



Grantee information

Grantee name: Lac qui Parle-Yellow Bank Watershed District Contact name: Mary Homan
 Contact phone number: 320-598-3319 Grant award: \$101,916.37
 Contact email: mary.homan@lqpc.com
 Project title: Lac qui Parle/Minnesota River Headwaters Monitoring
 Reporting time period: Start date (mm/dd/yyyy): 3/16/2015 End date (mm/dd/yyyy): 3/15/2017

Section I - Workplan

1. Were the following deliverables submitted to the Minnesota Pollution Control Agency (MPCA) by the due dates listed within your workplan?

Quality Assurance Project Plan	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Date submitted (mm/dd/yyyy):	<u>5/4/2015</u>
Field and Laboratory Data	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Date submitted (mm/dd/yyyy):	<u>10/4/2016</u>
Stream Photos (If applicable)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Date submitted (mm/dd/yyyy):	<u>9/16/2016</u>
Interim Progress Report	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Date submitted (mm/dd/yyyy):	<u>12/24/2015</u>

2. Describe progress monitoring each of your stream and/or lake sites over the course of the entire grant period. 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 and of last column and hit tab.

Table 1. Monitoring summary

Site ID#	Scheduled Sampling		Actual Sampling		Comments
	Parameter	No.	Parameter	No.	
S008-463	2015: DO, pH, temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3, <i>E. coli</i>	12	2015: DO, pH, temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3, <i>E. coli</i>	11	No sample blank was taken in July July 9 field meter did not record DO or pH
		10		10	
	2016: DO, pH, temperature, Conductivity, Physical Appearance, Recreational Suitability, Secchi tube, <i>E. coli</i>	7	2016: DO, pH, temperature, Conductivity, Physical Appearance, Recreational Suitability, Secchi tube, <i>E. coli</i>	7	Mid July field parameters taken to make-up for missing samples in 2015
		6		6	
S008-461	2015: DO, pH,		2015: DO, pH,		

	temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3, <i>E.coli</i> 2016: DO, pH, temperature, Conductivity, Physical Appearance, Recreational Suitability, Secchi tube, <i>E. coli</i>	11 10 7 6	temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3, <i>E.coli</i> 2016: DO, pH, temperature, Conductivity, Physical Appearance, Recreational Suitability, Secchi tube, <i>E. coli</i>	11 10 7 6	July 9 field meter did not record DO or pH Mid July field parameters taken to make up for missing samples in 2015
S008-462	2015: DO, pH, temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3, <i>E.coli</i> 2016: DO, pH, temperature, Conductivity, Physical Appearance, Recreational Suitability, Secchi tube, <i>E. coli</i>	11 10 7 6	2015: DO, pH, temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3, <i>E.coli</i> 2016: DO, pH, temperature, Conductivity, Physical Appearance, Recreational Suitability, Secchi tube, <i>E. coli</i>	11 10 7 6	July 9 field meter did not record DO or pH Mid July field parameters taken to make up for missing samples in 2015
S008-468	2015: DO, pH, temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3, <i>E.coli</i> 2016: DO, pH, temperature, Conductivity, Physical Appearance, Recreational Suitability, Secchi tube, <i>E. coli</i>	11 10 7 6	2015: DO, pH, temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3, <i>E.coli</i> 2016: DO, pH, temperature, Conductivity, Physical Appearance, Recreational Suitability, Secchi tube, <i>E. coli</i>	11 10 7 6	July 9 field meter did not record DO or pH Mid July field parameters taken to make up for missing samples in 2015
S008-464	2015: DO, pH, temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi		2015: DO, pH, temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi		

