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Due February 1, 2019

I. Project information

Project title: Lake of the Woods SWCD WPLMN FY16

Contract number: 8529 SWIFT number: 100423 Purchase order number: 3000015120

Local partner information:

Organization name: LOW Soil and Water Conservation District

Street address: 119 1st Ave NW

City: Baudette State: MN Zip code: 566223

Primary contact name: Mike Hirst Phone: 218-634-1842 ext# 4

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Fiscal contact name: Becky Buegler Phone: 218-634-1842 ext# 4

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Field contact name: Joe Vrtacnik Phone: 218-634-1842 ext# 4

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Reporting period:

Start date: 1/1/2018 End date: 12/31/2018
 (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

Project details:

Amendment execution date: 03/13/2018

Name of eligible laboratory: RMB Environmental Laboratories, Inc

How many full-time equivalents (FTEs) worked on this project in 2018 (total project hours/2,088 hours): 0.23

Were there any staff changes on the project? Yes No

If yes, please describe: _____

II. Activities completed

Table 1: Workplan 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	Sample locations were already well known due to previous years of sampling. Two major watershed sites, Rapid River at Clementson (S000-184) and Rainy River at Manitou (S006-897). Plus, one sub-watershed site the East Fork Rapid River (S007-611). Sampling at the sub-watershed site Black River at Loman (S001-962) was discontinued after 2017. A hydrograph analysis has been developed for the Rapid River sites but, the Rainy River at Manitou site could not be finished due to complications with the MPCA Data Viewer.
1: Stream Monitoring Task B	The QAPP was revised 9/26/2017 to reflect analytical procedure changes with RMB labs. A revised DNR permit to transport AIS infested waters was obtained and is valid through 12/31/2019.
1: Stream Monitoring Task C	Billing information was already set up with the lab from previous sample years. We had bottles and coolers left over from the previous year of sampling as well.
1: Stream Monitoring Task D	Both Rapid River sites have been visited with DNR in the past to familiarize sampling staff with control conditions, flow measurements, and data logger operations. A summer apprentice was trained on WPLMN SOPs to assist sampling staff in 2018. Resource Technician 1 participated in the series of three training webinars presented on 2/27/18, 3/8/18 and 3/27/18 or watched the recordings at a later date.
1: Stream Monitoring Task E	2018 was the first year implementing the tiered sampling system. All three sites sampled by LOW SWCD are designated Tier 1 sites. A total of 15 samples were collected at the sub-watershed site East Fork Rapid River which is 5 short of the 20-sample max limit for a tier 1 sub-watershed site. A QA/QC equipment blank was collected at the East Fork on 8/15/2018 and a field replicate collected on 7/16/2018. A total of 23 samples were collected at the major watershed site Rapid River @ Clementson. This was 5 short of the 28-sample max limit for a tier 1 major watershed site. Three QA/QC field replicates were collected at the Rapid River on 6/13/2018, 9/11/2018 and 10/24/2018. A total of 30 samples were collected at the major watershed site Rainy River @ Manitou. This was 2 over the allotted 28-sample max for a major watershed site. Three QA/QC field replicates were collected at the Rainy River site on 6/13/2018, 8/27/2018 and 11/14/2018.
1: Stream Monitoring Task F	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 Canvas after each sample run. When applicable, data Logger readings were recorded and compared to on site stage measurements via wire weight gage or staff gage.
1: Stream Monitoring Task G	Two YSI Sondes were used during the monitoring season. One Sonde (SN: 01F0214 AD) was designated to AIS infested waters which includes the Rainy River. Each Sonde was calibrated for DO before each sample run and calibrated approx. every 2 weeks for pH and specific conductance. Each Sonde was also calibrated for temperature with a NIST thermometer on 3/23/2018 and 8/8/2018. Due to a decrease in sampling the AIS Sonde was decommissioned and placed into long term storage. 1 Sonde will be utilized for all 3 sites moving forward and all AIS SOPs will be adhered to.
2: Data Management Task A	Lab results were reviewed for errors or outliers as soon as they were received back from the lab. All lab data is submitted to Lab MN using an EDD format. Field meter Data was entered in Canvas and submitted by the 1 st and 15 th of every month.
2: Data Management Task B	All visual observations, photos, and water level information collected were entered in Canvas and submitted by the 1 st and 15 th of every month.
2: Data Management Task C	All 2018 photos and field information were submitted via Canvas after each sampling event. All calibration logs and field data sheets from January 2018 through 10/31/2018 were scanned and submitted to the project manager by the November 1 st deadline. November and December calibrations and data sheets were also scanned and submitted to the project manager on 12/26/2018.
2: Data Management Task D	Resource Technician 1 participated in the FLUX32 training webinar on 1/16/2018. FLUX32 load calculations for 2016 were completed in March 2018 and submitted well within the 60-day timeframe. Resource Tech 1 participated in verifications on 3/22/2018, 4/17/2018 and 5/17/2018.
2: Data Management Task E	Resource Technician 1 participated in the series of three training webinars presented on 2/27/18, 3/8/18 and 3/27/18 or watched the recordings at a later date. Resource Tech 1 also participated in the FLUX32 Training Webinar on 1/16/2018.

