river-study](http://www.pca.state.mn.us/red-river-study)



Monitoring is not only done in the Red River itself, but also within the watersheds and tributaries that drain to the bigger river. In all, 40,000 square miles drain to the Red River on the U.S. side.

## Many people are doing work to improve the water

As the Red River Basin Commission notes in *A River Runs North, Managing an International River*, water management issues in the basin are numerous, complex and difficult to resolve.

There are multiple variables constantly changing in the basin, including climate, cropping, flows, condition of tributaries, and more. The U.S., Canada and joint bodies oversee various aspects of the Red River basin. In all, there are about 1,500 government entities at all levels in the basin. There are also several hundred special interest and stakeholder groups. Trying to get all entities involved to agree on policies and priorities is difficult. That complexity is one reason why it's so important for local governments and parties to take action on restoration work in the tributary watersheds.

## People working to protect and restore waters in the Red River basin:

- Individuals like farmers using conservation practices, city residents planting rain gardens, and interested citizens advocating for changes.
- Tribal nations monitor and protect water quality on tribal lands in the basin.
- There are many citizen organizations and water-related associations who work tirelessly to increase awareness, educate people, initiate projects and manage programs.
- Government partners include cities; counties; soil and water conservation districts; watershed districts and partnerships; and state, federal and international agencies who monitor water quality, engage citizens, develop plans, provide funding, enforce laws, and oversee programs to protect the river.

Without all these efforts, the river's water quality would be much worse. Many key pieces are falling into place for a much healthier Red River. As the Red River Basin Commission says in its publication, "Coping with the forces of nature at work in the Red River Basin has always been a matter of adapting, and to adapt, one must change."

# Questions

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By Corey Hanson, Red Lake Watershed District Water Quality Coordinator. 2/12/2019.

- ✓ Burnham Creek Bank Erosion Hazard Index assessments
- ✓ River Watch

### **Red Lake Watershed District Long-Term Monitoring Program**

2018 water quality data was entered into the RLWD database and submitted to the MPCA for storage in the state's EQuIS database.

Water level loggers were retrieved from stage/flow monitoring stations throughout the RLWD. The water level logger and deployment pipe at the CSAH 54 Moose River monitoring station had been needlessly destroyed by Beltrami County staff that cleaned sediment out of the Moose River channel on the upstream side of the CSAH 54 crossing. The logger was not in the way of the excavation as it was not in one of the areas that was accumulating sediment and the channel had not been excavated in the location where the logger had been deployed.

### **Clearwater River Watershed Restoration and Protection Strategy (WRAPS) Project**

- Objective 9 – Civic Engagement
  - The maps of the Clearwater River watershed that have been completed for the TMDL and WRAPS reports were compiled into a single PDF document and shared with members of the technical advisory committee/core team.
  - A meeting of the Clearwater River WRAPS core team (technical advisory committee) was scheduled for November 28, 2018.
- Objective 10 – Report Writing
  - RLWD staff began compiling restoration and protection strategies for each of the HUC10 subwatersheds in the Clearwater River watershed. The strategies were organized into tables in preparation for a technical advisory, core-team meeting (one table for each of the HUC10 subwatersheds in addition a table for watershed-wide strategies).

### **River Watch**

District staff helped students from Red Lake Falls, Clearbrook-Gonvick, Win-E-Mac, and Red Lake County Central with River Watch monitoring in October.

Red Lake County Central River Watch Students discovered discharge into the Hill river at the CR 119 crossing near Brooks while sampling macroinvertebrates. Discharge from that location has been a problem that has been reported to Red Lake County staff as long ago as 2005. The source of the discharge (a truck washing station at a nearby business) was finally identified and addressed in 2017 when the truck washing station was upgraded. However, pollutants from the truck washing station were still entering the tile line that was discharging the sediment laden effluent (that also smelled like diesel fuel) that was flowing into the Hill River. The RLCC River Watch group will be using this situation as a project for the 2019 River Watch Forum challenge. The 2019 River Watch Forum challenge asks to examine their watersheds, find and issue or problem, and propose a solution.



The International Water Institute released a Fall 2018 newsletter in October that includes information about the River Watch program, Paddle Excursions with Wilderness Inquiry, River Watch Kickoff events, Crookston paddling event, River of Dreams canoe launches/finds, and PTMAApp hydro-conditioning.

#### **Red Lake River Watershed Restoration and Protection Strategy (WRAPS)**

Comments were received from the MPCA and EPA on the Red Lake River Total Maximum Daily Load report on 10/31/2018, so editing of that document could begin in early November.

#### **Grand Marais Creek Watershed Restoration and Protection Strategy (WRAPS)**

The Grand Marais Creek WRAPS report was edited to address comments from the MPCA and local staff to prepare the document for a public comment period. A revised version of the Grand Marais Creek WRAPS Report was completed on October 11, 2018.

#### **Thief River One Watershed One Plan (1W1P)**

RLWD staff and staff from other planning partners worked on the completion of a budget table for the 1W1P. Due to predicted bad weather, the Thief River 1W1P meeting that was to be held October 10, 2018 in Grygla, was postponed.

