General Project Information

Project ID: South_TWA_5_2015

Name: Upper Fox Pebble TWA, Waukesha County

Type: Targeted Watershed Approach

Subtype: Effectiveness (BMP, Other)

Status: COMPLETE

Start Date: 1/1/2015 **End Date:** 1/1/2016

Purpose: This Clean Water Act Section 319-funded project evaluated the Upper Fox River Priority Watershed BMP effectiveness.

Waukesha County Division of Land Conservation along with WDNR, DATCP and the Upper Fox River Advisory Committee created the Upper Fox priority watershed plan in 1994 as part of the Wisconsin Nonpoint Source Water Pollution Abatement Program. Waukesha County Land Conservation Department worked with landowners over approximately a 10-year period to install various non point BMPs throughout the watershed. This project involves monitoring 25-30 sites on various streams that received BMP implementation to evaluate if a change in natural resources condition is evident. Where there is limited

background information available, DNR used untreated reference reaches for analysis.

Read the Upper Fox Pebble

Targeted Watershed Assessment [print version]

Objective: This project will be evaluating a Clean Water Act Section 319 Nine Key Element Watershed. The watershed is Upper Fox

River, it consists of 5 HUC 12's (071200060101-105) they range in size from 10953 acres to 30781 acres. Major Waterbodies in the watershed include: Pebble Creek, Brandy Brook, Sussex Creek, Lannon Creek, Pewaukee River, Zion Creek, Coco Creek, Deer Creek Poplar Creek Frame Park Creek and the Fox River. I will be choosing 3-4 HUC 12's after evaluating locations of BMP's installed on the landscape over the years. The number of fish stations for IBI's will be 25-30, the number of macroinvertebrate sites will be 12, number of DNI samples will be 3, number of qualitative habitat sites will be

25-30. Water chemistry samples will be collected at 28 sites including of 3 sites at 6 monthly samples.

Comments: A portion of this project is a continuation of a TWA (Pebble Creek-HUC 12) completed last year to followup on conditions

found and provide further investigation. The additional area monitored and evaluated would be just a one year project. Start

in April/May of 2015 and end in October of 2015. With reports generated in 2016.

Outcome: Project will focus on determining Priority Watershed Effectiveness. Prior to 1994, Department staff conducted the monitoring

of Nonpoint source control plan for the Upper Fox River Priority Watershed Project This was a large scale priority watershed project focusing on NPS control. Report will be generated summarizing our findings and determining if water quality has

changed.

Study Design: Fish IBI surveys: (COLD, WARM, and COOL) will be completed at 25-30 stations May 15 through Sept 15. Data entered into

the statewide FH database.

Macroinvertebrate samples: will be collected at 12 locations, these will be collected during the fall period Sept 15 through Oct

31.2015.

Diatoms: will be collected at 3 locations during the summer of 2015. Protocols will be consistent with those outlined by ISS.

Qualitative Habitat Surveys: will be collected at 25-30 locations to be completed the same day as the fishery surveys.

Water Chemistry Samples: will be collected at several stations.

QA Measures: All protocols will be followed and data entered into the appropriate data bases.

People							
Name	Role	Status	Start Date	End Date	Organization	Comments	
ELLIS, KRISTIE R	COORDINATOR	ACTIVE	1/1/2015	1/1/2016	Wisconsin DNR		
Helker, Craig D	COORDINATOR	COMPLETE	3/1/2015	9/30/2015	Wisconsin DNR		
Helmuth, Lisa D	COORDINATOR	INACTIVE	11/23/2019	12/28/2022	Wisconsin DNR		

McLennan, Robin	SUPERVISOR	RETIRED	12/30/2014	3/1/2016	Wisconsin DNR	
Perdzock, Amanda R	COORDINATOR	COMPLETE	4/4/2018	3/1/2019	Wisconsin DNR	
SABRE, RACHEL A	COORDINATOR	COMPLETE	3/1/2015	1/1/2016	Wisconsin DNR	
SEARLE, GREGORY S	SUPERVISOR	COMPLETE	12/30/2014	10/25/2023	Wisconsin DNR	

Project Statuses						
Date	Reported By	Status	Comments			
2/13/2015	RACHEL SABRE	Proposed				
9/29/2015	RACHEL SABRE	Progress: 50-75% Complete	fish, habitat, water chem flow and diatoms all complete. Need to finish October TP sample at pour point sites and bugs still			
5/23/2018	RACHEL SABRE	Complete	draft report submitted Upper Fox River-Pebble Creek Report			
6/17/2020	RACHEL SABRE	Complete	final report published on DNR website			

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			
Water Quality Planning	This is a proposed 319 funded project is to evaluate the Upper Fox River Priority Watershed BMP effectiveness.	1/1/2015	1/1/2016	COMPLETE			
Monitor Targeted Watershed Area (TWA)	This is a proposed 319 funded project is to evaluate the Upper Fox River Priority Watershed BMP effectiveness.	1/1/2015	1/1/2016	COMPLETE			

