#### **General Project Information**

Project ID: West\_TWA\_4\_2015

Name: Hillsboro Lake TWA, 2017

**Type:** Targeted Watershed Approach

**Subtype:** Evaluation (TP SSC, Stressor, Bioassess)

Status: COMPLETE

**Start Date:** 1/8/2015

**End Date:** 4/21/2016

**Purpose:** Western District proposes to conduct 319 Project Evaluation monitoring in the Hillsboro Lake Watershed located in eastern

Vernon County, Wisconsin. The thirty-five square mile Hillsboro Lake Watershed was designated a priority watershed under the Wisconsin Nonpoint Source Pollution Abatement Program in 1993. A Hillsboro Priority Watershed Surface Water Resource Appraisal was completed in December of 1994 as a part of this project. The 1994 watershed appraisal included fish and habitat surveys at 11 sites, temperature monitoring at two sites and macroinvertebrate sampling at six sites.

**Objective:** The Western District will work with Watershed and County staff to determine the location, number and type of best

management practices (BMPs) that were installed in the watershed since 1994. This will prioritize where the follow-up monitoring will be completed. Follow-up monitoring will target areas containing the greatest number and largest scale of BMPs installed. Individual streams or reaches of streams may also be targeted by this follow-up monitoring. Ideally, the sites

will spread out enough to evaluate the two entire HUC 12 watersheds.

Comments:

Outcome:

Study Design:

QA Measures: Standard DNR and SLOH protocols will be followed.

People People						
Name	Role	Status	Start Date	End Date	Organization	Comments
HAZUGA, MARK J	COORDINATOR	INACTIVE	1/8/2015	12/31/2099	Wisconsin DNR	
Helmuth, Lisa D	COORDINATOR	INACTIVE	11/23/2019	12/28/2022	Wisconsin DNR	
KOPERSKI, CYNTHIA A	TEAM_MEMBER	COMPLETE	1/8/2015	12/31/2099	Wisconsin DNR	
LALIBERTE, PAUL J	SUPERVISOR	COMPLETE	1/8/2015	12/31/2099	Wisconsin DNR	
Meiborg, Andrew	DATA_ENTRY	COMPLETE	1/8/2015	8/30/2015	DNR Intern	
RASMUSSEN, KURT	PROJECT_LEA D	INACTIVE	1/8/2015	12/31/2099	Wisconsin DNR	
UNMUTH, JEAN M	COORDINATOR	COMPLETE	1/8/2015	4/21/2016	Wisconsin DNR	
ZIEGLER, VICTORIA E	COORDINATOR	ACTIVE	1/17/2017		Wisconsin DNR	

Project Statuses					
Date	Reported By	Status	Comments		
1/30/2015	KURT RASMUSSEN	Proposed			
3/2/2016	JEAN UNMUTH	Progress: 75-100% Complete	Interim report is completed, but waiting for macroinvertebrate results before I complete the report 100%.		
5/5/2017	JEAN UNMUTH	Complete	TWA report completed, and in review.		

**Actions** 

633120

633182

10016405

# Wisconsin Department of Natural Resources SWIMS Project Summary

### **Project Status Detail**

Action	Detailed Description	Start Date	End Date	Status
Monitor Targeted Watershed Area (TWA	Western District proposes to conduct 319 Project Evaluation monitoring in the Hillsboro Lake Watershed located in eastern Vernon County, Wisconsin.	1/8/2015	12/31/2015	PROPOSED
Delist Impaired Water  The West Branch should be removed from impaired waters list for Low DO, phospho sediment, total suspended solids and BOI Biological information rated from fair to excellent and does not support listing the stream for biological impairment.				PROPOSED
Delist Impaired Water	The West Branch of Baraboo River at Sebranek Road had a median value for phosphorus of 0.077 mg/l, but did not exceed the lower confidence limit for the 12 samples thus is not considered as impaired for phosphorus. This water should not be listed a impaired.	,		PROPOSED
Natural Community Review or Change	The West Branch of Baraboo River fish natural community designations of cool-cold were verified, and the fish and aquatic life should be changed to good or supporting.	1/15/2018		PROPOSED
Monitor Water Quality or Sediment	DNR should monitor Hillsboro Lake to determine lake health and condition.	1/15/2018		PROPOSED
Monitor Water Quality or Sediment	DNR should conduct follow up monitoring in the unnamed tributary (WBIC: 1290900 Dilly Creek) at another location upstream in segment one for a second biological indicator for impairment decisions.	1/15/2018 r		PROPOSED
Monitor Targeted Area	The West Branch of Baraboo River phosphorus monitoring site located at STH-3 should not be used as a stream site for calculation of phosphorus values, due to the site being located within Hillsboro Lake. Instead use the phosphorus values from the Sebranek Road site.	1/15/2018		PROPOSED
Details: Parameter	Value/Amount Units	Co	mments	
Habitat Sampled				
Monitoring				
Report Writeup				
Monitor or Propose 303(d) Listing	DNR should monitor monthly phosphorus at the mouth of the unnamed tributary (WBIC: 1290900 Dilly Creek) to determine if it is impaired for phosphorus.	1/15/2018		PROPOSED
Monitoring Stations				