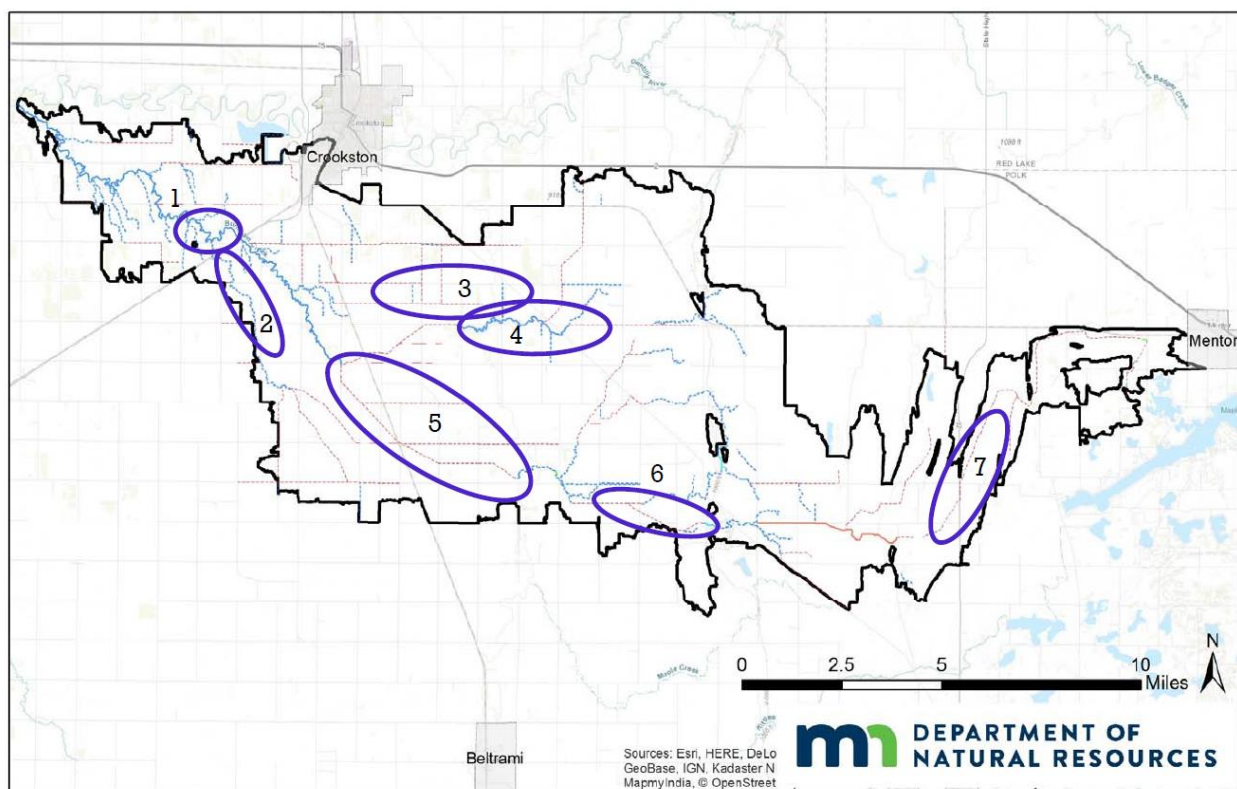
#### **Red Lake River One Watershed One Plan**

A rough draft Targeted Implementation Plan for the Red Lake River 1W1P was completed by Houston Engineering, Inc, and shared with the planning work group. The document will be an addendum to the existing Red Lake River 1W1P that summarizes the results of PTMAApp analysis of the watershed. That

analysis identified the most cost-effective means of achieving sediment reduction goals in each management area.

The Red Lake River was selected by the MPCA to participate in the 319 Small-Watersheds Focus Program. The funding will be applied to a specific, nearly-restored subwatershed with the goal of significantly improving water quality so that it is no longer impaired. The planning work group has considered targeting portions of either the Black River or the Red Lake River. The portion of the Red Lake River that is impaired by excess total suspended solids between St. Hilaire and Red Lake Falls is the most likely choice for the small watershed that will be targeted.

### **Burnham Creek Geomorphology Assessment**



DNR and RLWD staff conducted October geomorphic study of the Burnham Creek watershed. The areas in the map above were targeted for Bank Erosion Hazard Index (BEHI) ratings. Representative reaches in areas 3, 4, 5, 6, and 7 were assessed in October 2018. The further downstream areas (1 and 2) will be assessed during the summer of 2019. The goal of the work will be to find answers to some questions about the watershed:

- Where is the channel actively eroding excessive sediment into the system?
  - If eroding, where is the channel in the evolutionary process? What can be done to guide the channel into a more stable form?
  - If not eroding, what factors are critical for stability? What protection steps can be taken to maintain stability?
- Where is longitudinal connectivity creating poor connectivity conditions?

- Where is lateral connectivity in poor condition, resulting in potentially decreased habitat and increased instability?
- Where is the channel efficiently transporting sediment?
- Where is the channel unable to transport the supplied quantity of sediment?
- What channel management practices and land uses are contributing to sediment yield and river impairment?
- How are the cumulative effects of various watershed processes affecting water resources?

On October 2, 2018, DNR and RLWD staff conducted a detailed Bank Erosion Hazard Index (BEHI) assessment of the Polk County Ditch 79 portion of Burnham Creek from the Spring Gravel stream restoration project, downstream to 370<sup>th</sup> St SW (area #6 on the map). There were multiple beaver dams along the reach, including to large dams where some stream restoration work was completed. The largest dam was at the upstream end of the project area where fill from an old road/dike was not removed from the floodplain as it should have been. Another large dam was located just upstream of the location of the old Spring Gravel Dam structure that had washed-out. The beaver dams have created some potentially beneficial wetland habitat, but also are potential barriers to fish passage. A portion of the toe-wood sod mat, along the bank that bears the brunt of force of water flowing through the rock-lined channel that replaced the dam, has washed away. Downstream portions of the streambank stabilization work (after the stream turns to the north) are intact. Much of the straight portion of the channel downstream of the public land was well vegetated and relatively stable. Where field drainage entered the channel, however, washouts have been developing around the inlets and large sediment bars have been accumulating shortly downstream of the inlets. There were some eroding streambanks upstream of 180<sup>th</sup> Ave SW.

Wetland upstream of the beaver dam at the site of the Spring Gravel Dam bridge.