	<p>tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3, <i>E.coli</i></p> <p>2016: DO, pH, temperature, Conductivity, Physical Appearance, Recreational Suitability, Secchi tube, <i>E. coli</i></p>	<p>11 10</p> <p>7</p> <p>6</p>	<p>tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3, <i>E.coli</i></p> <p>2016: DO, pH, temperature, Conductivity, Physical Appearance, Recreational Suitability, Secchi tube, <i>E. coli</i></p>	<p>11 10</p> <p>7</p> <p>6</p>	<p>July 9 field meter did not record DO or pH</p> <p>Mid July field parameters taken to make up for missing samples in 2015</p>
S003-086	<p>2015: DO, pH, temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3, <i>E.coli</i></p> <p>2016: DO, pH, temperature, Conductivity, Physical Appearance, Recreational Suitability, Secchi tube, <i>E. coli</i></p>	<p>11 10</p> <p>7</p> <p>6</p>	<p>2015: DO, pH, temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3, <i>E.coli</i></p> <p>2016: DO, pH, temperature, Conductivity, Physical Appearance, Recreational Suitability, Secchi tube, <i>E. coli</i></p>	<p>11 10</p> <p>7</p> <p>6</p>	<p>July 9 field meter did not record DO or pH</p> <p>Mid July field parameters taken to make up for missing samples in 2015</p>
S003-088	<p>2015: DO, pH, temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3, <i>E.coli</i></p> <p>2016: DO, pH, temperature, Conductivity, Physical Appearance, Recreational Suitability, Secchi tube, <i>E. coli</i></p>	<p>11 10</p> <p>7</p> <p>6</p>	<p>2015: DO, pH, temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3, <i>E.coli</i></p> <p>2016: DO, pH, temperature, Conductivity, Physical Appearance, Recreational Suitability, Secchi tube, <i>E. coli</i></p>	<p>11 10</p> <p>7</p> <p>6</p>	<p>July 9 field meter did not record DO or pH</p> <p>Mid July field parameters taken to make up for missing samples in 2015</p>
S008-467	<p>2015: DO, pH, temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3,</p>	<p>11</p>	<p>2015: DO, pH, temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3,</p>	<p>11</p>	<p>July 9 field meter did not record DO or pH</p>

	<i>E.coli</i> 2016: DO, pH, temperature, Conductivity, Physical Appearance, Recreational Suitability, Secchi tube, <i>E. coli</i>	10 7 6	<i>E.coli</i> 2016: DO, pH, temperature, Conductivity, Physical Appearance, Recreational Suitability, Secchi tube, <i>E. coli</i>	10 7 6	Mid July field parameters taken to make up for missing samples in 2015
S003-085	2015: DO, pH, temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3, <i>E.coli</i> 2016: DO, pH, temperature, Conductivity, Physical Appearance, Recreational Suitability, Secchi tube, <i>E. coli</i>	11 10 7 6	2015: DO, pH, temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3, <i>E.coli</i> 2016: DO, pH, temperature, Conductivity, Physical Appearance, Recreational Suitability, Secchi tube, <i>E. coli</i>	11 10 7 6	July 9 field meter did not record DO or pH Mid July field parameters taken to make up for missing samples in 2015
S004-552	2015: DO, pH, temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3, <i>E.coli</i> 2016: DO, pH, temperature, Conductivity, Physical Appearance, Recreational Suitability, Secchi tube, <i>E. coli</i>	11 10 7 6	2015: DO, pH, temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3, <i>E.coli</i> 2016: DO, pH, temperature, Conductivity, Physical Appearance, Recreational Suitability, Secchi tube, <i>E. coli</i>	11 10 7 6	July 9 field meter did not record DO or pH Mid July field parameters taken to make up for missing samples in 2015
S008-465	2015: DO, pH, temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3, <i>E.coli</i> 2016: DO, pH, temperature, Conductivity, Physical Appearance,	11 10	2015: DO, pH, temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3, <i>E.coli</i> 2016: DO, pH, temperature, Conductivity, Physical Appearance,	10 9	Missed one sampling event in Mid-July stream appeared dormant-will sample in mid-July 2016 July 9 field meter did not record DO or pH

