

Wisconsin Department of Natural Resources SWIMS Project Summary

General Project Information

Project ID: NER_10_CMP14
Name: Lake Winnebago - Pool Lakes: Phosphorus load estimate validation / refinement - NER_10_CMP14
Type: Competitive Projects
Subtype: Undetermined
Status: ACTIVE
Start Date: 12/31/2013
End Date: 12/31/2014
Purpose: A TMDL for the Lake Winnebago system is currently being developed. Phosphorus load estimates along with lake internal loading estimates are largely based on phosphorus data collected from Berlin (Fox River - 117900) and New London (Wolf River - 241300). These two stations are 33 and 20 miles away from the Pool Lakes, respectively. Due to these large distances, significant loading sources were missed including the Rat River (251800) which is a 303 (d) water. Additional sampling is necessary to validate the current loading estimates.

Objective: A secondary purpose for this project is to help determine what percentage of phosphorus entering Lake Winnebago, via the Pool Lakes, is from internal loading versus watershed sources.
 1. Validate phosphorus loading estimates from both the Fox and Wolf River Systems to the Lake Winnebago Pool Lakes;
 2. Determine the percentage of phosphorus, from internal loading versus watershed, that enters Lake Winnebago via the Pool Lakes;
 3. Determine proportionally, whether the sources of phosphorus entering the pool lakes via the Fox / Wolf are organic versus inorganic.

Comments: TMDL is on-going

Outcome: This project will help determine phosphorus loading totals from the Fox / Wolf River systems to the Lake Winnebago - Pool Lakes. In addition, internal loading estimates from the Pool Lakes to Lake Winnebago can be adjusted to more accurately account for true environmental conditions. Lastly, a better proportional understanding of phosphorus sources via the watershed will be determined (organic versus inorganic).

Study Design:
QA Measures:

People

Name	Role	Status	Start Date	End Date	Organization	Comments
EVENSEN, ERIC D	COORDINATOR	COMPLETE	12/31/2013	12/31/2014	Wisconsin DNR	
Johnson, Theodore M	COORDINATOR	COMPLETE	12/31/2013	12/31/2104	Wisconsin DNR	
McLennan, Robin	SUPERVISOR	COMPLETE	12/31/2013	12/31/2104	Wisconsin DNR	

Project Statuses

Date	Reported By	Status	Comments
12/17/2013	ERIC EVENSEN	Proposed	
04/28/2014	ERIC EVENSEN	Progress: 0-25% Complete	Everything is on track and sampling will begin any day. Sampling will continue through september and final report should be submitted by December 31st, 2014.
10/09/2014	ERIC EVENSEN	Progress: 25-50% Complete	Two more sampling events are still scheduled but sampling should be completed by the end of October. Data analysis and report writing will begin after all data is collected.
12/09/2014	ERIC EVENSEN	Progress: 50-75% Complete	All sampling is complete. Data is being analyzed and a final report is in the works.
02/01/2016	ERIC EVENSEN	Progress: 75-100% Complete	Final Report in progress

Project Status Detail

Answer Set: DEFAULT

Question	Answer
1. Number of Sample Sites (Enter the station IDs if you know them).	Two: 10022804, 10041515
2. Number of Sample Events (Indicate how many trips into the field you anticipate for this project).	April - September (2x monthly) 12 sampling events

Wisconsin Department of Natural Resources SWIMS Project Summary

Question	Answer
3. Proposed Dates for Sample Collection	April - September (2x monthly)
4. List applicable databases and who will enter data?	Swims database Eric Evensen Ted Johnson
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?	yes
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
TMDL Development	A TMDL for the Lake Winnebago system is currently being developed. Phosphorus load estimates along with lake internal loading estimates are largely based on phosphorus data collected from Berlin (Fox River - 117900) and New London (Wolf River - 241300). These two stations are 33 and 20 miles away from the Pool Lakes, respectively. Due to these large distances, significant loading sources were missed including the Rat River (251800) which is a 303 (d) water. Additional sampling is necessary to validate the current loading estimates. A secondary purpose for this project is to help determine what percentage of phosphorus entering Lake Winnebago, via the Pool Lakes, is from internal loading versus watershed sources.	12/31/2013	12/31/2014	COMPLETE

Details:	Parameter	Value/Amount	Units	Comments
	Temperature			
	Total Nitrogen			
	Total Phosphorus			
	Total Suspended Solids			