3: Project Oversight Task A	A WPLMN Grant tracking spreadsheet was created by the office assistant to track expenditures; Invoices were compiled and submitted on a quarterly basis.
3: Project Oversight Task B	In the process of compiling Interim Progress Report for the 2018 sampling season. Approved progress reports will be displayed on the LOW SWCD website.
3: Project Oversight Task C	Participated in mid project review on 5/19/2017 after expenditure of 50% of budget. Since then the contract has been amended to extend to 6/30/2020.
3: Project Oversight Task D	Resource Technician 1 attended the monthly and weekly call-ins whenever possible.
3: Project Oversight Task E	There were no trainings for Resource Technician 2 or the office assistant in 2018.

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

- a. Was the Quality Assurance Project Plan (QAPP) revised in 2018?
 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, 2018?
 Yes No If no, please comment: _____
- 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:

No back up sampler was used solely but, a trained backup does assist in the winter months for additional safety. Also, a MCC Apprentice was trained in WPLMN SOPs and frequently assisted sampling during the summer months.

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:
2018 was another dry year and the sample area even experienced moderate drought for a period of time. Both major and sub-watershed sites of the Rapid River did not have highly fluctuating hydrographs in 2018 due to the low precipitation amounts. So, sampling was rather spread out and resulted in reduced sample counts for both sites. The Rainy River hydrograph however was more dynamic and acquired 2 additional samples above the 28-allotted sample count throughout 2018. Although, the hydrograph of the Rainy typically is more a function of dam management as opposed to actual rain events.
- b. Calibrate and use the field meter and equipment? Yes No
Comments:
LOW SWCD have utilized two YSI Sondes in the past. One designated for AIS infested waters and the other for non-AIS waters. Late in 2018 the AIS Sonde was decommissioned indefinitely due to a decreased need and an effort to conserve time and money. The Rainy River @ Manitou is now the only AIS infested water sampled by LOW SWCD and all AIS SOPs are observed when applicable to prevent the spread of AIS. Both Sondes performed well in the field throughout 2018 and always calibrated appropriately. A new pH probe was purchased in late 2018 and will be installed on the existing Sonde prior to any sampling in 2019.
- c. Enter information into the GoCanvas application and submit the calibration log, field notes and additional photos?
 Yes No
Comments:
Canvas is fairly user friendly but, was a little cumbersome through 2018 due to the changes this year. In our office, scanning and sending calibration logs and data sheets is a simple procedure.
- d. Use the FLUX32 model accurately and submit pollutant loads? Yes No
Comments:
In the past FLUX32 calculations have been completed with few to no hang ups. The annual refreshers are always beneficial though due to the long lag times between calculations using FLUX32.

e. Complete and submit invoices? Yes No

Comments:

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?

There were some issues with the delivery service and getting samples to the lab within the recommended guidelines. This resulted in lapses in hold times, temperature exceedences and the use of an alternate courier service on a couple of occasions. The drier year lead to insignificant rain events which were hard to determine the best time, if at all, to sample.

5. Were there any change orders and/or amendments to the contract and work plan? If yes, summarize the changes.

Yes No

Comments:

Yes, there was an amendment to alter and extend the contract executed on 03/13/2018. Some of the changes include: extension of the contract by two years, the removal of the Black River @ Loman, the addition of the tiered sampling regime, elimination of DOP analysis at sub-watershed sites, new hydrograph analysis requirements and 6 hour cap per site for FLUX calculations.

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 (%)
Resource Technician 1	\$59,062.50	\$40,410.00	\$3,870.00	\$44,280.00	\$14,782.50	75%
Resource Technician 2	\$19,625.00	\$13,337.50	\$700.00	\$14,037.50	\$5,587.50	72%
Office Assistant	\$5,508.00	\$3,453.00	\$360.00	\$3,813.00	\$1,695.00	69%
Ob 1 (Stream Monitoring) Laboratory	\$23,011.50	\$17,019.00	\$921.00	\$17,940.00	\$5,071.50	78%
Ob 1 (Stream Monitoring) Mileage	\$7,379.30	\$5,224.68	\$217.46	\$5,442.14	\$1,937.16	74%
Ob 1 (Stream Monitoring) Shipping	\$2,315.61	\$1,410.98	\$68.45	\$1,479.43	\$836.18	64%
Ob 1 (Stream Monitoring) Training	\$244.80	\$94.80	\$0.00	\$94.80	\$150.00	39%
Ob 1 (Stream Monitoring) Equipment & supplies	\$7,211.83	\$5,508.92	\$336.00	\$5,844.92	\$1,366.91	81%
Ob 1 (Stream Monitoring) Per Diem	\$108.18	\$45.18	\$0.00	\$45.18	\$63.00	42%
Total:	\$124,466.72	\$86,504.06	\$6,472.91	\$92,976.97	\$31,489.75	75%

Comments:

IV. Hydrographs

Comments:

More concentrated sampling needed during the spring months of May and June on both Rapid River sites. The East Fork Rapid River site was hard to determine what constituted a significant event due to relatively low water levels and small infrequent rain events in 2018. According to past analyses it was determined that flows greater than 500 cfs trigger a significant event at this location which never occurred in 2018.