	Recreational Suitability, Secchi tube, <i>E. coli</i>	7 7	Recreational Suitability, Secchi tube, <i>E. coli</i>	7 7	Mid July field parameters taken to make up for missing samples in 2015. Extra <i>e. coli</i> sample taken for missing 2015 sample
S003-381	2015: DO, pH, temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3, <i>E. coli</i> 2016: DO, pH, temperature, Conductivity, Physical Appearance, Recreational Suitability, Secchi tube, <i>E. coli</i>	11 10 7 6	2015: DO, pH, temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3, <i>E. coli</i> 2016: DO, pH, temperature, Conductivity, Physical Appearance, Recreational Suitability, Secchi tube, <i>E. coli</i>	11 10 7 6	July 9 field meter did not record DO or pH Mid July field parameters taken to make up for missing samples in 2015
S004-554	2015: DO, pH, temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3, <i>E. coli</i> 2016: DO, pH, temperature, Conductivity, Physical Appearance, Recreational Suitability, Secchi tube, <i>E. coli</i>	11 10 7 6	2015: DO, pH, temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3, <i>E. coli</i> 2016: DO, pH, temperature, Conductivity, Physical Appearance, Recreational Suitability, Secchi tube, <i>E. coli</i>	11 10 7 6	July 9 field meter did not record DO or pH Mid July field parameters taken to make up for missing samples in 2015
S001-841	2015: DO, pH, temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3, <i>E. coli</i> 2016: DO, pH, temperature, Conductivity, Physical Appearance, Recreational Suitability, Secchi tube, <i>E. coli</i>	11 10 7 6	2015: DO, pH, temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3, <i>E. coli</i> 2016: DO, pH, temperature, Conductivity, Physical Appearance, Recreational Suitability, Secchi tube, <i>E. coli</i>	11 10 7 6	July 9 field meter did not record DO or pH Mid July field parameters taken to make up for missing samples in 2015

S008-466	<p>2015: DO, pH, temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3, <i>E.coli</i></p> <p>2016: DO, pH, temperature, Conductivity, Physical Appearance, Recreational Suitability, Secchi tube, <i>E. coli</i>,</p>	11 10 7 6	<p>2015: DO, pH, temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3, <i>E.coli</i></p> <p>2016: DO, pH, temperature, Conductivity, Physical Appearance, Recreational Suitability, Secchi tube, <i>E. coli</i></p>	11 10 7 6	<p>July 9 field meter did not record DO or pH</p> <p>Mid July field parameters taken to make up for missing samples in 2015</p>
S000-143	<p>2015: DO, pH, temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3, <i>E.coli</i>, <i>NO2+NO3</i>, <i>TKN</i>, <i>Total P</i>, <i>Chlorophyll A corrected for pheophytin</i></p> <p>2016: DO, pH, temperature, Conductivity, Physical Appearance, Recreational Suitability, Secchi tube, <i>E. coli</i>, <i>Pheophytin</i>, <i>NO2+NO3</i>, <i>TKN</i>, <i>Total P</i>, <i>Chlorophyll A corrected for pheophytin</i></p>	11 10 8 7 6	<p>2015: DO, pH, temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3, <i>E.coli</i>, <i>NO2+NO3</i>, <i>TKN</i>, <i>Total P</i>, <i>Chlorophyll A corrected for pheophytin</i></p> <p>2016: DO, pH, temperature, Conductivity, Physical Appearance, Recreational Suitability, Secchi tube, <i>E. coli</i>, <i>Pheophytin</i>, <i>NO2+NO3</i>, <i>TKN</i>, <i>Total P</i>, <i>Chlorophyll A corrected for pheophytin</i></p>	11 10 8 7 6	<p>July 9 field meter did not record DO or pH</p> <p>Mid July field parameters taken to make up for missing samples in 2015</p>
S008-476	<p>2015: DO, pH, temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3, <i>E.coli</i></p> <p>2016: DO, pH, temperature, Conductivity, Physical Appearance,</p>	11 10	<p>2015: DO, pH, temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3, <i>E.coli</i></p> <p>2016: DO, pH, temperature, Conductivity, Physical Appearance,</p>	11 10	<p>July 9 field meter did not record DO or pH</p>