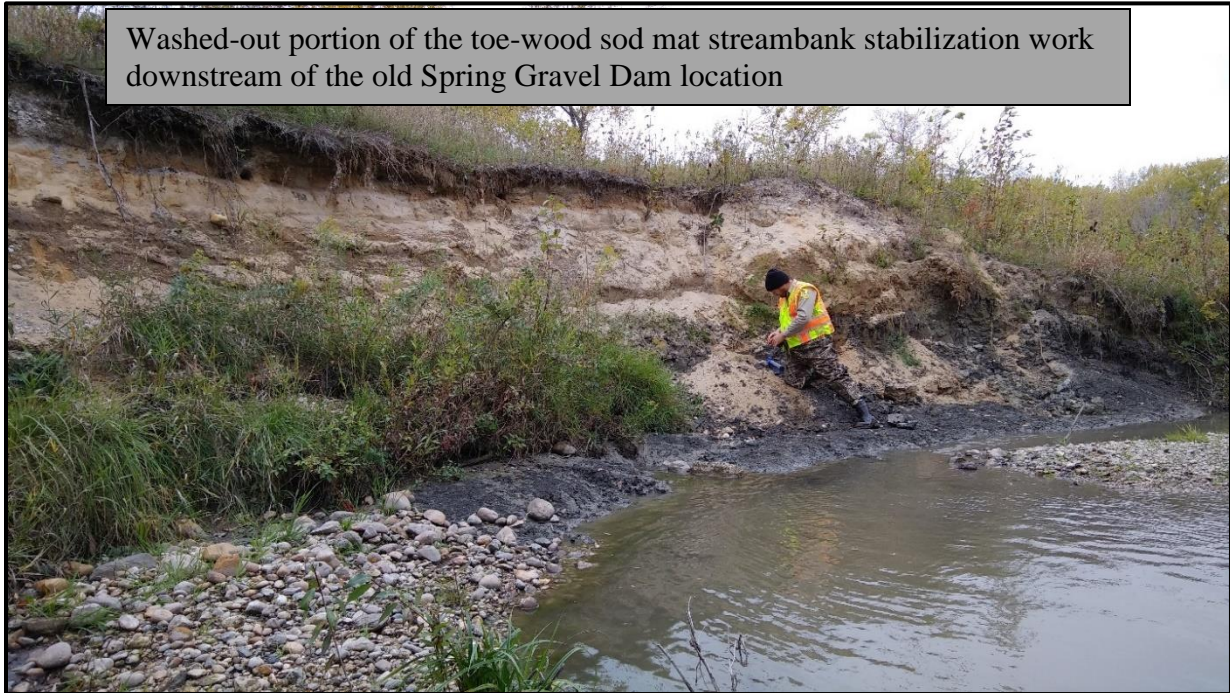
Beaver dam at the former location of the Spring Gravel Dam bridge



Beaver dam near the former location of the Spring Gravel Dam



Washed-out portion of the toe-wood sod mat streambank stabilization work downstream of the old Spring Gravel Dam location

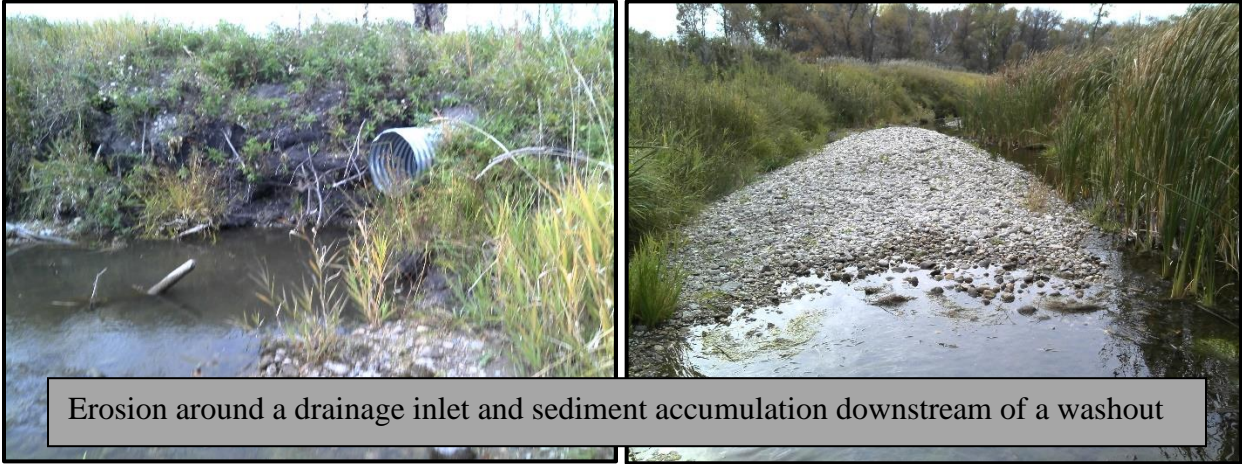


Intact, successful portion of the toe-wood sod mat streambank stabilization



**RED LAKE WATERSHED DISTRICT  
MONTHLY WATER QUALITY REPORT**

**October 2018**



Erosion around a drainage inlet and sediment accumulation downstream of a washout



