Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155-4194

WPLMN Interim Progress Report

Watershed Pollutant Load Monitoring Network (WPLMN)

Doc Type: Contracts Interim Report

Instructions on page 5

Due February 1, 2020

I. Project information

Project title: FY16 RCRCA Watershed Pollutant Load Monitoring Network Project

Contract number: 8467 SWIFT number: 98167 Purchase order number: 3000014985

Local partner information:

Organization name: Redwood - Cottonwood Rivers Control Area (RCRCA)

Street address: 1424 East College Drive, Suite 300

City: Marshall State: MN Zip code: 56258

Primary contact name: Kerry Netzke Phone: 507-532-1325

Email address: kerry.netzke@rcrca.com Fax:

Fiscal contact name: Kerry Netzke Phone: 507-532-1325

Email address: kerry.netzke@rcrca.com Fax:

Field contact name: Shawn Wohnoutka Phone: 507-532-1325

Email address: shawn.wohnoutka@rcrca.com Fax:

Reporting period:

Start date: 1/1/2019 *(mm/dd/yyyy)* End date: 12/31/2019 *(mm/dd/yyyy)*

Project location:

Basin (check all that apply):

☐ Red River ☐ Rainy River ☐ Lake Superior ☒ Minnesota ☐ Lower Mississippi ☐ St. Croix ☐ Upper Mississippi

Major watershed(s): Redwood, Cottonwood, MN River - Mankato Hydrologic unit code(s): 0702(0006,0007,0008)

Project details:

Name of eligible laboratory: Minnesota Valley Testing Laboratories (MVTL), Inc. - New Ulm, MN

How many full-time equivalents (FTEs) worked on this project in 2018 (total project hours/2,088 hours): 0.26

Were there any staff changes on the project? ☐ Yes ☒ No

If yes, please describe:

II. Activities completed

Table 1: Work Plan activities

1. **Please list activities completed during the report period. Include task level detail as appropriate**. Refer to the instructions for an example. (Insert more rows as needed by hitting the tab key in the last row/column.)

Objective and task	Description
1. Stream Monitoring – Task A	Replacement pH probe was purchased 4/10/2019. Supplies were purchased as needed throughout the 2019 calendar year.
1. Stream Monitoring – Task C	Collected 218 samples from the 7 monitoring sites and delivered to MVTL. Field data collected at each site. Ice leaving upstream subwatershed sites by mid to late-March. All 7 sites were sampled by 3/23/2019. Redwood River (N Marshall) was open by 3/12/2019. Redwood River (Russell) was 80% ice covered on 3/12/2019, over 50% open by 3/19/2019, and fully open on 3/25/2019. Redwood River near Redwood Falls was 100% ice covered on 3/15/2019, 90% ice covered on 3/17/2019, and open by 3/23/2019 with a large ice jam up and downstream of the site. This site was out of banks with ice jams on 3/23/2019 but fully open and free of ice jams by 3/25/2019; and back in banks and free of ice shortly after the 4/2/2019 stop. Cottonwood subwatershed sites were 100% ice covered on 3/14/2019. Sleepy Eye Creek had 80% ice cover on 3/17/2019 and was open water at bridge with an ice jam downstream on 3/18/2019. Sleepy Eye Creek site was fully open and the first sample was collected on 3/20/2019. Cottonwood River near Leavenworth was at 80% ice cover on 3/17/2019, sheet ice broke up and cleared the channel while at site on 3/20/2019 (first sample collected) and fully open by 3/22/2019. Cottonwood River at New Ulm was 100% ice covered on 2/28/2019, and down to 50% ice cover by 3/14/2019. Open water at the bridge but ice jams upstream and downstream during the 3/17/2019 and 3/18/2019 stops; completely open by 3/20/2019 with some floating ice chunks. Minnesota River at Morton was 100% ice covered on 3/17/2019, 85% ice covered on 3/20/2019 with ice cracking and water flowing over ice along the banks. This site was 50% open at the bridge but 80-90% ice covered upstream and downstream on 3/23/2019 when the first sample was collected. River was completely open by 3/25/2019 and extended well into the flood plain. Subwatershed sites were sampled 23 to 32 times each. Major watershed sites were sampled 28 to 42 times each. One duplicate sample was taken at each site during the 2019 season. The equipment blank was not collected per MPCA direction due to high sample counts
1. Stream Monitoring – Task D	Collected, stream transparency, stream conditions and data logger/water level information at each site during the 2019 season. Information was reported using the GoCanvas application.
1. Stream Monitoring – Task E	When used, the field meter was calibrated weekly before sampling, monthly during the winter months, and recorded into the calibration log book. pH probe was replaced in April 2019.
2. Data Management – Task A	Reviewed lab results submitted to EQuIS for accuracy.
2. Data Management – Task B	Submitted visual observations, collected field meter measurements and water level data from each site via GoCanvas throughout the season.
2. Data Management – Task C	Photos and field data were submitted via GoCanvas throughout the season. Field meter calibration logs and field notes were submitted via e-mail on 11/5/2019.
2. Data Management – Task D	Completed load calculations for the 2017 calendar year using Flux32 model and verified data with MPCA personnel. Loads were calculated for all sampled sites.
2. Data Management – Task E	Staff participated in the Ice-Out WebEx training on 3/5/2019. Staff attended the state-wide training on 10/2/2019 in Brainerd.
3. Project Oversight – Task A	Checked all MVTL invoices for accuracy. Tracked 2019 project expenditures and submitted quarterly invoices to MPCA for reimbursement. Two change orders were executed during this period.
3. Project Oversight – Task B	2018 Interim Report was submitted on 1/23/2019.
3. Project Oversight – Task C	A mid-project review is being scheduled for January 2020.
3. Project Oversight – Task D	Primary sampler participated in weekly teleconferences with the project manager, other staff and local partners.
3. Project Oversight – Task E	Staff participated in the Ice-Out WebEx training on 3/5/2019. Staff attended the state-wide training on 10/2/2019 in Brainerd.