Baraboo River W. Branch Of - W. Branch Of Baraboo River

Beaver Creek - 50 Yds Downstream Of Bridge On Sth80

Beaver Creek - Near Hillsboro WI

633179	Beaver Creek - US Kouba Valley Rd.	
10043625	South Br. Cr. US Mckenzie Rd.	
10015731	South Branch Baraboo River - 50 Yds Downstream Of Bridge Onkouba Valley Rd.	
10015761	South Branch Baraboo River - 70 Yds Above Bridge On Sth 80	
10017179	South Branch Baraboo at Cth Q	
10011293	South Branch Creek - South Branch Baraboo River Station #1 Bridge Where Beaver Cr. Enters	
10011294	South Branch Creek - South Branch Baraboo River Station #2 Farmers Bridge	
10011295	South Branch Creek - South Branch Baraboo River Station #3 Bridge On St. Patrick Rd.	
10032372	South Branch Creek - Verbsky Lane	
10043634	Unnamed (Dilly Creek) US STH. 33	
10011291	West Branch Baraboo River - West Branch Baraboo River Station #3 100m Upstream Bridge On Grimm Rd.	
10039097	West Branch Baraboo River 50 yds above HWY 33 bridge crossing	
10011292	West Branch Baraboo River Station #4 100m Downstream From Upper Culvert Richardson Property	
10017181	West Branch Baraboo at Sebranek Road	

Assessment Units					
WBIC	Segment	Local Name	Official Name		
1288400	2	West Br Baraboo River	West Branch Baraboo River		
1288400	4	West Br Baraboo River	West Branch Baraboo River		
1289700	1	Field Veterans Memorial Lake	Field Veterans Memorial Lake		
1289800	1	South Br Creek (S Br Baraboo)	South Branch Creek		
1289800	2	South Br Creek (S Br Baraboo)	South Branch Creek		
1290100	1	Beaver Creek	Beaver Creek		
1290900	1	Dilly Creek	Unnamed		

Lab Account Codes						
Account Code	Description	Start Date	End Date			
WQ012	319 PROJECT FUNDED TWA	3/24/2015	12/31/2015			

Forms				
Form Code	Form Name			
CONTINUOUS	Continuous Data Upload			
MACROINVERT_BASIC	Macroinvertebrate Survey Basic Form			

QUAL_FISH_HAB_LESS10	Qualitative Fish Habitat Less Than 10 M		
STREAM_CHAR	Stream Characteristics Form (Qualitative Habitat) (form 3600-183 Back)		
STREAM_MON	Stream Monitoring (Temp, DO, Trans, Flow)		

