



## Grantee Information

Grantee name: Heron Lake Watershed District Contact name: Jan Voit  
 Contact phone number: (507) 793-2462 Grant award: \$ 48,626.41  
 Contact e-mail: jan.voit@mysmbs.com  
 Project title: Des Moines River Watershed Lake and Stream Assessment  
 Grant budget period: Start date (mm/dd/yyyy): 3/24/2014 End date (mm/dd/yyyy): 3/31/2016  
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 This is Interim/Progress report number: 1 Submittal date(mm/dd/yyyy): 12/31/2014

## Section I - Work Plan

- Have you worked with Minnesota Pollution Control Agency (MPCA) Environmental Quality Information System (EQuIS) staff to establish all sites listed in your grant work plan?**  
 Yes  No Date submitted (mm/dd/yyyy): 5/15/2014
- Was monitoring data for these established sites for the past field season submitted to EQuIS by the November 1 due date?**  
 Yes  No Last submittal date (mm/dd/yyyy): 10/27/2014
- If applicable, were stream photos submitted with this report and labeled according to directions specified in the stream monitoring Standard Operating Procedures (SOP)?**  
 Yes  No Date submitted (mm/dd/yyyy): 10/20/2014
- Describe in detail the monitoring that has been conducted during the past field season. Please be specific by completing Table 1. The table should reflect all sites in your grant work plan, their site IDs, the number of samples to be collected annually according to the work plan and the number of samples actually collected (include QA/QC sampling) during the past field season. If you were not able to meet your sampling obligations this past year, describe in the comments section what sampling was missed, why, and how you will make up the missed sampling events. Refer to the instructions at the end of this report for an example of the completed table.**

**Table 1. Monitoring summary**

Waterbody	Site ID#	Planned annual sampling		Actual for past season		Comments
		Parameter	No.	Parameter	No.	
Jack Creek	S001-557	TSS	11	TSS	11	Funded through LCCMR
		SVS	11	SVS	11	Funded through LCCMR
		NO2+NO3	11	NO2+NO3	11	Funded through LCCMR
		Turbidity	11	Turbidity	11	Funded through LCCMR
		NH3	11	NH3	11	Funded through LCCMR
		TKN	11	TKN	11	Funded through LCCMR
		TP	11	TP	11	Funded through LCCMR
		E.coli	10	E.coli	10	Funded through LCCMR
		CaCO3	11	CaCO3	11	
		S	11	S	11	
		Cl	11	Cl	11	
		Secchi tube	13	Secchi tube	13	
		Specific conductance	13	Specific conductance	13	
Temperature	13	Temperature	13			

		pH	13	pH	13	
		DO	13	DO	13	
		One upstream photograph	13	One upstream photograph	13	
		Rec. suitability, appearance, stage estimate	13	Rec. suitability, appearance, stage estimate	13	
Okabena Creek	S001-568	TSS	11	TSS	11	Funded through LCCMR
		SVS	11	SVS	11	Funded through LCCMR
		NO2+NO3	11	NO2+NO3	11	Funded through LCCMR
		Turbidity	11	Turbidity	11	Funded through LCCMR
		NH3	11	NH3	11	Funded through LCCMR
		TKN	11	TKN	11	Funded through LCCMR
		TP	11	TP	11	Funded through LCCMR
		E.coli	10	E.coli	10	Funded through LCCMR
		CaCO3	11	CaCO3	11	Funded through LCCMR
		S	11	S	11	
		Cl	11	Cl	11	
		Secchi tube	13	Secchi tube	13	
		Specific conductance	13	Specific conductance	13	
		Temperature	13	Temperature	13	
		pH	13	pH	13	
		DO	13	DO	13	
		One upstream photograph	13	One upstream photograph	13	
		Rec. suitability, appearance, stage estimate	13	Rec. suitability, appearance, stage estimate	13	
Okabena Creek	S000-269	TSS	11	TSS	11	
		SVS	11	SVS	11	
		NO2+NO3	11	NO2+NO3	11	
		Turbidity	11	Turbidity	11	
		NH3	11	NH3	11	
		TKN	11	TKN	11	
		TP	11	TP	11	
		E.coli	10	E.coli	7	Sample taken in late June and bottle leaked during transport. Missing sample in early August. Also missing field duplicate. Will get missing samples in 2015.
		CaCO3	11	CaCO3	11	
		S	11	S	10	Sample missed in early June. Will get missing samples in 2015.
		Cl	11	Cl	10	Sample missed in early June. Will get missing samples in 2015.
		Secchi tube	13	Secchi tube	13	
		Specific conductance	13	Specific conductance	13	
		Temperature	13	Temperature	13	

