

## Wisconsin Department of Natural Resources SWIMS Project Summary

### General Project Information

**Project ID:** NER\_02\_CMP14  
**Name:** Shawano Lake Tributary Assessment for 303(d) Identification - Year 2 - NER\_02\_CMP14  
**Type:** Competitive Projects  
**Subtype:** Impaired Water Assessment  
**Status:** ACTIVE  
**Start Date:** 01/01/2014  
**End Date:** 12/31/2014  
**Purpose:** In 2013 NER region monitored and sampled 8 stream segments and 1 lake site for impaired waters considerations. 6 of the 8 stream segments indicated impaired biological communities which are identified for additional impaired waters monitoring in 2014 of the biological communities. In addition 6 monthly TP samples will be collected to identify the suspected pollutant as TP in all 8 stream sample locations. The lake sampling site on Mud Lake will again be sampled at spring turnover, June, July, August, and September for TSI criteria.

NER proposes to monitor 6 streams and 1 lake which are tributaries to Shawano Lake during the 2013 project cycle for impaired waters identification. Historic water quality data from the UWSP- Center for Watershed Science and Education in their Shawano Lake Watershed Assessment (2008) indicates that Total Phosphorous samples have exceeded the listing threshold in these streams. The 6 streams will be monitored for biological impairments by conducting fish and qualitative habitat surveys, collecting macroinvertebrate samples, and continuous water temperatures. Chemistry samples will be taken on Mud Lake for Chlorophyll a and total phosphorous. Flow and basic Water quality parameters will also be collected during each field visit. It is anticipated that this will be a 2-year project so that 2012 WisCALM Guidance can be followed for TP listing with biological impairments. The 6 monthly TP samples will be proposed on those stream segments in 2014 that show biological impairments from 2013 monitoring to fill remaining data gaps. The second year will also include the remainder of growing season lake monitoring for TP and Chl a.

**Objective:** This project will seek to identify likely 303(d) waters to be included on future impaired waters listings. Recent water quality data within the last 10yrs from UWSP and WDNR sampling efforts indicated that the tributaries of Loon Creek (WBIC 323600), Duchess Creek (WBIC 325000), Pickerel Creek (WBIC 325800), Unnamed Creek #1 (WBIC 325000), Unnamed Creek #2 (WBIC 323500), and Murray Creek (WBIC 323000) have had sample concentrations of TP that exceed the listing threshold of 0.075 mg/l as indicated in 2012 WisCALM. Mud Lake (WBIC 326000) is a drainage lake that outlets to Shawano Lake through Pickerel Creek and receives water from White Clay Lake which is on the proposed 2012 303(d) list for TP. Only minimal old macroinvertebrate data exist and sufficient biological data are lacking to make impairment assessments of the waterways. The biological data will be used to make a decision on future listings for the impaired waters list. The chemistry data on Mud Lake will be used to determine the condition of Mud Lake for consideration on future impaired waters listings.

**Comments:** This is a continuing project from NER\_07\_CMP13B

**Outcome:** WisCALM 2012 guidance will be used to assess 6 streams and 1 lake for Fish and Aquatic Life impairments. A total of 8 stream sites will be sampled for Fish, qualitative habitat, continuous temperature, and bugs in 2014. TP concentrations sampled in these waterways have exceeded the listing threshold but no current biological data exist to corroborate the FAL use impairment. Only one of the 6 sites currently has an adequate subset of TP samples that exceed the listing threshold. Following biological data collection and analysis in 2013 additional TP collection may be proposed on streams with poor M-IBI or F-IBI ratings in 2014. 1 Deep Hole site will be sampled on Mud Lake. Mud Lake receives water from White Clay Lake which is on the 2012 impaired waters list for TP. Chemistry monitoring for 2 years of TP and Chl a will be proposed to meet the 2012 WisCALM listing guidance for TP and Chl a. 8 Field visits are proposed in 2013 with this project. 1 for temp logger deployment, 3 for Fish and Habitat, 3 for Lake Chemistry sampling, and 1 for temp logger retrieval and bug sample collection. All data collected will be entered into SWIMS and be used for making listing recommendations.

