### **General Project Information**

Project ID:	East_TWA_6_2016
Name:	Pine and Calvin Creek Frontal Lake Michigan TWA WQM Plan, 2017
Туре:	Targeted Watershed Approach
Subtype:	Planning (WQ, Nine Key Element)
Status:	COMPLETE
Start Date:	5/1/2016
End Date:	12/31/2018
Purpose:	Targeted watershed assessment for the Pine Creek subwatershed under the planning category. Assess the overall chemical, physical and biological condition of both Pine Creek and Calvin Creek which discharge to Lake Michigan.
Objective:	
Comments:	
Outcome:	
Study Design:	<ul> <li>Monitoring will consist of the following:</li> <li>1. Six monthly water chemistry samples during the growing season for TP, N, and TSS.</li> <li>2. Continuous temperature meters at two locations during the growing season .</li> <li>3. Quantitative and qualitative habitat assessments.</li> <li>4. Fish surveys at six locations.</li> <li>5. Macroinvertebrate samples at six locations.</li> <li>6. Diatom samples at two locations.</li> </ul>

QA Measures: Standard D	JNK and	SLOH	protocols will be followed.
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### People

Name	Role	Status	Start Date	End Date	Organization	Comments
Gansberg, Mary K	PROJECT_LEA D	COMPLETE	5/1/2016	12/31/2099	Wisconsin DNR	
Helmuth, Lisa D	COORDINATOR	INACTIVE	11/23/2019	12/28/2022	Wisconsin DNR	
PAPPAS, RYAN J	TEAM_MEMBER	ACTIVE	5/1/2016	12/31/2099	Wisconsin DNR	

## **Project Statuses**

Date	Reported By	Status	Comments
2/22/2016	Mary Gansberg	Proposed	
11/3/2016	Mary Gansberg	Progress: 50-75% Complete	All field work completed in 2016.
12/10/2016	Mary Gansberg	Progress: 50-75% Complete	All data generated entered in SWIMS. Draft report started.

### **Project Status Detail**

Actions

-/4/0040		
5/1/2016 12	2/31/2016	COMPLETE
5/1/2016 12	2/31/2016	COMPLETE
5/1/2016 12	2/31/2016	COMPLETE
1/16/2018		PROPOSED

Station ID	Name	Comments
10044972	Calvin Creek 15 meters US Clover Road	

10045061	Calvin Creek 200 meters DS South 26th Street
363227	Calvin Creek at Cth Ls (Bi Sur)
10016013	Pine Cr Above Cth U
10045064	Pine Creek 120 Meters DS Carstens Road
10045063	Pine Creek 25 Meters US Gass Lake Road
363295	Pine Creek at Carstens Lake Rd
363296	Pine Creek at Center Road
10016345	Pine Crk Above And Under Ls Bridge

### **Assessment Units**

WBIC	Segment	Local Name	Official Name
66300	1	Pine Creek	Pine Creek
66300	2	Pine Creek	Pine Creek
66300	3	Pine Creek	Pine Creek
66900	1	Calvin Creek	Calvin Creek

#### 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
CONTINUOUS	Continuous Data Upload
CBSM-TEST	Macroinvertebrate Field Data
QUAL_FISH_HAB_LESS10	Qualitative Fish Habitat Less Than 10 M
WADEABLE_MACRO_FIELD	Wadeable Macroinvertebrate Field & Habitat Data

#### Methods

Method Code	Method Description
FISH SURVEY BASELINE PROTOCOLS	Fish Survey Baseline Protocols 2004
HABITAT SURVEY BASELINE PROTOCOLS	Habitat Baseline Survey Quantitative 2004
MACROINVERTEBRATE BASELINE PROTOCOLS	Macroinvertebrate Baseline D-frame Kick Net 2004
GRAB SAMPLE	Water Grab Sample Guidelines and Procedures 2005

#### **Fieldwork Events**

Start Date	Status	Field ID	Station ID	Station Name
4/26/2016 16:00	COMPLETE		10045061	Calvin Creek 200 meters DS South 26th Street

