

Wisconsin Department of Natural Resources SWIMS Project Summary

General Project Information

Project ID: East_TWA_2_2016

Name: Crystal River and Waupaca Chain of Lakes, Protection Monitoring, 2016

Type: Targeted Watershed Approach

Subtype: Protection (Healthy or Vulnerable)

Status: COMPLETE

Start Date: 4/1/2016

End Date: 12/31/2017

Purpose: This project involved evaluation of water quality improvements and preservation efforts made in the Crystal River and Waupaca Chain of Lakes Subwatersheds within the Waupaca/Tomorrow River Watershed from Best Management Practices installed in the watershed from 1996 through 2002 as part of the Waupaca River Priority Watershed Project. [TWA HUC10-0403020218]. Section 319 project.

Objective: This project evaluated the effectiveness of BMPs installed in 3 HUC 12 watersheds in the Waupaca/Tomorrow River HUC 10-0403020218 watershed following a Priority Watershed Project in 1995. This project was designed to help determine if the goals of the Priority Watershed Project (to protect and improve the watershed water quality) were met.

Monitoring was conducted in 5 waters (WBICs: 260200, 261300, 263000, 259300, & 258200), with aquatic macroinvertebrate samples collected at 9 locations. Qualitative Habitat assessments were conducted at 9 locations. Fish surveys were conducted at 1 location. Temperature thermistors were deployed at 9 locations. Inorganic chemistry (TP, TN, and NO3-N) monitoring was conducted at 7 locations.

Comments: This is a new, 1 year project.

Outcome: Water quality monitoring was conducted at 9 locations. Monitoring included collecting aquatic macroinvertebrates at 9 locations in October 2016. One day of sampling and 1 day to represerve and transport to UWSP. All data will be entered into SWIMS database by UWSP staff by 12/30/2017. Qualitative Habitat surveys at 9 locations in FY17. One sampling day in FY17 was needed to complete monitoring and 2 days were used to enter the data into the fisheries database.

All data will be entered into FMDB by Water Resources staff by 12/31/2016. Fish surveys were conducted at 1 location in FY17. One day of sampling will be completed for the field survey between July and September 2016. All fish data will be entered into the FMDB by Water Resources staff by 12/31/2016.

Thermistors will be deployed at 9 locations from May to October 2016 to collect temperature data. Five sampling days will occur to deploy and retrieve the thermistors. All data will be uploaded into SWIMS by Water Resources staff by 12/31/2016. Inorganic chemistry (TP, TN, and NO3-N) monitoring will be conducted at 7 locations. Sampling will occur once per month May through October 2016 for TP, TN, and NO3-N at 7 locations. All samples will be collected by WAV. All samples will be sent to Wisconsin State Lab of Hygiene for analysis and will be entered by the lab into SWIMS by 12/31/2016. A final report will be written and attached to this project by 12/31/2017.

Study Design:

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

People

Name	Role	Status	Start Date	End Date	Organization	Comments
BOLHA, DAVID A	COORDINATOR	ACTIVE	4/1/2016		Wisconsin DNR	
DICKMANN, JACOB C	TEAM_MEMBER	COMPLETE	4/1/2016	12/31/2017	Wisconsin DNR	
Helmuth, Lisa D	COORDINATOR	INACTIVE	11/23/2019	12/28/2022	Wisconsin DNR	
Kleeman, ZACHARY K	TEAM_MEMBER	COMPLETE	4/1/2016	12/31/2017	Wisconsin DNR	
Perdzock, Amanda R	COORDINATOR	ACTIVE	4/4/2018		Wisconsin DNR	
WATSON, SAMANTHA M	TEAM_MEMBER	ACTIVE	4/1/2016	12/31/2017	Wisconsin DNR	

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Project Statuses			
Date	Reported By	Status	Comments
1/22/2016	DAVID BOLHA	Proposed	
12/12/2017	DAVID BOLHA	Complete	
9/30/2021	DAVID BOLHA	Public Comment Period	Enter NC into WATERS

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 Water Quality or Sediment	This project will evaluate water quality improvement/ preservation efforts made in the Crystal River and Waupaca Chain of Lakes Subwatersheds within the Waupaca/Tomorrow River Watershed from Best Management Practices installed in the watershed from 1996 through 2002 as part of the Waupaca River Priority Watershed Project. [TWA HUC10-0403020218]. Section 319 project.	4/1/2016	12/31/2017	COMPLETE

