Wisconsin Department of Natural Resources
SWIMS Project Summary

General Project Information

Project ID: LPL-079 (4023-01)

Name: MACHICKANEE FLOWAGE ADVANCEMENT ASSOCIATION: Machickanee Flowage Lake Management Planning

Type: Lakes Grant

Subtype: Large Scale Lake Planning

Status: COMPLETE

Start Date: 10/22/1991

End Date: 7/31/1993

Purpose: ASSEMBLE AND REVIEW DATA, INITIATE A WATER MONITORING PROGRAM, MONITOR AGRICULTURE-RELATED NONPOINT SOURCE LOADS, CONDUCT MACROPHYTE STUDY, ANALYZE IMPACT OF POINT SOURCE POLLUTERS. PREPARE BASE MAPS OF THE LAKE AND ITS WATERSHED. DRAFT FINAL REPORT ANDDISSEMINATE INFORMATION.

Objective:

Comments: Grantee is MACHICKANEE FLOWAGE ADVANCEMENT ASSOCIATION

Outcome:

Study Design:

QA Measures:

People

Name	Role	Status	Start Date	End Date	Organization	Comments
IPS Environmental and Analytic	OTHER	COMPLETE	10/22/1991	7/31/1993	IPS Environmental and Analytical Services	
Machickanee Advancement Associ	GRANT_RECIPIENT	ACTIVE	10/22/1991	7/31/1993	Machickanee Advancement Association	

Project Statuses

Date	Reported By	Status	Comments

Actions

Action	Detailed Description	Start Date	End Date	Status
Monitor Water Quality or Sediment		10/22/1991	7/31/1993	PROPOSED
Lake Management Plan Development		10/22/1991	7/31/1993	PROPOSED
Data analysis, report production	10100619	10/22/1991		PROPOSED
Watershed Mapping or Assessment		10/22/1991	7/31/1993	PROPOSED
Grant Awarded	Assemble and review data, initiate a water monitoring program, monitor agriculture-related nonpoint source loads, conduct macrophyte study, analyze impact of point source polluters. Prepare base maps of the lake and its watershed. Draft final report and disseminate information.	10/22/1991		COMPLETE
Aquatic Plant Monitoring or Survey	10100619	10/22/1991		PROPOSED

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Monitoring Stations

Station ID	Name	Comments

Assessment Units

WBIC	Segment	Local Name	Official Name
440200	4	Oconto River	Oconto River
448200	1	Machickanee Flowage (Imp)	Machickanee Flowage (Stiles)

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

Documents

Title	Description	Author	Published	Comments
Phase I - Lake Management Plan - Machickanee Flowage - Oconto County, Wisconsin	The Machickanee Flowage is an impoundment of the Oconto River located in southeast Oconto County, Wisconsin. The 463 acre pool is maintained by a dam owned by the Oconto Electric Cooperative. Prior to February, 1978, Scott Paper Company had operated an ammonia based sulfite paper mill on the Oconto River about six miles upstream from the Flowage. Organic loading from the mill created unsuitable instream conditions for most fish species; low dissolved oxygen (DO) and subsequent fish kills were common. The mill was cited for wastewater discharge permit noncompliance in 1977 and later agreed to a settlement of which $600,000 was allocated to the Wisconsin Department of Natural Resources (WDNR) to restore the health of the Oconto River. The restoration program began in 1981 and included a three month drawdown of the Machickanee Flowage, chemical treatment for rough fish control,	IPS Environmental and Analytical Services	6/30/1993	

	repopulation of fish in the flowage and the Oconto River below the dam, access development and monitoring. The River, and subsequently the Flowage, have since made dramatic improvements. DO was above fish sustainable levels throughout 1992 monitoring and in-lake nutrients were lower than typical for impoundments. Nutrient inflow observed during runoff events was variable but not exceptionally high. Sedimentation estimates varied from near to higher than that typical for impoundments. Sedimentation potential is high (watershed about 1,000 sq mi) but apparently moderated by a largely forested watershed and overall basin morphometry. Plant populations which were once scarce, now grow abundantly and are apparently dominated by Eurasian Milfoil. Recent fish surveys have indicated exceptional growth. Management of the Machickanee Flowage should target continued monitoring, improved recreational access (through aquatic plant harvestjcontrol), reduction of nutrient and sediment inflows to the system and exotic species control and prevention. â¢ Monitoring should be continued to track trends. Event monitoring provided highly variable data and should be continued. Self-Help monitoring should be implemented. - While plant growth provides benefits such as shoreline stabilization, nutrient uptake and fish food and habitat production, populations consist of nuisance levels of few species. Steps need to be taken to create access and edge through plant cover. Plant management should include and emphasize steps to prevent transfer of Eurasian Milfoil from the system and introduction of new exotics to the system. Watershed wide Best Management Practices (BMPs) should be implemented to control nutrient and sediment inputs, but riparian management practices should also be encouraged.			

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Budget

Combined Budgets:

Combined WSLH:

Combined Total: $0.00

Funding

Organization	Source	Type	Amount	Start Date	End Date