

**Instructions on page 5**  
**Due February 1, annually**

Submittal date: 1/22/2024  
(mm/dd/yyyy)

Approval date: 3/8/2024 Minnesota Pollution Control Agency (MPCA) approver: Kelli Nerem  
(mm/dd/yyyy)

**I. Project information**

Project title: Lake of the Woods SWCD WPLMN FY20

TEMPO Agency Interest ID: 206936 TEMPO Activity ID: PRO20200004

SWIFT number: 173245 Purchase order number: 300026067

**Local partner information:**

Organization name: Lake of the Woods Soil and Water Conservation District

Primary contact name: Mike Hirst Phone: 218-634-1842 Email address: mike.hirst@mn.nacdnet.net

**Reporting period:**

Start date: 1/1/2023 End date: 12/31/2023  
(mm/dd/yyyy) (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): Rainy River - Baudette, Rapid River Hydrologic unit code(s): 09030008, 09030007

Name of eligible laboratory: RMB Environmental Laboratories, Inc

How many full-time equivalents (FTEs) worked on this project in the report period (hours/2,088 hours): 0.19

**II. Activities completed**

**Table 1: Workplan activities**

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

Objective/task	Description
Task A	There was a field meter training provided through MPCA and YSI Inc. in Baxter, MN that the Water Resources Technician, who is the primary sampler for WPLMN, attended on 02/14/2023. There was one virtual spring training in 2023 in which the Water Resources Tech. participated in on 02/16/2023. There was also a statewide in person meeting in St. Cloud, MN on 10/4/2023 that was also attended by the Water Resources Tech. MPCA project manager met with LoW SWCD staff on 10/17/2023 to visit all three WPLMN sample locations and view the local partner's sampling procedures.
Task B	Four quarterly invoices were submitted during the reporting period to the MPCA Project Manager. The 4 <sup>th</sup> Quarter invoice from 2022 and the first, second, and third quarter invoices from 2023.
Task C	An interim progress report for 2022 was submitted on 01/10/2023 and approved by the MPCA on 02/20/2023. Approved Reports for the current contract are posted on the district's website <a href="http://www.lakeofthewoodsswcd.org">www.lakeofthewoodsswcd.org</a> under district operations.