2. **Please answer the following questions relating to the deliverables for the project.**

   a. Was the Quality Assurance Project Plan (QAPP) revised in 2019?
   ☐ Yes ☒ No If yes, approval date (mm/dd/yyyy): _____

   b. Were the field meter calibration logs, Canvas entries, and field notes submitted by February 1, 2018 (if applicable) and November 1, 2019?
   ☐ Yes ☒ No If no, please comment: *Submitted on November 5, 2019*

   c. Were pollutant loads computed in a timely manner (within 60 days of receiving the .xml)?
   ☒ Yes ☐ No If no, please comment: _____

   d. Were you able to attend a majority of the weekly check in telephone conferences during the reporting period?
   ☒ Yes ☐ No If no, please comment: _____

   e. Was a backup sampler used to collect any of the samples?
   ☒ Yes ☐ No If yes, please describe when, who, if they were trained, and any other details:

   Primary backup sampler (Kerry Netzke) collected samples on 3/25/2019, 9/11/2019 and 9/12/2019 at the Redwood River subwatershed sites (Russell and N Marshall).

3. **Please answer the following questions *and* provide comments.**

   Were you comfortable with your level of training and current ability to:

   a. Collect stream samples over the entire range of the hydrograph? ☒ Yes ☐ No
   Comments:
   The top 3 to 4 events with the most flow for each site were captured with a minimum of 1, and up to, 5 samples.

   b. Calibrate and use the field meter and equipment? ☒ Yes ☐ No
   Comments:
   Early in the season, a probe needed to be replaced so the probes were not brought along. After the new probe was obtained, the habit of not bringing the probes along continued. The probes will be reimplemented into the 2020 sampling program.

   c. Enter information into the GoCanvas application and submit the calibration log, field notes and additional photos?
   ☒ Yes ☐ No
   Comments:
   GoCanvas was not used to input information in the field setting; this was done in the office.

   d. Use the FLUX32 model accurately and submit pollutant loads? ☒ Yes ☐ No
   Comments:
   No issues encountered.

   e. Complete and submit invoices? ☒ Yes ☐ No
   Comments:
   Invoicing is easier with the new invoice template. MCPA staff edits the template promptly following change orders.

4. **Describe in detail any problems, delays, or difficulties that occurred in fulfilling the requirements of the work plan. How did you resolve these problems?**
   No problems encountered.

5. **Were there any change orders and/or amendments to the contract and work plan? If yes, summarize the changes.**
   ☒ Yes ☐ No
   Comments:
   CO#6 was executed 5/17/2019 moving $1,099.88 from Water Quality Technician and Shipping to the Office Manager line item.
   CO#7 was executed 11/12/2019 moving $1,285.06 to Obj. 1 Laboratory and $2,146.54 to Staff #2 (60 hrs) from Staff #1 line item. Workplan was changed to reflect work being done in 2020. FTE reduced from 0.38 to 0.37.

