

Wisconsin Department of Natural Resources
SWIMS Project Summary

General Project Information

Project ID: LPL-050 (4014-1)

Name: CHAIN O'LAKES PROTECTIVE ASSOCIATION: Waupaca Middle Chain O'Lakes Management Planning

Type: Lakes Grant

Subtype: Large Scale Lake Planning

Status: COMPLETE

Start Date: 4/1/1991

End Date: 6/30/1994

Purpose: REVIEW OF EXISTING DATA TO DEFINE DATA GAPS. INITIATE PUBLIC INVOLVEMENT/INFORMATION PROGRAM. WATER QUALITY MONITORING. CONDUCT LITERATURE SEARCH ON METHODS TO CONTROL SWIMMERS ITCH. BASE MAPS OF LAKE AND WATERSHED WILL BE PREPARED. DRAFT AND FINALLAKE MANAGEMENT PLAN TO BE DEVELOPED. Project results will be repositied at the Town of Dayton Hall, Town of Farmington Hall, Shawano County Court House, and DNR Lake Michagan District.

Objective:

Comments: Grantee is CHAIN O'LAKES PROTECTIVE ASSOCIATION

Outcome:

Study Design:

QA Measures:

People

Name	Role	Status	Start Date	End Date	Organization	Comments
Waupaca Chain O Lakes Associat	GRANT_RECIPIENT	ACTIVE	4/1/1991	6/30/1994	Waupaca Chain O Lakes Association	

Project Statuses

Date	Reported By	Status	Comments
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Actions

Action	Detailed Description	Start Date	End Date	Status
Grant Awarded	Review of existing data to define data gaps. Initiate public involvement/information program. Water quality monitoring. Conduct literature search on methods to control swimmers itch. Base maps of lake and watershed will be prepared. Draft and finallake management plan to be developed.	4/1/1991		COMPLETE
Monitor Water Quality or Sediment	10100664	4/1/1991		PROPOSED
Develop/Distribute Brochures/Literature	10100664	4/1/1991		PROPOSED
Data analysis, report production	10100664	4/1/1991		PROPOSED
Lake Management Plan Development		4/1/1991	6/30/1994	PROPOSED
Watershed Mapping or Assessment		4/1/1991	6/30/1994	PROPOSED

Monitoring Stations

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Station ID	Name	Comments
693092	Limekiln Lake - Deep Hole	
693091	Mccrossen Lake - Deep Hole - Waupaca Co	
693090	Nessling Lake - Deep Hole - Waupaca Co	

Assessment Units

WBIC	Segment	Local Name	Official Name
261200	1	Long Lake	Long Lake
264900	1	Limekiln Lake	Limekiln Lake
265100	1	Mccrossen Lake	McCrossen Lake
265200	1	Nessling Lake	Nessling 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
5/31/1991	COMPLETE	1103B	693091	Mccrossen Lake - Deep Hole - Waupaca Co
5/31/1991	COMPLETE	1103S	693091	Mccrossen Lake - Deep Hole - Waupaca Co
8/8/1991	COMPLETE	1103B	693091	Mccrossen Lake - Deep Hole - Waupaca Co
8/8/1991	COMPLETE	1103S	693091	Mccrossen Lake - Deep Hole - Waupaca Co
9/5/1991	COMPLETE	1103B	693091	Mccrossen Lake - Deep Hole - Waupaca Co
9/5/1991	COMPLETE	1103S	693091	Mccrossen Lake - Deep Hole - Waupaca Co
2/4/1992	COMPLETE	1101S	693092	Limekiln Lake - Deep Hole
2/4/1992	COMPLETE	1103S	693091	Mccrossen Lake - Deep Hole - Waupaca Co
5/6/1992 10:10	COMPLETE	1103B	693091	Mccrossen Lake - Deep Hole - Waupaca Co
5/6/1992 10:10	COMPLETE	1103S	693091	Mccrossen Lake - Deep Hole - Waupaca Co
9/22/1992 9:50	COMPLETE	1101S	693092	Limekiln Lake - Deep Hole
9/22/1992 10:22	COMPLETE	1103S	693091	Mccrossen Lake - Deep Hole - Waupaca Co
9/22/1992 10:39	COMPLETE	1104S	693090	Nessling Lake - Deep Hole - Waupaca Co
2/2/1993 9:25	COMPLETE	1104S	693090	Nessling Lake - Deep Hole - Waupaca Co
2/2/1993 9:44	COMPLETE	1103S	693091	Mccrossen Lake - Deep Hole - Waupaca Co
2/2/1993 9:45	COMPLETE	1103B	693091	Mccrossen Lake - Deep Hole - Waupaca Co

