Wisconsin Department of Natural Resources
SWIMS Project Summary

General Project Information

Project ID: South_TWA_4_2014

Name: Taylor Creek-Sugar R. TWA WQM Plan , 2017

Type: Targeted Watershed Approach

Subtype: Planning (WQ, Nine Key Element)

Status: COMPLETE

Start Date: 1/1/2014

End Date: 12/31/2014

Purpose: This project involved monitoring the contemporary status of streams from two subwatersheds in the Lower Sugar River watershed as well has evaluation of the overall health of these watersheds. The department needs current fish, habitat, and macroinvertebrate data for streams in these watersheds. Volunteers have already collected phosphorus and temperature data at several sites in these watersheds. The data will be used to determine whether these streams are achieving their attainable use in order to update the watershed tables, list waters that are not meeting their attainable use, and assess the overall health of the watersheds as required by Section 303(d) of the Clean Water Act. The data, in conjunction with observations about watershed health, will be used to guide planning for improvements where needed.

A newly formed watershed organization has been collecting water chemistry data from some streams in the watershed already. An industrial discharger is interested in doing watershed projects and possibly PT/AM in the watershed.

Objective: Data gathered for this project will be used to update the watershed plan and streams narratives in the State of the Basin report. It will also be used to update information related to impaired waters listings.

The project will also help the local watershed association and other interested organizations determine where best management actions are most effective.

Comments:

Outcome: Fisheries, habitat, and macroinvertebrate date will be collected on 15 sites in the two targetted HUC 12s.

Data will be collected during the field season of the 2014 calendar year.

Data will be entered into the FH database and SWIMS. Updated streams narratives and watershed reports will be entered into SWIMS and WATERS.

All data will be entered into the respective database by Dec. 2014 or as soon as it become available.

Final report will be drafted in winter 2015/2016.

Study Design: Fish, qualitative habitat, and macroinvertebrates will be collected from 9 sites in HUC 070900040703 and 6 sites in HUC 070900040702. Six phosphorus samples will also be collected from the pour point of HUC 070900040702 and two sites in HUC 070900040703.

HUC 10 -709000407

QA Measures: All sampling will be conducted in accordance with accepted department SOPs.

People

Name	Role	Status	Start Date	End Date	Organization	Comments
AMRHEIN, JAMES F	PROJECT_LEAD	COMPLETE	1/1/2014	12/31/2014	Wisconsin DNR	
Helmuth, Lisa D	COORDINATOR	INACTIVE	11/23/2019	12/28/2022	Wisconsin DNR	
SEARLE, GREGORY S	SUPERVISOR	COMPLETE	1/1/2014	12/31/2014	Wisconsin DNR	

Project Statuses

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Date	Reported By	Status	Comments
12/16/2013	JAMES AMRHEIN	Proposed	
11/25/2014	JAMES AMRHEIN	Progress: 50-75% Complete	All sampling complete. Macroinverts delivered to UWSP. Will begin drafting report. Final report expected to be completed in winter 2015/16 after bug results are back.
4/9/2015	JAMES AMRHEIN	Progress: 50-75% Complete	Initial draft of report is complete. Will have to wait for macroinvertebrate results from UWSP to complete the report. Final report expected to be completed in winter 2015/16 in conjunction with the Lower Sugar River local needs project (part of same write-up).

Project Status Detail

Answer Set: DEFAULT

Question	Answer
1. Number of Sample Sites (Enter the station IDs if you know them).	
2. Number of Sample Events (Indicate how many trips into the field you anticipate for this project).	
3. Proposed Dates for Sample Collection	
4. List applicable databases and who will enter data?	
5. Did you receive competitive projects funding in the previous year?	
6. If yes to question 5, did you complete the projects including data entry and reports as necessary? If not, why not?	
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
Monitor Targeted Watershed Area (TWA)	The data will be used to determine whether these streams are acheiving their attainable use in order to update the watershed tables, list waters that are not meeting their attainable use, and assess the overall health of the watersheds as required by Section 303(d) of the Clean Water Act. The data, in conjunction with observations about watershed health, will be used to guide planning for improvements where needed. A newly formed watershed organization has been collecting water chemistry data from some streams in the watershed already.	1/1/2014	12/31/2014	COMPLETE