6. **Please provide any constructive feedback regarding the WPLMN (training, midproject meeting, deliverables, deadlines, program directives):**

III. Budget Information

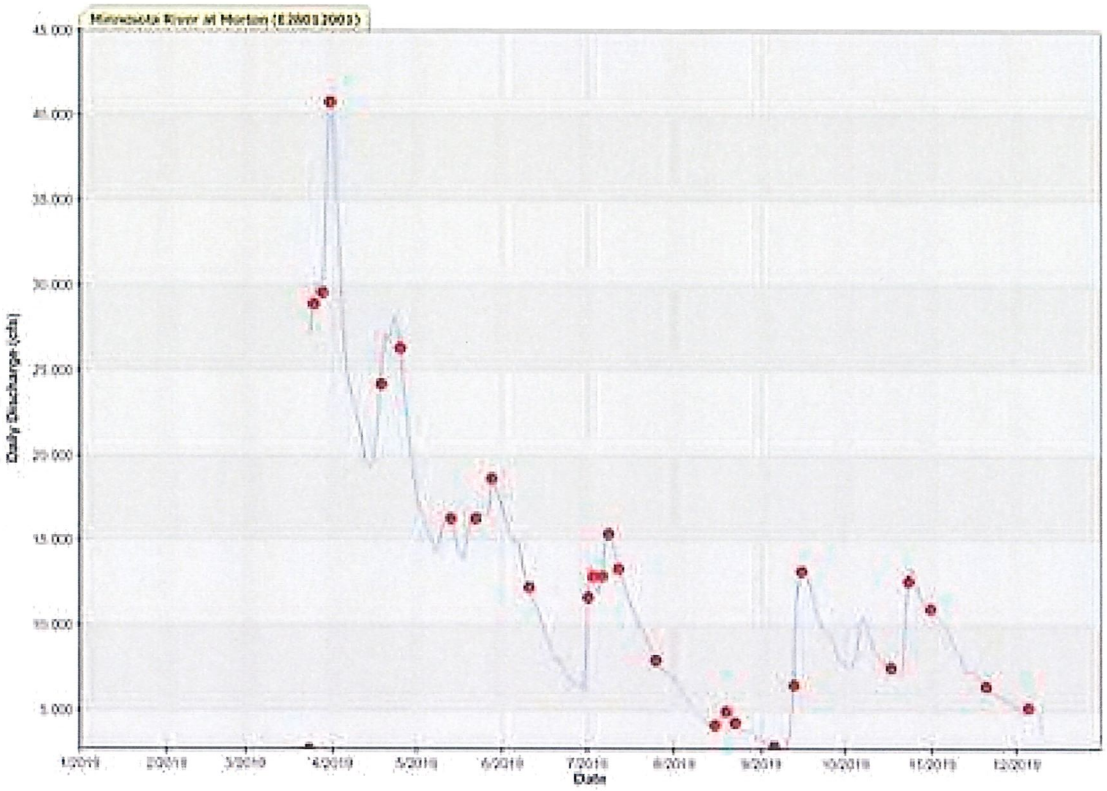
Please copy the information on the Invoice tab from the Microsoft Excel Invoice workbook and paste into this Interim Progress Report template. See Instructions for details.

