

Wisconsin Department of Natural Resources SWIMS Project Summary

General Project Information

Project ID:	NOR_19_CMP13B
Name:	Lake St. Croix TMDL tributary monitoring (Clam, Yellow, Wood Rivers) - NOR_19_CMP13B
Type:	Competitive Projects
Subtype:	TMDL Monitoring
Status:	COMPLETE
Start Date:	1/1/2013
End Date:	12/31/2013
Purpose:	A TMDL has been developed for Lake St. Croix by the St. Croix Inter-agency Basin Team. Team partners include the MNPCA, MNDNR, NPS, USGS, WIDNR, and Metropolitan Council Environmental Services. Multiple tributaries are being monitored by team partners to provide nutrient loading estimates and basic water quality information. The WIDNR monitored the Clam, Yellow, and Wood Rivers for nutrient concentrations and flows during late 2011 and early 2012 to contribute to the TMDL effort by providing nutrient loading estimates from these three tributaries. Monitoring would continue in 2013 to provide an adequate base of data to produce reliable loading estimates for these three streams. This data is needed for TMDL implementation.
Objective:	Reliable nutrient loading estimates are needed for St. Croix River tributaries to allow implementation of the Lake St. Croix TMDL. Sites near the mouths of the 3 rivers will be monitored. Clam R. WBIC is 2654200. Yellow R. WBIC is 2670300. Wood R. WBIC is 2642900. Samples will be tested for total phosphorus, total nitrogen, and suspended solids. Field measurements will be temp., D.O., conductivity, pH, and transparency. Flow data will be obtained from the dams near the mouths of the Yellow and Clam Rivers. Flow data from the Clam River will be extrapolated to the Wood River. Occasional in stream flow measurements will also be made. Samples will be collected on 20 dates during March through December, 2013. 75% of samples will be targeted to high flow periods. This monitoring strategy is recommended by MPCA and is also being used for Minnesota tributaries. Nutrient loads will be estimated with the FLUX32 model, which is also being used by MPCA.
Comments:	This has been determined to be a new project.
Outcome:	Data collected will be compiled into a report that will also provide nutrient loading estimates for the streams.
Study Design:	see above.
QA Measures:	

People

Name	Role	Status	Start Date	End Date	Organization	Comments
CUNNINGHAM, JOSEPH L	COORDINATOR	ACTIVE	1/1/2012	12/31/2012	Wisconsin DNR	
HAGEN, CHERIE L	SUPERVISOR	COMPLETE	1/1/2013	12/31/2013	Wisconsin DNR	
HAYES, JASON M	COORDINATOR	ACTIVE	1/1/2012	12/31/2012	Wisconsin DNR	
LAVIGNE, CLIFFORD R	COORDINATOR	ACTIVE	1/1/2012	12/31/2012	Wisconsin DNR	
Roesler, Craig P	COORDINATOR	COMPLETE	1/1/2012	12/31/2012	Wisconsin DNR	

Project Statuses

Date	Reported By	Status	Comments
2/1/2013	RUTH PERSON	Proposed	
10/18/2013	Craig Roesler	Progress: 50-75% Complete	Field monitoring is still underway and will be completed by Dec. 31st, 2013. Nutrient loading estimates for the 3 streams and a final report is expected to be completed by June 30, 2014
6/19/2014	Craig Roesler	Progress: 75-100% Complete	Monitoring completed. Data nearly all developed. Ran out of time to finalize the report last winter. Final report expected in winter of 2014-15.

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11/25/2014	Craig Roesler	Progress: 75-100% Complete	See previous status comments. Final report will be completed by spring 2015.
11/25/2016	Craig Roesler	Complete	final report completed and attached to project in SWIMS

Project Status Detail

Answer Set: DEFAULT

Question	Answer
1. Number of Sample Sites (Enter the station IDs if you know them).	3
2. Number of Sample Events (Indicate how many trips into the field you anticipate for this project).	20
3. Proposed Dates for Sample Collection	tbd
4. List applicable databases and who will enter data?	SWIMS, entry by one of coordinators
5. Did you receive competitive projects funding in the previous year?	No
6. If yes to question 5, did you complete the projects including data entry and reports as necessary? If not, why not?	I completed data entry and reports from projects in previous years
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 Date	End Date	Status
TMDL Monitoring	During 2008, the WDNR worked cooperatively with the St. Croix Watershed Research Station to develop a TMDL planning initiative in the Willow River Watershed. This plan is near completion. In order to achieve a 20% reduction of phosphorus to the St. Croix River, phosphorus reduction in the uplands is needed to meet the goal reduction.	12/31/2012	2/29/2028	IN_PROGRESS

Details: Parameter	Value/Amount	Units	Comments
Total Phosphorus	Y	Y/N	Lake Mallalieu TMDL
Total Suspended Solids	Y	Y/N	Lake Mallalieu TMDL