#### **Methods**

Method Code Method Description

Method Code Method Description				
Fieldwork Ever	nts			
Start Date	Status	tatus Field ID S		Station Name
5/25/2015 16:30	COMPLETE	SBBRQ-2015-05	10017179	South Branch Baraboo at Cth Q
5/25/2015 16:30	COMPLETE	WBBR-2015-05	633120	Baraboo River W. Branch Of - W. Branch Of Baraboo River
6/1/2015 7:00	COMPLETE		633179	Beaver Creek - US Kouba Valley Rd.
6/1/2015 7:00	COMPLETE		10043634	Unnamed (Dilly Creek) US STH. 33
6/1/2015 7:00	COMPLETE		10043625	South Br. Cr. US Mckenzie Rd.
6/1/2015 7:00	COMPLETE		10017181	West Branch Baraboo at Sebranek Road
6/1/2015 7:00	COMPLETE		10011291	West Branch Baraboo River - West Branch Baraboo River Station #3 100m Upstream Bridge On Grimm Rd.
6/1/2015 7:00	COMPLETE		10015731	South Branch Baraboo River - 50 Yds Downstream Of Bridge Onkouba Valley Rd.
6/1/2015 7:00	COMPLETE		633179	Beaver Creek - US Kouba Valley Rd.
6/24/2015 13:30	COMPLETE	WBBR-2015-6	633120	Baraboo River W. Branch Of - W. Branch Of Baraboo River
6/24/2015 13:45	COMPLETE	SBBRQ-2015-6	10017179	South Branch Baraboo at Cth Q
7/28/2015 16:20	COMPLETE	WBBR-2015-07	633120	Baraboo River W. Branch Of - W. Branch Of Baraboo River
7/28/2015 16:30	COMPLETE	SBBRQ-2015-07	10017179	South Branch Baraboo at Cth Q
8/13/2015	COMPLETE		10043625	South Br. Cr. US Mckenzie Rd.
8/13/2015	COMPLETE		10016405	Beaver Creek - 50 Yds Downstream Of Bridge On Sth80
8/13/2015	COMPLETE		633179	Beaver Creek - US Kouba Valley Rd.
8/14/2015	COMPLETE		10015731	South Branch Baraboo River - 50 Yds Downstream Of Bridge Onkouba Valley Rd.
8/18/2015	COMPLETE		10017179	South Branch Baraboo at Cth Q
8/24/2015	COMPLETE		10039097	West Branch Baraboo River 50 yds above HWY 33 bridge crossing
8/24/2015	COMPLETE		10017181	West Branch Baraboo at Sebranek Road
8/31/2015 17:00	COMPLETE	WBBR-2015-08	633120	Baraboo River W. Branch Of - W. Branch Of Baraboo River
8/31/2015 17:15	COMPLETE	SBBRQ-2015-08	10017179	South Branch Baraboo at Cth Q
9/22/2015 10:00	COMPLETE	20150922-63-01	10039097	West Branch Baraboo River 50 yds above HWY 33 bridge crossing
9/22/2015 11:00	COMPLETE	20150922-63-04	10015731	South Branch Baraboo River - 50 Yds Downstream Of Bridge Onkouba Valley Rd.
9/22/2015 12:00	COMPLETE	20150922-63-05	10017179	South Branch Baraboo at Cth Q
9/22/2015 13:00	COMPLETE	20150922-63-06	10016405	Beaver Creek - 50 Yds Downstream Of Bridge On Sth80

9/22/2015 15:00	COMPLETE	20150922-63-02	10011291	West Branch Baraboo River - West Branch Baraboo River Station #3 100m Upstream Bridge On Grimm Rd.
9/22/2015 16:00	COMPLETE	20150922-63-03	10043634	Unnamed (Dilly Creek) US STH. 33
9/27/2015 9:00	COMPLETE	WBBR-2015-09	633120	Baraboo River W. Branch Of - W. Branch Of Baraboo River
9/27/2015 9:15	COMPLETE	SBBRQ-2015-09	10017179	South Branch Baraboo at Cth Q
10/28/2015 14:20	COMPLETE	WBBR-2015-10	633120	Baraboo River W. Branch Of - W. Branch Of Baraboo River
10/28/2015 14:45	COMPLETE	SBBRQ-2015-10	10017179	South Branch Baraboo at Cth Q

Documents				
Title	Description	Author	Published	Comments
2015 Total Phosphorus Monitoring Report - Baraboo River, W. Branch Of - W. Branch Of Baraboo River	In 2015, WAV volunteers collected water samples as part of a 319 Project Evaluation monitoring in the Hillsboro Lake Watershed located in eastern Vernon County, Wisconsin. The thirty-five square mile Hillsboro Lake Watershed was designated a priority watershed under the Wisconsin Nonpoint Source Pollution Abatement Program in 1993 and a Hillsboro Priority Watershed Surface Water Resource Appraisal was completed in December of 1994. Follow-up monitoring in 2015 will target areas containing the greatest number and largest scale of best management practices (BMPs) installed.	Lindsey Albright and Ilana Haimes	12/23/2015	
2015 Total Phosphorus Monitoring Report - South Branch Baraboo at Cth Q	In 2015, WAV volunteers collected water samples as part of a 319 Project Evaluation monitoring in the Hillsboro Lake Watershed located in eastern Vernon County, Wisconsin. The thirty-five square mile Hillsboro Lake Watershed was designated a priority watershed under the Wisconsin Nonpoint Source Pollution Abatement Program in 1993 and a Hillsboro Priority Watershed Surface Water Resource Appraisal was completed in December of 1994. Follow-up monitoring in 2015 will target areas containing the greatest number and largest scale of best management practices (BMPs) installed.	Lindsey Albright and Ilana Haimes	12/23/2015	
Beaver Creek Kouba Valley Road Temperature Graph		Jean Unmuth	3/2/2016	
Beaver Creek Photograph	Beaver Creek downstream of Beaver Creek Road	Jean Unmuth	9/25/2015	