Monitoring Stations

Station ID	Name	Comments
10022804	Butte Des Morts Up	
10041756	Lake Butte des Morts - Outlet	
10041515	Wolf River 1.43 mi US of confluence w Lake Poygan	

Assessment Units

WBIC	Segment	Local Name	Official Name
105500	1	Lou'S Quarry	Lous Quarry
105500	2	Lou'S Quarry	Lous Quarry
113400	1	Unnamed Lake	Unnamed
114100	1	Unnamed Lake	Unnamed
114200	1	Unnamed Lake	Unnamed
114300	1	Unnamed Lake	Unnamed

Wisconsin Department of Natural Resources SWIMS Project Summary

WBIC	Segment	Local Name	Official Name
114400	1	Un Lake	Unnamed
114500	1	Un Lake	Unnamed
115000	1	Un Lake	Unnamed
115100	1	Un Lake	Unnamed
117900	3	Lower Fox River (Appleton Dam To L. Winnebago Outlet)	Fox River
117900	4	Fox River (At Oshkosh)	Fox River
117900	7	Fox River	Fox River
117900	14	Fox River (Winnebago to Butte des Morts)	Fox River
129500	1	Mud Creek	Mud Creek
129600	1	Unnamed Stream	Unnamed
129800	1	Little Lake Butte Des Morts	Little Lake Butte Des Morts
129800	2	Little Lake Butte Des Morts -- Menasha - Fritze Park Beach Access	Little Lake Butte Des Morts
129800	3	Little Lake Butte Des Morts (Herb and Dolly Smith Park Beach Access)	Little Lake Butte Des Morts
130500	1	Little Lake Butte Des Morts Tributary	Unnamed
130600	1	Neenah Channel	Neenah Channel
130800	1	Neenah Slough	Neenah Slough
130800	2	Neenah Slough	Neenah Slough
130800	3	Neenah Slough	Neenah Slough
130900	1	Unnamed Stream	Unnamed
131100	1	Lake Winnebago	Lake Winnebago
131100	3	Menominee Park Beach	Lake Winnebago
131100	4	Lake Winnebago - Fresh Air Park Beach	Lake Winnebago
131650	1	Unnamed Trib to Lk Winnebago	Unnamed
131800	1	Unamed	Unnamed
132200	1	Paukotuk-Candlish Creek	Unnamed
132300	1	Local Water	Unnamed
132400	1	Local Water	Unnamed
132600	1	Van Dyne Creek	Van Dyne Creek
132600	2	Van Dyne Creek	Van Dyne Creek
139600	1	Unnamed Lake	Unnamed
139700	1	Campbell Creek	Campbell Creek
139800	1	Sawyer Creek	Sawyer Creek
139800	2	Sawyer Creek	Sawyer Creek
139900	1	Lake Butte Des Morts	Lake Butte des Morts
140000	1	Unamed	Unnamed
140100	1	Honey Creek	Unnamed
140125	1	Unnamed Stream	Unnamed
140200	1	Daggets Creek	Daggets Creek
140200	2	Daggets Creek	Daggets Creek
140300	1	Spring Brook	Spring Brook
140300	2	Spring Brook	Spring Brook
140300	3	Spring Brook	Spring Brook
140500	1	Hogers Bayou (Martin)	Hogers Bayou
140700	1	Waukau Creek	Waukau Creek
140700	2	Waukau Creek	Waukau Creek
140900	2	Fisk Creek	Eightmile Creek