4/26/2016 16:00	COMPLETE		10016345	Pine Crk Above And Under Ls Bridge
5/15/2016 16:50	COMPLETE	PCLSB-2016-MAY	10016345	Pine Crk Above And Under Ls Bridge
5/15/2016 17:15	COMPLETE	CCCLS-2016-MAY	363227	Calvin Creek at Cth Ls (Bi Sur)
6/13/2016 17:55	COMPLETE	PCLSB-2016-JUNE	10016345	Pine Crk Above And Under Ls Bridge
6/13/2016 18:15	COMPLETE	CCCLS-2016-JUNE	363227	Calvin Creek at Cth Ls (Bi Sur)
6/14/2016 10:00	COMPLETE		10045061	Calvin Creek 200 meters DS South 26th Street
6/14/2016 15:00	COMPLETE		10045064	Pine Creek 120 Meters DS Carstens Road
6/14/2016 16:00	COMPLETE		10045063	Pine Creek 25 Meters US Gass Lake Road
6/15/2016 13:00	COMPLETE		10016013	Pine Cr Above Cth U
7/20/2016 16:00	COMPLETE	PCLSB-2016-JULY	10016345	Pine Crk Above And Under Ls Bridge
7/20/2016 16:20	COMPLETE	CCCLS-2016-JULY	363227	Calvin Creek at Cth Ls (Bi Sur)
8/23/2016 16:15	COMPLETE	PCLSB-2016-AUGUST	10016345	Pine Crk Above And Under Ls Bridge
8/23/2016 16:35	COMPLETE	CCCLS-2016-AUGUST	363227	Calvin Creek at Cth Ls (Bi Sur)
9/20/2016 17:00	COMPLETE	PCLSB-2016-SEP	10016345	Pine Crk Above And Under Ls Bridge
9/20/2016 17:20	COMPLETE	CCCLS-2016-SEP	363227	Calvin Creek at Cth Ls (Bi Sur)
9/29/2016 16:00	COMPLETE	201609293602	10045064	Pine Creek 120 Meters DS Carstens Road
10/4/2016 13:00	COMPLETE	201610043605	363227	Calvin Creek at Cth Ls (Bi Sur)
10/4/2016 14:00	COMPLETE	201610043604	10016345	Pine Crk Above And Under Ls Bridge
10/4/2016 15:00	COMPLETE	201610043603	10045063	Pine Creek 25 Meters US Gass Lake Road
10/18/2016 9:00	COMPLETE	201610183609	10045061	Calvin Creek 200 meters DS South 26th Street
10/18/2016 11:00	COMPLETE	201610183610	10044972	Calvin Creek 15 meters US Clover Road
10/19/2016 16:20	COMPLETE	PCLSB-2016-OCTOBER	10016345	Pine Crk Above And Under Ls Bridge
10/19/2016 16:35	COMPLETE	CCCLS-2016-OCTOBER	363227	Calvin Creek at Cth Ls (Bi Sur)

## Documents

Title	Description	Author	Published	Comments
2016 Total Phosphorus Monitoring Report - Calvin Creek at CTH LS	This project is a targeted watershed assessment for the Pine Creek subwatershed under the planning category. The goal is to assess the overall chemical, physical and biological condition of both Pine Creek and Calvin Creek which discharge to Lake Michigan. WAV Volunteers were selected to monitor total phosphorus levels at two sites in the Pine Creek subwatershed for this project.	llana Haimes	1/10/2017	