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

Grant Awarded	This project will evaluate water quality improvement/ preservation efforts made in the Crystal River and Waupaca Chain of Lakes Subwatersheds within the Waupaca/Tomorrow River Watershed from Best Management Practices installed in the watershed from 1996 through 2002 as part of the Waupaca River Priority Watershed Project. [TWA HUC10-0403020218]. Section 319 project.	4/1/2016	12/31/2017	COMPLETE
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Monitoring Stations

5/9/2024

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Station ID	Name	Comments
10029308	CRYSTAL RIVER BELOW DAM IN WAUPACA	
10016457	Crystal River - Shadow Lake Road	
10044684	Crystal River US Cty Hwy E and Cary Millpond	
693118	Crystal River at Hwy 22	
10042816	Crystal River at Sanders Rd	
10022518	Emmons Creek - West Rd.	
693117	Hartman Creek at Rural Road	
10039108	Murry Creek at West Road	
10013685	Radley Creek-Dayton Rd.	

Assessment Units

WBIC	Segment	Local Name	Official Name
258200	1	Crystal River	Crystal River
258200	2	Crystal River	Crystal River
259300	1	Radley Creek	Radley Creek
260200	1	Murry Creek (N Fork Radley Cr)	Murry Creek
261300	1	Emmons Creek	Emmons Creek
263000	1	Hartman Creek	Hartman Creek

Lab Account Codes

Account Code	Description	Start Date	End Date
WQ019	319 Project Funded TWA	3/22/2016	12/31/2016
WQ023	319 PROJECT FUNDED TWA	12/19/2016	12/31/2017

Forms

Form Code	Form Name
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Methods

Method Code	Method Description
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Fieldwork Events

Start Date	Status	Field ID	Station ID	Station Name
5/14/2016 11:30	COMPLETE	ECWR-2016-MAY	10022518	Emmons Creek - West Rd.
5/15/2016 10:30	COMPLETE	HCRR-2016-MAY	693117	Hartman Creek at Rural Road
5/17/2016 8:45	COMPLETE	RCDR2016	10013685	Radley Creek-Dayton Rd.
5/17/2016 9:20	COMPLETE	MCWR2016 MAY	10039108	Murry Creek at West Road
5/18/2016	COMPLETE	129131581	10044684	Crystal River US Cty Hwy E and Cary Millpond
5/18/2016 15:00	COMPLETE	129131573	10029308	CRYSTAL RIVER BELOW DAM IN WAUPACA