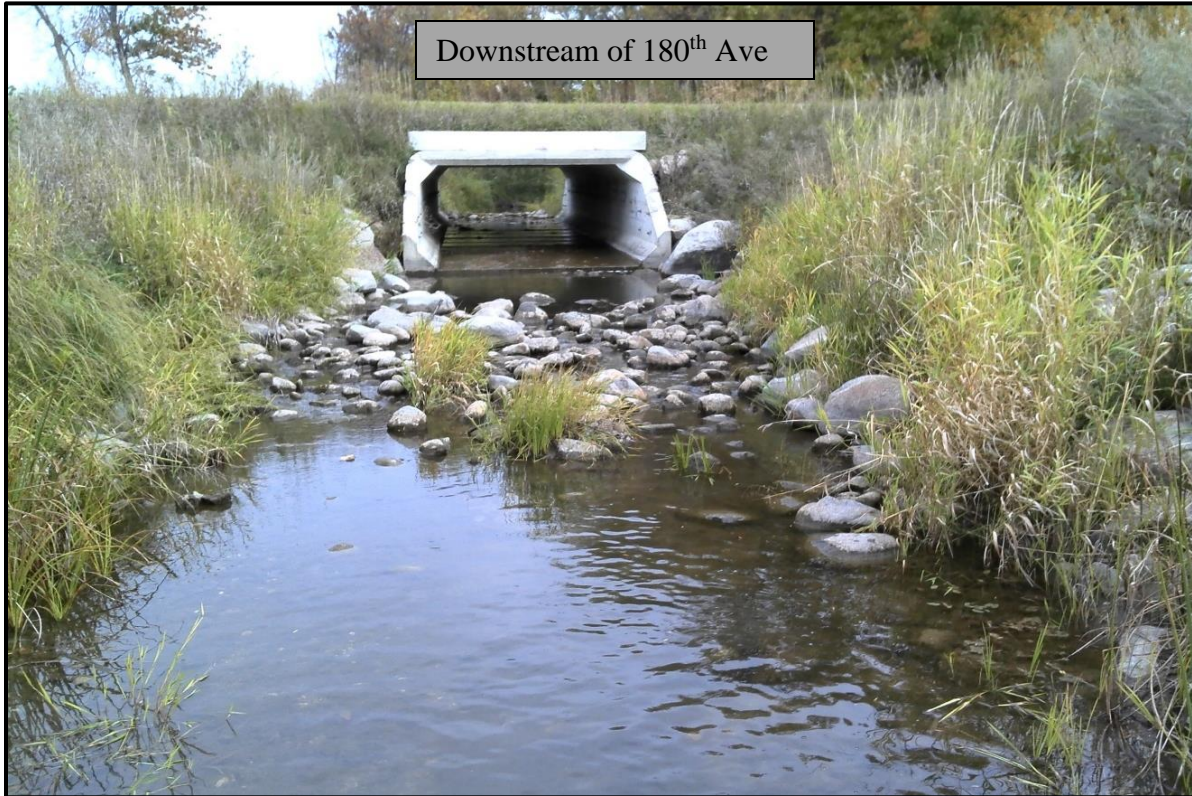
Well-vegetated, cobble-bottom, relatively stable ditch channel



The way that the bark has been stripped, as if sandblasted, from the trunk of this tree is a evidence of the power and sediment content of the water flowing through CD 79 upstream of 180<sup>th</sup> Ave SW



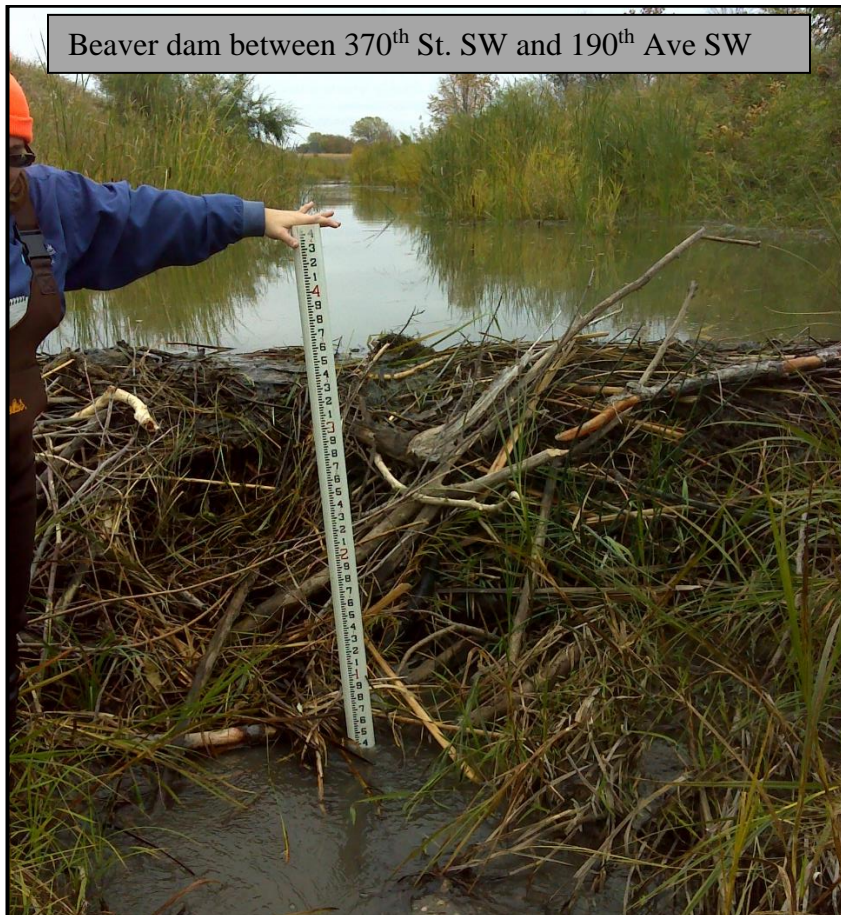
The culvert at [180<sup>th</sup> Ave SW] was still somewhat perched, despite the rock that was placed downstream to improve fish passage. The portion of CD 79 between 180<sup>th</sup> Ave SW and 370<sup>th</sup> St. SW was relatively stable, well vegetated, and exhibited an alternating riffle-pool pattern despite the channelization. Meanwhile, on the same day, another group of DNR staff conducted BEHI assessments downstream of 370<sup>th</sup> St. SW. The culvert at 370<sup>th</sup> St. SW appeared to still be somewhat perched but may allow some fish passage during higher flows. The DNR staff noted that there was a lot of sedimentation between a confluence of 2 ditches and the large weir downstream of 190<sup>th</sup> Ave SW. They reported that it was difficult to maintain their footing in the slippery muck. There were some small beaver dams along this portion of the ditch. Rock riffle structures had been constructed downstream of a large weir on the CD 11 portion of Burnham Creek. The channel between rock riffle structures was a bit mucky due to sedimentation, but a limited amount of sedimentation upstream of a new rock structure is expected. It was sediment that had been deposited behind a riffle structure rather than being carried further downstream.