Beaver Creek at Kouba Valley Road, 2015, [1290100]	Beaver Creek at Kouba Valley Road, 2015, [1290100]	Jean Unmuth	8/17/2015
Hillsboro Lake TWA WQM Plan 2017 [LW24]	Hillsboro Lake TWA 2017 Seymour Creek and Upper Baraboo River (LW24) HUC: 070700040105 and 070700040104 Monitored in 2015	WDNR	4/28/2017
Hillsboro Lake TWA WQM Plan Presentation 2017 [LW24]	Hillsboro Lake TWA WQM Plan Presentation 2017	WDNR	8/8/2017
South Br. Kouba Valley Rd Photo	South Br. of Baraboo R. DS Kouba Valley Rd.	Jean Unmuth	9/25/2015
South Branch Kouba Valley Rd. Temperature Graph		Jean Unmuth	3/2/2016
South Branch McKenzie Rd. Temperature Graph		Jean Unmuth	3/2/2016
Unnamed Stream WBIC1290900 (Dilly Cr.) Photo	Unnamed tributary of W. Branch of Baraboo R. WBIC: 1290900 upstream of STH. 33	Jean Unmuth	9/25/2015
Unnamed WBIC 1290900 (Dilly Cr.) Temperature Graph		Jean Unmuth	3/2/2016
W. Br. Baraboo R. Grimm Rd. Photo	W. Br. Baraboo R. DS of Grimm Rd.	Jean Unmuth	9/25/2015
W. Br. Baraboo R. STH 33 Photo	W. Br. Baraboo R. US of STH. 33	Jean Unmuth	9/25/2015
W. Br. Baraboo R. STH 33 Photo	Collapsed Lunker Structure	Jean Unmuth	9/25/2015
W. Branch Grimm Road Temperature Graph		Jean Unmuth	3/2/2016
W. Branch Sebranek Rd. Temperature Graph		Jean Unmuth	3/2/2016
West Branch Baraboo River 50 yds above HWY 33 bridge crossing 2012 NC Verification Spreadsheet	West Branch Baraboo River 50 yds above HWY 33 bridge crossing 2012 NC Verification Spreadsheet	WQ Biologist	1/30/2017
West Branch Baraboo River 50 yds above HWY 33 bridge crossing 2015 NC Verification Spreadsheet	West Branch Baraboo River 50 yds above HWY 33 bridge crossing 2015 NC Verification Spreadsheet	Ziegler, Victoria	1/31/2017

### Budget

<b>Budget Desc</b>	ription: Hillsboro Lake Watershed 2015	Hillsboro Lake Watershed Monitoring January - September 2015		1/1/2015	<b>End Date:</b> 9/30/2015
Code	Description	<b>Quantity Units</b>	<b>Unit Cost</b>	Total Cost	Comments
FTE	FTE Hours	192 Hours	\$0.00	\$0.00	
LTE SAL	LTE Salary	114 Hours	\$13.00	\$1,482.00	
LTE FR	LTE Fringe			\$366.05	
LTE IND	LTE Indirect			\$298.83	
LTE TOT	LTE Total Cost			\$2,146.88	
SUPPLY	Supplies			\$0.00	
EQUIP	Equipment			\$0.00	
MILEAGE	Mileage	1800 Miles	\$0.72	\$1,296.00	
MEAL	Meals	24 Meals	\$9.00	\$216.00	
LODGE	Lodging			\$0.00	
TRAVEL	Travel Total			\$1,512.00	
BUG	Bug Contracts	6	\$180.00	\$1,080.00	
OTHER	Other Contracts	1	\$200.00	\$200.00	DNI sample from SS
USGS	USGS Costs			\$0.00	
TOTAL	Total Cost (excludes SLOH)			\$4,938.88	

**Total WSLH Lab Costs:** \$0.00 **Total Budget:** \$4,938.88

Combined Budgets:\$4,938.88Combined WSLH:\$0.00Combined Total:\$4,938.88

Funding						
Organization	Source	Туре	Amount	Start Date	End Date	