Wisconsin Department of Natural Resources SWIMS Project Summary

WBIC	Segment	Local Name	Official Name
141400	1	Rush Lake	Rush Lake
141500	1	Local Water	Unnamed
141600	1	Henderson Creek	Henderson Creek
142000	2	Unamed	Unnamed
142200	1	Un Lake	Unnamed
142700	1	Un Lake	Unnamed
191000	1	Little Twin Lake	Little Twin Lake
202200	1	Un Lake	Unnamed
202300	1	Un Lake	Unnamed
241300	1	Wolf River-Main Stem	Wolf River
241300	2	Wolf River-Main Stem	Wolf River
241400	1	Local Water	Unnamed
241500	1	Un Lake	Unnamed
241600	1	Winneconne Lake	Lake Winneconne
241700	1	Arrowhead River	Arrowhead River
241700	2	Arrowhead River	Arrowhead River
241800	1	Unnamed Stream	Unnamed
242800	1	Poygan Lake	Lake Poygan
243100	1	Alder Creek	Alder Creek
243100	3	Lake Poygan Access near Alder Creek	Alder Creek
243100	4	Alder Creek (Alder Creek Beach/Access at Bay Lane and Lake Poygan)	Alder Creek
243300	1	Pumpkinseed Creek	Pumpkinseed Creek
243300	2	Pumpkinseed Creek	Pumpkinseed Creek
243500	1	Local Water	Unnamed
251700	1	Pages Slough (L. Poygan)	Pages Slough
251800	1	Rat River	Rat River
251800	2	Rat River	Rat River
251900	1	Trib to Rat River	Unnamed
252000	1	Local Water	Unnamed
252200	1	Un Creek (T20n-R15e-S02)	Unnamed
252400	1	Unnamed Trib (WBIC=252400) to Rat River at Pioneer Rd	Unnamed
252900	1	Local Water	Unnamed
3000092	1	Local Water	Unnamed
3000093	1	Unnamed trib to Lake Winnebago	Unnamed
3000094	1	Local Water	Unnamed
5021978	1	Unnamed Stream	Unnamed
5023067	1	Unnamed Stream	Unnamed
5023168	1	Unnamed Stream	Unnamed
5023288	1	Unnamed Stream	Unnamed
5023547	1	Lake Butte Des Morts Trib	Unnamed
5023696	1	Unnamed Stream	Unnamed
5023934	1	Unnamed Stream	Unnamed
5023996	1	Unnamed Stream	Unnamed
5024572	1	Unnamed Stream	Unnamed
5024991	1	Unnamed Stream	Unnamed
5025161	1	Unnamed Stream	Unnamed

Wisconsin Department of Natural Resources SWIMS Project Summary

WBIC	Segment	Local Name	Official Name
5025166	1	Unnamed Stream	Unnamed
5025181	1	Unamed	Unnamed
5025263	1	Unnamed Stream	Unnamed
5025327	1	Unnamed Stream	Unnamed
5025336	1	Unnamed Trib to Fox R	Unnamed
5025342	1	Unnamed Stream	Unnamed
5025371	1	Unnamed Stream	Unnamed
5025582	1	Unnamed Stream	Unnamed
5025698	1	Unnamed Stream	Unnamed
5025733	1	Unnamed Stream	Unnamed
5025747	1	Unnamed Stream	Unnamed
5025803	1	Unnamed Stream	Unnamed
5025813	1	Unnamed Stream	Unnamed
5025978	1	Local Water	Unnamed
5026080	1	Unnamed Stream	Unnamed
5026108	1	Unnamed Stream	Unnamed
5026127	1	Local Water	Unnamed
5026143	1	Unnamed Stream	Unnamed
5026284	1	Unnamed Stream	Unnamed
5553444	1	Local Water	Unnamed
5553706	1	Unamed	Unnamed
5553829	1	Local Water	Unnamed
5554212	1	Local Water	Unnamed
5554225	1	Local Water	Unnamed
5555027	1	Local Water	Unnamed
5555055	1	Local Water	Unnamed
5555139	1	Local Water	Unnamed
5555217	1	Local Water	Unnamed
5555273	1	Local Water	Unnamed
5555277	1	Local Water	Unnamed
5555300	1	Local Water	Unnamed
5555340	1	Local Water	Unnamed
5555983	1	Local Water	Unnamed
5556066	1	Local Water	Unnamed
5556139	1	Local Water	Unnamed
5556153	1	Local Water	Unnamed
5556610	1	Local Water	Unnamed
5556614	1	Local Water	Unnamed
5556614	2	Winnebago County Community Swim Area	Unnamed
5556638	1	Local Water	Unnamed
5556983	1	Local Water	Unnamed
5557984	1	Unnamed	Unnamed
5558060	1	Local Water	Unnamed
5558111	1	Local Water	Unnamed
5558704	1	Local Water	Unnamed
5558873	1	Local Water	Unnamed
5558939	1	Local Water	Unnamed
5558969	1	Local Water	Unnamed

