

Project information

Local partner: Sherburne SWCD Contact name: Dan Cibulka
 Contact phone number: 763-220-3434 Budget amount: \$ 79,062.19
 Contact email: dcibulka@sherburneswcd.org
 Project title: Mississippi River St. Cloud Intensive Watershed Monitoring 2019-2020
 Interim reporting period: Start date (mm/dd/yyyy): 3/4/2019 End date (mm/dd/yyyy): 12/31/2020

Section I – Workplan

1. **Were the Quality Assurance Project Plan approved by the QA/QC Coordinator and your Project Manager prior to monitoring?**
 Yes No Submittal date (mm/dd/yyyy): 3/19/2019
3. **Were field and laboratory data submitted to EQulS by November 1?**
 Yes No Submittal date (mm/dd/yyyy): 11/1/2019
4. **If applicable, were stream photos submitted to the Minnesota Pollution Control Agency (MPCA) Project Manager by November 1?**
 Yes No Submittal date (mm/dd/yyyy): 11/1/2019
5. **Describe progress with monitoring each of your stream and/or lake sites. Complete Table 1 describing the number of scheduled samples, by parameter, and indicate the number of samples actually collected (include QA/QC sampling).**

In the comments field of Table 1, provide details regarding missed sampling events, noteworthy or adverse site conditions (i.e., drought or low flow, upstream construction, high waterfowl activity, beaver impoundments, or feedlot activity), field meter malfunction, sampling errors, or flagged laboratory samples (holding time or temperature exceedances). Add rows as necessary by placing cursor in the last row of last column and hit tab.

Table 1. Monitoring summary

Site ID#	Scheduled annual sampling		Actual for past season		Comments
	Parameter	No.	Parameter	No.	
05-0007-00-203	TP, Chl-A, Chloride, Hardness	12	TP, Chl-A, Chloride, Hardness	12	
47-0042-00-201	TP, Chl-A, Chloride, Hardness	12	TP, Chl-A, Chloride, Hardness	12	QA/QC sample taken in Sept for TP, Chl-A. TP, Chl-A collected each month; Chloride and Hardness collected in August only. Hardness was tested in August, Chloride tested in September.
47-0095-00-202	TP, Chl-A, Chloride, Hardness	12	TP, Chl-A, Chloride, Hardness	12	TP, Chl-A collected each month; Chloride and Hardness collected in August only. Hardness was tested in August, Chloride tested in September.
86-0282-00-204	TP, Chl-A, Chloride, Hardness	12	TP, Chl-A, Hardness	9	TP, Chl-A collected each month; Chloride and Hardness collected in August only. Hardness was tested in August, Chloride supposed to be tested in September. Unable to collect sample in September. Samples were collected in October but not included in this report due to being outside the designated sampling season.

73-0014-00-201	TP, Chl-A, Chloride, Hardness	12	TP, Chl-A, Hardness	9	TP, Chl-A collected each month; Chloride and Hardness collected in August only. Hardness was tested in August, Chloride supposed to be tested in September. Unable to collect sample in September. Samples were collected in October but not included in this report due to being outside the designated sampling season.
86-0227-00-210	TP, Chl-A, Chloride, Hardness	12	TP, Chl-A, Chloride, Hardness	12	TP, Chl-A collected each month; Chloride and Hardness collected in August only. Hardness was tested in August, Chloride tested in September.
86-0252-01-213	TP, Chl-A, Chloride, Hardness, Sulfate	17	TP, Chl-A, Chloride, Hardness, Sulfate	16	TP, Chl-A and Sulfate were to be collected each month; Chloride and Hardness collected in August only. Hardness was tested in August, Chloride tested in September. No Sulfate tested in June.
86-0252-02-207	TP, Chl-A, Chloride, Hardness, Sulfate	17	TP, Chl-A, Chloride, Hardness, Sulfate	16	TP, Chl-A and Sulfate were to be collected each month; Chloride and Hardness collected in August only. Hardness was tested in August, Chloride tested in September. No Sulfate tested in June.
86-0284-00-201	TP, Chl-A, Chloride, Hardness	12	TP, Chl-A, Chloride, Hardness	12	TP, Chl-A collected each month; Chloride and Hardness collected in August only. Hardness was tested in August, Chloride tested in September.
86-0298-00-201	TP, Chl-A, Chloride, Hardness	12	TP, Chl-A, Chloride, Hardness	12	TP, Chl-A collected each month; Chloride and Hardness collected in August only. Hardness was tested in August, Chloride tested in September.
71-0016-00-202	TP, Chl-A, Chloride, Hardness	12	TP, Chl-A, Chloride, Hardness	12	
71-0057-00-203	TP, Chl-A, Chloride, Hardness	12	TP, Chl-A, Chloride, Hardness	12	
71-0055-00-202	TP, Chl-A, Chloride, Hardness	12	TP, Chl-A, Chloride, Hardness	12	
71-0067-00-204	TP, Chl-A, Chloride, Hardness	12	TP, Chl-A, Chloride, Hardness	12	
S002-946	TSS, TP, Chloride, Hardness, E coli	21	TSS, TP, Chloride, Hardness, E coli	21	
S005-539	TSS, TP, Chloride, Hardness, E coli	21	TSS, TP, Chloride, Hardness, E coli	21	
S003-006	TSS, TP, Chloride, Hardness, E coli	21	TSS, TP, Chloride, Hardness, E coli	21	
S004-704	TSS, TP, Chloride, Hardness, E coli	21	TSS, TP, Chloride, Hardness, E coli	21	
S005-538	TSS, TP, Chloride, Hardness, E coli	21	TSS, TP, Chloride, Hardness, E coli	21	
S005-582	TSS, TP, Chloride, Hardness, E coli	21	TSS, TP, Chloride, Hardness, E coli	21	