2016 Total Phosphorus Monitoring Report - Pine Creek- above and under LS bridge	This project is a targeted watershed assessment for the Pine Creek subwatershed under the planning category. The goal is to assess the overall chemical, physical and biological condition of both Pine Creek and Calvin Creek which discharge to Lake Michigan. WAV Volunteers were selected to monitor total phosphorus levels at two sites in the Pine Creek subwatershed for this project.	Ilana Haimes	1/10/2017	
CALVIN Creek at S.26 ST START OF STATION (66900) PHOTO BY MARY GANSBERG	CALVIN Creek at S.26 ST START OF STATION (66900) PHOTO BY MARY GANSBERG	Gansberg, Mary	6/14/2016	
Calvin Creek 15 meters US Clover Road: Natural Community	Calvin Creek 15 meters US Clover Road: Natural Community	Gansberg, Mary	6/24/2017	
Calvin Creek 200 meters DS South 26th Natural Community Validation 2017	Calvin Creek 200 meters DS South 26th Natural Community Validation 2017	Gansberg, Mary	6/22/2017	
Calvin Creek 200 meters DS South 26th Street NC Validation 2017	Calvin Creek 200 meters DS South 26th Street NC Validation 2017	Gansberg, Mary	6/7/2017	
Calvin Creek Clover Rd (1) (66900) photo	Calvin Creek Clover Rd (1) (66900) photo	Gansberg, Mary	10/18/2016	
Calvin Creek Clover Rd (2) (66900) photo	Calvin Creek Clover Rd (2) (66900) photo	Gansberg, Mary	10/18/2016	
Calvin Creek County Trunk Hwy LS (1) (66900) photo by Mary Gansberg	Calvin Creek County Trunk Hwy LS (1) (66900) photo by Mary Gansberg	Gansberg, Mary	10/4/2016	
Calvin Creek County Trunk Hwy LS (2) (66900) photo by Mary Gansberg	Calvin Creek County Trunk Hwy LS (2) (66900) photo by Mary Gansberg	Gansberg, Mary	10/4/2016	
Calvin Creek County Trunk Hwy LS (3) (66900) photo by Mary Gansberg	Calvin Creek County Trunk Hwy LS (3) (66900) photo by Mary Gansberg	Gansberg, Mary	10/4/2016	
Calvin Creek County Trunk Hwy LS (4) (66900) photo by Mary Gansberg	Calvin Creek County Trunk Hwy LS (4) (66900) photo by Mary Gansberg	Gansberg, Mary	10/4/2016	
Calvin Creek County Trunk Hwy LS (5) (66900) photo by Mary Gansberg	Calvin Creek County Trunk Hwy LS (5) (66900) photo by Mary Gansberg	Gansberg, Mary	10/4/2016	
Calvin Creek County Trunk Hwy LS (6) (66900) photo by Mary Gansberg	Calvin Creek County Trunk Hwy LS (6) (66900) photo by Mary Gansberg	Gansberg, Mary	10/4/2016	
Calvin Creek County Trunk Hwy LS (7) (66900) photo by Mary Gansberg	Calvin Creek County Trunk Hwy LS (7) (66900) photo by Mary Gansberg	Gansberg, Mary	10/4/2016	

Calvin Creek S. 26th street (1) (66900) photo	Calvin Creek S. 26th street (1) (66900) photo		10/18/2016	
Calvin Creek S. 26th street (2) (66900) photo	Calvin Creek S. 26th street (2) (66900) photo		10/18/2016	
Calvin Creek at Clover Rd Downstream of station (66900) photo	Calvin Creek at Clover Rd Downstream of station (66900) photo		6/6/2016	
Calvin Creek at Clover Rd Upstream of station (66900) photo	Calvin Creek at Clover Rd Upstream of station (66900) photo	Gansberg, Mary	6/6/2016	
Calvin Creek at Clover Road EOS	end of station	pappas	6/6/2016	
Calvin Creek at Clover Road SOS	start of station	pappas	6/6/2016	
Calvin Creek at S. 26 St. end of station (66900) photo by Mary Gansberg	Calvin Creek at S. 26 St. end of station (66900) photo by Mary Gansberg	Gansberg, Mary	6/14/2016	
Calvin Creek at South 26th Street EOS	fish assessment and habitat surveys	pappas	6/14/2016	SWIMS: 10045061
Calvin Creek at South 26th Street SOS	fish assessment and habitat surveys	pappas	6/14/2016	SWIMS: 10045061
Perched Culvert on Calvin Creek downstream CTH LS		Ryan Pappas	10/4/2016	perched culvert
Perched Culvert on Calvin Creek downstream south 26th street		Ryan Pappas	10/4/2016	Perched Culvert
Pine Cr at Carstens Rd end of station (66300) photo by Mary Gansberg	Pine Cr at Carstens Rd end of station (66300) photo by Mary Gansberg	Gansberg, Mary	6/15/2016	
Pine Creek CTH U EOS- small	Pine Creek CTH U EOS-small	Gansberg, Mary	6/15/2016	
Pine Creek 25 Meters US Gass Lake Road NC Validation 2017	Both intolerant and tolerant species are outside the expected range, therefore the difference in NC is likely human- caused so NC should not be changed. (Mary)	Gansberg, Mary	6/7/2017	
Pine Creek Gass Lake Rd EOS-Small	Pine Creek Gass Lake Rd EOS-Small	gANSBERG, mARY	6/15/2016	
Pine Creek at CTH U EOS	fish assessment and habitat surveys	pappas	6/15/2016	SWIMS: 10016013
Pine Creek at CTH U SOS	Fish assessment and habitat surveys	pappas	6/15/2016	SWIMS: 10016013
Pine Creek at Carstens Rd start of station (66300) photo by Mary Gansberg	Pine Creek at Carstens Rd start of station (66300) photo by Mary Gansberg	Gansberg, Mary	6/15/2016	
Pine Creek at Carstens Road EOS	Fish assessment and Habitat	pappas	6/15/2016	SWIMS: 10045064