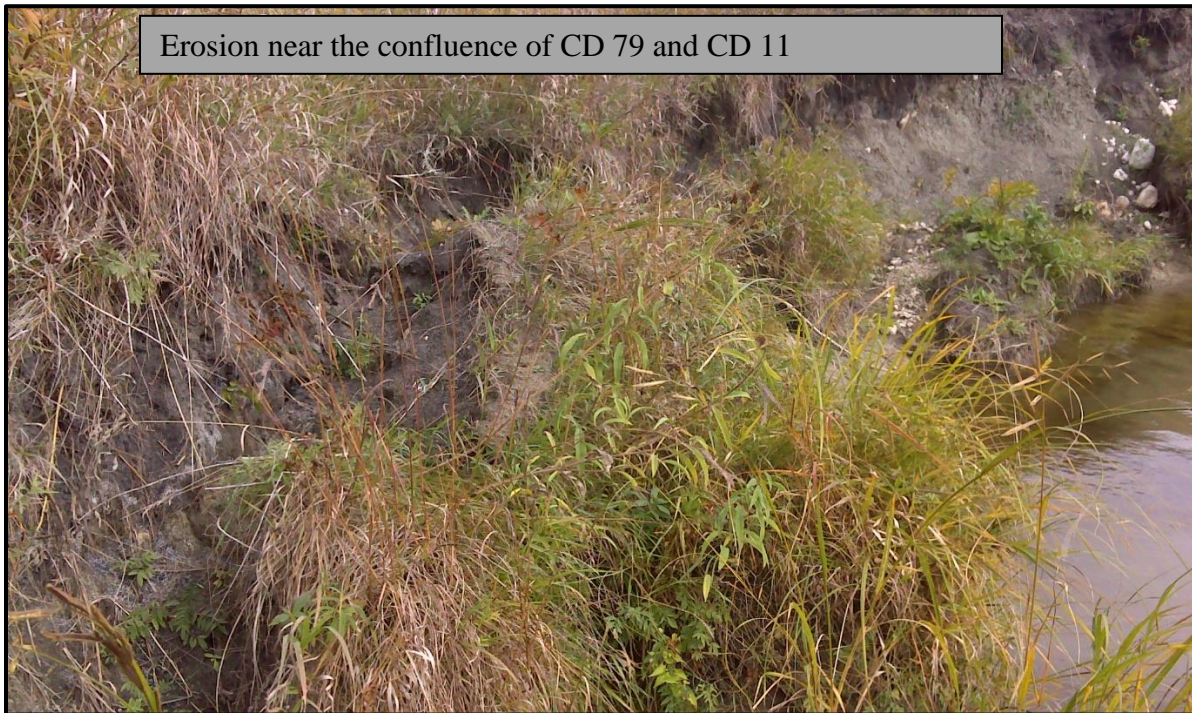
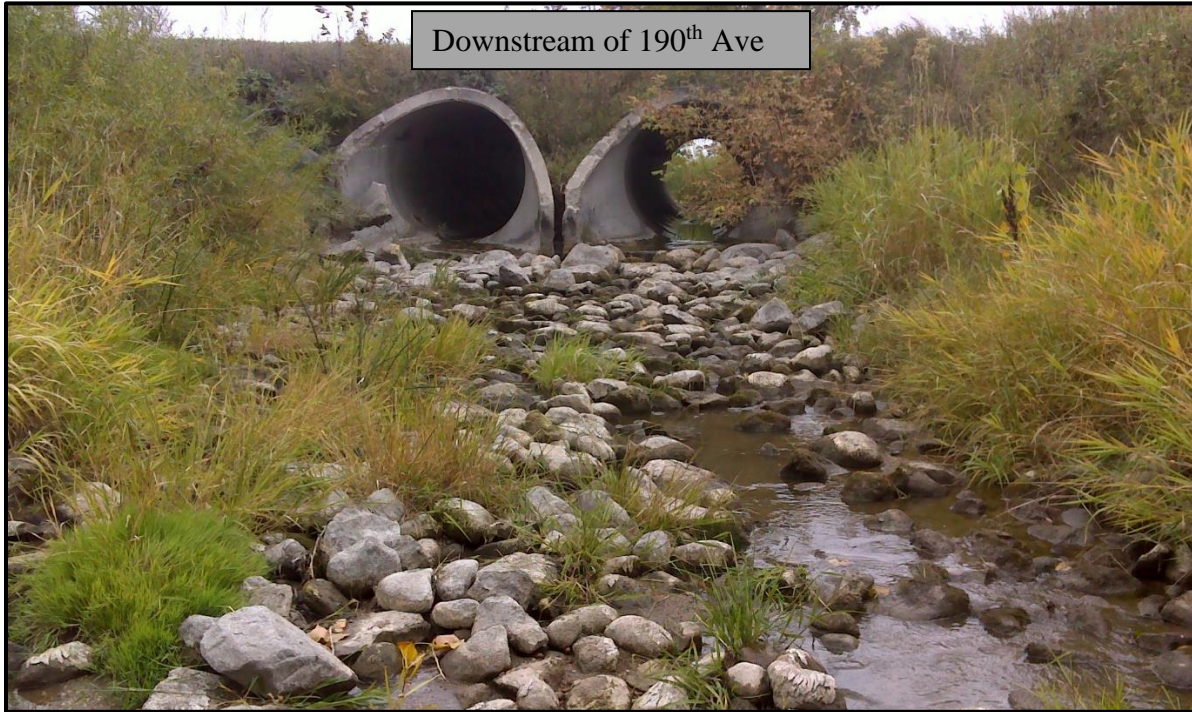