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Monitor or Propose 303(d) Listing	The entire length of OK Creek should be added to the state's 303(d) list of impaired waters due to habitat degradation caused by excessive sediment deposition and channel straightening. It should also be added for total phosphorus as concentrations exceed the WisCALM (WDNR, 2013) guidance. The department should review land use and nutrient management efforts in this sub-watershed to determine if any improvements can be made to reduce phosphorus delivery to the stream.	1/1/2014	12/31/2014	PROPOSED
Monitor or Assess Watershed Condition		1/1/2014	12/31/2014	COMPLETE
Monitor Baseline Survey		1/1/2014	12/31/2014	COMPLETE
Monitor Watershed (Status,Sources,Impairments)	Monitoring of phosphorus and nitrate concentrations in the streams of the Lower Sugar River should continue as funding and volunteer efforts allow.	1/1/2014	12/31/2014	COMPLETE
Information and Education	The department should work with watershed organizations such as the Lower Sugar River Watershed Association on outreach efforts with landowners in the watershed, environmental programs in the Juda and Brodhead school districts, and research opportunities for harvestable buffers to provide economic incentives for maintaining buffers along streams.	1/1/2014	12/31/2014	PROPOSED
Monitor Water Quality or Sediment		1/1/2014	12/31/2014	COMPLETE
Monitor Watershed (Status,Sources,Impairments)	Monitoring of phosphorus and nitrate concentrations in the streams of the Lower Sugar River should continue as funding and volunteer efforts allow.	1/1/2014	12/31/2014	COMPLETE
Monitor or Propose 303(d) Listing	Swan Creek should be added to the 303(d) list of impaired waters for phosphorus that exceeds the criteria. Taylor Creek, from Swan Creek downstream to the Sugar River and Willow Creek should be added as a watch waters as total phosphorus concentrations are near the criteria for listing.	1/1/2014	12/31/2014	PROPOSED
Monitor or Propose 303(d) Listing	The entire length of OK Creek should be added to the state?s 303(d) list of impaired waters due to habitat degradation caused by excessive sediment deposition and channel straightening. OK Creek should also be added to the impaired waters list for total phosphorus as concentrations exceed the WisCALM (WDNR, 2018) guidance.The department should review land use and nutrient management efforts in this sub-watershed to determine if any improvements can be made to reduce phosphorus delivery to the stream.	1/15/2018		PROPOSED
Monitor or Propose 303(d) Listing	Swan Creek should be added to the 303(d) list of impaired waters for phosphorus that exceeds the criteria.	1/15/2018		PROPOSED

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Monitor or Propose 303(d) Listing	Taylor Creek, from Swan Creek downstream to the Sugar River and Willow Creek should be added as a watch water since total phosphorus concentrations are near the criteria for listing.	1/15/2018		PROPOSED
Engage Volunteers in Monitoring/Restoration	Monitoring of phosphorus and nitrate concentrations in the streams of the Lower Sugar River should continue as funding and volunteer efforts allow.	1/15/2018		PROPOSED

Monitoring Stations

Station ID	Name	Comments
10042419	Spring Creek at CTH OK	
543079	Swan Creek - Above Orfordville Stp	
10016727	Swan Creek - Immediately Downstream From Dickeyroad	
10013324	Swan Creek Keesey Road Bridge	
10039914	Taylor Creek at Smith Rd	
10042220	Taylor Creek at W. Gempler Rd	
10042014	Taylor Creek at W. Keesey Road	
10014327	Taylor Creek-Ds 141m Of Footville-Brodhead Rd	
10042775	Unnamed Trib (5040595) to Swan Cr at Lang Rd	
10042235	Unnamed Trib (876500) to Willow Cr at W. Skinner Rd (east crossing)	
10042236	Unnamed Trib (876600) to Willow Cr at W. Avon-N. Townline Rd	
10042508	Unnamed Tributary (876500) to Willow Cr at W. Skinner Rd (west crossing)	
10013322	Willow Creek - Avon North Town Line Road	
10012063	Willow Creek - Upstream Of Sth 81	
10013320	Willow Creek Hwy 81 Bridge	
10042454	Willow Creek at Lee Rd	

Assessment Units

WBIC	Segment	Local Name	Official Name
875300	1	Sugar River	Sugar River
876300	1	Taylor Creek	Taylor Creek
876300	2	Taylor Creek	Taylor Creek
876400	1	Willow Creek	Willow Creek
876400	2	Willow Creek	Willow Creek
876500	1	Local Water	Unnamed
876600	1	Local Water	Unnamed

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876700	1	Swan Creek	Swan Creek
876700	2	Swan Creek	Swan Creek
877000	1	Spring Creek	Spring Creek
877200	1	Ok Creek	Ok Creek
5040595	1	Local Water	Unnamed