		pH	13	pH	13	
		DO	13	DO	13	
		One upstream photograph	13	One upstream photograph	13	
		Rec. suitability, appearance, stage estimate	13	Rec. suitability, appearance, stage estimate	13	
Elk Creek	S007-892	TSS	11	TSS	11	
		SVS	11	SVS	11	
		NO2+NO3	11	NO2+NO3	11	
		Turbidity	11	Turbidity	11	
		NH3	11	NH3	11	
		TKN	11	TKN	11	
		TP	11	TP	11	
		E.coli	10	E.coli	9	Field duplicate missing. Will get missing samples in 2015.
		CaCO3	11	CaCO3	11	
		S	11	S	10	
		Cl	11	Cl	10	
		Secchi tube	13	Secchi tube	13	
		Specific conductance	13	Specific conductance	13	
		Temperature	13	Temperature	13	
		pH	13	pH	13	
		DO	13	DO	13	
		One upstream photograph	13	One upstream photograph	13	
		Rec. suitability, appearance, stage estimate	13	Rec. suitability, appearance, stage estimate	13	
Tributary of Jack Creek	S007-891	TSS	11	TSS	11	
		SVS	11	SVS	11	
		NO2+NO3	11	NO2+NO3	11	
		Turbidity	11	Turbidity	11	
		NH3	11	NH3	11	
		TKN	11	TKN	11	
		TP	11	TP	11	
		E.coli	10	E.coli	9	Field duplicate missing. Will get missing samples in 2015.
		CaCO3	11	CaCO3	11	
		S	11	S	10	Sample missed in early June. Will get missing samples in 2015.
		Cl	11	Cl	10	Sample missed in early June. Will get missing samples in 2015.
		Secchi tube	13	Secchi tube	13	
		Specific conductance	13	Specific conductance	13	
		Temperature	13	Temperature	13	
		pH	13	pH	13	

		DO	13	DO	13	
		One upstream photograph	13	One upstream photograph	13	
		Rec. suitability, appearance, stage estimate	13	Rec. suitability, appearance, stage estimate	13	
North branch of Jack Creek	S007-890	TSS	11	TSS	11	
		SVS	11	SVS	11	
		NO2+NO3	11	NO2+NO3	11	
		Turbidity	11	Turbidity	11	
		NH3	11	NH3	11	
		TKN	11	TKN	11	
		TP	11	TP	11	
		E.coli	10	E.coli	9	Field duplicate missing. Will get missing samples in 2015.
		CaCO3	11	CaCO3	11	
		S	11	S	10	Sample missed in early June. Will get missing samples in 2015.
		Cl	11	Cl	10	Sample missed in early June. Will get missing samples in 2015.
		Secchi tube	13	Secchi tube	13	
		Specific conductance	13	Specific conductance	13	
		Temperature	13	Temperature	13	
		pH	13	pH	13	
		DO	13	DO	13	
		One upstream photograph	13	One upstream photograph	13	
		Rec. suitability, appearance, stage estimate	13	Rec. suitability, appearance, stage estimate	13	
West Fork Des Moines River	S001-363	TSS	11	TSS	11	
		SVS	11	SVS	11	
		NO2+NO3	11	NO2+NO3	11	
		Turbidity	11	Turbidity	11	
		NH3	11	NH3	11	
		TKN	11	TKN	11	
		TP	11	TP	11	
		E.coli	10	E.coli	8	Sample missed in early August. Also missing field duplicate. Will get missing samples in 2015.
		CaCO3	11	CaCO3	11	
		S	11	S	10	Sample missed in early June. Will get missing samples in 2015.
		Cl	11	Cl	10	Sample missed in early June. Will get missing samples in 2015.
		Chlorophyll A	8	Chlorophyll A	0	Took samples at a different site. These samples cannot be made up. Will take river nutrient samples at the correct sites per the work plan in 2015.