Downstream of 180<sup>th</sup> Ave

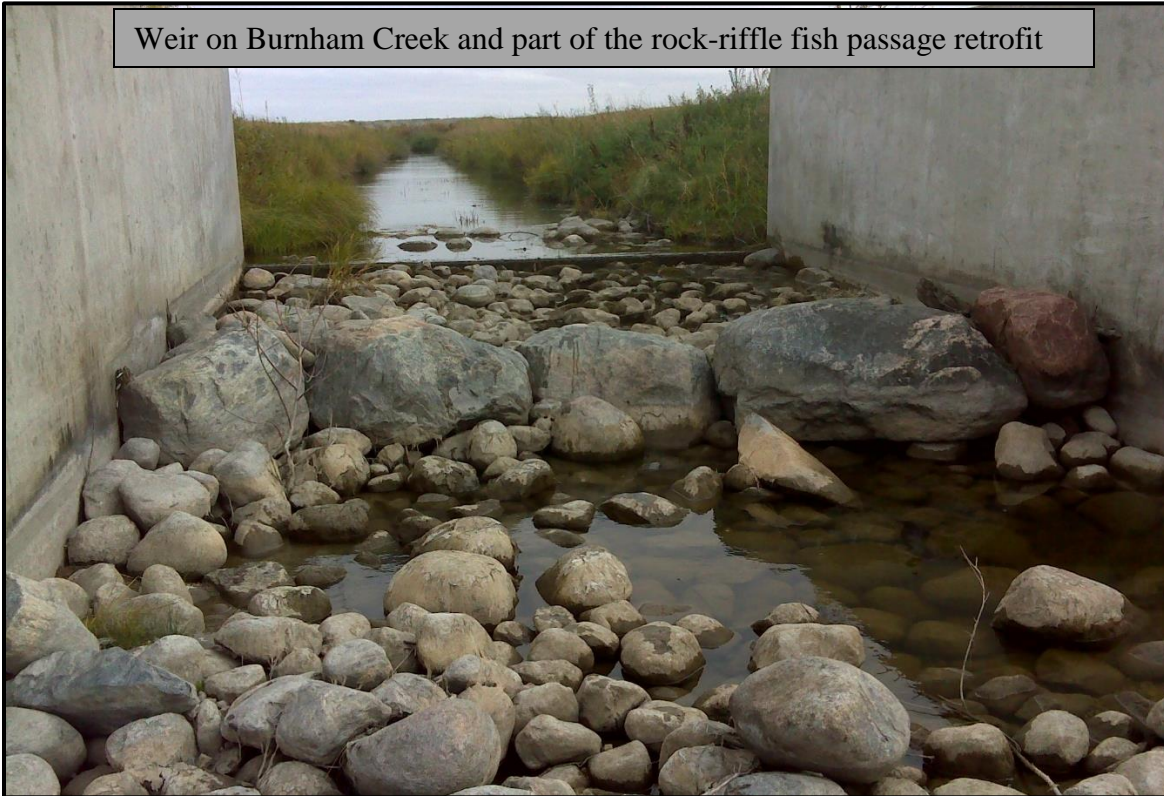


CD 79 portion of Burnham Creek, between 180<sup>th</sup> Ave SW and 370<sup>th</sup> St. SW

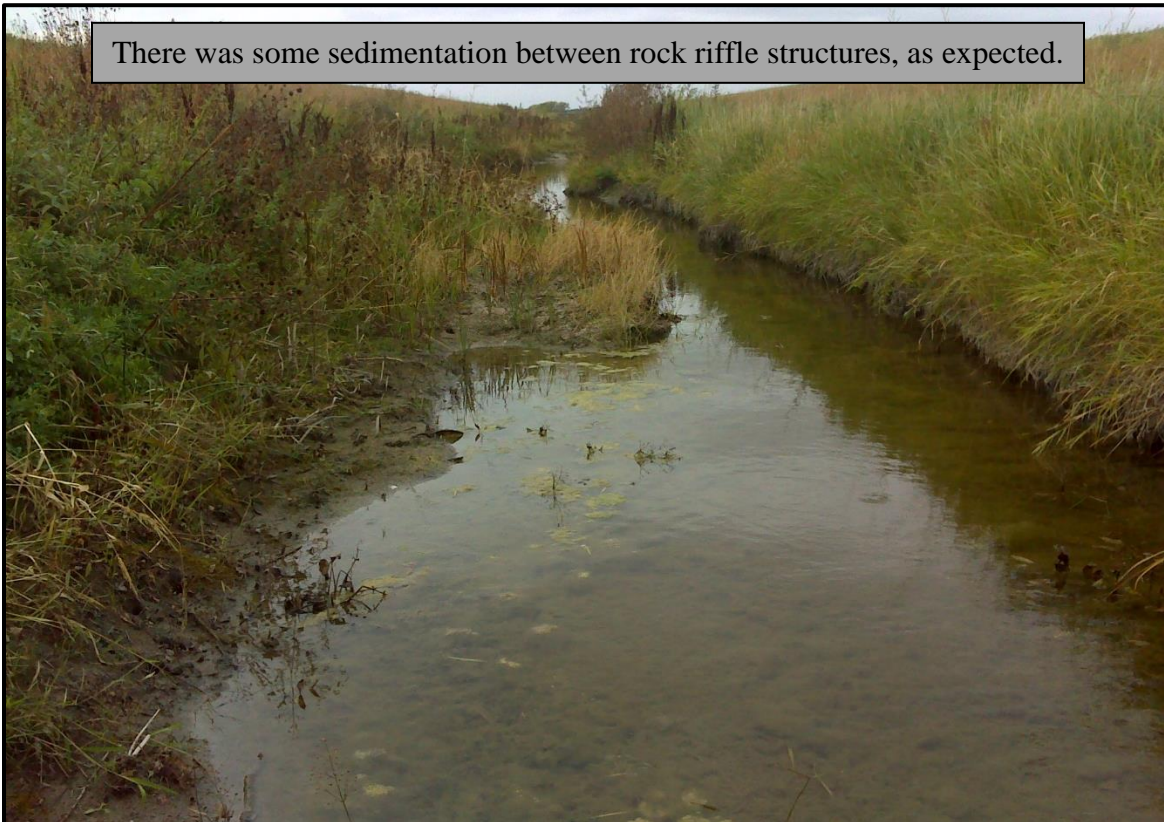




Weir on Burnham Creek and part of the rock-riffle fish passage retrofit



There was some sedimentation between rock riffle structures, as expected.