	Recreational Suitability, Secchi tube, <i>E. coli</i>	7 6	Recreational Suitability, Secchi tube, <i>E. coli</i>	7 6	Mid July field parameters taken to make up for missing samples in 2015
S008-473	2015: DO, pH, temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3, <i>E. coli</i> 2016: DO, pH, temperature, Conductivity, Physical Appearance, Recreational Suitability, Secchi tube, <i>E. coli</i>	11 10 10 7 7	2015: DO, pH, temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3, <i>E. coli</i> 2016: DO, pH, temperature, Conductivity, Physical Appearance, Recreational Suitability, Secchi tube, <i>E. coli</i>	11 10 9 7 7	E. coli sample bottle leaked out contents in cooler on July 22, 2015. Will collect sample in July, 2016. July 9 field meter did not record DO or pH Mid July field parameters taken to make up for missing samples in 2015. Extra <i>e. coli</i> sample taken for missing 2015 sample
S000-158	2015: DO, pH, temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3, <i>E. coli</i> 2016: DO, pH, temperature, Conductivity, Physical Appearance, Recreational Suitability, Secchi tube, <i>E. coli</i>	11 10 7 6	2015: DO, pH, temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3, <i>E. coli</i> 2016: DO, pH, temperature, Conductivity, Physical Appearance, Recreational Suitability, Secchi tube, <i>E. coli</i>	11 10 7 6	July 9 field meter did not record DO or pH Mid July field parameters taken to make up for missing samples in 2015
S003-090	2015: DO, pH, temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3, <i>E. coli</i> 2016: DO, pH, temperature, Conductivity, Physical Appearance, Recreational Suitability, Secchi tube, <i>E. coli</i>	11 10 7 6	2015: DO, pH, temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3, <i>E. coli</i> 2016: DO, pH, temperature, Conductivity, Physical Appearance, Recreational Suitability, Secchi tube, <i>E. coli</i>	11 10 7 6	July 9 field meter did not record DO or pH Mid July field parameters taken to make up for missing samples in 2015

S008-469	<p>2015: DO, pH, temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3, <i>E.coli</i>, NO2+NO3, TKN, Total P, Chlorophyll A corrected for pheophytin</p> <p>2016: DO, pH, temperature, Conductivity, Physical Appearance, Recreational Suitability, Secchi tube, <i>E. coli</i>, Pheophytin, NO2+NO3, TKN, Total P, Chlorophyll A corrected for pheophytin</p>	<p>11</p> <p>10</p> <p>8</p> <p>7</p> <p>6</p>	<p>2015: DO, pH, temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3, <i>E.coli</i>, NO2+NO3, TKN, Total P, Chlorophyll A corrected for pheophytin</p> <p>2016: DO, pH, temperature, Conductivity, Physical Appearance, Recreational Suitability, Secchi tube, <i>E. coli</i>, Pheophytin, NO2+NO3, TKN, Total P, Chlorophyll A corrected for pheophytin</p>	<p>11</p> <p>10</p> <p>8</p> <p>7</p> <p>6</p>	<p>July 9 field meter did not record DO or pH</p> <p>Field Blank taken on July 6, 2016</p> <p>Mid July field parameters taken to make up for missing samples in 2015</p>
S008-472	<p>2015: DO, pH, temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3, <i>E.coli</i></p> <p>2016: DO, pH, temperature, Conductivity, Physical Appearance, Recreational Suitability, Secchi tube, <i>E. coli</i></p>	<p>11</p> <p>10</p> <p>7</p> <p>6</p>	<p>2015: DO, pH, temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3, <i>E.coli</i></p> <p>2016: DO, pH, temperature, Conductivity, Physical Appearance, Recreational Suitability, Secchi tube, <i>E. coli</i></p>	<p>11</p> <p>10</p> <p>7</p> <p>6</p>	<p>July 9 field meter did not record DO or pH</p> <p>Mid July field parameters taken to make up for missing samples in 2015</p>
S008-471	<p>2015: DO, pH, temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3, <i>E.coli</i></p> <p>2016: DO, pH, temperature, Conductivity, Physical Appearance,</p>	<p>11</p> <p>10</p>	<p>2015: DO, pH, temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3, <i>E.coli</i></p> <p>2016: DO, pH, temperature, Conductivity, Physical Appearance,</p>	<p>11</p> <p>9</p>	<p><i>E. coli</i> sample bottle leaked out contents in cooler on July 22, 2015. Will collect sample in July, 2016.</p> <p>July 9 field meter did not record DO or pH</p> <p>Mid July field parameters taken to make up for missing samples in 2015. Extra <i>e. coli</i> sample taken for</p>