		Secchi tube	13	Secchi tube	13	
		Specific conductance	13	Specific conductance	13	
		Temperature	13	Temperature	13	
		pH	13	pH	13	
		DO	13	DO	13	
		One upstream photograph	13	One upstream photograph	13	
		Rec. suitability, appearance, stage estimate	13	Rec. suitability, appearance, stage estimate	13	
Heron Lake Outlet	S007-893	TSS	11	TSS	11	
		SVS	11	SVS	11	
		NO2+NO3	11	NO2+NO3	11	
		Turbidity	11	Turbidity	11	
		NH3	11	NH3	11	
		TKN	11	TKN	11	
		TP	11	TP	11	
		E.coli	10	E.coli	8	Sample missed in early August. Also missing field duplicate. Will get missing samples in 2015.
		CaCO3	11	CaCO3	11	
		S	11	S	10	Sample missed in early June. Will get missing samples in 2015.
		Cl	11	Cl	10	Sample missed in early June. Will get missing samples in 2015.
		Chlorophyll a	8	Chlorophyll a	5	Sample missed in early June. Sample taken in late June but bottle drained out during transport. Missing field duplicate. These samples cannot be made up.
		Secchi tube	13	Secchi tube	13	
		Specific conductance	13	Specific conductance	13	
		Temperature	13	Temperature	13	
		pH	13	pH	13	
		DO	13	DO	13	
		One upstream photograph	13	One upstream photograph	13	
		Rec. suitability, appearance, stage estimate	13	Rec. suitability, appearance, stage estimate	13	
West Fork Des Moines River	S007-894	TSS	11	TSS	11	
		SVS	11	SVS	11	
		NO2+NO3	11	NO2+NO3	11	
		Turbidity	11	Turbidity	11	
		NH3	11	NH3	11	
		TKN	11	TKN	11	
		TP	11	TP	11	
		E.coli	10	E.coli	9	Field duplicate missing. Will get missing samples in 2015.

		CaCO3	11	CaCO3	11	
		S	11	S	11	
		Cl	11	Cl	11	
		Secchi tube	13	Secchi tube	13	
		Specific conductance	13	Specific conductance	13	
		Temperature	13	Temperature	13	
		pH	13	pH	13	
		DO	13	DO	13	
		One upstream photograph	13	One upstream photograph	13	
		Rec. suitability, appearance, stage estimate	13	Rec. suitability, appearance, stage estimate	13	
West Fork Des Moines River	S000-481	TSS	11	TSS	11	
		SVS	11	SVS	11	
		NO2+NO3	11	NO2+NO3	11	
		Turbidity	11	Turbidity	11	
		NH3	11	NH3	11	
		TKN	11	TKN	11	
		TP	11	TP	11	
		E.coli	10	E.coli	9	Field duplicate missing. Will get missing samples in 2015.
		CaCO3	11	CaCO3	11	
		S	11	S	11	
		Cl	11	Cl	11	
		Secchi tube	13	Secchi tube	13	
		Specific conductance	13	Specific conductance	13	
		Temperature	13	Temperature	13	
		pH	13	pH	13	
		DO	13	DO	13	
		One upstream photograph	13	One upstream photograph	13	
		Rec. suitability, appearance, stage estimate	13	Rec. suitability, appearance, stage estimate	13	
West Fork Des Moines River	S000-027	TSS	11	TSS	11	
		SVS	11	SVS	11	
		NO2+NO3	11	NO2+NO3	11	
		Turbidity	11	Turbidity	11	
		NH3	11	NH3	11	
		TKN	11	TKN	11	
		TP	11	TP	11	
		E.coli	10	E.coli	9	Field duplicate missing. Will get missing samples in 2015.
		CaCO3	11	CaCO3	11	
		S	11	S	11	
		Cl	11	Cl	11	

		Chlorophyll A	8	Chlorophyll A	0	Took samples at a different site. These samples cannot be made up. Will take river nutrient samples at the correct sites per the work plan in 2015.
		Secchi tube	13	Secchi tube	13	
		Specific conductance	13	Specific conductance	13	
		Temperature	13	Temperature	13	
		pH	13	pH	13	
		DO	13	DO	13	
		One upstream photograph	13	One upstream photograph	13	
		Rec. suitability, appearance, stage estimate	13	Rec. suitability, appearance, stage estimate	13	
West Fork Des Moines River	S000-156	TSS	11	TSS	11	
		SVS	11	SVS	11	
		NO2+NO3	11	NO2+NO3	11	
		Turbidity	11	Turbidity	11	
		NH3	11	NH3	11	
		TKN	11	TKN	11	
		TP	11	TP	11	
		E.coli	10	E.coli	9	. Field duplicate missing. Will get missing samples in 2015.
		CaCO3	11	CaCO3	11	
		S	11	S	11	
		Cl	11	Cl	11	
Boot Lake	32-0015-00-201	TP	6	TP	5	Field duplicate missing. Will get missing samples in 2015.
		Chlorophyll A	6	Chlorophyll A	4	Sample in May was taken but lab did not send results for sample. Also missing field duplicate. These samples cannot be made up in the 2015 sampling season.
		Specific conductance	5	Specific conductance	5	
		Temperature	5	Temperature	5	
		pH	5	pH	5	
		DO	5	DO	5	

5. Please indicate if there were any noteworthy events or conditions that may have affected the parameter results. Some examples may be upstream construction, drought or low flow conditions, feedlot activity, beaver impoundments, or waterfowl management areas.