**Study Design:**

**QA Measures:**

### People

Name	Role	Status	Start Date	End Date	Organization	Comments
Hudak, Andrew J	COORDINATOR	ACTIVE	01/01/2014	12/31/2014	Wisconsin DNR	
McLennan, Robin	SUPERVISOR	ACTIVE	01/01/2014	12/31/2014	Wisconsin DNR	
Nordin, Brenda L	COORDINATOR	COMPLETE	01/01/2014	12/31/2014	Wisconsin DNR	
Vermillion, Karen	DATA_ENTRY	ACTIVE	10/10/2014		Wisconsin Department	

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Name	Role	Status	Start Date	End Date	Organization	Comments
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of Natural Resources -  
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### Project Statuses

Date	Reported By	Status	Comments
12/04/2013	Andrew Hudak	Proposed	
07/02/2014	Andrew Hudak	Progress: 25-50% Complete	Revisiting of sites with fish surveys have been completed on 6 of 8 sites and the first two sets of monthly TP samples have been collected. Fish sites will be completed by fall. Bugs will be collected in fall.
08/04/2014	Brenda Nordin	Progress: 50-75% Complete	The project is 75% complete. We still have 2 more sampling events. The report will be done in December.
12/01/2014	Andrew Hudak	Progress: 75-100% Complete	Sampling has been completed- Data will be entered by the end of the year, report shall be drafted and will be finalized once bug data is received.

### Project Status Detail

Answer Set: DEFAULT

Question	Answer
1. Number of Sample Sites (Enter the station IDs if you know them).	6 Stream Sites, 1 Lake Site
2. Number of Sample Events (Indicate how many trips into the field you anticipate for this project).	6- Stream Water Chemistry( Maybe covered by Volunteers), 5- Biological sampling, 5 - Lake monitoring
3. Proposed Dates for Sample Collection	Temp loggers will be deployed in April and removed in October. Fish and Habitat will be collected in May-July. Lake samples will be taken July, August, September. TP samples at stream site will occur Mat-October
4. List applicable databases and who will enter data?	Streams info will be uploaded into SWIMS and Fish database by Hudak and Lake info will be uploaded into SWIMS by Nordin or Hudak. Sampling at streams will be collected and entered into SWIMS by volunteers
5. Did you receive competitive projects funding in the previous year?	Yes
6. If yes to question 5, did you complete the projects including data entry and reports as necessary? If not, why not?	Report drafted but will finalize following data collection and analysis in 2014.
7. Reviewer Notes: Identify questions or issues with project (use during review period)	
8. Reviewer Decision: Is this project recommended for funding?	

### Actions

Action	Detailed Description	Start	End Date	Status
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### Monitoring Stations

Station ID	Name	Comments
593132	Duchess Creek at Cth H	
10041299	Look Creek 350m DS CTH HH	
10039273	Mud Lake- Deep Hole	
10041298	Murray Creek 110m DS STH 22	
593131	Pickereel Creek at James St Cecil	
10016025	Trib To White Clay Lake - 50 Ft Downstream From Lodge Road	

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Station ID	Name	Comments
10039278	Unnamed Trib to Mud Lake @ Hwy E	
10039277	Unnamed Trib to Shawano Lake @ Meadow Road	
10039276	Unnamed Trib to Shawano Lake @ Shady Lane	

### Assessment Units

WBIC	Segment	Local Name	Official Name
323000	1	Murray Creek	Murray Creek
323500	1	Local Water	Unnamed
323600	1	Loon Creek	Loon Creek
325000	1	Unnamed	Unnamed
325100	1	Duchess Creek	Duchess Creek
325800	1	Pickereel Creek	Pickereel Creek
326000	1	Mud Lake	Mud Lake
326100	1	Unnamed	Unnamed
5013017	1	Unnamed	Unnamed