Task D	The primary water sampling staff, Water Resources Technician, attended most of the scheduled one-hour calls with MPCA and NE group of local partners. LoW SWCD staff participated in a Mid-project review meeting with the MPCA WPLMN Program Coordinator and Project Manager on 11/02/2023.
Task E	Sampling staff was already familiar with sampling locations and had bottles, coolers, and sampling equipment on hand from previous years of monitoring.
Task E	LoW SWCD obtained a DNR permit to take and transport water. Permit number INF-20-002, valid through 12/31/2024. Copies of the permit are kept in both district vehicles that could be used for sampling.
Task E	A copy of MPCA's WPLMN 2018 SOPs for AIS is kept with the field data and all SOPs are followed while monitoring in AIS designated waters i.e., the Rainy River. LoW SWCD has a separate set of equipment designated for use in AIS invested waters which includes a secchi tube, photo bottle and sample bottle.
Task F	Multiple websites are utilized for weather forecasting and past observations, but most reliable information comes from the NOAA. The HADS and CSG websites, as well as the USGS NWIS website are used to monitor hydrographs and determine sampling events.
Task F	Typically, all lab results are reviewed immediately after receiving them from RMB. There was one instance that a lab report had to be revised due to a mislabel on a chain of custody (COC) form. A QA/QC sample collected at S006-897 on 08-02-2023 was not labeled correctly as a QC- FR on the COC form initially and therefor was not reported as such. The mistake was brought to RMB's attention, and they issued a revised report with the correct QC sample designation.
Task G	LoW SWCD purchased a ProDSS field meter in August of 2022 but, due to supply chain issues it took six months to receive all the necessary sensors to make it fully functional. The new meter was first used when collecting samples on 02/27/2023. YSI provides KOR software for the ProDSS that LoW SWCD utilizes to perform calibrations. Calibrations for conductivity and pH were conducted, on average, every two weeks during the open water season and at least once a month over winter. The field meter is calibrated for dissolved oxygen before every sampling event. Two temperature checks, using a digital NIST Thermometer, were performed during the reporting period on 06/23/2023 and 11/16/2023. The NIST thermometer was due to be calibrated on 11/9/2023 to keep its certification but, it turns out that it is cheaper to purchase a new thermometer than to go through the recertification process. So, LoW SWCD requested a new thermometer from the MPCA on 11/17/2023.
Task G	All calibrations are recorded by the KOR software and exported into a .csv file for submission to MPCA. Calibrations for conductivity and pH are also recorded on log sheets and submitted to the project manager. 2023 calibration logs were submitted on 12/13/2023.
Task H	Twelve water quality samples were collected at the Tier one Subwatershed site East Fork Rapid River (S007-611). Eighteen water quality samples were collected at the Tier 1 major watershed site Rapid River at Clementson (S000-184) and twenty samples were collected at the Tier 1 basin site Rainy River at Manitou (S006-897).
Task H	One field replicate was collected at the Subwatershed site (S007-611) on 10/10/2023 and an equipment blank was collected 10/31/2023. Two field replicates were collected at the major watershed site (S000-184), the first on 06/12/2023 and the second on 11/20/2023. Three field replicates were collected at the basin site (S006-897), the first on 06/05/2023, the second on 08/02/2023 and the third was collected on 11/20/2023.
Task H	All samples were shipped to RMB Labs for analysis via Spee-Dee Delivery and most samples arrive at the lab the next day. There were a few occasions when samples are collected on a Friday or weekend where samples are not shipped until the following Monday and do exceed 24-hour hold time for DOP. Sampling staff has always granted permission to the lab to analyze samples that are past hold times for DOP. All lab data is submitted to Lab MN using an EDD format.
Task I	Field meter measurements (dissolved oxygen, temperature, pH, specific conductance) were collected with every sample visit along with secchi readings, photos, and general stream conditions. All data and photos were entered in GoCanvas after each sample run. When applicable, datalogger readings were recorded and compared to onsite stage measurements via wire weight gage or staff gage.
Task I	Field sheets were submitted to project manager on (or prior to) each quarterly deadline.
Task J	In 2023, LoW SWCD completed 2021 load calculations for all three WPLMN sites. Rainy River at Manitou received 07/31/2023, submitted 08/24/2023 and verified on 09/07/2023. Rapid River at Clementson received 08/25/2023, submitted 09/05/2023 and verified on 09/08/2023. East Fork Rapid River received on 09/28/2023, submitted on 09/29/2023 and verified on 10/23/2023.

**2. Please answer the following questions relating to the deliverables for the project. If deadlines were missed, please provide comments. Dates should be entered in the mm/dd/yy format.**

- a. Quality Assurance Project Plan (QAPP) approval date: 11/12/20
- b. Was the QAPP revised during this reporting period?  Yes  No  
Revised date: \_\_\_\_\_ Reason for revision(s): \_\_\_\_\_
- c. Was the field meter calibration log submitted by January 1?  Yes  No  
If no, submittal date: \_\_\_\_\_ Comments: \_\_\_\_\_
- d. Were GoCanvas submissions completed by the 1st and 15th of each month (check one)?  
 Rarely (9+ missed deadlines)  Sometimes (3-8 missed deadlines)  
 Almost always (1-2 missed deadlines)  Always  
Comments: \_\_\_\_\_
- e. Please list the submittal dates for the field sheets, field books, and extra pictures.
- |                      |                                 |   |
|----------------------|---------------------------------|---|
| Deadline January 1.  | Submittal date: <u>12/13/23</u> | Comments: <u>Calibration Logs/field sheet</u> |
| Deadline May 1.      | Submittal date: <u>4/28/23</u>  | Comments: <u>Field sheets/videos</u>          |
| Deadline August 1.   | Submittal date: <u>7/31/23</u>  | Comments: <u>Field sheets</u>                 |
| Deadline November 1. | Submittal date: <u>11/1/23</u>  | Comments: <u>Field sheets</u>                 |
- f. If applicable, were pollutant loads submitted by deadline (within 60 days of receiving the .xml)?  
 Rarely  Sometimes  Almost Always  Always  
Comments: \_\_\_\_\_
- g. Were project staff able to attend the check in telephone conferences during the reporting period?  
 Rarely (9+ missed meetings)  Sometimes (3-8 missed meetings)  
 Almost always (1-2 missed meetings)  Never missed a meeting  
Comments: \_\_\_\_\_