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2/2/1993 10:15	COMPLETE	1101B	693092	Limekiln Lake - Deep Hole
5/20/1993 8:40	COMPLETE	1101S	693092	Limekiln Lake - Deep Hole
5/20/1993 9:05	COMPLETE	1103S	693091	Mccrossen Lake - Deep Hole - Waupaca Co
5/20/1993 9:26	COMPLETE	1104S	693090	Nessling Lake - Deep Hole - Waupaca Co
8/16/1993 11:34	COMPLETE	1101S	693092	Limekiln Lake - Deep Hole
8/17/1993 10:25	COMPLETE	1103S	693091	Mccrossen Lake - Deep Hole - Waupaca Co
8/17/1993 10:49	COMPLETE	1104S	693090	Nessling Lake - Deep Hole - Waupaca Co
10/4/1993 12:17	COMPLETE	1101S	693092	Limekiln Lake - Deep Hole
10/6/1993 11:14	COMPLETE	1104S	693090	Nessling Lake - Deep Hole - Waupaca Co
1/24/1994 10:48	COMPLETE	1104S	693090	Nessling Lake - Deep Hole - Waupaca Co
2/15/1994 13:22	COMPLETE	1101S	693092	Limekiln Lake - Deep Hole
5/3/1994 9:00	COMPLETE	1104S	693090	Nessling Lake - Deep Hole - Waupaca Co
5/3/1994 9:30	COMPLETE	1101S	693092	Limekiln Lake - Deep Hole
8/3/1994 9:15	COMPLETE	1104S	693090	Nessling Lake - Deep Hole - Waupaca Co
8/3/1994 10:10	COMPLETE	1101S	693092	Limekiln Lake - Deep Hole
9/22/1994 9:40	COMPLETE	1101S	693092	Limekiln Lake - Deep Hole
9/22/1994 9:50	COMPLETE	1104S	693090	Nessling Lake - Deep Hole - Waupaca Co

Documents

Title	Description	Author	Published	Comments
Phase II Middle Chain O' Lakes Management Plan, Waupaca County, Wisconsin	The Middle Chain project group consists of Nessling, McCrossen, Round and Limekiln Lakes of the Chain O' Lakes, a group of 22 mostly interconnected relatively small lakes in Waupaca County, Wisconsin. Water quality is good to very good and related to substantial groundwater inflow. Water quality, along with the Chain's proximity to population centers, contribute to highly developed shoreline areas (many permanent residential) and periodic high to excessive non-resident recreational use. An initial resource assessment was made in 1992 (Phase I Chain O' Lakes Management Plans); this document supplements the 1992 report with Phase II efforts toward development of a comprehensive lake management plan. The Chain O' Lakes watershed, primarily agricultural but with significant forested and wetland areas, is a subwatershed of the	IPS Environmental and Analytical Services - Appleton, WI	12/31/1995	

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Tomorrow/Waupaca River basin which has recently been granted Priority Watershed Project Status. Variable, but generally low groundwater nitrate levels were observed in the Chain subwatershed during the appraisal phase of the Priority Watershed Project. Overland flow nutrient and sediment inputs were estimated to be lower than expected, but field estimates for nutrients were substantially higher. Lake modeling for some Chain lakes indicated a natural process of phosphorus removal by marl precipitation. Middle Chain water quality monitoring during Phases I and II indicated in-lake nutrient levels below those expected for the region. Round and Limekiln Lakes continued to have relatively higher total nitrogen than other Middle and most (except for Otter Lake) Upper Chain lakes. Total nitrogen and phosphorus for Middle Chain lakes during winter or spring, 1994, were somewhat higher than observed previously. Middle Chain recreational use survey results were generally similar to those of the Chain O' Lakes overall and various resident user groups. Results indicated periodic excessive use during summer weekends or holidays with perceived safety problems and diminished recreational enjoyment of the resource related primarily to non-resident watercraft. Water safety enforcement was considered adequate at all times, slightly less so during periods of peak use, and no clear consensus was evident regarding the need for additional regulation. Residents agreed there was adequate access, disagreed with the need for a public park or swimming beach, and were slightly in favor of more water accessible public restrooms. Purple loosestrife, an exotic potentially nuisance plant, was present in the Middle Chain. Water quality protection and water use conflict minimization are priority management objectives for the Middle Chain and all Chain O' Lakes residents. Specific recommendations for the Middle Chain

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include private well testing for nitrates and/or pesticides, more event sampling (coordinated with flow and rainfall monitoring) in Round and McCrossen Lakes inflow, and removal or management of the purple loosestife beds. Other recommendations are applicable to the Middle and other Chain project groups and emphasize continued focus and expanded involvement (designated Chain O' Lakes Property Owners Association individuals or committees) in watershed-wide surface water and groundwater quality issues, use management, and exotic species control. These recommendations, which include trend monitoring for water quality, are designed to identify potential problem areas or conflicts before they become widespread or severe.

Budget

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

Funding					
Organization	Source	Type	Amount	Start Date	End Date