I. Project information

Project title: Event Based Stream Sampling in Northeastern Minnesota 2016-2017

Contract number: 8528
SWIFT number: 100280
Purchase order number: 3000015111

Local partner information:

Organization name: Regents of the University of Minnesota/Natural Resources Research Institute
Street address: SPA/200 Oak St 5013 Miller Trunk Hwy
City: Minneapolis Duluth State: MN Zip code: 55455-2070/55811-1442

Primary contact name: Project PI: Elaine Ruzycki
Email address: eruzycki@d.umn.edu
Phone: 218.788.2737
Fax:

Fiscal contact name: Kerry Marsolek, Sr. Financial Manager
Email address: kerry@umn.edu
Phone: 612.624.8053
Fax:

Field contact name: Jerry Henneck
Email address: jhenneck@d.umn.edu
Phone: 218.788.2721
Fax:

Reporting period:

Start date: 1/1/2017 End date: 12/31/2017
(mmm/dd/yyyy) (mmm/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): St Louis, Rainy
Hydrologic unit code(s): 04010201, 04010202, 09030001

Name of eligible laboratory: UM-Duluth NRRI Central Analytical Laboratory

How many full-time equivalents (FTEs) worked on this project in 2017 (total project hours/2,088 hours): 0.5

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.)

<table>
<thead>
<tr>
<th>Objective and task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Obj 1: Monitoring Task C</td>
<td>NRRI staff met with DNR personnel in the field two times during the 2017 sampling season. The meetings were not scheduled beforehand but were used as an opportunity to discuss any site issues, changes, and/or concerns. Site visits with MPCA were done in May and August 2017.</td>
</tr>
<tr>
<td>Obj 1: Monitoring</td>
<td>Field sampling began late March for Second, Swan, SLR Forbes and SLR Floodwood and early</td>
</tr>
</tbody>
</table>
### Task D

April for Whiteface and Cloquet. Our one major watershed site, Kawishiwi was sampled 1 time per month in January and February. 203 samples were collected. Cloquet 24 (+2 QA); Second 20 (+2 QA); SLR Floodwood 28 (+2 QA); SLR Forbes 29 (+2 QA); Stony 22 (+2 QA); Swan 30 (+2 QA); Whiteface 28 (+2 QA); Kawishiwi 23 (+2 QA) and 1 equipment blank.

### Obj 1: Monitoring

#### Task E

Field sampling began in mid-March and continued through mid-October for all subwatershed sites and from mid-March through mid-December for Kawishiwi. Field notes were recorded onto field sheets at each visit and entered into Canvas.

#### Task F

Sonde calibrations occurred weekly. Temperature probes on each sonde were calibrated with a NIST thermometer on 10/25/17.

### Obj 2: Data Mgmt

#### Task A

Lab results were reviewed and submitted at least monthly. The 2016 November and December EQuIS template was submitted on January 31, 2017.

#### Task B

All field data, notes, and photographs were submitted using Canvas by November 1st. Field data from November and December for Kawishiwi, a major watershed, was entered into Canvas by 12/31/2017.

#### Task C

Field notes and sonde calibration logs were submitted to project manager on October 27, 2017.

#### Task D

2015 FLUX load calculations for SLR Forbes, SLR Floodwood, Cloquet, Stony, Swan, Second, Kawishiwi and Whiteface were completed by NRRI staff by 9/1/2017. NRRI staff participated in three load verification sessions with MPCA staff.

#### Task E

Four NRRI staff attended the project training session on 2/7/2017 in St Cloud.

### Obj 3: Project Oversight

#### Task A

NRRI invoices are submitted on a quarterly basis. Five invoices were submitted during this reporting period.

#### Task B

The NRRI 2016 interim progress report was submitted on 1/31/2017 and finalized on 3/20/2017.

#### Task C

Our mid-project review was held with project manager Kelli Nerem and Lee Ganske on 5/18/2017.

