

Wisconsin Department of Natural Resources SWIMS Project Summary

General Project Information

Project ID:	NOR_08_CMP09
Name:	St. Louis River Estuary of Lake Superior (WBIC-2751220)Aquatic Vegetation Restoration Assessment - NOR_08_09
Type:	Targeted Monitoring
Subtype:	Special Project
Status:	COMPLETE
Start Date:	07/01/2008
End Date:	06/30/2009
Purpose:	<p>Survey the St. Louis River Lake Superior estuary at two sites to assess status of existing aquatic vegetation. Survey one additional Lake Superior tributary mouth embayment for the same vegetation related parameters. The sampling goal is to learn and better understand the current status of aquatic vegetation, and understand and identify potential limiting factors to the growth of submersed, emergent, and floating leaf aquatic vegetation.</p> <p>During peak growth season of aquatic plants conduct a point intercept macrophyte survey using standardized plant sampling protocols developed for Lakes Program grants. Conduct a fish seining and or electro shocking survey of fish species present at several habitat sites to collect data on habitat use. Macroinvertebrate sampling will assess presence of Aquatic Invasive Species (AIS) and contribute to community habitat value assessment. The project study sites include Allouez Bay and Pokegama Bay within the St. Louis River Estuary, and the embayment at the mouth of the Amnicon River.</p>
Objective:	<p>This project will support a collective multi agency LS Basin effort to develop an estuary wide habitat restoration map for restoration projects identified in the Habitat Plan and Strategy Implementation Worksheets in the St. Louis River System Remedial Action Plan (RAP). These sites occur with the St. Louis River Area of Concern (AOC). An estimated 7,700 acres of wetland and open water habitat have been altered or destroyed since settlement. In Allouez Bay, harvestable stands of wild rice have all but disappeared within the last 30 years, and other emergent vegetation is reported to have declined dramatically. Numerous invasive species are present including zebra mussels which affect water quality and clarity, and in 2006 Eurasian Watermilfoil was discovered in Superior Bay. The distribution and effects of invasive species on native vegetation in the estuary are largely unknown.</p> <p>Multiple groups and parties are independently proposing or are presently implementing monitoring projects to identify habitat restoration projects. Presently the St. Louis River Citizens Action Committee (SLRCAC), the Natural Resources Research Institute (NRRRI), and the Nature Conservancy are proposing a project to develop a reference model of Aquatic Vegetation (AVC) Community based on data including existing substrates, bathymetry, wind and wave energy and known and historic distributions of aquatic communities. The Lake Superior Research Institute is presently conducting a volunteer citizen wetland monitoring program on WI Lake Superior tributary streams. This proposed project will provide detailed AVC data on three sites and will dovetail and supplement the data being collected by the other organizations. The combined data will support the development of proposed restoration sites and performance standards for AVC restoration. In 2008, the St. Louis River Estuary was recommended for designation as a National Estuary Research Reserve, which if endorsed by the Governor, will lead to new research opportunities and management projects. The St. Louis River is a federally designated AOC and is automatically on the 303d list. Habitat is one of nine impairments in this AOC. Restoration of the AVC is one improvement to habitat that is necessary for delisting.</p>
Comments:	Project Category 1: EPA Performance Measure SP 12: Allouez Bay and Pokegama Bay are part of the St. Louis River Area of Concern. This project works toward potentially delisting these areas within the AOC for the Habitat Beneficial Use Impairment.
Outcome:	<ol style="list-style-type: none"> 1) Number of total sample sites associated with the project are 7 (3 in Allouez Bay, 3 in Pokegama Bay, 1 at Amnicon River Embayment) . 2) Number of sampling events: June, July, and August sampling events for water chemistry sampling [field parameters to include: nutrients, suspended solids, turbidity, chlor a, and field parameter of D.O., pH, and temp]. Macroinvertebrate sampling once/site during summer. Point-intercept macrophyte surveys during peak growth in summer at each location. Fish seining and/or electrofishing surveys will done in during late summer at each location. All sampling should be completed by end of September, 2008. 3) Fisheries and Macrophyte data entry be complete by February 1, 2009 into appropriate databases. Macroinvert data gets entered into SWIMS by lab. 5) Final report will be written after macroinvertebrate data results are received from UWSP. Estimated date when final report will be complete approximately June, 2009.
Study Design:	
QA Measures:	

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People

Name	Role	Status	Start Date	End Date	Organization	Comments
KOSHERE, FRANK J	COORDINATOR	INACTIVE	07/01/2008	06/30/2009	Wisconsin DNR	Water Resources Biologist: 715-392-0807
LAVIGNE, CLIFFORD R	COORDINATOR	ACTIVE	07/01/2008	06/30/2009	Wisconsin DNR	
MANZ, CORDELL H	TEAM_MEMBER	ACTIVE	07/08/2008		Wisconsin DNR	

Project Statuses

Date	Reported By	Status	Comments
03/25/2008	CORDELL MANZ	Proposed	
04/16/2012	CLIFFORD LAVIGNE	Complete	Final Report has been uploaded.