Monitoring Stations

Station ID	Name	Comments
073105	Clam River - Upstream Of Confluence With St Croix River	
10039822	Clam River below lowest dam	
073030	Wood River At West River Road (1 Mi Above St Croix R)	
10029531	Yellow River at STH35 (10 meters downstream)	

Assessment Units

WBIC	Segment	Local Name	Official Name
2607100	1	Mallalieu Lake	Mallalieu Lake
2642900	1	Wood River	Wood River
2654200	1	Clam River	Clam River
2670300	1	Yellow River	Yellow River

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Lab Account Codes

Account Code	Description	Start Date	End Date
WT161	EVALUATION MONITORING	5/10/2012	6/30/2014

Forms

Form Code	Form Name
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Methods

Method Code	Method Description
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Fieldwork Events

Start Date	Status	Field ID	Station ID	Station Name
4/4/2013 10:00	COMPLETE	YE-1	10029531	Yellow River at STH35 (10 meters downstream)
4/4/2013 11:00	COMPLETE	CL-2	10039822	Clam River below lowest dam
4/4/2013 12:00	COMPLETE	WO-3	073030	Wood River At West River Road (1 Mi Above St Croix R)
4/16/2013 12:50	COMPLETE	YE-1	10029531	Yellow River at STH35 (10 meters downstream)
4/16/2013 13:45	COMPLETE	CL-2	10039822	Clam River below lowest dam
4/16/2013 14:45	COMPLETE	WO-3	073030	Wood River At West River Road (1 Mi Above St Croix R)
4/25/2013 13:00	COMPLETE	YE-01	10029531	Yellow River at STH35 (10 meters downstream)
4/25/2013 14:00	COMPLETE	CL-02	10039822	Clam River below lowest dam
4/26/2013 15:00	COMPLETE	WO-03	073030	Wood River At West River Road (1 Mi Above St Croix R)
5/20/2013 12:00	COMPLETE	YE-01	10029531	Yellow River at STH35 (10 meters downstream)
5/20/2013 13:15	COMPLETE	CL-02	073105	Clam River - Upstream Of Confluence With St Croix River
5/20/2013 14:15	COMPLETE	WO-03	073030	Wood River At West River Road (1 Mi Above St Croix R)
5/31/2013 12:30	COMPLETE	YE-01	10029531	Yellow River at STH35 (10 meters downstream)
5/31/2013 13:30	COMPLETE	CL-02	10039822	Clam River below lowest dam
5/31/2013 14:30	COMPLETE	WO-03	073030	Wood River At West River Road (1 Mi Above St Croix R)
6/21/2013 12:15	COMPLETE	YE-01	10029531	Yellow River at STH35 (10 meters downstream)
6/21/2013 13:15	COMPLETE	CL-02	10039822	Clam River below lowest dam
6/21/2013 14:15	COMPLETE	WO-3	073030	Wood River At West River Road (1 Mi Above St Croix R)
8/14/2013 12:45	COMPLETE	YR01	10029531	Yellow River at STH35 (10 meters downstream)
8/14/2013 13:40	COMPLETE	CR02	10039822	Clam River below lowest dam
8/14/2013 14:40	COMPLETE	WR03	073030	Wood River At West River Road (1 Mi Above St Croix R)
8/27/2013 11:15	COMPLETE	YR-1	10029531	Yellow River at STH35 (10 meters downstream)
8/27/2013 12:15	COMPLETE	CR-2	10039822	Clam River below lowest dam
8/27/2013 13:30	COMPLETE	WR-2	073030	Wood River At West River Road (1 Mi Above St Croix R)
9/11/2013 10:45	COMPLETE	YR-1	10029531	Yellow River at STH35 (10 meters downstream)

