

# Wisconsin Department of Natural Resources SWIMS Project Summary

## General Project Information

**Project ID:** East\_TWA\_Waupaca

**Name:** Lake Weyauwega Targeted Watershed Assessment, Waupaca County

**Type:** Targeted Watershed Approach

**Subtype:** Effectiveness (BMP, Other)

**Status:** COMPLETE

**Start Date:** 1/1/2017

**End Date:** 12/31/2018

**Purpose:** This project will evaluate water quality improvements made in the Waupaca/Tomorrow River Watershed from Best Management Practices installed in the Waupaca-Weyauwega sub-watershed from 1996 through 2002 as part of the Waupaca River Priority Watershed Project. [TWA HUC12-040302021810]. This is a 319 project.

Read the final report here: <https://dnr.wi.gov/water/TwaPlanDetail.aspx?key=230340628>>Lake Weyauwega Targeted Watershed Assessment: A Water Quality Report to Protect Wisconsin Watersheds, 2020</a>

**Objective:** This project will evaluate the effectiveness of BMPs installed in 1 HUC 12 watershed in the Waupaca/Tomorrow River HUC 10-0403020218 watershed following a Priority Watershed Project in 1995. This project will determine if the goals of the Priority Watershed Project to protect and improve the watershed water quality were met. Monitoring will be conducted in 7 WBICs: 257800, 257900, 5021203, 5020550, 258000, 5201414, & 258100. Aquatic macroinvertebrate samples will be collected at 6 locations. Qualitative habitat assessments will be conducted at 7 locations. Fish surveys will be conducted at 7 locations. TP, TN, and NO3-N monitoring will be conducted at 8 locations. TP and TN monitoring will be conducted at an additional 5 locations. Diatom samples will be collected in FY18 at 7 locations.

**Comments:**

**Outcome:** A final report will be written and attached to this project by 12/31/2018.

**Study Design:** Water quality monitoring will be conducted at 13 locations. Aquatic macroinvertebrates will be collected at 6 locations in October 2017. 1 day of sampling and 1 day to preserve and transport to UWSP. All data will be entered into SWIMS database by UWSP staff by 12/30/2018. Qualitative Habitat surveys will be conducted at 7 locations in FY18. One day sampling is needed to complete this monitoring and 1 day to enter the data into database. All data will be entered into FMDB by Water Resources staff by 12/31/2017. Fish surveys will be conducted at 7 locations in FY18. Three days of sampling will be completed for the field surveys from July through September 2017. All fish data will be entered into the FMDB by Water Resources staff by 12/31/2017. Diatoms will be collected by Water Resources Staff at 7 locations in FY18. Diatom samples will be sent to the Monitoring Section staff of the DNR Water Quality Bureau. Inorganic chemistry (TP, TN, and NO3-N) monitoring will be conducted at 8 locations. Sampling will occur twice per month May through June 2017 for TP, TN, & NO3-N at 8 locations, while sampling will occur once per month July through October 2017. Additionally, TP and TN sampling will be conducted twice per month in May and June 2017 at 5 locations. Between July and October 2017, TP and TN will be sampled once per month at those 5 locations. All samples will be sent to Wisconsin State Lab of Hygiene for analysis and will be entered by the lab into SWIMS by 12/31/2017.

**QA Measures:**

### People

Name	Role	Status	Start Date	End Date	Organization	Comments
BOLHA, DAVID A	COORDINATOR	ACTIVE	1/1/2017	12/31/2018	Wisconsin DNR	

### Project Statuses

Date	Reported By	Status	Comments
3/18/2020	Lisa Helmuth	Public Comment Period	

### Project Status Detail

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Actions				
Action	Detailed Description	Start Date	End Date	Status
Best Management Practices, Implement	<p>The monitoring in 2017 indicate water quality in the tributaries of the Lake Weyauwega sub-watershed ranges from poor to excellent. Some of the land use characteristics observed during the 2017 monitoring project that can have a negative impact to the water quality of the tributaries to the Waupaca River were limited buffer protection along the stream corridors, wetland ditching, eroding stream banks, cropland erosion, channelization, cattle access, tile drainage, presence of aquatic invasive species, and sedimentation of fish and aquatic life habitat</p> <p>There are opportunities to install practices to lower the nutrients and sediment reaching the Waupaca River and Lake Weyauwega. Continuing efforts to work with landowners, farmers, municipalities, the county and Natural Resource Conservation Service staff to promote protection and restoration of the streams and wetlands by practices including, but not limited to, streambank and buffer protection, cover crops, nutrient management planning, reduced tillage, wetland protection and restoration, and water and sediment control basins</p>	1/1/2017	12/31/2018	PROPOSED