Wisconsin Department of Natural Resources SWIMS Project Summary

WBIC	Segment	Local Name	Official Name
5559003	1	Local Water	Unnamed
5559088	1	Local Water	Unnamed
5559435	1	Local Water	Unnamed
5559494	1	Local Water	Unnamed
5559495	1	Local Water	Unnamed
5559546	1	Local Water	Unnamed
5559579	1	Local Water	Unnamed
5559584	1	Local Water	Unnamed
5559587	1	Local Water	Unnamed
5559650	1	Local Water	Unnamed
5559730	1	Local Water	Unnamed
5559780	1	Local Water	Unnamed
5559796	1	Local Water	Unnamed
5559815	1	Local Water	Unnamed
5559829	1	Local Water	Unnamed
5560161	1	Local Water	Unnamed
5560272	1	Local Water	Unnamed
5560324	1	Local Water	Unnamed
5560597	1	Local Water	Unnamed
5560628	1	Local Water	Unnamed
5582469	1	Local Water	Unnamed
5582472	1	Local Water	Unnamed
5582481	1	Local Water	Unnamed
5582512	1	Local Water	Unnamed
5582530	1	Local Water	Unnamed
5582531	1	Local Water	Unnamed
5582578	1	Local Water	Unnamed
5586849	1	Local Water	Unnamed
5587127	1	Local Water	Unnamed
5587159	1	Local Water	Unnamed
5587394	1	Unnamed Lake	Unnamed
5587404	1	Local Water	Unnamed
5587405	1	Local Water	Unnamed
5589870	1	Local Water	Unnamed
5589871	1	Local Water	Unnamed
5591211	1	Local Water	Unnamed
5591213	1	Local Water	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
-----------	-----------

Methods

Method Code	Description
-------------	-------------

Wisconsin Department of Natural Resources SWIMS Project Summary

Fieldwork Events

Start Date	Status	Field ID	Station ID	Station Name
04/30/2014 10:21	COMPLETE	99298524	10041515	Wolf River 1.43 mi US of confluence w Lake Poygan
04/30/2014 11:50	COMPLETE	99298516	10022804	Butte Des Morts Up
04/30/2014 12:49	COMPLETE	99298520	10041756	Lake Butte des Morts - Outlet
06/09/2014 10:50	COMPLETE	WOLF-IN	10041515	Wolf River 1.43 mi US of confluence w Lake Poygan
06/09/2014 12:15	COMPLETE	FOX-IN	10022804	Butte Des Morts Up
06/09/2014 13:30	COMPLETE	BUTTE DES MORTS	10041756	Lake Butte des Morts - Outlet
06/16/2014 11:00	COMPLETE	WOLF-IN	10041515	Wolf River 1.43 mi US of confluence w Lake Poygan
06/16/2014 13:00	COMPLETE	FOX-IN	10022804	Butte Des Morts Up
06/16/2014 14:15	COMPLETE	BUTTE DES MORTS	10041756	Lake Butte des Morts - Outlet
06/24/2014 11:00	COMPLETE	WOLF-IN	10041515	Wolf River 1.43 mi US of confluence w Lake Poygan
06/24/2014 12:45	COMPLETE	FOX-IN	10022804	Butte Des Morts Up
06/24/2014 15:00	COMPLETE	BUTTE DES MORTS	10041756	Lake Butte des Morts - Outlet
07/08/2014 11:00	COMPLETE	WOLF-IN	10041515	Wolf River 1.43 mi US of confluence w Lake Poygan
07/08/2014 12:15	COMPLETE	FOX-IN	10022804	Butte Des Morts Up
07/08/2014 13:45	COMPLETE	BUTTE DES MORTS	10041756	Lake Butte des Morts - Outlet
07/22/2014 10:30	COMPLETE	WOLF-IN	10041515	Wolf River 1.43 mi US of confluence w Lake Poygan
07/22/2014 11:45	COMPLETE	FOX-IN	10022804	Butte Des Morts Up
07/22/2014 12:40	COMPLETE	BUTTE DES MORTS	10041756	Lake Butte des Morts - Outlet
08/06/2014 10:00	COMPLETE	WOLF-IN	10041515	Wolf River 1.43 mi US of confluence w Lake Poygan
08/06/2014 11:45	COMPLETE	FOX-IN	10022804	Butte Des Morts Up
08/06/2014 13:15	COMPLETE	BUTTE DES MORTS	10041756	Lake Butte des Morts - Outlet
08/18/2014 11:20	COMPLETE	WOLF-IN	10041515	Wolf River 1.43 mi US of confluence w Lake Poygan
08/18/2014 12:00	COMPLETE	FOX-IN	10022804	Butte Des Morts Up
08/18/2014 15:30	COMPLETE	BUTTE DES MORTS	10041756	Lake Butte des Morts - Outlet
09/08/2014 10:35	COMPLETE	WOLF RIVER	10041515	Wolf River 1.43 mi US of confluence w Lake Poygan
09/08/2014 12:00	COMPLETE	BUTTE DES MORTS	10022804	Butte Des Morts Up
09/08/2014 13:00	COMPLETE	BUTTE DES MORTS	10041756	Lake Butte des Morts - Outlet
10/01/2014 11:45	COMPLETE	WOLF RIVER	10041515	Wolf River 1.43 mi US of confluence w Lake Poygan
10/01/2014 13:45	COMPLETE	BUTTE DES MORTS	10022804	Butte Des Morts Up
10/01/2014 14:45	COMPLETE	BUTTE DES MORTS	10041756	Lake Butte des Morts - Outlet
10/13/2014	COMPLETE		10041515	Wolf River 1.43 mi US of confluence w Lake Poygan
10/13/2014	COMPLETE		10022804	Butte Des Morts Up
10/13/2014	COMPLETE		10041756	Lake Butte des Morts - Outlet
10/28/2014	COMPLETE		10041756	Lake Butte des Morts - Outlet
10/28/2014	COMPLETE		10022804	Butte Des Morts Up
10/28/2014	COMPLETE		10041515	Wolf River 1.43 mi US of confluence w Lake Poygan