Monitoring Stations					
Station ID	Name	Comments			
10021350	Brandy Brook	Bugs only for follow up monitoring			
10011876	Coco Creek At Yench Road (75m Upstream)	Full assessment			
10037059	Deer Creek at Brookfield Road	full assessment			
10016039	Deer Creek at W Rogers Drive	Full assessment			
683225	Fox River at Cth Jj (Bi Survey)	full assessment			

683310	Fox River at Prairie St At Waukesha WI	6 pour point TP samples only
683458	Pebble Creek - 0184-B at Hwy D	6 pour point TP samples only follow up monitoring by volunteer
10008076	Pebble Creek - 1-Madison St.	full assessment
10016495	Pebble Creek - Pb-14 - Upstream Of Rr Bridgebelow Cth Tt	Diatom Testing
10037393	Pebble Creek 21M DS of Kame Terrace	
10039799	Pebble Creek at Kame Terrace Culvert (Upstream)	Full assessment plus 6 TP samples also part of follow up monitoring
10037396	Pewaukee River 14M US of Busse Rd S of I-94	full assessment (previous completed in high water for fish)
10038944	Pewaukee River at HWY M Bridge	full assessment
10029789	Pewaukee River at Lindsey Road	full assessment
10043144	Poplar Creek Barker Road Bridge	full assessment 6 pour point TP samples
10040235	Poplar Creek at W Cleveland Ave 0.2 mi W of S Calhoun Rd	full assessment
10041569	Unnamed Trib to Brandy Brook	fish only
10041573	Unnamed Trib to Brandy Brook at Retzer	fish only
10041570	Unnamed Trib to Pebble Creek	fish only
10043698	Unnamed Trib to Pebble Creek DS of Hwy TT	full assesment

Assessment Units					
WBIC	Segment	Local Name	Official Name		
742500	2	Fox River (Below Barstow Impoundment)	Fox River		
742500	4	Fox River, Upper Barstow Impoundment	Fox River		
771300	1	Pebble Creek	Pebble Creek		
771300	2	Pebble Creek	Pebble Creek		
771400	1	Brandy Brook	Brandy Brook		
771700	1	Pewaukee River	Pewaukee River		
771800	1	Local Water	Unnamed		
772100	2	Coco Creek	Unnamed		
772800	1	Poplar River (Creek)	Poplar Creek		
772800	3	Poplar Creek	Poplar Creek		
772900	1	Deer Creek	Unnamed		
3000119	1	Perennial Stream C (Pb018)	Unnamed		
5036048	1	Local Water	Unnamed		
5036099	1	Local Water	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			
DIATOM_DPI	Diatom Phosphorus Index data entry			
FIELD CHEMISTRY FORM	Field Chemistry Form			
FISH ASSEMBLAGE 2018	Fish Assemblage 2018			
INORGANIC	Inorganic Lab - Field Data			
WADEABLE_MACRO_FIELD	Wadeable Macroinvertebrate Field & Habitat Data			
WADEABLE_MACRO_FIELD_B ACK	Wadeable Macroinvertebrate Stream and Watershed Descriptiors			
LOCAL_MACRO_FACTORS				

Methods	
Method Code	Method Description
DIATOM_STREAM_COLL	Diatom Collection for Diatom Nutrient Index (DNI) in Streams
DNR-FPM 701.3 FIELD OBSERVATIONS AND MEASUREMENTS	Field Observations and Measurements
FISH SURVEY BASELINE PROTOCOLS	Fish Survey Baseline Protocols 2004
HABITAT SURVEY BASELINE QUANTITATIVE	Habitat Baseline Survey Quantitative 2004
MACROINVERTEBRATE BASELINE PROTOCOLS	Macroinvertebrate Baseline D-frame Kick Net 2004
MACROINVERTEBRATE BASELINE PROTOCOLS	Macroinvertebrate Baseline D-frame Kick Net 2004
DNR-FPM 1001.3 BENTHIC INVERTEBRATE SAMPLING - D-FRAME NET, KICK SAMPLES	Stream Sampling Methods
GRAB SAMPLE	Water Grab Sample Guidelines and Procedures 2005
GRAB SAMPLE	Water Grab Sample Guidelines and Procedures 2005

Fieldwork Events						
Start Date	Status	Field ID	Station ID	Station Name		
5/29/2015	COMPLETE		10037393	Pebble Creek 21M DS of Kame Terrace		
5/29/2015 9:05	COMPLETE	20150529-02 POPLAR C	10043144	Poplar Creek Barker Road Bridge		
5/29/2015 9:10	COMPLETE	20150529-01 PEWAUKEE	10037396	Pewaukee River 14M US of Busse Rd S of I-94		
5/29/2015 10:35	COMPLETE	20150529-04 PEBBLE C	10037393	Pebble Creek 21M DS of Kame Terrace		

