

Wisconsin Department of Natural Resources SWIMS Project Summary

General Project Information

Project ID: WCR_14_CMP10 ATTAINS

Name: Cedar Lake and Half Moon Lake TMDL Implementation Assessments

Type: TMDL/303d Projects

Subtype: Evaluate for Delisting

Status: ACTIVE

Start Date: 7/1/2009

End Date: 6/30/2011

Purpose: WDNR, USACOE, Polk County Land and Water Conservation Department and the Cedar Lake Protection and Rehabilitation District are implementing a project to assess internal phosphorus loading processes in polymictic lakes with high internal phosphorus loadings. The processes include anoxic phosphorus release from deep sediments, pH induced and oxic phosphorus release from littoral sediments and associated transport processes to the pelagic zone and cyanobacteria transport of phosphorus from deep sediments into pelagic photic zone.

WDNR, ACOE and the City of Eau Claire are implementing the Half Moon Lake TMDL. This project is to assess the whole lake treatment of curly leaf pond weed and Eurasian water milfoil.

Objective: The Cedar Lake TMDL required widespread BMP implementation through the Horse Creek Lakes priority watershed project and whole lake mixing by aeration. After implementation the lake remains to have a significant internal phosphorus load as growing season total phosphorus levels increase by a factor of 2-4 from April to September. This project will assess watershed phosphorus loadings and the three major sources of internal loadings in 2009 and 2010. The project requires staff to be monitoring on Cedar Lake approximately 2 days per week. Multiple monitoring activities will be employed at multiple sites within the lake and watershed. Staff will be assisted by ACOE staff and local citizen volunteer monitors. (Detailed study design available on request).

Half Moon Lake
Curly Leaf Pond Weed has been determined to be 20% of the annual phosphorus budget for Half Moon Lake. TMDL implementation requires a high level of CLP control if the TMDL is to be achieved. A whole lake herbicide treatment for CLP will be conducted in 2009, 2010 and 2011. The project includes multiple monitoring strategies for assessing changes in water quality, aquatic macrophyte community biomass and assemblage, annualized sediment phosphorus dynamics and residual herbicide breakdown rates.

Comments: Detailed study designs and complete project budgets are available for Cedar Lake and Half Moon Lake Projects.

Outcome: Revised TMDL management recommendations to achieve water quality goals. Monitoring results are critical to developing management objectives to control internal phosphorus load and assess additional watershed phosphorus loading reductions.

Half Moon Lake
Assess if CLP reductions result in decreased total phosphorus concentrations and associated reduction in chlorophyll a concentrations and improved in lake habitat conditions through increased abundance of native aquatic plant species.

Study Design:

QA Measures:

People

Name	Role	Status	Start Date	End Date	Organization	Comments
Sorge, Patrick W	PROJECT_LEAD	ACTIVE	7/1/2009	6/30/2011	Wisconsin DNR	

Project Statuses

Date	Reported By	Status	Comments
5/14/2014	Patrick Sorge	Complete	Project completed and final report available.
5/14/2014	Patrick Sorge	Complete	Project completed and reports prepared annually.

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Actions				
Action	Detailed Description	Start Date	End Date	Status
TMDL Implementation	WDNR, USACOE, Polk County Land and Water Conservation Department and the Cedar Lake Protection and Rehabilitation District are implementing a project to assess internal phosphorus loading processes in polymictic lakes with high internal phosphorus loadings.	7/1/2009	6/30/2011	PROPOSED

Monitoring Stations		
Station ID	Name	Comments
563057	Cedar Lake - Deep Hole - Mid-Lake Off Demmings Point	
999334	Cedar Lake - South End	

Assessment Units			
WBIC	Segment	Local Name	Official Name
2615100	1	Cedar Lake	Cedar Lake

Lab Account Codes			
Account Code	Description	Start Date	End Date

Forms	
Form Code	Form Name

Methods	
Method Code	Method Description

Fieldwork Events				
Start Date	Status	Field ID	Station ID	Station Name
4/14/2010 11:30	COMPLETE	CL1	563057	Cedar Lake - Deep Hole - Mid-Lake Off Demmings Point
4/14/2010 11:30	COMPLETE	CL1	563057	Cedar Lake - Deep Hole - Mid-Lake Off Demmings Point
7/21/2010 11:00	COMPLETE	CL1	563057	Cedar Lake - Deep Hole - Mid-Lake Off Demmings Point
8/16/2010 9:30	COMPLETE	CL1	563057	Cedar Lake - Deep Hole - Mid-Lake Off Demmings Point
9/15/2010	COMPLETE	CL1	563057	Cedar Lake - Deep Hole - Mid-Lake Off Demmings Point
9/15/2010 10:55	COMPLETE		563057	Cedar Lake - Deep Hole - Mid-Lake Off Demmings Point

Documents				
Title	Description	Author	Published	Comments
WCR_15_BUDGETS		Patrick Sorge		

Budget

8/28/2024

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Combined Budgets:

Combined WSLH:

Combined Total: \$0.00

Funding					
Organization	Source	Type	Amount	Start Date	End Date