**Table 2. Monitoring conditions**

Waterbody	Site ID #	Comments
Jack Creek	S001-557	Heavy rain events in late June caused high flow conditions on the 6/25 sampling date. Low flows were observed during the 7/30, 8/6, 8/18, 8/26, 9/9, and 9/29 sampling dates.
Okabena Creek	S001-568	Heavy rain events in late June caused high flow conditions on the 6/25 sampling date. Low flows were observed during the 8/6, 8/18, 8/26, 9/9, and 9/29 sampling dates.
Okabena Creek	S000-269	A large amount of minnows were present on 9/9.

Elk Creek	S007-892	Low flows were observed during the 8/6, 8/18, 8/26, 9/9, and 9/29 sampling dates.
Tributary of Jack Creek	S007-891	Low flows were observed during the 8/6, 8/18, 8/26, 9/9, and 9/29 sampling dates.
North branch of Jack Creek	S007-890	Heavy rain events in late June caused high flow conditions on the 6/25 sampling date.
West Fork Des Moines River	S001-363	Heavy rain events in late June caused high flow conditions on the 6/25 sampling date. Low flows were observed during the 7/30, 8/6, 8/18, 8/26, 9/9, and 9/30 sampling dates.
Heron Lake Outlet	S007-893	Heavy rain events in late June caused high flow conditions on the 6/25 sampling date. Low flows were observed during the 9/30 sampling date. High numbers of carp and bullheads were noted on the 6/2, 6/25, and 7/30 sampling dates.
West Fork Des Moines River	S007-894	There were many fish present on 5/22 and 6/3. Heavy rain events in late June caused high flow conditions on the 6/26 and 7/8 sampling dates. Low flows were observed on the 9/10 and 9/30 sampling dates.
West Fork Des Moines River	S000-481	There were many birds present on 5/22. Heavy rain events in late June caused high flow conditions on the 6/26 and 7/8 sampling dates. Low flows were observed on the 9/10 and 9/30 sampling dates.
West Fork Des Moines River	S000-027	There were many birds present on 5/22. There were birds and carp present on 6/3. Heavy rain events in late June caused high flow conditions on the 6/26 sampling date.
West Fork Des Moines River	S000-156	Heavy rain events in late June caused high flow conditions on the 6/26 sampling date. Low flows were observed during the 8/7, 8/19, 8/27, 9/10, and 9/30 sampling dates.
Boot Lake	32-0015-00	There was wildlife present on 6/3.

**6. Please describe progress from the past year in successfully carrying out aspects of the grant work plan.**

Sampling locations were established for the stream sites and on Boot Lake. Forms were established with MPCA, water sampling equipment was obtained, and five HLWD employees were trained on proper water sampling techniques. Water samples were taken on all of the 13 scheduled sampling events and most field duplicates were taken. Data was entered into the EQUIS spreadsheet, submitted, and reviewed. Photos were taken during all sampling periods and were submitted. Bills have been tracked and submitted.

**7. Describe in detail any problems, delays or difficulties that occurred in fulfilling the grant work plan. How did you resolve these problems? Were there any change orders and/or amendments to the grant contract and/or work plan? If yes, list.**

There was confusion from the staff on the proper procedure for collecting field duplicates. Field duplicates were attempted to be collected on July 8 and July 9, however improper labeling prevented the use of these samples. Field duplicates were then taken during the September 29 and September 30 sampling dates. These sampling events did not include water samples for E.coli, therefore a field duplicate is missing for the E.coli parameter on all of the stream sampling locations. Field duplicates are also missing for Chlorophyll-a and Total Phosphorus parameters on Boot Lake. These field duplicates will be taken during the 2015 field sampling season to make up for the missing data, with the exception of Chlorophyll-a. Chlorophyll-a samples will be taken in 2015 per the work plan, therefore these samples cannot be made up.

Holding times were frequently exceeded for E.coli. The holding times occasionally only exceeded 8 hours, and typically exceeded 24 hours. Exceeding the holding time is difficult to avoid due to shipping pickup and delivery times that cannot be changed.

Oversampling lead to an overbilling of \$649.40. The errors were caught and the HLWD will pay the amount of the overbilling.