	Recreational Suitability, Secchi tube, <i>E. coli</i>	7 7	Recreational Suitability, Secchi tube, <i>E. coli</i>	7 7	missing 2015 sample
S008-470	2015: DO, pH, temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3, <i>E. coli</i> 2016: DO, pH, temperature, Conductivity, Physical Appearance, Recreational Suitability, Secchi tube, <i>E. coli</i>	11 10 7 6	2015: DO, pH, temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3, <i>E. coli</i> 2016: DO, pH, temperature, Conductivity, Physical Appearance, Recreational Suitability, Secchi tube, <i>E. coli</i>	11 10 7 6	July 9 field meter did not record DO or pH Mid July field parameters taken to make up for missing samples in 2015
S002-881	2015: DO, pH, temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3, <i>E. coli</i> 2016: DO, pH, temperature, Conductivity, Physical Appearance, Recreational Suitability, Secchi tube, <i>E. coli</i>	11 10 7 6	2015: DO, pH, temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3, <i>E. coli</i> 2016: DO, pH, temperature, Conductivity, Physical Appearance, Recreational Suitability, Secchi tube, <i>E. coli</i>	11 10 7 6	July 9 field meter did not record DO or pH Mid July field parameters taken to make up for missing samples in 2015
S006-557	2015: DO, pH, temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3, <i>E. coli</i> 2016: DO, pH, temperature, Conductivity, Physical Appearance, Recreational Suitability, Secchi tube, <i>E. coli</i>	11 10 7 6	2015: DO, pH, temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3, <i>E. coli</i> 2016: DO, pH, temperature, Conductivity, Physical Appearance, Recreational Suitability, Secchi tube, <i>E. coli</i>	11 10 7 6	July 9 field meter did not record DO or pH Mid July field parameters taken to make up for missing samples in 2015

S000-732	<p>2015: DO, pH, temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3, <i>E.coli</i></p> <p>2016: DO, pH, temperature, Conductivity, Physical Appearance, Recreational Suitability, Secchi tube, <i>E. coli</i></p>	<p>11 10</p> <p>7</p> <p>6</p>	<p>2015: DO, pH, temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3, <i>E.coli</i></p> <p>2016: DO, pH, temperature, Conductivity, Physical Appearance, Recreational Suitability, Secchi tube, <i>E. coli</i></p>	<p>11 10</p> <p>7</p> <p>6</p>	<p>July 9 field meter did not record DO or pH</p> <p>Mid July field parameters taken to make up for missing samples in 2015</p>
S008-474	<p>2015: DO, pH, temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3, <i>E.coli</i></p> <p>2016: DO, pH, temperature, Conductivity, Physical Appearance, Recreational Suitability, Secchi tube, <i>E. coli</i></p>	<p>11 10</p> <p>7</p> <p>6</p>	<p>2015: DO, pH, temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3, <i>E.coli</i></p> <p>2016: DO, pH, temperature, Conductivity, Physical Appearance, Recreational Suitability, Secchi tube, <i>E. coli</i></p>	<p>11 10</p> <p>7</p> <p>6</p>	<p>Mid July field parameters taken to make up for missing samples in 2015</p>
S008-475	<p>2015: DO, pH, temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3, <i>E.coli</i></p> <p>2016: DO, pH, temperature, Conductivity, Physical Appearance, Recreational Suitability, Secchi tube, <i>E. coli</i></p>	<p>11 10</p> <p>7</p> <p>6</p>	<p>2015: DO, pH, temperature, conductivity, Physical Appearance, Recreational Suitability, Secchi tube, TSVS, TSS, Total P, Ammonia-N, TKN, NO2+NO3, Sulfate, Chloride, Hardness as CaCO3, <i>E.coli</i></p> <p>2016: DO, pH, temperature, Conductivity, Physical Appearance, Recreational Suitability, Secchi tube, <i>E. coli</i></p>	<p>11 10</p> <p>7</p> <p>6</p>	<p>July 9 field meter did not record DO or pH</p> <p>Mid July field parameters taken to make up for missing samples in 2015</p>
06-0060-00-201	<p>2015: Total Phosphorus, Chlorophyll-a, Secchi disk</p> <p>2016: Total</p>	<p>6</p> <p>5</p>	<p>2015: Total Phosphorus, Chlorophyll-a, Secchi disk</p> <p>2016: Total</p>	<p>6</p> <p>5</p>	