**3. 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:

*Back up samplers were only used to assist primary sampler during the winter months. A trained intern also assisted the primary sampler twice over the summer.*

**4. Were you comfortable with your level of training and current ability to complete the obligations of your workplan?**

Yes

**5. Describe in detail any problems, delays, or difficulties that occurred in fulfilling the requirements of the workplan. How did you resolve these problems?**

*2023 was another dry year for northern MN following moderate to severe drought in 2022 and extreme to exceptional drought in 2021. There were very few significant rain events that occurred throughout the open water season especially in the Rapid River Watershed. The East Fork Rapid River (S007-611) pretty much stopped flowing in early August and did not pick up until October. So, there was a two month period when samples were not collected at the East Fork location. With the no flow conditions and lack of significant rain events the sample count on the East Fork Rapid ended up being short of the anticipated 18 samples per year. Actually samples collected at all three sites were lower than the planned amount due to the dry conditions.*

**6. Were there any change orders and/or amendments to the contract and workplan?  Yes  No**

If yes, summarize the changes:

*There was one change order in 2023 to shift funds from one line-item to another. The mileage and shipping line-items were running short on funds so, the remainder of funds in the equipment and supplies line-item was split between the two. Both signatures were obtained on 05/22/2023.*

7. Please provide any constructive feedback regarding the WPLMN (training, 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. If budget information does not encompass all expenditures through December 31, please provide the date in the Comments. The documented amounts should be within 30 days of December 31.

Line item	MPCA funds awarded	MPCA funds expended prior to this invoice	MPCA funds expended this invoice	MPCA funds expended	Balance	Budget expended (%)
Personnel	\$68,628.24	\$58,878.67	\$5,051.73	\$63,930.40	\$4,697.84	93%
Laboratory	\$19,511.00	\$17,610.00	\$1,672.00	\$19,282.00	\$229.00	99%
Mileage	\$4,892.08	\$4,036.24	\$532.52	\$4,568.76	\$323.32	93%
Lodging	\$300.00	\$94.25	\$122.76	\$217.01	\$82.99	72%
Meals	\$108.00	\$28.55	\$27.00	\$55.55	\$52.45	51%
Shipping	\$2,209.48	\$1,847.84	\$91.18	\$1,939.02	\$270.46	88%
Equipment and supplies	\$7,773.20	\$7,773.20	\$0.00	\$7,773.20	\$0.00	100%
<b>Total:</b>	<b>\$103,422.00</b>	<b>\$90,268.75</b>	<b>\$7,497.19</b>	<b>\$97,765.94</b>	<b>\$5,656.06</b>	<b>95%</b>

**Comments:**

*Invoice date: 01/08/2024 which encompasses all expenditures through 12/31/2023*

## IV. Hydrographs

Please note hydrographs are provisional.

### Comments:

Hydrographs for Rapid at Clementson are missing a sample from 2/27/2023 due to missing stage and flow data.

Watershed Pollutant Load Monitoring Network (WPLMN) sample hydrograph and field data viewer - Historic data