Lab Account Codes

Account Code	Description	Start Date	End Date
WQ002	TARGETED WATERSHED ASSESSMENTS	3/26/2014	12/31/2099

Forms

Form Code	Form Name
INORGANIC	Inorganic Lab - Field Data
CBSM-TEST	Macroinvertebrate Field Data
MACROINVERT_BASIC	Macroinvertebrate Survey Basic Form

Methods

Method Code	Method Description
FISH SURVEY BASELINE PROTOCOLS	Fish Survey Baseline Protocols 2004
MACROINVERTEBRATE BASELINE PROTOCOLS	Macroinvertebrate Baseline D-frame Kick Net 2004
DNR-FPM-SONDES2006	Multi-Parameter Continuous Meter (Sondes) Guidelines 2006
GRAB SAMPLE	Water Grab Sample Guidelines and Procedures 2005

Fieldwork Events

Start Date	Status	Field ID	Station ID	Station Name
5/10/2014 10:00	COMPLETE	NA	10013320	Willow Creek Hwy 81 Bridge
5/10/2014 10:15	COMPLETE	NA	10042014	Taylor Creek at W. Keesey Road
5/10/2014 10:30	COMPLETE	NA	10013324	Swan Creek Keesey Road Bridge
5/13/2014 7:50	COMPLETE	NA	10039914	Taylor Creek at Smith Rd
5/21/2014 23:00	COMPLETE	Tidbit	10012063	Willow Creek - Upstream Of Sth 81
5/21/2014 23:00	COMPLETE	Tidbit	10039914	Taylor Creek at Smith Rd
5/21/2014 23:00	COMPLETE	Tidbit	10042014	Taylor Creek at W. Keesey Road
5/21/2014 23:00	COMPLETE	Tidbit	10013324	Swan Creek Keesey Road Bridge
5/30/2014 8:00	COMPLETE	NA	10039914	Taylor Creek at Smith Rd
6/14/2014 10:25	COMPLETE	NA	10013320	Willow Creek Hwy 81 Bridge
6/14/2014 10:40	COMPLETE	NA	10013324	Swan Creek Keesey Road Bridge
6/14/2014 10:50	COMPLETE	NA	10042014	Taylor Creek at W. Keesey Road

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6/23/2014 13:00	COMPLETE	NA	10039914	Taylor Creek at Smith Rd
7/14/2014 9:45	COMPLETE	NA	10013320	Willow Creek Hwy 81 Bridge
7/14/2014 10:05	COMPLETE	NA	10042014	Taylor Creek at W. Keesey Road
7/14/2014 10:12	COMPLETE	NA	10013324	Swan Creek Keesey Road Bridge
7/22/2014 7:40	COMPLETE	NA	10039914	Taylor Creek at Smith Rd
8/11/2014 9:45	COMPLETE	NA	10013320	Willow Creek Hwy 81 Bridge
8/11/2014 9:55	COMPLETE	NA	10042014	Taylor Creek at W. Keesey Road
8/11/2014 10:06	COMPLETE	NA	10013324	Swan Creek Keesey Road Bridge
8/19/2014 19:45	COMPLETE	TAYLOR CREEK	10039914	Taylor Creek at Smith Rd
9/15/2014 10:00	COMPLETE	NA	10013320	Willow Creek Hwy 81 Bridge
9/15/2014 10:27	COMPLETE	NA	10013324	Swan Creek Keesey Road Bridge
9/15/2014 10:30	COMPLETE	NA	10013324	Swan Creek Keesey Road Bridge
9/15/2014 10:44	COMPLETE	NA	10042014	Taylor Creek at W. Keesey Road
9/15/2014 11:14	COMPLETE	BLK	10013324	Swan Creek Keesey Road Bridge
9/28/2014 12:42	COMPLETE	NA	10039914	Taylor Creek at Smith Rd
9/30/2014	COMPLETE	20140930-54-04	10013320	Willow Creek Hwy 81 Bridge
9/30/2014	COMPLETE	20140930-54-05	10039914	Taylor Creek at Smith Rd
9/30/2014	COMPLETE	20140930-54-06	10042014	Taylor Creek at W. Keesey Road
9/30/2014	COMPLETE	20140930-54-07	10013324	Swan Creek Keesey Road Bridge
9/30/2014	COMPLETE	20140930-54-08	10016727	Swan Creek - Immediately Downstream From Dickeyroad
10/1/2014	COMPLETE	20141001-54-01	10042220	Taylor Creek at W. Gempler Rd
10/1/2014	COMPLETE	20141001-54-02	10042775	Unnamed Trib (5040595) to Swan Cr at Lang Rd
10/1/2014	COMPLETE	20141001-54-03	10014327	Taylor Creek-Ds 141m Of Footville-Brodhead Rd
10/1/2014	COMPLETE	20141001-54-04	543079	Swan Creek - Above Orfordville Stp
10/1/2014	COMPLETE	20141001-54-05	10042236	Unnamed Trib (876600) to Willow Cr at W. Avon-N. Townline Rd
10/1/2014	COMPLETE	20141001-54-06	10013322	Willow Creek - Avon North Town Line Road
10/1/2014	COMPLETE	20141001-54-07	10042454	Willow Creek at Lee Rd
10/1/2014	COMPLETE	20141001-54-08	10042508	Unnamed Tributary (876500) to Willow Cr at W. Skinner Rd (west crossing)
10/1/2014	COMPLETE	20141001-54-09	10042235	Unnamed Trib (876500) to Willow Cr at W. Skinner Rd (east crossing)
10/11/2014 10:40	COMPLETE	NA	10013320	Willow Creek Hwy 81 Bridge
10/11/2014 11:00	COMPLETE	NA	10042014	Taylor Creek at W. Keesey Road
10/11/2014 11:05	COMPLETE	NA	10013324	Swan Creek Keesey Road Bridge
10/20/2014 16:25	COMPLETE	NA	10039914	Taylor Creek at Smith Rd