	Phosphorus, Chlorophyll-a, Secchi disk		Phosphorus, Chlorophyll-a, Secchi disk		
76-0141-00-202	2015: Total Phosphorus, Chlorophyll-a, Secchi disk 2016: Total Phosphorus, Chlorophyll-a, Secchi disk	6 5	2015: Total Phosphorus, Chlorophyll-a, Secchi disk 2016: Total Phosphorus, Chlorophyll-a, Secchi disk	6 5	
87-0180-00-201	2015: Total Phosphorus, Chlorophyll-a, Secchi disk 2016: Total Phosphorus, Chlorophyll-a, Secchi disk	6 5	2015: Total Phosphorus, Chlorophyll-a, Secchi disk 2016: Total Phosphorus, Chlorophyll-a, Secchi disk	6 5	

3. Were you successful in fulfilling the measures for success using the methods detailed within your workplan?

Staff reviewed sampling and field monitoring procedures with MPCA staff. The three lakes were monitored 5 times in 2015 with a QAQC field duplicate in July 2015 and monitored five times in 2016. The twenty-nine stream sites were sampled ten times from May through September 2015 for the basic regime. Sample blanks were collected at all sites in July 2015. The twenty-nine stream sites were also sampled for E. coli sixteen times from June through August 2015 and 2016 with the QAQC being collected in July 2015. Sites #S000-143 and #S008-469 were monitored according to the River Nutrient sampling regime in 2015 and 2016. Volunteer citizen monitoring included news releases in local newspapers, presentations at local organizations and radio programs encouraging residents to volunteer. One new volunteer was recruited and the existing volunteers continued their monitoring in the watershed.

4. Were there any changes to your workplan that were specific to staff and/or monitoring locations? If yes, describe and list the related change order.

Change Order 1: Adding Taylor Melone, MN Conservation Corp, to the workplan as a subcontractor. This is a volunteer position with no funds allocated for time spent monitoring streams with the Minnesota River Headwaters Watershed. Mileage reimbursement under the commissioner's plan is authorized.

Change Order 2: Adding Camille Perry, MN Conservation Corp, to the workplan as a subcontractor. This is a volunteer position with no funds allocated for time spent monitoring streams with the Minnesota River Headwaters Watershed. Mileage reimbursement under the commissioner's plan is authorized.

Change Order 4: Reduce Objective 4, Staff 1 by \$543.45 (15 hours). Add \$181.15 (5 hours) to Objective 2, Staff 1 and add \$362.30 (10 hours) to Objective 3, Staff 1. Change order done to allow additional time for project and data management.

Change Order 5: For Staff 1, move 15 hours (\$543.45) from Objective 4 (Volunteer Recruitment) to Objective 2 (Data Management). Deduct \$132.54 from per diem and adding to Equipment and supplies for the purchase of calibration standards.

