

Wisconsin Department of Natural Resources SWIMS Project Summary

General Project Information

Project ID: LPL-600

Name: CITY OF EAU CLAIRE: Half Moon Lake Assessment - Task Two

Type: Lakes Grant

Subtype: Large Scale Lake Planning

Status: COMPLETE

Start Date: 4/1/1999

End Date: 12/31/2000

Purpose: The City of Eau Claire proposes to examine the water quality conditions and nutrient budget for Half Moon Lake. Task Two activities include: 1) sampling and analysis of water from various lake depths, 2) sediment sample collection and incubation, and 3) calculation of soluble reactive phosphorus (SRP) release rates. The Department of Natural Resources will be provided with both paper and electronic copies of the final report. Project results will be shared with the public through presentations to community groups.

Objective:

Comments:

Outcome:

Study Design:

QA Measures:

People

Name	Role	Status	Start Date	End Date	Organization	Comments
City of Eau Claire,	GRANT_RECIPIENT	ACTIVE	4/1/1999	12/31/2000	City of Eau Claire	

Project Statuses

Date	Reported By	Status	Comments
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Actions

Action	Detailed Description	Start Date	End Date	Status
Grant Awarded	The City of Eau Claire proposes to examine the water quality conditions and nutrient budget for Half Moon Lake. Task Two activities include: 1) sampling and analysis of water from various lake depths, 2) sediment sample collection and incubation, and 3) calculation of soluble reactive phosphorus (SRP) release rates. The Department of Natural Resources will be provided with both paper and electronic copies of the final report. Project results will be shared with the public through presentations to community groups.	4/1/1999		COMPLETE
Nutrient Budget Development	10100481	4/1/1999		PROPOSED

Monitoring Stations

Station ID	Name	Comments
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**Wisconsin Department of Natural Resources
SWIMS Project Summary****Assessment Units**

WBIC	Segment	Local Name	Official Name
2125400	1	Half Moon Lake	Halfmoon Lake

Lab Account Codes

Account Code	Description	Start Date	End Date
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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
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Documents

Title	Description	Author	Published	Comments
HALF MOON LAKE ASSESSMENT - TASK TWO	Lakes Planning Report	Grant Recipient	12/31/2000	

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Phosphorus Budget and Management Strategies for an Urban Wisconsin Lake [2002 Research Paper]	Multiple external and internal phosphorus (P) sources to an urban lake, Half Moon Lake in Wisconsin, were examined during the summer of 1999 in order to develop management strategies for effective P control and reversal of eutrophication (Trophic State Index=74). Internal recycling of P accounted for 80% of the summer P budget of the lake. Flux of P from the sediment accounted for most of the internal P loading (42% of total budget). However, decomposition of Potamogeton crispus and recycling of macrophyte P during the middle of the summer growing season, and P resuspension due to motor boat activity, accounted for 20% and 17% of the P budget, respectively, representing additional important sources to be controlled. In contrast, summer P loading via the watershed (storm sewers and precipitation) was much less. Using a water quality model (Bath tub), we found that reduction of internal P sources could substantially reduce by greater than 70% the high concentrations of algae in the lake (mean summer chlorophyll = 82 mg m ³). Suggested internal P control measures included a sediment chemical treatment to bind P, greater harvesting of P. crispus to reduce the macrophyte P pool at the time of senescence, and limiting motor boat activity when the lake is weakly stratified.	William F. James, John W. Barko, Harry L. Eakin (U.S. Army Engineers) & Patrick W. Sorge (WDNR)	1/1/2002	
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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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