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5/18/2016 15:40	COMPLETE	129131577	10016457	Crystal River - Shadow Lake Road
5/25/2016	COMPLETE		10039108	Murry Creek at West Road
5/25/2016	COMPLETE		10042816	Crystal River at Sanders Rd
5/25/2016	COMPLETE		10022518	Emmons Creek - West Rd.
5/25/2016	COMPLETE		10016457	Crystal River - Shadow Lake Road
5/25/2016	COMPLETE		10029308	CRYSTAL RIVER BELOW DAM IN WAUPACA
6/14/2016 11:10	COMPLETE	RCDR-2016-JUNE	10013685	Radley Creek-Dayton Rd.
6/14/2016 11:30	COMPLETE	MCWR-2016-JUNE	10039108	Murry Creek at West Road
6/14/2016 12:05	COMPLETE	NA	10016457	Crystal River - Shadow Lake Road
6/14/2016 12:30	COMPLETE	NA	10044684	Crystal River US Cty Hwy E and Cary Millpond
6/14/2016 13:00	COMPLETE	NA	10029308	CRYSTAL RIVER BELOW DAM IN WAUPACA
6/26/2016 11:00	COMPLETE	HCRR-2016-JUNE	693117	Hartman Creek at Rural Road
7/14/2016 9:00	COMPLETE	HCRR-2016-JULY	693117	Hartman Creek at Rural Road
7/14/2016 11:30	COMPLETE	CRYSTAL RIVER SHADOW	10016457	Crystal River - Shadow Lake Road
7/14/2016 11:50	COMPLETE	CRYSTAL RIVER US CTH	10044684	Crystal River US Cty Hwy E and Cary Millpond
7/14/2016 12:05	COMPLETE	CRYSTAL RIVER BELOW	10029308	CRYSTAL RIVER BELOW DAM IN WAUPACA
7/19/2016 14:05	COMPLETE	MCWR-2016-JULY	10039108	Murry Creek at West Road
7/19/2016 14:26	COMPLETE	RCDR-2016-JULY	10013685	Radley Creek-Dayton Rd.
8/7/2016 11:00	COMPLETE	HCRR-2016-AUGUST	693117	Hartman Creek at Rural Road
8/9/2016 11:30	COMPLETE	ECWR-2016-AUGUST	10022518	Emmons Creek - West Rd.
8/9/2016 12:40	COMPLETE	CRYSTAL RIVER- SHADO	10016457	Crystal River - Shadow Lake Road
8/9/2016 13:15	COMPLETE	CRYSTAL RIVER- US CT	10044684	Crystal River US Cty Hwy E and Cary Millpond
8/9/2016 13:30	COMPLETE	CRYSTAL RIVER- BELOW	10029308	CRYSTAL RIVER BELOW DAM IN WAUPACA
8/15/2016 8:12	COMPLETE	RCDR-2016-AUGUST	10013685	Radley Creek-Dayton Rd.
8/15/2016 8:30	COMPLETE	MCWR-2016-AUGUST	10039108	Murry Creek at West Road
9/12/2016 8:55	COMPLETE	RCDR2016-SEPTEMBER	10013685	Radley Creek-Dayton Rd.
9/12/2016 9:17	COMPLETE	MCWR-2016- SEPTEMBER	10039108	Murry Creek at West Road
9/14/2016	COMPLETE		693117	Hartman Creek at Rural Road
9/14/2016 15:00	COMPLETE		693117	Hartman Creek at Rural Road
9/21/2016 12:45	COMPLETE	CRYSTAL, SHADOW	10016457	Crystal River - Shadow Lake Road
9/21/2016 13:00	COMPLETE	CRYSTAL, HWY E	10044684	Crystal River US Cty Hwy E and Cary Millpond
9/21/2016 13:20	COMPLETE	CRYSTAL, BELOW DAM	10029308	CRYSTAL RIVER BELOW DAM IN WAUPACA
9/28/2016 7:30	COMPLETE	HCRR-2016-SEP	693117	Hartman Creek at Rural Road

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9/28/2016 8:00	COMPLETE	ECWR-2016-SEP	10022518	Emmons Creek - West Rd.
10/16/2016 13:00	COMPLETE	RCDR-2016-OCT	10013685	Radley Creek-Dayton Rd.
10/16/2016 13:24	COMPLETE	MCWR-2016-OCT	10039108	Murry Creek at West Road
10/18/2016	COMPLETE		10022518	Emmons Creek - West Rd.
10/18/2016	COMPLETE		693117	Hartman Creek at Rural Road
10/18/2016	COMPLETE		693118	Crystal River at Hwy 22
10/18/2016	COMPLETE		10029308	CRYSTAL RIVER BELOW DAM IN WAUPACA
10/18/2016	COMPLETE		10016457	Crystal River - Shadow Lake Road
10/18/2016	COMPLETE		10044684	Crystal River US Cty Hwy E and Cary Millpond
10/18/2016	COMPLETE		10042816	Crystal River at Sanders Rd
10/19/2016 13:40	COMPLETE	NA	10016457	Crystal River - Shadow Lake Road
10/19/2016 13:55	COMPLETE	NA	10044684	Crystal River US Cty Hwy E and Cary Millpond
10/19/2016 14:10	COMPLETE	NA	10029308	CRYSTAL RIVER BELOW DAM IN WAUPACA
10/27/2016 11:00	COMPLETE	ECWR-2016-OCT	10022518	Emmons Creek - West Rd.
10/28/2016 11:00	COMPLETE	HCRR-2016-OCT	693117	Hartman Creek at Rural Road
6/21/2017 14:30	COMPLETE	NA	10022518	Emmons Creek - West Rd.
7/17/2017 11:20	COMPLETE	NA	10022518	Emmons Creek - West Rd.