### Lab Account Codes

Account Code	Description	Start Date	End Date
WT142	303D/TMDL MONITORING	05/03/2011	12/31/2014

### Forms

Form Code	Form Name
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### Methods

Method Code	Description
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### Fieldwork Events

Start Date	Status	Field ID	Station ID	Station Name
05/13/2014 08:30	COMPLETE	NA	10041298	Murray Creek 110m DS STH 22
05/13/2014 08:37	COMPLETE	NA	10039276	Unnamed Trib to Shawano Lake @ Shady Lane
05/13/2014 08:57	COMPLETE	NA	10039277	Unnamed Trib to Shawano Lake @ Meadow Road
05/13/2014 09:10	COMPLETE	NA	10039278	Unnamed Trib to Mud Lake @ Hwy E
05/13/2014 09:22	COMPLETE	NA	10016025	Trib To White Clay Lake - 50 Ft Downstream From Lodge Road
05/13/2014 09:40	COMPLETE	NA	593131	Pickereel Creek at James St Cecil
06/10/2014 07:24	COMPLETE	NA	593131	Pickereel Creek at James St Cecil
06/10/2014 07:36	COMPLETE	NA	10039278	Unnamed Trib to Mud Lake @ Hwy E
06/10/2014 07:49	COMPLETE	NA	10016025	Trib To White Clay Lake - 50 Ft Downstream From Lodge Road
06/10/2014 08:07	COMPLETE	NA	10039277	Unnamed Trib to Shawano Lake @ Meadow Road
06/10/2014 08:19	COMPLETE	NA	10039276	Unnamed Trib to Shawano Lake @ Shady Lane
06/10/2014 08:30	COMPLETE	NA	10041298	Murray Creek 110m DS STH 22
07/08/2014 08:18	COMPLETE	NA	593131	Pickereel Creek at James St Cecil
07/08/2014 08:36	COMPLETE	NA	10016025	Trib To White Clay Lake - 50 Ft Downstream From Lodge Road
07/08/2014 09:00	COMPLETE	NA	10039278	Unnamed Trib to Mud Lake @ Hwy E
07/08/2014 09:33	COMPLETE	NA	10039277	Unnamed Trib to Shawano Lake @ Meadow Road
07/08/2014 09:45	COMPLETE	NA	10039276	Unnamed Trib to Shawano Lake @ Shady Lane