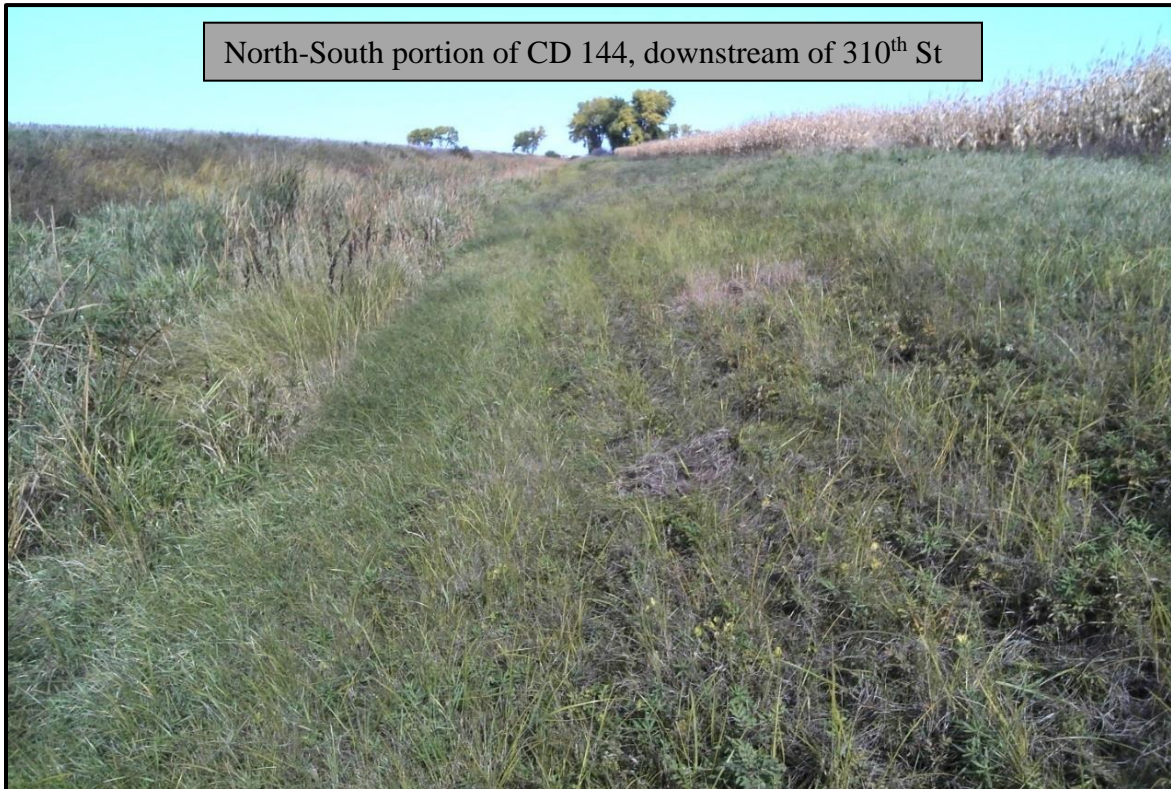


**RED LAKE WATERSHED DISTRICT  
MONTHLY WATER QUALITY REPORT**

**October 2018**

On October 4, 2018, RLWD and DNR staff completed BEHI assessments of streambank stability along two reaches within the Burnham Creek drainage area. One group completed an assessment of Polk County Ditch 144 between 310<sup>th</sup> St. SW and State Highway 9 (area #3 on the map). Another group completed an assessment of Burnham Creek from 340<sup>th</sup> St. SW to CSAH 45 (area #5 on the map). All staff worked together to finish the days work along a portion of the channel between CSAH 45 and the confluence with Polk County Ditch 15. The north-south portion of CD 144 had a large amount of sedimentation, particularly at points where field drainage entered the ditch. The sediment bars that have accumulated near the field drainage inlets may have been exacerbating sedimentation in the channel upstream. Edge-of-field best management practices are needed along this ditch. Improved buffers or alternative practices are also needed along this ditch as portions of the ditch currently being farmed up to the edge of the ditch slope and there is erosion at field drainage inlets.

North-South portion of CD 144, downstream of 310<sup>th</sup> St



East-West portion of CD 144, upstream of Hwy 9



Burnham Creek between and 340<sup>th</sup> St. SW CSAH 45







On October 5, 2018, RLWD staff completed BEHI assessments along portions of Polk County Ditch 72 near Rydell National Wildlife Refuge (area #7 on the map) and a meandering portion of Polk County Ditch 15 near Harold (area #4 on the map). A 0.3-mile section of CD 72 upstream of 360<sup>th</sup> St. SW and a half-mile section of CD 72 between 360<sup>th</sup> St. SW and State Highway 32 were assessed. CD 72 had good vegetative cover except for a location that was a heavily-used wildlife crossing and low areas where the upper banks were sparsely vegetated due to disturbance or standing water. There were survey stakes along the sparsely vegetated areas that are evidence that some type of excavation may have occurred there. Aerial photos show that wetlands were once drained through those areas. One of the wetlands has been “restored” with a ditch plug. Another low, wet area is located along the east bank of the CD 72 channel. The area should be examined for a small project that may involve a true wetland restoration (excavation of sediment to form a basin) or establishment of additional native vegetation that favors wet conditions. Much of the CD 72 channel was filled with cattails and other vegetation. The upper banks of CD 72 were lined with native vegetation. Two dead bald eagles were lying in the ditch near the carcass of a road-killed deer near the Hwy 32 crossing of CD 72 (reported to the MN DNR).