Documents

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Title	Description	Author	Published	Comments
10013320 Willow Creek Hwy 81 Bridge mIBI report 2014	10013320 Willow Creek Hwy 81 Bridge	Helmuth, Lisa	12/15/2015	
2014 Total Phosphorus Monitoring Report - Swan Creek - Keesey Road	The goal of this Target Watershed Assessment (TWA) is to monitor the contemporary status of streams from two subwatersheds in the Lower Sugar River watershed, as well has evaluate the overall health of these watersheds. The DNR needs current fish, habitat, and macroinvertebrate data for streams in these watersheds. The data will be used to determine whether these streams are achieving their attainable use in order to update the watershed tables, list waters that are not meeting their attainable use, and assess the overall health of the watersheds as required by Section 303(d) of the Clean Water Act.	Lindsey Albright	2/4/2015	
2014 Total Phosphorus Monitoring Report - Taylor Creek - Keesey Road	The goal of this Target Watershed Assessment (TWA) is to monitor the contemporary status of streams from two subwatersheds in the Lower Sugar River watershed, as well has evaluate the overall health of these watersheds. The DNR needs current fish, habitat, and macroinvertebrate data for streams in these watersheds. The data will be used to determine whether these streams are achieving their attainable use in order to update the watershed tables, list waters that are not meeting their attainable use, and assess the overall health of the watersheds as required by Section 303(d) of the Clean Water Act.	Lindsey Albright	2/4/2015	

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2014 Total Phosphorus Monitoring Report - Taylor Creek - Smith Rd	The goal of this Target Watershed Assessment (TWA) is to monitor the contemporary status of streams from two subwatersheds in the Lower Sugar River watershed, as well has evaluate the overall health of these watersheds. The DNR needs current fish, habitat, and macroinvertebrate data for streams in these watersheds. The data will be used to determine whether these streams are achieving their attainable use in order to update the watershed tables, list waters that are not meeting their attainable use, and assess the overall health of the watersheds as required by Section 303(d) of the Clean Water Act.	Lindsey Albright	2/4/2015	
2014 Total Phosphorus Monitoring Report - Willow Creek - STH 81 Bridge	The goal of this Target Watershed Assessment (TWA) is to monitor the contemporary status of streams from two subwatersheds in the Lower Sugar River watershed, as well has evaluate the overall health of these watersheds. The DNR needs current fish, habitat, and macroinvertebrate data for streams in these watersheds. The data will be used to determine whether these streams are achieving their attainable use in order to update the watershed tables, list waters that are not meeting their attainable use, and assess the overall health of the watersheds as required by Section 303(d) of the Clean Water Act.	Lindsey Albright	2/4/2015	
Sugar River photo from Taylor Creek-Sugar River TWA project photo by James Amrhein	Sugar River photo from Taylor Creek-Sugar River TWA project photo by James Amrhein	AMrhein, James	4/16/2017	
Sugar at Bellview (875300) photo by James Amrhein	Sugar at Bellview (875300) photo by James Amrhein	Amrhein, James	4/16/2017	
Taylor Creek - Sugar River DRAFT WQM Plan 2017 (SP11) Presentation	Taylor Creek and Sugar River TWA WQM Plan 2017 (SP11) Presentation	WDNR		
Taylor Creek - Sugar River TWA WQM Plan 2017 [SP11]	Assessments and recommendations for the Watershed. Taylor Creek - Sugar River Watershed Draft TWA Plan 2017	James Amrhein, Wisconsin DNR	4/16/2017	
Taylor Creek-Sugar River TWA (11-2) Photo by James Amrhein	Taylor Creek-Sugar River TWA (11-2) Photo by James Amrhein	Amrhein, James	9/14/2013	