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Start Date	Status	Field ID	Station ID	Station Name
07/08/2014 09:56	COMPLETE	NA	10041298	Murray Creek 110m DS STH 22
07/25/2014	COMPLETE		10039273	Mud Lake- Deep Hole
08/05/2014 07:35	COMPLETE	99225095	593131	Pickereel Creek at James St Cecil
08/05/2014 07:55	COMPLETE	99225123	10016025	Trib To White Clay Lake - 50 Ft Downstream From Lodge Road
08/05/2014 08:30	COMPLETE	99225127	10039278	Unnamed Trib to Mud Lake @ Hwy E
08/05/2014 09:05	COMPLETE	99225131	10039277	Unnamed Trib to Shawano Lake @ Meadow Road
08/05/2014 09:25	COMPLETE	99225135	10039276	Unnamed Trib to Shawano Lake @ Shady Lane
08/05/2014 09:40	COMPLETE	99225115	10041298	Murray Creek 110m DS STH 22
09/11/2014	COMPLETE		10039278	Unnamed Trib to Mud Lake @ Hwy E
09/11/2014	COMPLETE		10016025	Trib To White Clay Lake - 50 Ft Downstream From Lodge Road
09/11/2014	COMPLETE		10039277	Unnamed Trib to Shawano Lake @ Meadow Road
09/11/2014	COMPLETE		10039276	Unnamed Trib to Shawano Lake @ Shady Lane
09/11/2014	COMPLETE		10041298	Murray Creek 110m DS STH 22
09/11/2014	COMPLETE		593131	Pickereel Creek at James St Cecil
09/16/2014 07:26	COMPLETE	NA	593131	Pickereel Creek at James St Cecil
09/16/2014 07:45	COMPLETE	NA	10016025	Trib To White Clay Lake - 50 Ft Downstream From Lodge Road
09/16/2014 08:10	COMPLETE	NA	10039278	Unnamed Trib to Mud Lake @ Hwy E
09/16/2014 08:30	COMPLETE	NA	10039277	Unnamed Trib to Shawano Lake @ Meadow Road
09/16/2014 08:45	COMPLETE	NA	10039276	Unnamed Trib to Shawano Lake @ Shady Lane
09/16/2014 09:00	COMPLETE	NA	10041298	Murray Creek 110m DS STH 22
10/16/2014 08:15	COMPLETE	NA	593131	Pickereel Creek at James St Cecil
10/16/2014 08:35	COMPLETE	NA	10016025	Trib To White Clay Lake - 50 Ft Downstream From Lodge Road
10/16/2014 09:00	COMPLETE	NA	10039278	Unnamed Trib to Mud Lake @ Hwy E
10/16/2014 09:30	COMPLETE	NA	10039277	Unnamed Trib to Shawano Lake @ Meadow Road
10/16/2014 09:40	COMPLETE	NA	10039276	Unnamed Trib to Shawano Lake @ Shady Lane
10/16/2014 09:50	COMPLETE	NA	10041298	Murray Creek 110m DS STH 22

**Documents**

Title	Description	Author	Published	Comments
2014 Total Phosphorus Monitoring Report - Murray Creek 110m DS STH 22	Many of Wisconsin's water quality standards require multiple visits to make an assessment decision. Every year, several stream sites are monitored and the field data collected during each visit are used to flag problem waters. In the next year, follow up monitoring is carried out on the flagged waters where the data suggest there is an impairment, but there are insufficient data to make that determination based on the State's minimum data requirements. In 2015, stream monitors assisted in the monitoring process by collecting water samples to be analyzed for total phosphorus at the Wisconsin State Lab of Hygiene.	Hudak, Andrew	12/01/2015	
2014 Total Phosphorus	Historic water quality data, used as	Lindsey Albright	02/04/2015	

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Title	Description	Author	Published	Comments
Monitoring Report - Pickerel Creek at James St, Cecil	part of the Shawano Lake Watershed Assessment (UW Stevens Point - Center for Watershed Science and Education 2008), indicate that total phosphorous levels exceeded the impaired listing threshold in several of the tributaries to Shawano Lake. DNR staff and WAV volunteers began collecting total phosphorus data for these streams in 2013 and have continued in 2014 to fill any remaining data gaps.			
2014 Total Phosphorus Monitoring Report - Trib To White Clay Lake - 50 Ft Downstream From Lodge Rd	Historic water quality data, used as part of the Shawano Lake Watershed Assessment (UW Stevens Point - Center for Watershed Science and Education 2008), indicate that total phosphorous levels exceeded the impaired listing threshold in several of the tributaries to Shawano Lake. DNR staff and WAV volunteers began collecting total phosphorus data for these streams in 2013 and have continued in 2014 to fill any remaining data gaps.	Lindsey Albright	02/03/2015	
2014 Total Phosphorus Monitoring Report - Unnamed Trib to Mud Lake @ Hwy E	Historic water quality data, used as part of the Shawano Lake Watershed Assessment (UW Stevens Point - Center for Watershed Science and Education 2008), indicate that total phosphorous levels exceeded the impaired listing threshold in several of the tributaries to Shawano Lake. DNR staff and WAV volunteers began collecting total phosphorus data for these streams in 2013 and have continued in 2014 to fill any remaining data gaps.	Lindsey Albright	02/04/2015	
2014 Total Phosphorus Monitoring Report - Unnamed Trib to Shawano Lake @ Meadow Road	Historic water quality data, used as part of the Shawano Lake Watershed Assessment (UW Stevens Point - Center for Watershed Science and Education 2008), indicate that total phosphorous levels exceeded the impaired listing threshold in several of the tributaries to Shawano Lake. DNR staff and WAV volunteers began collecting total phosphorus data for these streams in 2013 and have continued in 2014 to fill any remaining data gaps.	Lindsey Albright	02/04/2015	
2014 Total Phosphorus Monitoring Report - Unnamed Trib to Shawano Lake @ Shady Lane	Historic water quality data, used as part of the Shawano Lake Watershed Assessment (UW Stevens Point - Center for Watershed Science and Education 2008), indicate that total phosphorous levels exceeded the	Lindsey Albright	02/04/2015	