Chlorophyll-a samples were taken at two incorrect stream sites. River nutrients should have been sampled at sites S001-363, S007-893, and S000-027. However, the sites actually sampled for river nutrients were S001-557, S007-893, and S001-568. HLWD will also have to cover the cost of these incorrect samples. Since river nutrients will also be sampled during the 2015 sampling season per the work plan, these missing samples from sites S001-363 and S000-027 cannot be made up.

Mileage also varied greatly per sampling trip. Major road construction and flooding lead to varied travel distances on the water sampling route. Samples were also driven to the lab on July 7 after missing the pickup time, which also increased the mileage.

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



- A. Field meter calibration records.
- B. A list of narrative descriptions that highlight specific data points for which adverse field conditions, field meter malfunctions, errors, excess holding time (quantify), lab result qualifiers, or other factors may have affected the results, and would be beneficial to a data user. *For example*, a description might be included of the cross-section location of sampling chosen on a day when a stream is out of banks, and the main flow is inaccessible due to floating debris.
- C. 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*). Please 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.

**Table 3. 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	
09/29/2014	S001-557	Hardness			362	368	1.6%	QC samples meet expectations
		Sulfate			134	135	0.7%	QC samples meet expectations
		Chloride			26.6	27.1	1.9%	QC samples meet expectations
		Calcium			77.50	78.98	1.9%	QC samples meet expectations
		Magnesium			41.00	41.60	1.5%	QC samples meet expectations
09/29/2014	S001-568	Hardness			334	318	4.9%	QC samples meet expectations
		Sulfate			164	164	0%	QC samples meet expectations
		Chloride			330	329	0.3%	QC samples meet expectations
		Calcium			75.20	71.30	5.3%	QC samples meet expectations
		Magnesium			35.40	33.90	4.3%	QC samples meet expectations
09/29/2014	S000-269	TSS			6	8	28.6%	QC samples meet expectations
		Turbidity			2.2	3.0	30.8%	Duplicate exceeds 30% method variability expectation. No contamination detected.
		Hardness			419	428	2.1%	QC samples meet expectations
		Sulfate			176	175	0.6%	QC samples meet expectations
		Chloride			411	413	0.5%	QC samples meet expectations
		Inorganic Nitrogen			81.8	94.6	14.5%	QC samples meet expectations
		Ammonia			<0.16	<0.16	0%	QC samples meet expectations
		Total P			0.481	0.462	4.0%	QC samples meet expectations
		TKN			2.4	2.0	18.2%	QC samples meet expectations
		SVS			4	6	40.0%	Duplicate exceeds 30% method variability expectation. No contamination detected.
		Calcium			101.0	103.0	2.0%	QC samples meet expectations
		Magnesium			40.50	41.50	2.4%	QC samples meet expectations
09/29/2014	S007-892	TSS			24	11	74.3%	QC samples meet expectations
		Turbidity			12	10	18.2%	QC samples meet expectations
		Hardness			326	326	0%	QC samples meet expectations
		Sulfate			80.4	80.1	0.4%	QC samples meet expectations
		Chloride			39.7	39.1	1.5%	QC samples meet expectations
		Inorganic Nitrogen			<0.2	<0.2	0%	QC samples meet expectations
		Ammonia			<0.16	<0.16	0%	QC samples meet expectations
		Total P			0.079	0.062	24.1%	QC samples meet expectations