Details: Parameter	Value/Amount	Units	Comments
BMP Implementation			
I & E Activities			
PCBs			
Permit Modification			
Products Developed: Stormwater Plan			
Report Writeup			
Stormwater Goals Addressed: Reduce TSS			
Streambank & Shoreline Protection: Pollutant load reduction			
Total Nitrogen			
Total Phosphorus			
Total Suspended Solids			
Watershed Outreach, Planning			

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	<p>The monitoring in 2017 indicate water quality in the tributaries of the Lake Weyauwega sub-watershed ranges from poor to excellent. Some of the land use characteristics observed during the 2017 monitoring project that can have a negative impact to the water quality of the tributaries to the Waupaca River were limited buffer protection along the stream corridors, wetland ditching, eroding stream banks, cropland erosion, channelization, cattle access, tile drainage, presence of aquatic invasive species, and sedimentation of fish and aquatic life habitat</p> <p>There are opportunities to install practices to lower the nutrients and sediment reaching the Waupaca River and Lake Weyauwega. Continuing efforts to work with landowners, farmers, municipalities, the county and Natural Resource Conservation Service staff to promote protection and restoration of the streams and wetlands by practices including, but not limited to, streambank and buffer protection, cover crops, nutrient management planning, reduced tillage, wetland protection and restoration, and water and sediment control basins</p>	1/1/2017	12/31/2018	PROPOSED
Monitor Targeted Watershed Area (TWA)	Lake Weyauwega, Waupaca Watershed TWA, Waupaca County	1/1/2017	12/31/2018	COMPLETE

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

Monitoring Stations		
Station ID	Name	Comments

Assessment Units			
WBIC	Segment	Local Name	Official Name
257700	1	Weyauwega Lake	Weyauwega Lake
5020640	1	Unnamed Stream	Unnamed

Lab Account Codes			
Account Code	Description	Start Date	End Date

Forms	
Form Code	Form Name

Methods	
Method Code	Method Description

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Fieldwork Events				
Start Date	Status	Field ID	Station ID	Station Name
Documents				
Title	Description	Author	Published	Comments
Lake Bathymetry Map for Weyauwega Lake	0257700a.pdf			
Lake Weyauwega Targeted Watershed Assessment: A Water Quality Report to Protect Wisconsin Watersheds	TWA Report for the Lake Weyauwega subwatershed of the Waupaca Tomorrow River Watershed.	Bolha, David	3/4/2020	
Weyauwega Lake Drawdown 2011			12/7/2011	
Weyauwega Lake Waupaca County Flowering Rush			8/28/2017	

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Weyauwega Lake-Waupaca River Watershed Management Plan	The Weyauwega Lake-Waupaca River Watershed is a subwatershed of the Wolf River Basin in Wisconsin and is located in southern Waupaca County. The watershed drains a total area of 20,742 acres with City of Waupaca on the west side and City of Weyauwega on the east end. Waters in the Wolf River Basin are impaired due to excess phosphorus and total suspended solids. The Federal Clean Water Act requires states and authorized tribes to identify and restore impaired water bodies. A draft Total Maximum Daily Load (TMDL) plan has been developed for the Upper Fox and Wolf Basins to identify the sources of pollutants and the reductions necessary to address water quality impairments. The development of implementation plans for the subwatersheds of the Upper Fox and Wolf River Basin are necessary to meet the assigned daily loads of the TMDL. The Weyauwega Lake-Waupaca River Watershed plan provides a framework to accomplish the following goals: Goal #1: Improve surface water quality to achieve Wisconsin Department of Natural Resources/Environmental Protection Agency water quality standards. Goal #2: Increase citizens awareness of water quality issues and active participation in stewardship of the watershed. Goal #3: Reduce runoff volume and flood levels during peak storm events. Goal #4: Conserve and restore aquatic and terrestrial habitat.	Waupaca County Land and Water Conservation Department	1/1/2019	
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Budget

Combined Budgets:  
Combined WSLH:  
Combined Total: \$0.00

Funding

Organization	Source	Type	Amount	Start Date	End Date
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