Change Order 6: Deduct 3 hours (\$75.87) from Staff 3 Objective 4. Add \$75.87 to Laboratory analyses: streams.

5. Provide an annual quality assurance assessment that includes the following elements.

- A. Submit field meter calibration records as an attachment to this report (records not previously submitted with Interim 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 on page 24 in Appendix D of the *Volunteer Surface Water Monitoring Guide* (<http://www.pca.state.mn.us/yhiz8f0>) 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 stream, which is useful for data interpretation. Use the comment field to note RPD or sampler blank results outside of expectations.

Note: Add rows as necessary by placing cursor in the last row and 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		RPD	Comments
			Result	Detection limit	Sample result	Duplicate result		

Section II - Participants in project

6. Complete Table 3 if volunteers were involved with lake and/or stream monitoring.

Tennessen warning: Pursuant to Minn. Stat. § 13.43, information you are asked to provide is classified as private data on individuals as described in Minn. R. 1205.0200, subp. 9, Minn. R. 1205.0400 and Minn. Stat. § 13.02, subd. 12 (home contact information). You are not legally required to provide this private data however, should you choose to provide this information the MPCA will contact and invite volunteers to join the Citizen Monitoring Program (CMP) at the conclusion of your grant. All private volunteer information is kept secure and is not released to parties or individuals outside of SWAG or CMP.

Table 3. Volunteer contact information

Waterbody	Site ID#	Contact name	Address	Telephone	Email address
Del Clark Lake		Pat Stanley	109 Lac qui Parle Ave. N, Canby, MN 56220		
Cobb Creek	S001-775	Burton Hendrickson	2240 160 th St., Madison, MN 56256		Burton.Hendrickson@mn.usda.gov
Canby Creek		Eugene Eilers	108 East View Rd, Canby, MN 56220		eeilers@frontiernet.net
County Ditch 34	S001-843	Jeff & Dustin Johnson	2195 361 st Ave, Montevideo, MN 56265		

Section III - Budget

7. Were there any changes to your budget or equipment and supplies list? If yes, describe and list the related change orders and/or amendments.

Change Order 3: Moved \$300 from per diem to equipment. \$54.20 will be for the purchase of replacement rope and buckets and \$245.80 will be purchase of replacement DO caps.

Change Order 4: Reduced Objective 4, Staff 1 by \$543.45 (15 hours). Added \$181.15 (5 hours) to Objective 2, Staff 1 and added \$362.30 (10 hours) to Objective 3, Staff 1 to allow for additional time for project and data management.

Change Order 5: Move \$543.45 (15 hours) Staff 1 from Objective 4 (Volunteer Recruitment) to Objective 2 (Data Management). Deducted \$132.54 from per diem and added to Equipment and supplies for the purchase of calibration standards.

Complete Table 4 and indicate expenditures from the entire grant period.

Table 4. Project expenditures

Project budget	MPCA grant funds available	Total MPCA funds expended	Total remaining balance	Percent of budget expended
Staff 1: Program Coordinator	\$30,795.50	\$27,697.84	\$3,097.66	90%
Staff 2: District Administrator	\$562.95	\$562.95	\$ 0.00	100%
Staff 3: Support Staff	\$2,099.07	\$1,451.90	\$ 647.17	69%
Staff 4: Title			\$ 0.00	
Staff 5: Title			\$ 0.00	
Staff 6: Title			\$ 0.00	
Laboratory streams	\$48,858.89	\$48,858.89	\$ 0.00	100%
Laboratory lakes	\$1,056.00	\$1,056.00	\$ 0.00	100%

Travel reimbursement	\$13,029.50	\$11,276.07	\$1,753.43	87%
Shipping	\$500.00	\$52.02	\$ 447.98	10%
Training materials			\$ 0.00	
Equipment and supplies	\$4,919.00	\$4,786.48	\$ 132.52	97%
Per diem	\$95.46		\$ 95.46	0%
Column total	\$101,916.37	\$95,742.15	\$6,174.22	94%