Pine Creek at Carstens Road SOS	Fish assessment and habitat at site	pappas	6/15/2016	SWIMS: 10045064
Pine Creek at County Trunk Hwy U end of station (66300) photo by Mary Gansberg	Pine Creek at County Trunk Hwy U end of station (66300) photo by Mary Gansberg	Gansberg, Mary	6/15/2016	
Pine Creek at County Trunk Hwy U start of station (66300) photo by Mary Gansberg	Pine Creek at County Trunk Hwy U start of station (66300) photo by Mary Gansberg	Gansberg, Mary	6/15/2016	
Pine Creek at Gass Lake Rd end of station (66300) photo by Mary Gansberg	Pine Creek at Gass Lake Rd end of station (66300) photo by Mary Gansberg	Gansberg, Mary	6/15/2016	
Pine Creek at Gass Lake Rd start of station (66300) photo by Mary Gansberg	Pine Creek at Gass Lake Rd start of station (66300) photo by Mary Gansberg	Gansberg, Mary	6/15/2016	
Pine Creek at Gass Lake Road EOS	fish assessment and habitat	pappas	6/14/2016	SWIMS 10045063
Pine Creek at Gass Lake Road SOS	Fish assessment and habitat	pappas	6/14/2016	SWIMS: 10045063
Pine and Calvin Creek TWA WQM Plan 2017 Presentation	Pine and Calvin Creek TWA WQM Plan 2017 Presentation	WDNR	8/10/2017	
Pine and Calvin Creek TWA WQM Plan [MA01]	Assessments and recommendations for the Watershed. Pine and Calvin Creek TWA WQM Plan Final [MA01]	WDNR	7/16/2017	

Budget

Budget Desc	ription: Pine and Calvin Creek FY	16	Start Date	: 5/1/2016	End Date: 6/30/2016
Code	Description	Quantity Units	Unit Cost	Total Cost	Comments
FTE	FTE Hours	40 Hours	\$0.00	\$0.00	
LTE SAL	LTE Salary	40 Hours	\$13.00	\$520.00	
LTE FR	LTE Fringe			\$128.44	
LTE IND	LTE Indirect			\$104.85	
LTE TOT	LTE Total Cost			\$753.29	
SUPPLY	Supplies			\$0.00	
EQUIP	Equipment			\$0.00	
MILEAGE	Mileage	300 Miles	\$0.72	\$216.00	
MEAL	Meals	6 Meals	\$9.00	\$54.00	
LODGE	Lodging			\$0.00	
TRAVEL	Travel Total			\$270.00	
BUG	Bug Contracts			\$0.00	
OTHER	Other Contracts			\$0.00	
USGS	USGS Costs			\$0.00	
TOTAL	Total Cost (excludes SLOH)			\$1,023.29	

Total WSLH Lab Costs:	\$0.00
Total Budget:	\$1,023.29

Budget Desc	ription: Pine Creek and Calvin Cre	eek FY17	Start Dat	e: 7/1/2016	End Date: 12/31/2016
Code	Description	Quantity Units	Unit Cost	Total Cost	Comments
FTE	FTE Hours	40 Hours	\$0.00	\$0.00	
LTE SAL	LTE Salary	80 Hours	\$13.00	\$1,040.00	
LTE FR	LTE Fringe			\$256.88	
LTE IND	LTE Indirect			\$209.71	
LTE TOT	LTE Total Cost			\$1,506.59	
SUPPLY	Supplies			\$0.00	
EQUIP	Equipment			\$0.00	
MILEAGE	Mileage	400 Miles	\$0.72	\$288.00	
MEAL	Meals	10 Meals	\$9.00	\$90.00	
LODGE	Lodging			\$0.00	
TRAVEL	Travel Total			\$378.00	
BUG	Bug Contracts	6	\$185.00	\$1,110.00	
OTHER	Other Contracts	2	\$150.00	\$300.00	Diatom sample analysis
USGS	USGS Costs			\$0.00	
TOTAL	Total Cost (excludes SLOH)			\$3,294.59	

\$0.00			
\$3,294.59			
\$4,317.88			
\$0.00			
\$4,317.88			

Funding					
Organization	Source	Туре	Amount	Start Date	End Date