Documents

Title	Description	Author	Published	Comments
2016 Total Phosphorus Monitoring Report - Emmons Creek - West Rd	This project will evaluate water quality improvement/preservation efforts made in the Crystal River and Waupaca Chain of Lakes subwatersheds within the Waupaca/Tomorrow River Watershed from Best Management Practices installed in the watershed from 1996 through 2002 as part of the Waupaca River Priority Watershed Project. WAV volunteers were selected to monitor total phosphorus levels at two of the sites included in this project.	Ilana Haimes	1/6/2017	
2016 Total Phosphorus Monitoring Report - Hartman Creek at Rural Road	This project will evaluate water quality improvement/preservation efforts made in the Crystal River and Waupaca Chain of Lakes subwatersheds within the Waupaca/Tomorrow River Watershed from Best Management Practices installed in the watershed from 1996 through 2002 as part of the Waupaca River Priority Watershed Project. WAV volunteers were selected to monitor total phosphorus levels at two of the sites included in this project.	Ilana Haimes	1/6/2017	

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2016 Total Phosphorus Monitoring Report - Murry Creek @ West Road	This project will evaluate water quality improvement/preservation efforts made in the Crystal River and Waupaca Chain of Lakes subwatersheds within the Waupaca/Tomorrow River Watershed from Best Management Practices installed in the watershed from 1996 through 2002 as part of the Waupaca River Priority Watershed Project. WAV volunteers were selected to monitor total phosphorus levels at two of the sites included in this project.	Ilana Haimes	1/6/2017	
2016 Total Phosphorus Monitoring Report - Radley Creek at Dayton Rd.	This project will evaluate water quality improvement/preservation efforts made in the Crystal River and Waupaca Chain of Lakes subwatersheds within the Waupaca/Tomorrow River Watershed from Best Management Practices installed in the watershed from 1996 through 2002 as part of the Waupaca River Priority Watershed Project. WAV volunteers were selected to monitor total phosphorus levels at two of the sites included in this project.	Ilana Haimes	1/6/2017	
Crystal River TWA Nutrient Monitoring Sites 2016	TWA Crystal River TWA Nutrient Monitoring Sites 2016	Bolha, David	2/18/2016	
Priority Watershed Water Quality Evaluation for the Tomorrow-Waupaca River Watershed, Portage and Waupaca County, Wisconsin	Final Monitoring Report for TWA in 2016. 3200-2017-42	Bolha, David	11/1/2017	Crystal River Watershed is a HUC 12 in the Tomorrow-Waupaca River HUC 10.

Budget

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Budget Description: Crystal River FY2016	Start Date: 4/1/2016	End Date: 6/30/2016
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Code	Description	Quantity	Units	Unit Cost	Total Cost	Comments
FTE	FTE Hours	70	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	1		\$125.00	\$125.00	Batteries, Ice, Shipping
EQUIP	Equipment	1		\$200.00	\$200.00	Waders
MILEAGE	Mileage	500	Miles	\$0.62	\$310.00	
MEAL	Meals	12	Meals	\$10.00	\$120.00	
LODGE	Lodging				\$0.00	
TRAVEL	Travel Total				\$430.00	
BUG	Bug Contracts				\$0.00	
OTHER	Other Contracts				\$0.00	
USGS	USGS Costs				\$0.00	
TOTAL	Total Cost (excludes SLOH)				\$1,508.29	

Total WSLH Lab Costs: \$0.00
Total Budget: \$1,508.29

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Budget Description: Crystal River FY17			Start Date: 7/1/2016	End Date: 6/30/2017
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Code	Description	Quantity	Units	Unit Cost	Total Cost	Comments
FTE	FTE Hours	220	Hours	\$0.00	\$0.00	
LTE SAL	LTE Salary	130	Hours	\$13.00	\$1,690.00	
LTE FR	LTE Fringe				\$417.43	
LTE IND	LTE Indirect				\$340.77	
LTE TOT	LTE Total Cost				\$2,448.20	
SUPPLY	Supplies	1		\$325.00	\$325.00	Batteries, Ice, Shipping, Alcohol
EQUIP	Equipment				\$0.00	
MILEAGE	Mileage	700	Miles	\$0.62	\$434.00	
MEAL	Meals	16	Meals	\$10.00	\$160.00	
LODGE	Lodging				\$0.00	
TRAVEL	Travel Total				\$594.00	
BUG	Bug Contracts	9		\$180.00	\$1,620.00	
OTHER	Other Contracts	7		\$150.00	\$1,050.00	Diatom Samples
USGS	USGS Costs				\$0.00	
TOTAL	Total Cost (excludes SLOH)				\$6,037.20	

Total WSLH Lab Costs: \$0.00

Total Budget: \$6,037.20

Combined Budgets: \$7,545.49

Combined WSLH: \$0.00

Combined Total: \$7,545.49

Funding					
Organization	Source	Type	Amount	Start Date	End Date
Great Lakes National Program Office	Federal	CWA 106 Grant	\$100.00	10/24/2023	10/25/2023