Polk County Ditch 72

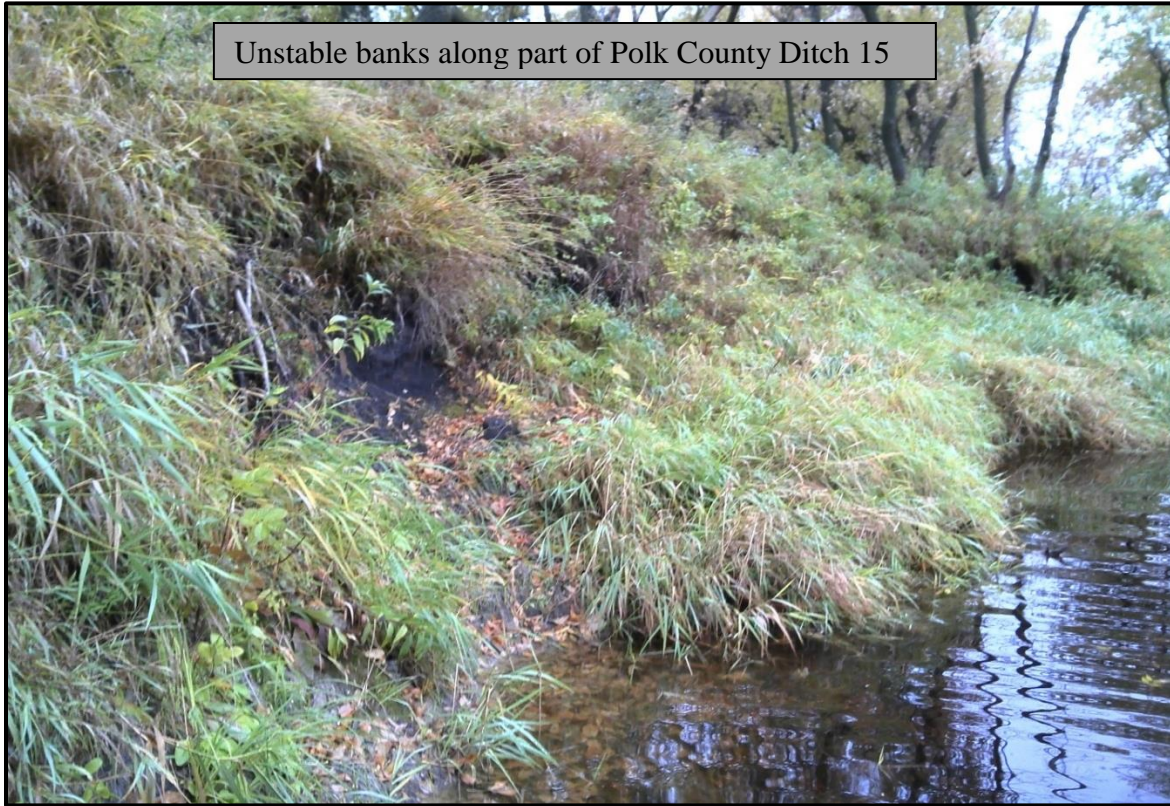
Polk County Ditch 15 was assessed with BEHI ratings between the CSAH 48 crossing and where the ditch nears CSAH 45 (nearly half way between CSAH 48 and 220<sup>th</sup> Ave SW). A potential fish passage barrier (an old concrete private crossing) was found near the downstream end of the assessed portion of the ditch. Conditions varied throughout the assessed reach. Sedimentation was occurring along much of this reach. The banks near CSAH 45 were less stable than the banks along the rest of the channel.

Collapsed, old concrete crossing in Polk County Ditch 15



Polk County Ditch 15 near Harold





**Other Notes**

- Water quality related notes from the October 11, 2018 Red Lake Watershed District Board of Managers meeting:
  - The Board reviewed the Clearwater SWCD Local Water Resources Riparian Protection (“Other Watercourses”) for inclusion into their local water management plan.
  - The Board reviewed the draft Buffer Law Implementation for Watersheds under Minnesota State Statutes 103E. Administrator Jesme stated that Houston Engineering, Inc., developed the document for the Buffalo Red River Watershed District. Discussion was held on penalty amounts for non-compliance for the installation of a buffer strip. Legal Counsel Sparby referred to section 6.1 where the District may seek remedies for non-compliance from any responsible party. Discussion was held on who is the responsible party, whether it be the agent, operator, or renter. It was the consensus of the Board, that the Owner of the property would be the responsible party, with recommendation that the Owner notify their renters to respect the Buffer Law. Motion by Page, seconded by Torgerson, to approve the Buffer Law Implementation for Watersheds, subject to Legal Counsel Sparby’s review. Motion carried.
  - The Board reviewed correspondence from the City of Crookston, Part II Wellhead Protection Plan.
- A final report was completed and submitted to the MPCA for the completed Thief River Watershed Restoration and Protection Strategy Public Notice contract.

## RED LAKE WATERSHED DISTRICT MONTHLY WATER QUALITY REPORT

October 2018

- RLWD staff were interviewed, via Skype, by high school students from the School of Environmental Studies at the Minnesota Zoo in Apple Valley, Minnesota that were working on a school project about the Red Lake River. The students used information from their research and information from our conversation to create an “Environmental News Show” YouTube video about the Red Lake River for their class project: <https://youtu.be/cWuaC8a4Cn0>
- RLWD staff prepared a presentation to describe the District’s water quality program for an upcoming Red River Monitoring Advisory Committee meeting.
- New maps have been added to the RLWD website that show the names and locations of RLWD drainage ditches within each county: <http://redlakewatershed.org/engineering.html>.

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](http://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](http://www.rlwdwatersheds.org).

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