Documents

Title	Description	Author	Published	Comments
-------	-------------	--------	-----------	----------

Budget

Budget Description: July - Dec '14

Start Date:

End Date:

Code	Description	Quantity	Units	Unit Cost	Total Cost	Comments
FTE	FTE Hours	88	Hours	\$0.00	\$0.00	
LTE SAL	LTE Salary	88	Hours	\$13.13	\$1,155.44	
LTE FR	LTE Fringe				\$285.39	
LTE IND	LTE Indirect				\$232.98	

Wisconsin Department of Natural Resources SWIMS Project Summary

Code	Description	Quantity	Units	Unit Cost	Total Cost	Comments
LTE TOT	LTE Total Cost				\$1,673.82	
SUPPLY	Supplies				\$0.00	
EQUIP	Equipment				\$0.00	
MILEAGE	Mileage	240	Miles	\$0.72	\$172.80	
MEAL	Meals	12	Meals	\$6.00	\$72.00	
LODGE	Lodging				\$0.00	
TRAVEL	Travel Total				\$244.80	
BUG	Bug Contracts				\$0.00	
OTHER	Other Contracts				\$0.00	
USGS	USGS Costs				\$0.00	
TOTAL	Total Cost (excludes SLOH)				\$1,918.62	

Test Code	Description	Test Group	# Planned	Unit Cost	Total Cost
Total SLOH Lab Costs:				\$0.00	
Total Budget:				\$1,918.62	

Budget Description: Jan - June '14 **Start Date:** 01/01/2014 **End Date:** 06/30/2014

Code	Description	Quantity	Units	Unit Cost	Total Cost	Comments
FTE	FTE Hours	48	Hours	\$0.00	\$0.00	
LTE SAL	LTE Salary	48	Hours	\$13.13	\$630.24	
LTE FR	LTE Fringe				\$155.67	
LTE IND	LTE Indirect				\$127.08	
LTE TOT	LTE Total Cost				\$912.99	
SUPPLY	Supplies	1		\$270.00	\$270.00	batteries, shipping of samples, boat gas
EQUIP	Equipment	1		\$250.00	\$250.00	GPS
MILEAGE	Mileage	240	Miles	\$0.72	\$172.80	
MEAL	Meals	12	Meals	\$6.00	\$72.00	
LODGE	Lodging				\$0.00	
TRAVEL	Travel Total				\$244.80	
BUG	Bug Contracts				\$0.00	
OTHER	Other Contracts				\$0.00	
USGS	USGS Costs				\$0.00	
TOTAL	Total Cost (excludes SLOH)				\$1,677.79	

Test Code	Description	Test Group	# Planned	Unit Cost	Total Cost
Total SLOH Lab Costs:				\$0.00	
Total Budget:				\$1,677.79	

Combined Budgets: \$3,596.41
Combined SLOH: \$0.00
Combined Total: \$3,596.41

Wisconsin Department of Natural Resources SWIMS Project Summary

Funding

Organization	Source	Type	Amount	Start Date	End Date
--------------	--------	------	--------	------------	----------