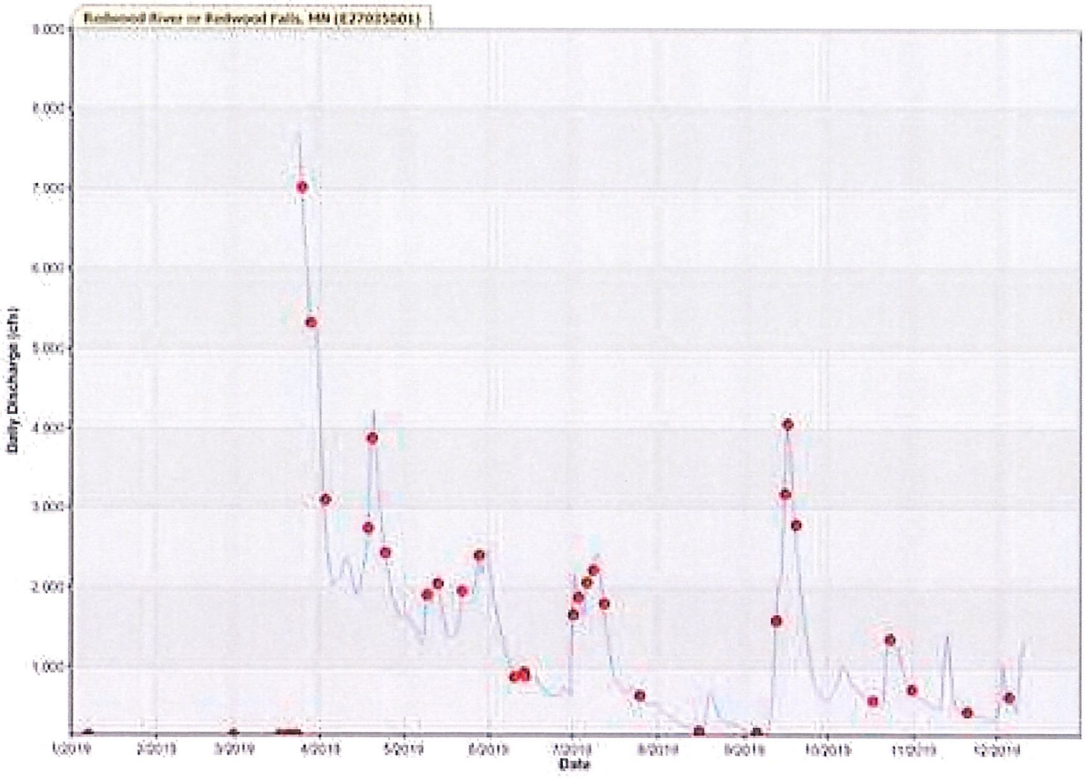
Line Item	MPCA Funds Awarded	MPCA Funds Expended prior to this Invoice	MPCA Funds Expended this Invoice	MPCA Funds Expended	Balance	Budget Expended (%)
Water Quality Technician	$88,923.20	$62,813.98	$3,319.70	$66,133.68	$22,789.52	**74%**
Office Manager	$14,121.04	$11,448.45	$1,153.10	$12,601.55	$1,519.49	**89%**
Executive Director	$22,755.00	$16,532.99	$1,575.00	$18,107.99	$4,647.01	**80%**
Ob 1 (Stream Monitoring) Laboratory	$59,636.46	$57,078.60	$1,931.70	$59,010.30	$626.16	**99%**
Ob 1 (Stream Monitoring) Mileage	$15,719.71	$12,898.61	$783.58	$13,682.19	$2,037.52	**87%**
Ob 1 (Stream Monitoring) Shipping	$81.82	$0.00	$0.00	$0.00	$81.82	**0%**
Ob 1 (Stream Monitoring) Training	$220.00	$0.00	$208.44	$208.44	$11.56	**95%**
Ob 1 (Stream Monitoring) Equipment & supplies	$9,015.92	$7,321.20	$3.58	$7,324.78	$1,691.14	**81%**
Ob 1 (Stream Monitoring) Per Diem	$88.00	$10.00	$52.97	$62.97	$25.03	**72%**
Ob 2 (Data Management) Mileage	$160.50	$160.50	$0.00	$160.50	$0.00	**100%**
Ob 3 (Project Oversight) Per diem	$20.00	$10.00	$10.00	$20.00	$0.00	**100%**
Total:	**$210,741.65**	**$168,274.33**	**$9,038.07**	**$177,312.40**	**$33,429.25**	**84%**