		TKN		1.0	0.9	10.5%	QC samples meet expectations
		SVS		8	6	28.6%	QC samples meet expectations
		Calcium		69.20	68.60	0.9%	QC samples meet expectations
		Magnesium		27.20	37.50	0.8%	QC samples meet expectations
09/29/2014	S007-891	TSS		104	104	0%	QC samples meet expectations
		Turbidity		92	89	3.3%	QC samples meet expectations
		Hardness		336	332	1.2%	QC samples meet expectations
		Sulfate		157	158	0.6%	QC samples meet expectations
		Chloride		27.4	27.4	0%	QC samples meet expectations
		Inorganic Nitrogen		<0.2	<0.2	0%	QC samples meet expectations
		Ammonia		<0.16	<0.16	0%	QC samples meet expectations
		Total P		0.286	0.269	6.1%	QC samples meet expectations
		TKN		3.7	3.6	2.7%	QC samples meet expectations
		SVS		32	32	0%	QC samples meet expectations
		Calcium		62.80	61.70	1.8%	QC samples meet expectations
		Magnesium		43.60	43.20	0.9%	QC samples meet expectations
09/29/2014	S007-890	TSS		29	30	3.4%	QC samples meet expectations
		Turbidity		25	26	3.9%	QC samples meet expectations
		Hardness		374	374	0%	QC samples meet expectations
		Sulfate		151	151	0%	QC samples meet expectations
		Chloride		34.8	34.70	0.3%	QC samples meet expectations
		Inorganic Nitrogen		<0.2	<0.2	0%	QC samples meet expectations
		Ammonia		<0.16	<0.16	0%	QC samples meet expectations
		Total P		0.145	0.115	23.1%	QC samples meet expectations
		TKN		1.8	1.8	0%	QC samples meet expectations
		SVS		9	9	0%	QC samples meet expectations
		Calcium		79.10	79.60	0.6%	QC samples meet expectations
		Magnesium		42.80	42.60	0.5%	QC samples meet expectations
09/30/2014	S001-363	TSS		41	43	4.8%	QC samples meet expectations
		Turbidity		44	41	7.1%	QC samples meet expectations
		Hardness		377	392	4.0%	QC samples meet expectations
		Sulfate		182	182	0%	QC samples meet expectations
		Chloride		22.3	22.6	1.3%	QC samples meet expectations
		Inorganic Nitrogen		<0.2	<0.2	0%	QC samples meet expectations
		Ammonia		<0.16	<0.16	0%	QC samples meet expectations
		Total P		0.242	0.248	2.4%	QC samples meet expectations
		TKN		3.3	3.0	9.5%	QC samples meet expectations
		SVS		30	31	3.3%	QC samples meet expectations
		Calcium		79.3	82.9	4.4%	QC samples meet expectations
		Magnesium		43.5	45.00	3.4%	QC samples meet expectations
09/30/2014	S007-894	TSS		33	35	5.9%	QC samples meet expectations
		Turbidity		38	33	14.1%	QC samples meet expectations
		Hardness		368	398	7.8%	QC samples meet expectations
		Sulfate		161	164	1.8%	QC samples meet expectations
		Chloride		28.9	29.4	1.7%	QC samples meet expectations
		Inorganic		<0.2	<0.2	0%	QC samples meet expectations

		Nitrogen						
		Ammonia			<0.16	<0.16	0%	QC samples meet expectations
		Total P			0.160	0.205	24.7%	QC samples meet expectations
		TKN			2.6	2.7	3.8%	QC samples meet expectations
		SVS			26	26	0%	QC samples meet expectations
		Calcium			80.60	86.90	7.5%	QC samples meet expectations
		Magnesium			40.40	44.00	8.5%	QC samples meet expectations
09/30/2014	S000-481	TSS			28	31	10.2%	QC samples meet expectations
		Turbidity			31	32	3.2%	QC samples meet expectations
		Hardness			402	366	0.4%	QC samples meet expectations
		Sulfate			148	150	1.3%	QC samples meet expectations
		Chloride			36.4	36.6	0.5%	QC samples meet expectations
		Inorganic Nitrogen			0.92	0.97	5.3%	QC samples meet expectations
		Ammonia			<0.16	<0.16	0%	QC samples meet expectations
		Total P			0.304	0.273	10.7%	QC samples meet expectations
		TKN			2.3	2.6	12.2%	QC samples meet expectations
		SVS			19	22	14.6%	QC samples meet expectations
		Calcium			87.70	81.40	7.5%	QC samples meet expectations
		Magnesium			44.40	39.60	11.4%	QC samples meet expectations
09/30/2014	S000-027	TSS			57	60	5.1%	QC samples meet expectations
		Turbidity			58	50	14.8%	QC samples meet expectations
		Hardness			345	352	2.0%	QC samples meet expectations
		Sulfate			150	150	0%	QC samples meet expectations
		Chloride			33.4	33.7	0.9%	QC samples meet expectations
		Inorganic Nitrogen			<0.2	<0.2	0%	QC samples meet expectations
		Ammonia			<0.16	<0.16	0%	QC samples meet expectations
		Total P			0.347	0.300	14.5%	QC samples meet expectations
		TKN			3.3	3.1	6.2%	QC samples meet expectations
		SVS			31	35	12.1%	QC samples meet expectations
		Calcium			69.40	69.70	0.4%	QC samples meet expectations
		Magnesium			41.60	43.20	3.8%	QC samples meet expectations
09/30/2014	S000-156	TSS			50	49	2.0%	QC samples meet expectations
		Turbidity			46	45	2.2%	QC samples meet expectations
		Hardness			363	362	0.3%	QC samples meet expectations
		Sulfate			151	158	4.5%	QC samples meet expectations
		Chloride			28.9	28.8	0.3%	QC samples meet expectations
		Inorganic Nitrogen			<0.2	<0.2	0%	QC samples meet expectations
		Ammonia			<0.16	<0.16	0%	QC samples meet expectations
		Total P			0.265	0.239	10.3%	QC samples meet expectations
		TKN			3.0	2.8	6.9%	QC samples meet expectations
		SVS			30	30	0%	QC samples meet expectations
		Calcium			73.00	74.1	1.5%	QC samples meet expectations
		Magnesium			43.90	43.00	2.1%	QC samples meet expectations
09/30/2014	S007-893	TSS			47	49	4.2%	QC samples meet expectations
		Turbidity			33	38	14.1%	QC samples meet expectations
		Hardness			298	300	0.7%	QC samples meet expectations