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9/11/2013 12:15	COMPLETE	CR-2	10039822	Clam River below lowest dam
9/11/2013 13:40	COMPLETE	WR-3	073030	Wood River At West River Road (1 Mi Above St Croix R)
9/20/2013 12:15	COMPLETE	YR-1	10029531	Yellow River at STH35 (10 meters downstream)
9/20/2013 13:20	COMPLETE	CR-2	10039822	Clam River below lowest dam
9/20/2013 14:30	COMPLETE	WR-3	073030	Wood River At West River Road (1 Mi Above St Croix R)
10/3/2013 11:45	COMPLETE	YR-01	10029531	Yellow River at STH35 (10 meters downstream)
10/3/2013 12:40	COMPLETE	CR-02	10039822	Clam River below lowest dam
10/3/2013 13:50	COMPLETE	WR-03	073030	Wood River At West River Road (1 Mi Above St Croix R)
10/7/2013 9:50	COMPLETE	YR-04	10029531	Yellow River at STH35 (10 meters downstream)
10/7/2013 11:55	COMPLETE	CR-05	10039822	Clam River below lowest dam
10/7/2013 13:40	COMPLETE	WR-06	073030	Wood River At West River Road (1 Mi Above St Croix R)
10/16/2013 9:45	COMPLETE	YR-01	10029531	Yellow River at STH35 (10 meters downstream)
10/16/2013 11:45	COMPLETE	CR-02	10039822	Clam River below lowest dam
10/16/2013 13:08	COMPLETE	WR-03	073030	Wood River At West River Road (1 Mi Above St Croix R)
10/21/2013 12:00	COMPLETE	YR-01	10029531	Yellow River at STH35 (10 meters downstream)
10/21/2013 13:10	COMPLETE	CR-02	10039822	Clam River below lowest dam
10/21/2013 14:15	COMPLETE	WR-02	073030	Wood River At West River Road (1 Mi Above St Croix R)
12/20/2013 11:30	COMPLETE	WO-1	073030	Wood River At West River Road (1 Mi Above St Croix R)
12/20/2013 12:30	COMPLETE	CL-2	10039822	Clam River below lowest dam
12/20/2013 13:30	COMPLETE	YE-3	10029531	Yellow River at STH35 (10 meters downstream)

Documents

Title	Description	Author	Published	Comments
Clam, Wood, and Yellow River Water Quality and Nutrient and Sediment Loads to the St. Croix River		Craig Roesler	11/25/2016	
Clam, Wood, and Yellow Rivers Load Report, Appendix A.		Craig Roesler	11/25/2016	

Budget

**Wisconsin Department of Natural Resources
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Budget Description: Jan-June 2013

Start Date:

End Date:

Code	Description	Quantity Units	Unit Cost	Total Cost	Comments
FTE	FTE Hours	50 Hours	\$0.00	\$0.00	
LTE SAL	LTE Salary	120 Hours	\$13.00	\$1,560.00	
LTE FR	LTE Fringe			\$385.32	
LTE IND	LTE Indirect			\$314.56	
LTE TOT	LTE Total Cost			\$2,259.88	
SUPPLY	Supplies	1	\$300.00	\$300.00	shipping
EQUIP	Equipment			\$0.00	
MILEAGE	Mileage	2420 Miles	\$0.48	\$1,161.60	
MEAL	Meals	12 Meals	\$9.00	\$108.00	
LODGE	Lodging			\$0.00	
TRAVEL	Travel Total			\$1,269.60	
BUG	Bug Contracts			\$0.00	
OTHER	Other Contracts			\$0.00	
USGS	USGS Costs			\$0.00	
TOTAL	Total Cost (excludes SLOH)			\$3,829.48	

Test Code	Description	Test Group	# Planned	Unit Cost	Total Cost
I466ALT	TOTAL NITROGEN(ASN)(SM4500-N)	INORGANIC CHEMISTRY	10	\$26.00	\$260.00
I520PLT	TOTAL PHOSPHORUS (AS P) (EPA 365.1)	INORGANIC CHEMISTRY	10	\$23.60	\$236.00
I650JLT	SUSPENDED SOLIDS (EPA METHOD 160.2)	INORGANIC CHEMISTRY	10	\$18.80	\$188.00
I720BLT	FIELD TESTS	INORGANIC CHEMISTRY	10	\$6.36	\$63.60

Total WSLH Lab Costs: \$747.60

Total Budget: \$4,577.08

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Budget Description: July-December 2013	Start Date:	End Date:
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Code	Description	Quantity Units	Unit Cost	Total Cost	Comments
FTE	FTE Hours	50 Hours	\$0.00	\$0.00	
LTE SAL	LTE Salary	120 Hours	\$13.00	\$1,560.00	
LTE FR	LTE Fringe			\$385.32	
LTE IND	LTE Indirect			\$314.56	
LTE TOT	LTE Total Cost			\$2,259.88	
SUPPLY	Supplies	1	\$300.00	\$300.00	shipping
EQUIP	Equipment			\$0.00	
MILEAGE	Mileage	2420 Miles	\$0.48	\$1,161.60	
MEAL	Meals	12 Meals	\$9.00	\$108.00	
LODGE	Lodging			\$0.00	
TRAVEL	Travel Total			\$1,269.60	
BUG	Bug Contracts			\$0.00	
OTHER	Other Contracts			\$0.00	
USGS	USGS Costs			\$0.00	
TOTAL	Total Cost (excludes SLOH)			\$3,829.48	

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I720BLT	FIELD TESTS	INORGANIC CHEMISTRY	10	\$6.36	\$63.60

Total WSLH Lab Costs: \$747.60

Total Budget: \$4,577.08

Combined Budgets: \$7,658.96

Combined WSLH: \$1,495.20

Combined Total: \$9,154.16

Funding					
Organization	Source	Type	Amount	Start Date	End Date