S001-523	TSS, TP, Chloride, Hardness, E coli	21	TSS, TP, Chloride, Hardness, E coli	21	
S000-278	E. coli, Chl-A	17	E. coli, Chl-A	17	
S001-522	E. coli	9	E. coli	9	

6. **Were you comfortable with your level of training and current ability to complete the obligations of your workplan?**
 Yes. MPCA provided guidance through an in-person meeting in early May and was responsive to questions throughout the working period.

7. **Were there any changes to your workplan that were specific to staff time and/or monitoring locations?**
 Yes No **If yes, describe the related change order(s).**
 One Change Order was completed early in the project. Rice Creek (S007-006) was moved upstream to Rice Creek (S001-523). S007-006 requires access via a private landowner's property, and S001-523 is a more convenient location but was suspected to have beaver activity in fall of 2018. During a reconnaissance visit in spring 2019, no beaver activity was observed.

8. **Were volunteers a part of your agreement?** Yes No
If yes, indicate how many were used and describe recruitment activities.
 No volunteer recruitment activities were completed in 2019 by Benton SWCD

9. **Provide an annual quality assurance assessment that includes the following elements:**
 A. Submit field meter calibration records as an attachment to this report.
 B. Complete Table 2 presenting quality control sample results with columns showing comparison to lab method detection limit for sampler blanks, and the relative percent difference(RPD) for field duplicates (see the *SWAG Quality Assurance Project Plan*). Use the "maximum expected relative percent difference" values presented below to assess RPD on field duplicates. Field duplicates with values in excess of the expected RPD may be an indication of high variability within the lake or stream, which is useful for data interpretation. Use the comment field to note RPD or sampler blank results outside of expectations.

$$RPD = (Sample\ Result - Duplicate\ Result) / ((Sample\ Result + Duplicate\ Result) / 2) \times 100$$

Example: Sample result = 0.112 Duplicate result = 0.099

$$RPD = (0.112 - 0.099) / ((0.112 + 0.099) / 2) \times 100 = 0.013 / (0.211 / 2) \times 100 = 12\%$$

Note: Add rows as necessary by placing cursor in the last row of last column and hit tab.

Table 2. Quality control sample results and analysis

Date (mm/dd/yyyy)	Site ID#	Analyte	Sampler blanks		Field duplicates			Comments
			Result	Detection limit	Sample result	Duplicate result	RPD	
	05-0007-00-203	TP			0.104			Did not differentiate as QA-QC on COC form
	05-0007-00-203	Chl-A			1.8			Did not differentiate as QA-QC on COC form
09/26/2019	47-0042-00-201	TP			.186	.188	-1.11%	QC Samples meet