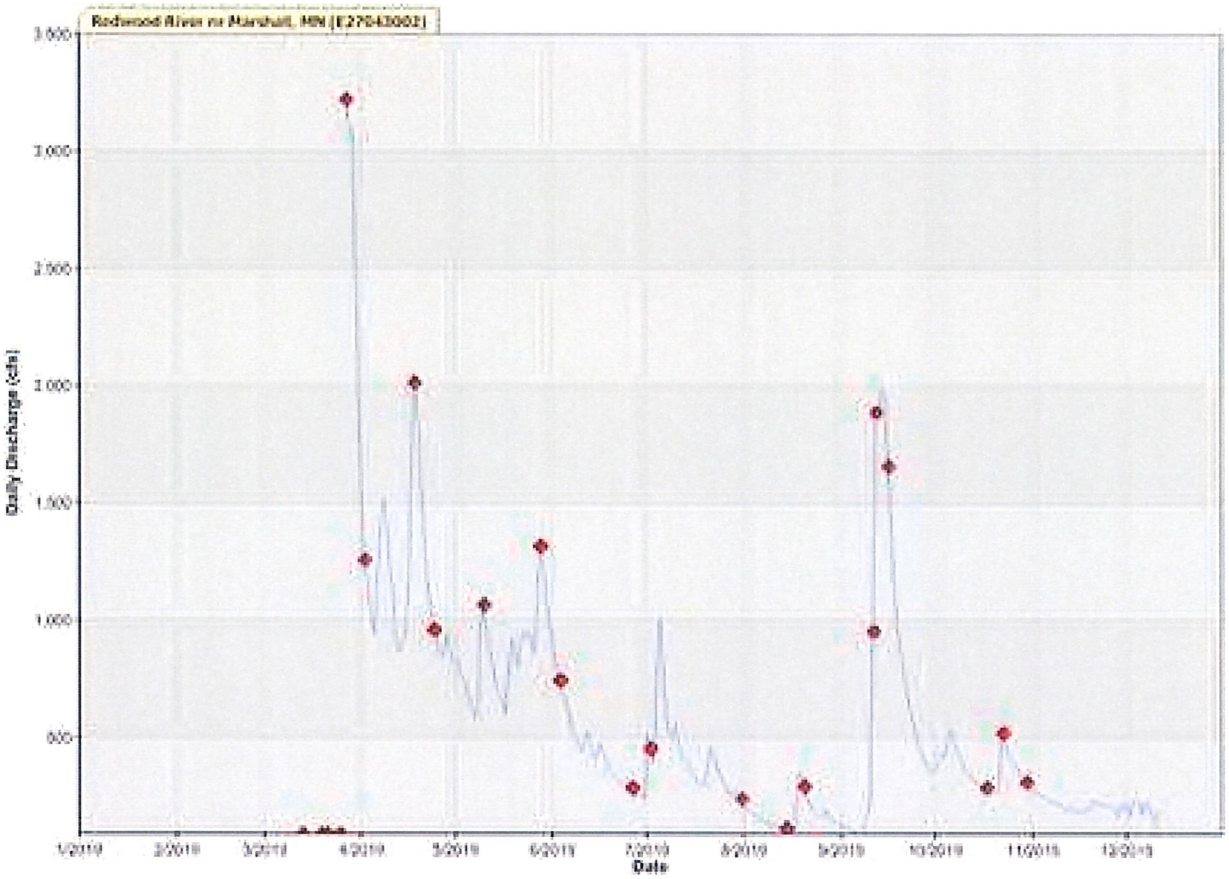
Comments:

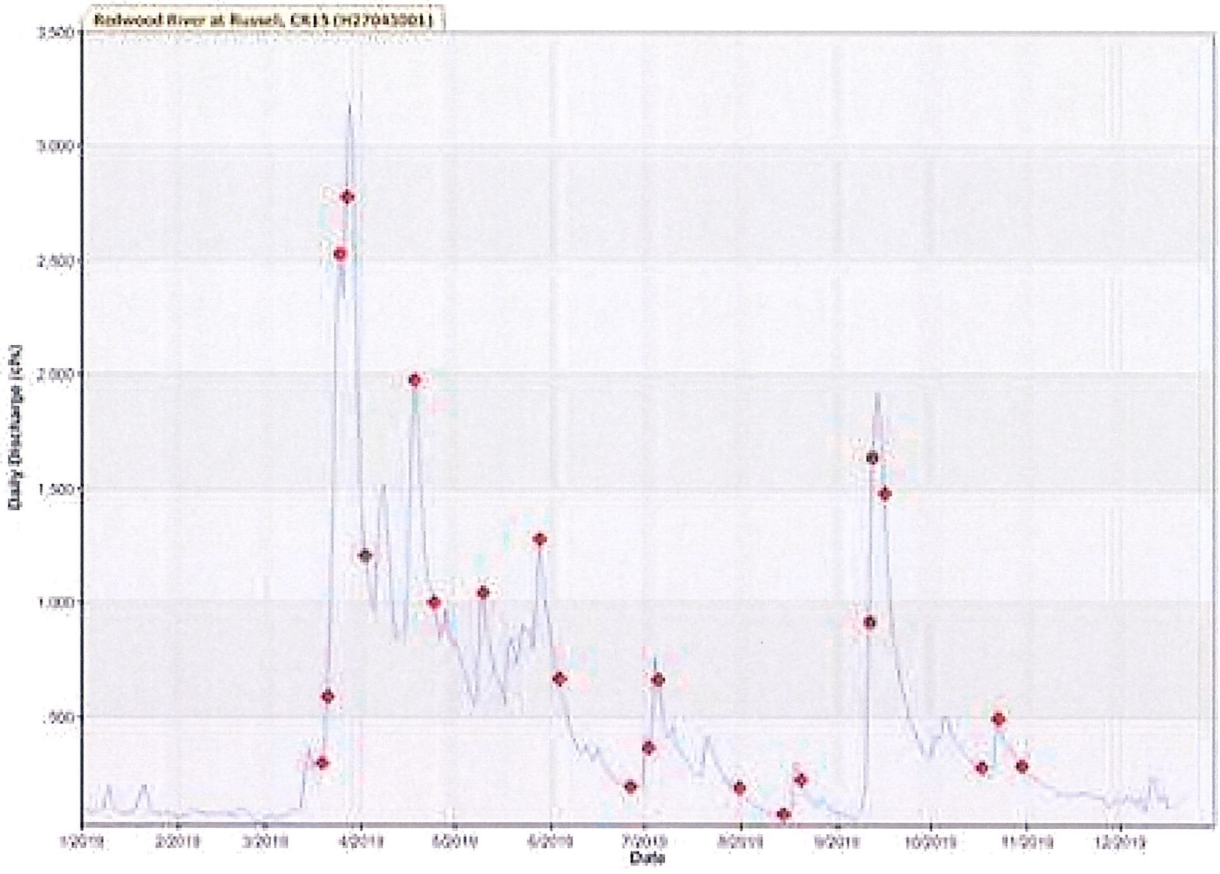
IV. Hydrographs

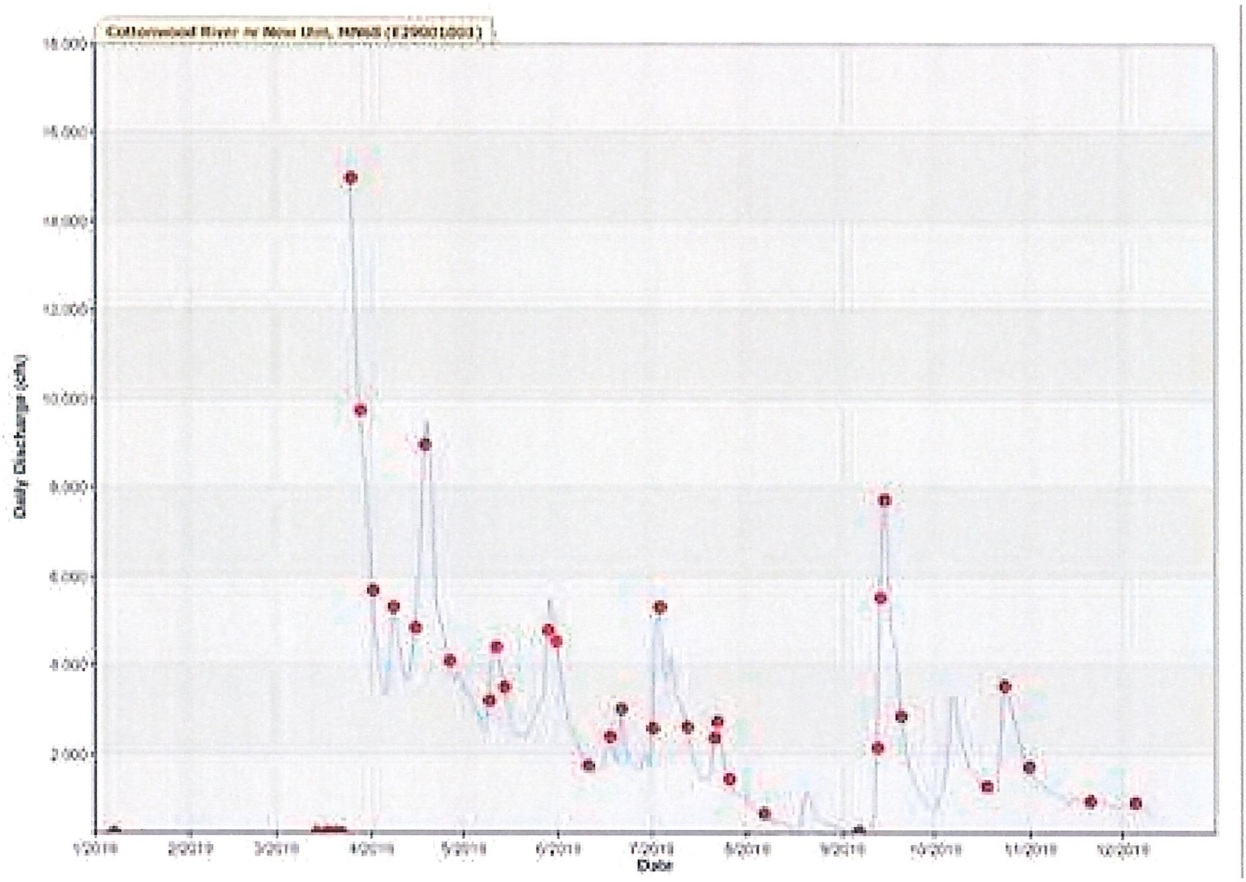
Comments:

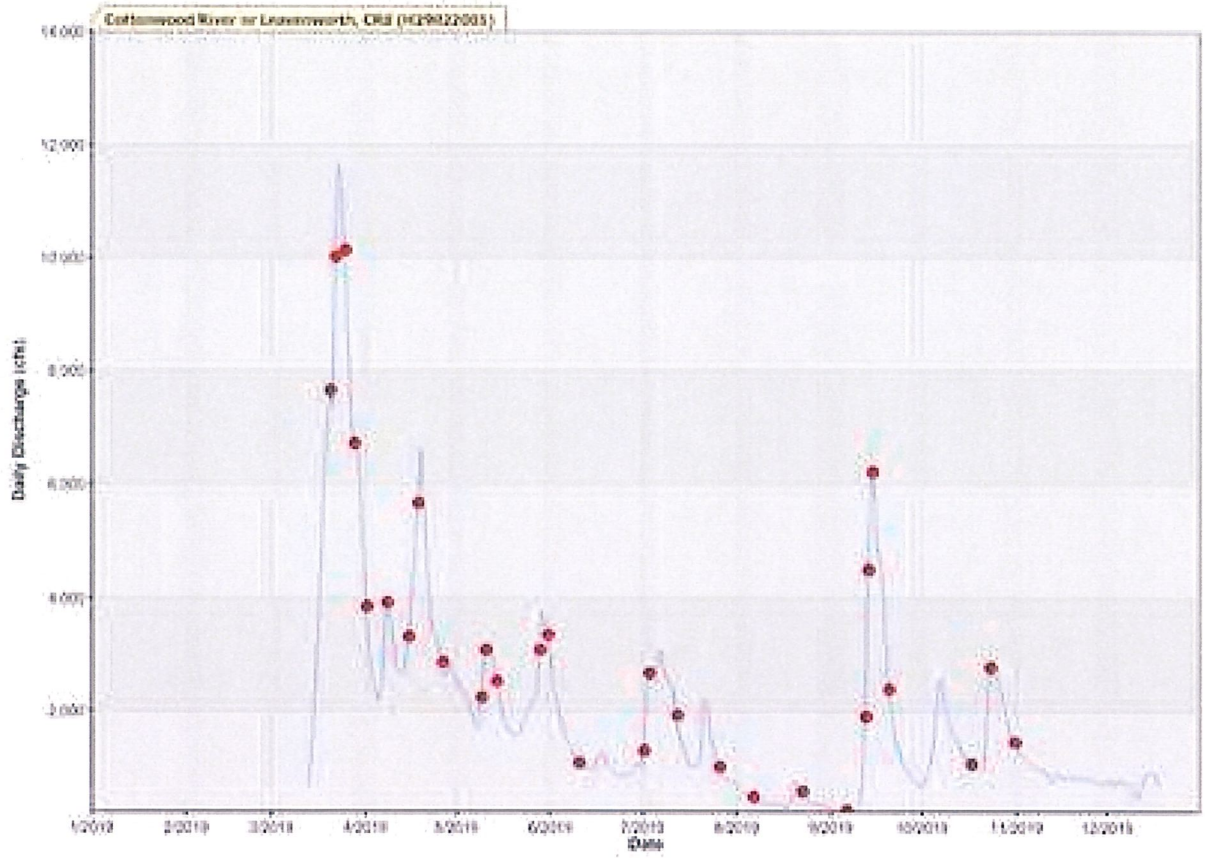


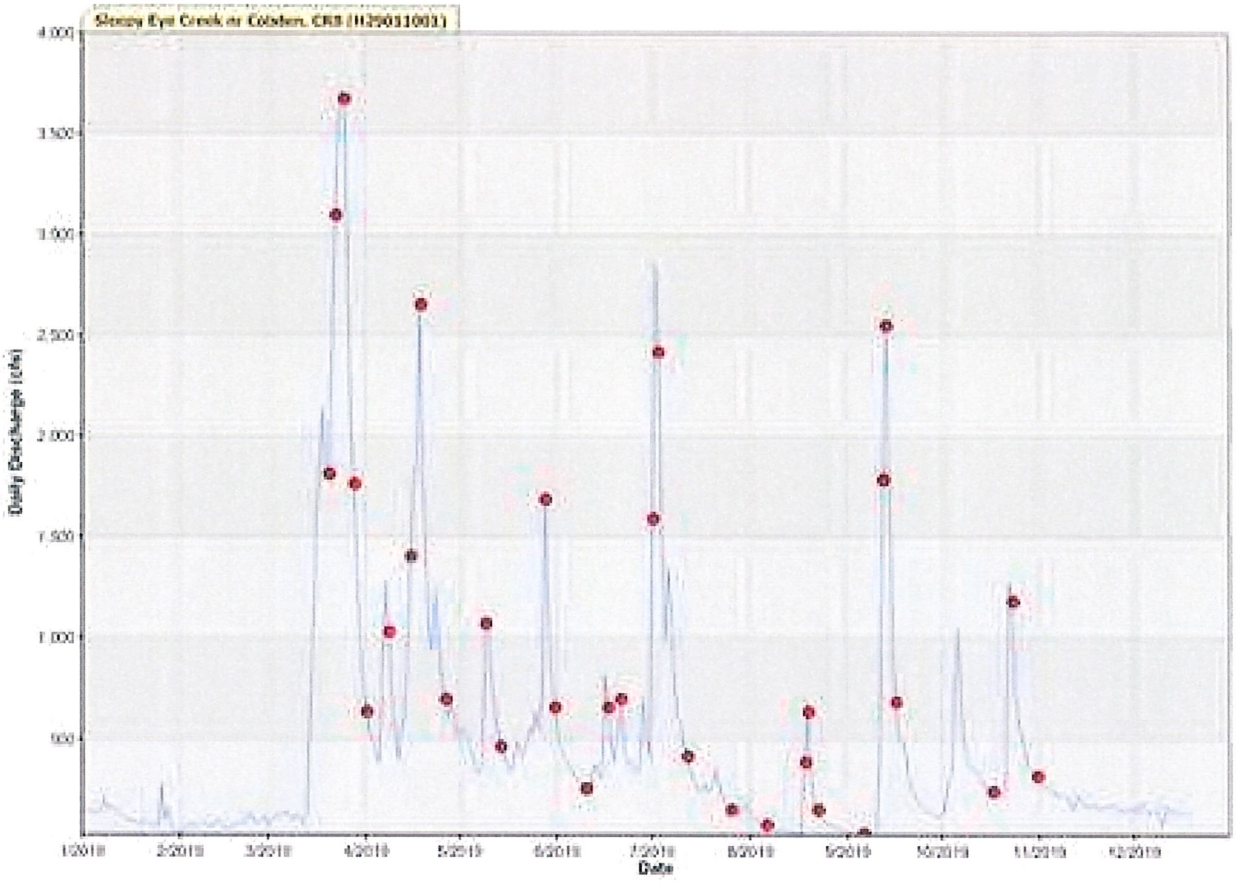



Redwood River nr Marshall, MN (E27043001)
Daily Discharge (cfs)
3,500
3,000
2,500
2,000
1,500
1,000
500
1/2019
2/2019
3/2019
4/2019
5/2019
6/2019
7/2019
8/2019
9/2019
10/2019
11/2019
12/2019
Date


Redwood River at Russell, CR15 (H27043001)
Daily Discharge (cfs)
3,500
3,000
2,500
2,000
1,500
1,000
500
1/2019
2/2019
3/2019
4/2019
5/2019
6/2019
7/2019
8/2019
9/2019
10/2019
11/2019
12/2019
Date


Cottonwood River nr New Ulm, MNDS (E29001001)
Daily Discharge (cfs)
Date


Cottonwood River nr Leavenworth, CRB (H29022001)
Daily Discharge (cfs)
Date


Sleepy Eye Creek nr Cobden, CR3 (H29011003)
Daily Discharge (cfs)
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
1/2018
2/2018
3/2018
4/2018
5/2018
6/2018
7/2018
8/2018
9/2018
10/2018
11/2018
12/2018
Date