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Title	Description	Author	Published	Comments
	impaired listing threshold in several of the tributaries to Shawano Lake. DNR staff and WAV volunteers began collecting total phosphorus data for these streams in 2013 and have continued in 2014 to fill any remaining data gaps.			

### Budget

**Budget Description:** January-June

**Start Date:** 01/01/2014

**End Date:** 06/30/2014

Code	Description	Quantity	Units	Unit Cost	Total Cost	Comments
FTE	FTE Hours	70	Hours	\$0.00	\$0.00	
LTE SAL	LTE Salary	30	Hours	\$13.00	\$390.00	
LTE FR	LTE Fringe				\$96.33	
LTE IND	LTE Indirect				\$78.64	
LTE TOT	LTE Total Cost				\$564.97	
SUPPLY	Supplies	3		\$25.00	\$75.00	Shipping
EQUIP	Equipment				\$0.00	
MILEAGE	Mileage	320	Miles	\$0.72	\$230.40	
MEAL	Meals	10	Meals	\$10.00	\$100.00	
LODGE	Lodging				\$0.00	
TRAVEL	Travel Total				\$330.40	
BUG	Bug Contracts				\$0.00	
OTHER	Other Contracts				\$0.00	
USGS	USGS Costs				\$0.00	
TOTAL	Total Cost (excludes SLOH)				\$970.37	

Test Code	Description	Test Group	# Planned	Unit Cost	Total Cost
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**Total SLOH Lab Costs:** \$0.00

**Total Budget:** \$970.37

**Budget Description:** July-December

**Start Date:** 07/01/2014

**End Date:** 12/31/2014

Code	Description	Quantity	Units	Unit Cost	Total Cost	Comments
FTE	FTE Hours	70	Hours	\$0.00	\$0.00	
LTE SAL	LTE Salary	40	Hours	\$13.00	\$520.00	
LTE FR	LTE Fringe				\$128.44	
LTE IND	LTE Indirect				\$104.85	
LTE TOT	LTE Total Cost				\$753.29	
SUPPLY	Supplies	7		\$25.00	\$175.00	Shipping
EQUIP	Equipment				\$0.00	
MILEAGE	Mileage	320	Miles	\$0.72	\$230.40	
MEAL	Meals	10	Meals	\$10.00	\$100.00	
LODGE	Lodging				\$0.00	
TRAVEL	Travel Total				\$330.40	
BUG	Bug Contracts	6		\$180.00	\$1,080.00	
OTHER	Other Contracts				\$0.00	

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Code	Description	Quantity	Units	Unit Cost	Total Cost	Comments
USGS	USGS Costs				\$0.00	
TOTAL	Total Cost (excludes SLOH)				\$2,338.69	

Test Code	Description	Test Group	# Planned	Unit Cost	Total Cost
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**Total SLOH Lab Costs:** \$0.00

**Total Budget:** \$2,338.69

**Combined Budgets:** \$3,309.06

**Combined SLOH:** \$0.00

**Combined Total:** \$3,309.06

### Funding

Organization	Source	Type	Amount	Start Date	End Date
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