		Sulfate			112	110	1.8%	QC samples meet expectations
		Chloride			68.1	68.6	0.7%	QC samples meet expectations
		Inorganic Nitrogen			<0.2	<0.2	0%	QC samples meet expectations
		Ammonia			<0.16	<0.16	0%	QC samples meet expectations
		Total P			0.281	0.277	1.4%	QC samples meet expectations
		TKN			2.4	2.6	8.0%	QC samples meet expectations
		SVS			17	18	5.7%	QC samples meet expectations
		Calcium			60.8	61.20	0.7%	QC samples meet expectations
		Magnesium			35.40	35.80	1.1%	QC samples meet expectations

## Section II - Participants in Project

9. **Have there been any changes in project staff or contractors or has participation by companies or units of government changed? How many volunteers participated in monitoring during the past field season? Complete Table 3 by listing the contact information for your volunteers. Once your grant ends, the MPCA Citizen Lake/Stream Monitoring Program coordinators plan to contact these volunteers to see if they are interested in continuing to collect transparency data at their assigned sites.**

There were staff changes during the project. Kiel Tschumperlain, the original Watershed Coordinator, was replaced by Amanda Schultz on June 23. Kiel Tschumperlain and Catherine Sereg were originally trained on proper water sampling procedures and collected samples in May. Kiel and Catherine then trained two HLWD interns, Jacob Post and Logan Ahlers, on proper water sampling techniques in May and June. The interns continued to water sample through the end of August. Amanda Schultz and Catherine Sereg then assumed water sampling duties for the remainder of the year. No volunteers participated in monitoring.

### Table 4. Volunteer contact information

**Tennessen warning:** Pursuant to Minn. Stat. § 13.43, some of the information that you are being asked to provide in the above table 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, but if you do the MPCA plans to use this information to invite volunteers to join their Citizen Lake/Stream Monitoring Programs (CMPs) after your grant project has ended. All private volunteer information is kept in a secure location and is never released to anyone outside of our SWAG or CMPs.

Organization name:     n/a    

Grantee contact: \_\_\_\_\_ Telephone number: \_\_\_\_\_

Waterbody	Site ID#	Contact name	Address	Telephone	E-mail address

10. **Please describe training that you and/or an outside trainer provided to your project participants prior to the start of the past field season. Include details on what the training covered and who administered this training.**

On May seventh, Jordan Donatell, with MPCA, trained Catherine Sereg, HLWD Technician and Kiel Tschumperlain, HLWD Watershed Coordinator. Training consisted of visiting each of the twelve stream sites and showing staff how to collect surface water samples using a bucket, the use of the HACH meter, how to fill out lab forms, and how to report data. Jordan spent about 12 hours with the staff to ensure training was comprehensive. The HLWD staff then trained Jacob Post and Logan Ahlers, HLWD summer interns for multiple days in late May. Amanda Schultz, the new Watershed Coordinator was also trained on July 7 and 8 by the summer interns. This training consisted of all the same topics and materials provided by Jordan Donatell.

## Section III - Budget

11. **Fill in Table 4 (Project expenditures). List any changes to your original budget (change orders or amendments) that were made.**