5/29/2015 15:00	COMPLETE	20150529-04	683310	Fox River at Prairie St At Waukesha WI
6/18/2015 9:30	COMPLETE	10040235	10040235	Poplar Creek at W Cleveland Ave 0.2 mi W of S Calhoun Rd
6/18/2015 10:15	COMPLETE	10016039	10016039	Deer Creek at W Rogers Drive
6/18/2015 14:25	COMPLETE	10008076	10008076	Pebble Creek - 1-Madison St.
6/19/2015 13:00	COMPLETE	10043698	10043698	Unnamed Trib to Pebble Creek DS of Hwy TT
6/25/2015 10:05	COMPLETE	10029789	10029789	Pewaukee River at Lindsey Road
6/25/2015 12:05	COMPLETE	10011876	10011876	Coco Creek At Yench Road (75m Upstream)
6/29/2015 13:05	COMPLETE	10037396	10037396	Pewaukee River 14M US of Busse Rd S of I-94
6/29/2015 13:20	COMPLETE	10043144	10043144	Poplar Creek Barker Road Bridge
6/29/2015 13:41	COMPLETE	683310	683310	Fox River at Prairie St At Waukesha WI
6/29/2015 14:00	COMPLETE	10039799	10039799	Pebble Creek at Kame Terrace Culvert (Upstream)
7/29/2015 11:38	COMPLETE	20150729-02	10039799	Pebble Creek at Kame Terrace Culvert (Upstream)
7/29/2015 12:40	COMPLETE	20150729-03	683310	Fox River at Prairie St At Waukesha WI
7/29/2015 13:04	COMPLETE	20150729-04	10037396	Pewaukee River 14M US of Busse Rd S of I-94
7/29/2015 13:18	COMPLETE	20150729-05	10043144	Poplar Creek Barker Road Bridge
8/5/2015 15:38	COMPLETE	20150805-06	10038944	Pewaukee River at HWY M Bridge
8/11/2015	COMPLETE	20150811-01	10037059	Deer Creek at Brookfield Road
8/12/2015 9:30	COMPLETE	20150812-01	683225	Fox River at Cth Jj (Bi Survey)
8/24/2015 10:43	COMPLETE	20150824-01	10037396	Pewaukee River 14M US of Busse Rd S of I-94
8/24/2015 11:19	COMPLETE	20150824-02	10043144	Poplar Creek Barker Road Bridge
8/24/2015 12:15	COMPLETE	20150824-03	683310	Fox River at Prairie St At Waukesha WI
8/24/2015 13:09	COMPLETE	20150824-04	10039799	Pebble Creek at Kame Terrace Culvert (Upstream)
9/22/2015	COMPLETE		683310	Fox River at Prairie St At Waukesha WI
9/22/2015 10:35	COMPLETE	20150922-01	10037396	Pewaukee River 14M US of Busse Rd S of I-94
9/22/2015 11:00	COMPLETE	20150922-02	10043144	Poplar Creek Barker Road Bridge
9/22/2015 12:27	COMPLETE	20150922-04	10039799	Pebble Creek at Kame Terrace Culvert (Upstream)
10/13/2015 0:15	COMPLETE	20151013-68-04	10011876	Coco Creek At Yench Road (75m Upstream)
10/13/2015 10:00	COMPLETE	20151013-68-01	683225	Fox River at Cth Jj (Bi Survey)
10/13/2015 11:00	COMPLETE	20151013-68-02	10038944	Pewaukee River at HWY M Bridge
10/13/2015 11:45	COMPLETE	20151013-68-03	10037396	Pewaukee River 14M US of Busse Rd S of I-94
10/13/2015 13:30	COMPLETE	20151013-05	10029789	Pewaukee River at Lindsey Road
10/15/2015 10:00	COMPLETE	20151015-68-02	10008076	Pebble Creek - 1-Madison St.
10/16/2015 9:30	COMPLETE	20151016-68-01	10016039	Deer Creek at W Rogers Drive
10/16/2015 10:15	COMPLETE	20151016-68-02	10040235	Poplar Creek at W Cleveland Ave 0.2 mi W of S Calhoun Rd
10/16/2015 11:15	COMPLETE	20151016-68-03	10037059	Deer Creek at Brookfield Road