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Taylor Creek-Sugar River TWA (21-4) photo by James Amrhein	Taylor Creek-Sugar River TWA (21-4) photo by James Amrhein	Amrhein, James	10/14/2015	
Unnamed Trib (5040595) to Swan Cr at Lang Rd mIBI chart 10042775		Helmuth, Lisa	12/15/2015	
Unnamed Trib (5040595) to Swan Cr at Lang Rd mIBI report 10042775		Helmuth, Lisa	12/15/2015	
Unnamed Tributary to the Lower Sugar River mIBI value (chart) 2014		Helmuth, Lisa	12/15/2015	
Unnamed Tributary to the Lower Sugar River mIBI value (rpt) 2014		Helmuth, Lisa	12/15/2015	

Budget

Budget Description: Jan - June 2014 **Start Date:** 1/1/2014 **End Date:** 6/30/2014

Code	Description	Quantity	Units	Unit Cost	Total Cost	Comments
FTE	FTE Hours	64	Hours	$0.00	$0.00	4 trips x 2 FTE x 8 hrs/day
LTE SAL	LTE Salary	24	Hours	$13.00	$312.00	3 trips x 1LTE x 8 hrs/day
LTE FR	LTE Fringe				$77.06	
LTE IND	LTE Indirect				$62.91	
LTE TOT	LTE Total Cost				$451.98	
SUPPLY	Supplies	2		$20.00	$40.00	Shipping of samples by volunteer monitors
EQUIP	Equipment				$0.00	
MILEAGE	Mileage	240	Miles	$0.72	$172.80	4 trips x 60 miles/trip
MEAL	Meals	11	Meals	$4.00	$44.00	(4 trips x 2 meals) + (3 trips x 1 meal)
LODGE	Lodging				$0.00	
TRAVEL	Travel Total				$216.80	
BUG	Bug Contracts				$0.00	
OTHER	Other Contracts				$0.00	
USGS	USGS Costs				$0.00	
TOTAL	Total Cost (excludes SLOH)				$708.78	

Total WSLH Lab Costs: $0.00

Total Budget: $708.78

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Budget Description: July-Dec 2014 **Start Date:** 7/1/2014 **End Date:** 12/31/2014

Code	Description	Quantity	Units	Unit Cost	Total Cost	Comments
FTE	FTE Hours	80	Hours	$0.00	$0.00	5 trips x 2 FTE x 8 hrs/day
LTE SAL	LTE Salary	32	Hours	$13.00	$416.00	4 trips x 1 LTE x 8 hrs/day
LTE FR	LTE Fringe				$102.75	
LTE IND	LTE Indirect				$83.88	
LTE TOT	LTE Total Cost				$602.63	
SUPPLY	Supplies	4		$20.00	$80.00	Shipping of samples by volunteer monitors
EQUIP	Equipment				$0.00	
MILEAGE	Mileage	300	Miles	$0.72	$216.00	5 trips x 60 miles/trip
MEAL	Meals	14	Meals	$4.00	$56.00	(5 trips x 2 meals/trip) + (4 trips x 1 meal/trip)
LODGE	Lodging				$0.00	
TRAVEL	Travel Total				$272.00	
BUG	Bug Contracts	15		$185.00	$2,775.00	9 samples HUC 1 + 6 samples HUC 2
OTHER	Other Contracts				$0.00	
USGS	USGS Costs				$0.00	
TOTAL	Total Cost (excludes SLOH)				$3,729.63	

Total WSLH Lab Costs: $0.00

Total Budget: $3,729.63

Combined Budgets: $4,438.41

Combined WSLH: $0.00

Combined Total: $4,438.41

Funding

Organization	Source	Type	Amount	Start Date	End Date