**Table 5. Project expenditures**

<b>Project budget</b>	<b>MPCA grant funds available</b>	<b>Total MPCA funds expended</b>	<b>Total remaining balance</b>	<b>Percent of budget expended</b>
<b>Objective 1: (Title) Prep and Plan</b>				
Task: Staff - Determine site locations on Boot Lake, Establish forms with MPCA, Acquire supplies and training	\$1,066.55	\$764.02	\$ 302.53	72 %
Task: Equipment and Supplies	\$8,741.80	\$4,475.65	\$4,266.15	51 %
Task: Training	\$20.00	\$20.00	\$ 0.00	100 %
Task: Mileage	\$70.00	\$42.56	\$ 27.44	61 %
<b>Objective 2: (Title) Monitoring</b>				
Task: Staff - Lake and stream monitoring	\$10,879.36	\$5,525.61	\$5,353.75	51 %
Task: Lab Analysis	\$21,224.80	\$18,961.00	\$2,263.80	89 %
Task: Shipping	\$1,060.00	\$412.94	\$ 647.06	39 %
Task: Mileage	\$2,144.61	\$1,445.36	\$ 699.25	67 %
<b>Objective 3: (Title) Submit Data</b>				
Task: Staff - Prepare and submit data to EQUIS	\$1,237.50	\$1,007.16	\$ 230.34	81 %
Task:			\$ 0.00	%
Task:			\$ 0.00	%
Task:			\$ 0.00	%
<b>Objective 4: (Title) Reporting</b>				
Task: Staff - Prepare and complete reports	\$2,181.80	\$539.26	\$1,642.54	25 %
Task:			\$ 0.00	%
Task:			\$ 0.00	%
Task:			\$ 0.00	%
<b>Objective 5: (Title)</b>				
Task:			\$ 0.00	%
Task:			\$ 0.00	%
Task:			\$ 0.00	%
Task:			\$ 0.00	%
<b>Objective 6: (Title)</b>				
Task:			\$ 0.00	%
Task:			\$ 0.00	%
Task:			\$ 0.00	%
Task:			\$ 0.00	%
<b>Column Total</b>	<b>\$48,626.42</b>	<b>\$33,193.56</b>	<b>\$15,432.86</b>	<b>%</b>

**(Delete instructions prior to submitting)**

**Instructions**

The Minnesota Pollution Control Agency evaluates grants based on their contribution to the Minnesota Pollution Control Agency's (MPCA) mission. To ensure a routine, fair and consistent evaluation of grants, the MPCA requires grantees to submit periodic narrative and financial reports. In preparing your interim report(s), please refer back to Exhibit A (the work plan and budget) in your grant contract.

The grant report shall include detailed results in the form of data and information that best demonstrates progress toward achieving one or more of the objectives as identified in your work plan. The MPCA will use the information from this grant contract and others to document progress toward meeting these objectives to external parties, such as taxpayers and the legislature. The MPCA staff will work with the Grantee on what the best ways are to accomplish this information requirement.

Project grantees are required to complete and submit Interim reports as outlined in the grant contract and work plan during the grant contract period. **Failure to submit a detailed Interim report may result in the loss of current grant funds, the withholding of additional grant disbursements or being removed from consideration for future grant funding.**

A grantee may fill-in-the-blanks in the form provided, or they **may tailor the form to more accurately fit their project (work plan)**. Since projects are very diverse, the latter method may work best. This form is available electronically.

The report shall be sent to the attention of your MPCA Project Manager electronically.

**Examples:**

**Table 1. Monitoring summary**

Waterbody <sup>1</sup>	Site ID#	Planned annual sampling		Actual for past season		Comments
		Parameter	No.	Parameter	No.	
Lake A	71-***	Chl-A	4	Chl-A	3	Missed one sampling event – will pick it up next June.
		TP	4	TP	3	
		Secchi	4	Secchi	3	
Stream A	S****)	TP, TSS, DO, pH,conductivity	22	TP, TSS, DO, pH,conductivity	15	Stream ran dry for several months and prevented us from obtaining planned samples

<sup>1</sup> Identify target watershed site by using asterisk (\*).

**Table 2. Quality control sample results and analysis**

Date	Site ID#	Analyte	Sampler blanks		Field duplicates			Comments
			Result	Detection limit	Sample result	Duplicate result	RPD	
8/29/11	S006-152	E. coli	<1	<1	140	160	6.7%	QC samples meet expectations
7/31/11	S006-151	E. coli	<1	<1	120	170	34%	Duplicate exceeds 30% method variability expectation. No contamination detected.
8/17/11	S005-143	TSS	1	1	5	3	50%	Duplicate exceeds 30% method variability expectation. No contamination detected.
8/17/11	S005-143	TSVS	1	1	1	1	0	QC samples meet expectations
8/17/11	S005-143	E. coli	1	1	651	921	34%	Duplicate exceeds 30% method variability expectation. No contamination detected.
8/17/11	S005-143	Ammonia (N)	0.04	<0.04	0.123	0.183	39%	Duplicate exceeds 10% method variability expectation. No contamination detected.
8/17/11	S005-143	NO2+NO3	0.03	<0.03	0.08	0.08	0%	QC samples meet expectations
8/17/11	S005-143	TKN	0.3	<0.3	1.42	1.44	1.4%	QC samples meet expectations
8/17/11	S005-143	TP	0.005	<0.005	0.573	0.57	0%	QC samples meet expectations