10/16/2015 12:30	COMPLETE	20151016-68-04	10043144	Poplar Creek Barker Road Bridge
10/20/2015 13:08	COMPLETE	20151020-02	10039799	Pebble Creek at Kame Terrace Culvert (Upstream)
10/20/2015 13:30	COMPLETE	20151020-01	683310	Fox River at Prairie St At Waukesha WI
10/20/2015 13:45	COMPLETE	20151020-68-02	683310	Fox River at Prairie St At Waukesha WI
10/20/2015 13:55	COMPLETE	20151020-03	10037396	Pewaukee River 14M US of Busse Rd S of I-94
10/20/2015 14:21	COMPLETE	20151020-04	10043144	Poplar Creek Barker Road Bridge
10/30/2015	COMPLETE	20151030-68-01	10021350	Brandy Brook
10/30/2015	COMPLETE	20151030-68-02	10043698	Unnamed Trib to Pebble Creek DS of Hwy TT

Documents						
Title	Description	Author	Published	Comments		
' '	Assessments and recommendations for the Watershed.	Sabre, Rachel	6/17/2020			

Budget

Budget Description: FY2016			Start Dat	te: 7/1/2015	End Date	: 6/30/2016
Code	Description (Quantity Units	Unit Cost	Total Cost	Comments	
FTE	FTE Hours	500 Hours	\$0.00	\$0.00	2 FTE X 25 days day) 1 FTE (10 o planning and bu count toward ho 30 timeline))	days meetings, gs) (bugs don't
LTE SAL	LTE Salary	120 Hours	\$13.00	\$1,560.00	1 LTE X 15 day day)	(8 hours per
LTE FR	LTE Fringe			\$385.32		
LTE IND	LTE Indirect			\$314.56		
LTE TOT	LTE Total Cost			\$2,259.88		
SUPPLY	Supplies		\$200.00	\$0.00	Office Supplies (paper, 1 bx pend flagging) disinfer bt bleach, 2 scrusafety gear (2 bt suntan lotion, 4 glasses))	cils, 1 roll ction supplies (2 b brushes) ug spray, 2
EQUIP	Equipment		\$420.00	\$0.00	6 pairs waders > LTE and 4 for F	
MILEAGE	Mileage	2250 Miles	\$0.72	\$1,620.00	30 trips X 75 mil	es per trip
MEAL	Meals	74 Meals	\$9.00	\$666.00	25 X 2FTE; 4 X LTE	1 FTE; 10 X 2
LODGE	Lodging			\$0.00		
TRAVEL	Travel Total			\$2,286.00		
BUG	Bug Contracts	15	\$180.00	\$2,700.00		
OTHER	Other Contracts	3	\$200.00	\$600.00	Diatom IBI aloca	tion
USGS	USGS Costs			\$0.00		
TOTAL	Total Cost (excludes SLOH)			\$7,845.88		
Test Code	Description	Test Group		# Planned	Unit Cost	Total Cost
I440NLD	AMMONIA (AS N), DISS (EPA 350.1)	INORGANIC CHEMISTRY		28	\$32.39	\$906.92
I460GLT	NITRATE + NITRITE (AS N) (EPA 353.	2) INORGANIC CHEMISTRY		28	\$27.89	\$780.92
I470DLT	TOTAL KJELDAHL NITROGEN (AS N) (EPA 351.2)	INORGANIC CHEMISTRY		28	\$32.99	\$923.72
I520PLT	TOTAL PHOSPHORUS (AS P) (EPA 3	65.1) INORGANIC CHEMISTRY		43	\$23.60	\$1,014.80
I650JLT	SUSPENDED SOLIDS (EPA METHOD 160.2)	INORGANIC CHEMISTRY		28	\$18.80	\$526.40

Total WSLH Lab Costs:\$4,152.76Total Budget:\$11,998.64

Budget Desc	ription: FY2017		Start Dat	e : 7/1/2016	End Date: 6/30/2017
Code	Description	Quantity Units	Unit Cost	Total Cost C	Comments
FTE	FTE Hours	Hours	\$0.00	\$0.00	
LTE SAL	LTE Salary	Hours	\$13.00	\$0.00	
LTE FR	LTE Fringe			\$0.00	
LTE IND	LTE Indirect			\$0.00	
LTE TOT	LTE Total Cost			\$0.00	
SUPPLY	Supplies			\$0.00	
EQUIP	Equipment			\$0.00	
MILEAGE	Mileage	Miles	\$0.72	\$0.00	
MEAL	Meals	Meals	\$9.00	\$0.00	
LODGE	Lodging			\$0.00	
TRAVEL	Travel Total			\$0.00	
BUG	Bug Contracts			\$0.00	
OTHER	Other Contracts			\$0.00	
USGS	USGS Costs			\$0.00	
TOTAL	Total Cost (excludes SLOH)			\$0.00	

Total WSLH Lab Costs: \$0.00

Total Budget: \$0.00

Combined Budgets: \$7,845.88
Combined WSLH: \$4,152.76
Combined Total: \$11,998.64

Funding						
Organization	Source	Туре	Amount	Start Date	End Date	