#### Task D

The majority of the weekly check-in calls were attended by the NRRI project manager or designee.

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

**a.** Was the Quality Assurance Project Plan (QAPP) revised in 2017?  
- Yes  ☐ No  ☑  If yes, approval date (mm/dd/yyyy): ____________________________

**b.** Were the field meter calibration logs, Canvas entries, and field notes submitted by November 1?  
- 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:

### 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:

**b.** Calibrate and use the field meter and equipment?  ☑ Yes  ☐ No
c. Enter information into the Canvas application and submit the calibration log, field notes and additional photos?  ☑ Yes  ☐ No
Comments:

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

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?

5. Were there any change orders and/or amendments to the contract and work plan? If yes, summarize the changes.  ☑ Yes  ☐ No
Comments:

   CO#1 (1/11/2017): Changed staff designations from names to project roles and number. Also removed the use of EQuIS for field data entry.

   CO#2 (2/6/2017): Movement of funds to cover training per diem and travel. Also changed mileage rate from 0.545 to 0.535/mile.

   CO#3 (6/20/2017): Movement of personnel funds from field to data and project management category.

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.

<table>
<thead>
<tr>
<th>Objective</th>
<th>Line Item</th>
<th>MPCA Funds Awarded</th>
<th>MPCA Funds Expended prior to this Invoice</th>
<th>MPCA Funds Expended this Invoice</th>
<th>MPCA Funds Expended</th>
<th>Balance</th>
<th>Budget Expended (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Stream Monitoring</td>
<td>Personnel</td>
<td>$43,771.20</td>
<td>$38,295.47</td>
<td>$3,993.63</td>
<td>$42,289.10</td>
<td>$1,482.10</td>
<td>97%</td>
</tr>
<tr>
<td>1) Stream Monitoring</td>
<td>Laboratory</td>
<td>$32,088.00</td>
<td>$24,092.80</td>
<td>$4,660.40</td>
<td>$28,753.20</td>
<td>$3,334.80</td>
<td>90%</td>
</tr>
<tr>
<td>1) Stream Monitoring</td>
<td>Travel</td>
<td>$13,791.90</td>
<td>$9,240.92</td>
<td>$4,771.38</td>
<td>$11,012.30</td>
<td>$2,779.60</td>
<td>80%</td>
</tr>
<tr>
<td>1) Stream Monitoring</td>
<td>Equipment &amp; supplies</td>
<td>$11,270.00</td>
<td>$10,043.78</td>
<td>$0.00</td>
<td>$10,043.78</td>
<td>$1,226.22</td>
<td>89%</td>
</tr>
<tr>
<td>2) Project Oversight</td>
<td>Personnel</td>
<td>$18,873.60</td>
<td>$14,606.95</td>
<td>$2,355.00</td>
<td>$16,961.95</td>
<td>$1,911.65</td>
<td>90%</td>
</tr>
<tr>
<td>2) Project Oversight</td>
<td>Travel</td>
<td>$171.40</td>
<td>$159.43</td>
<td>$0.00</td>
<td>$159.43</td>
<td>$11.97</td>
<td>93%</td>
</tr>
<tr>
<td>2) Project Oversight</td>
<td>Per Diem</td>
<td>$40.00</td>
<td>$0.00</td>
<td>$0.00</td>
<td>$0.00</td>
<td>$40.00</td>
<td>0%</td>
</tr>
<tr>
<td>3) Data Management</td>
<td>Personnel</td>
<td>$15,055.16</td>
<td>$11,366.68</td>
<td>$1,371.18</td>
<td>$12,737.86</td>
<td>$2,317.30</td>
<td>85%</td>
</tr>
</tbody>
</table>

Total: $135,061.26  $107,806.03  $14,151.59  $121,957.62  $13,103.64  90%

Comments:
IV. Hydrographs

Comments:

Kawishiwi River samples are plotted on the hydrograph at an upstream site on the South Fork because there is not telemetry at the current sampling location.