								expectations
09/26/2019	47-0042-00-201	Chl-A			6.4	<1.0	36%	no contamination suspected
09/26/2019	47-0042-00-201	Chloride			17.4	17.2	1.11%	QC Samples meet expectations
	47-0095-00-202							no duplicates captured in 2019
	86-0282-00-204							no duplicates captured in 2019
	73-0014-00-201							no duplicates captured in 2019
	86-0227-00-210							no duplicates captured in 2019
	86-0252-01-213							no duplicates captured in 2019
	86-0252-02-207							no duplicates captured in 2019
	86-0284-00-201							no duplicates captured in 2019
	86-0298-00-201							no duplicates captured in 2019
7-17-2019	71-0016-00-202	TP			0.021	0.022	-4.7	
7-17-2019	71-0016-00-202	Chl-A			9.8	5.3	59.6	No explanation for high RPD
9-17-2019	71-0016-00-202	TP	<0.005	0.005				
9-17-2019	71-0016-00-202	Chl-A	1.8	2.0				
7-16-2019	71-0057-00-203	TP			0.017	0.016	6.1	
7-16-2019	71-0057-00-203	Chl-A			6.2	7.1	-13.5	
7-17-2019	71-0055-00-202	TP			0.067	0.070	-4.4	
7-17-2019	71-0055-00-202	Chl-A			39.2	43.6	-10.6	
7-16-2019	71-0067-00-204	TP			0.048	0.044	8.7	
7-16-2019	71-0067-00-204	Chl-A			36.5	30.3	18.6	No explanation for high RPD
7-5-2019	S002-946	TSS			14	13	7.4	
7-5-2019	S002-946	TP			.540	.550	-1.8	
7-5-2019	S002-946	E. Coli			1153	1223	-5.9	
7-5-2019	S005-539	TSS	2	2.0	28	22	24	No explanation for high RPD
7-5-2019	S005-539	TP	<0.005	0.005	.281	.270	4.0	
7-5-2019	S005-539	E. Coli	<10	1.0	9804	8164	18.3	No explanation for high RPD
9-10-2019	S003-006	TSS			16	18	-11.8	
9-10-2019	S003-006	TP			0.092	0.099	-7.3	
7-18-2019	S004-704	E. Coli	<10	1.0				
9-10-2019	S004-704	TSS			<2	<2	n/a	
9-10-2019	S004-704	TP			0.039	0.038	2.6	
9-10-2019	S005-538	TSS			2	5	-85.7	No explanation for high RPD
9-10-2019	S005-538	TP			0.096	0.096	0.0	
9-10-2019	S005-582	TSS			5	4	22.2	No explanation for high RPD
9-10-2019	S005-582	TP			0.062	0.060	3.3	
9-10-2019	S001-523	TSS			2	4	-66.7	No explanation for high RPD
9-10-2019	S001-523	TP			0.075	0.074	1.3	
9-10-2019	S000-278	Chl-A			16.9	17.8	-5.2	

9-10-2019	S001-522	TSS					No duplicate collected
9-10-2019	S001-522	TP					No duplicate collected

Section II – Budget

10. Were there any changes to your budget or equipment and supplies list? Yes No
If yes, describe the related change order(s) and/or amendment(s).

The change order was related to a change in site location, not in budget.

11. Indicate the total amount of funds withheld in retainage through most recent reimbursement request:

\$2,924.75

Copy and paste the information from the invoice tab of the SWAG Reimbursement Request spreadsheet. If budget information does not encompass all expenditures through December 31, please provide the date. Note: Documented amounts must be within 30 days of December 31.

Expenditures through 12/31/2019

Line Item	MPCA Funds Awarded	MPCA Funds Expended prior to this Invoice	MPCA Funds Expended this Invoice	MPCA Funds Expended	Balance	Budget Expended (%)
Sherburne District Administrator	\$2,214.10	\$569.34	\$600.97	\$1,170.31	\$1,043.79	53%
Sherburne District Technician	\$14,015.08	\$3,951.00	\$1,031.65	\$4,982.65	\$9,032.43	36%
Sherburne Water Resource Specialist	\$14,890.83	\$5,368.71	\$480.78	\$5,849.49	\$9,041.34	39%
Benton Water Plan Technician	\$6,226.62	\$2,449.01	\$257.79	\$2,706.80	\$3,519.82	43%
Clearwater River WD District Engineer	\$15,470.00	\$1,982.50	\$0.00	\$1,982.50	\$13,487.50	13%
Clearwater River WD Field Technician	\$5,800.00	\$2,700.00	\$660.00	\$3,360.00	\$2,440.00	58%
Laboratory	\$9,413.50	\$5,999.90	\$0.00	\$5,999.90	\$3,413.60	64%
Mileage	\$4,615.06	\$1,418.16	\$0.00	\$1,418.16	\$3,196.90	31%
Equipment & Supplies	\$5,497.00	\$1,204.29	\$0.00	\$1,204.29	\$4,292.71	22%
Shipping	\$920.00	\$573.32	\$0.00	\$573.32	\$346.68	62%
Total:	\$79,062.19	\$26,216.23	\$3,031.19	\$29,247.42	\$49,814.77	37%