Project Status Detail

Answer Set: DEFAULT

Question	Answer
5. FTE Hours (Funds) Needed	136 hours.
6. LTE Hours (Funds) Needed	360 hours.
7. Supplies - Describe in Detail	\$340. Shipping water samples, also equipment maintenance and herbarium paper.
8. Describe Travel Needed	Approximately 550 Miles total. Round trip to Allouez and Pokegama <15 miles, and round trip to Amnicon ~40 miles. Approximately 25 field trips.
9. UWSP Samples (Number)	Seven samples.
10. Additional Contractual dollars - Who? What? and How much?	None
11. Equipment - What is needed and Why? (New Equipment, Cost?)	None
12. Capital Equipment >\$5,000 - Describe needed equipment [Note: Federal funds cannot be used to purchase capital equipment].	None
13. State Lab of Hygiene Analyses: Describe the number and type of parameters - See Worksheet	21 samples total (seven sites X 3 months). Field parameters to include: nutrients, suspended solids, turbidity, chlor a, and field parameter of D.O., pH, and temp.
14. Partner Contributions: Describe any funding provided by other DNR programs or non-DNR contributions.	None
18. Regional Priority by Category (ex: Cat. 1-1st, Cat. 2-2nd)	Cat. 1-3rd or Cat. 2 -3rd.

Actions

Action	Detailed Description	Start	End Date	Status
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Monitoring Stations

Station ID	Name	Comments
10028979	Allouez Bay-Lake Superior NW end station.	
10028978	Allouez Bay-Lake Superior east end station.	
10019067	Amnicon River -- DC Fish and Game Launch	
163221	Lake Superior - Superior-Duluth Harbor/Allouez Bay	
10029156	Mouth of Bear Creek - Allouez Bay	
10028980	Pokegama Bay - Pokegama River Site-1	
10028981	Pokegama Bay - Pokegama River Site-2	
10028982	Pokegama Bay - Pokegama River Site-3	

Assessment Units

WBIC	Segment	Local Name	Official Name
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WBIC	Segment	Local Name	Official Name
2834600	1	Bear Creek	Bear Creek
2843800	1	St. Louis River AOC, St. Louis River	Saint Louis River
2844000	2	Pokegama River	Pokegama River
2848900	1	Amnicon River	Amnicon River

Lab Account Codes

Account Code	Description	Start Date	End Date
WT098	WATER QUALITY SPECIAL PROJECTS	07/01/2008	06/30/2009

Forms

Form Code	Form Name
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Methods

Method Code	Description
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Fieldwork Events

Start Date	Status	Field ID	Station ID	Station Name
06/30/2008 17:45	COMPLETE	AR-1	10019067	Amnicon River -- DC Fish and Game Launch
07/07/2008 10:30	COMPLETE	AB-1	163221	Lake Superior - Superior-Duluth Harbor/Allouez Bay
07/07/2008 11:00	COMPLETE	AB-2	10028978	Allouez Bay-Lake Superior east end station.
07/07/2008 12:15	COMPLETE	AB-3	10028979	Allouez Bay-Lake Superior NW end station.
07/07/2008 14:30	COMPLETE	PB-3	10028982	Pokegama Bay - Pokegama River Site-3
07/07/2008 14:50	COMPLETE	PB-2	10028981	Pokegama Bay - Pokegama River Site-2
07/07/2008 15:15	COMPLETE	PB-1	10028980	Pokegama Bay - Pokegama River Site-1
08/05/2008 12:15	COMPLETE	AB-3	10028979	Allouez Bay-Lake Superior NW end station.
08/05/2008 12:30	COMPLETE	AB-1	163221	Lake Superior - Superior-Duluth Harbor/Allouez Bay
08/05/2008 12:50	COMPLETE	AB-2	10028978	Allouez Bay-Lake Superior east end station.
08/05/2008 14:00	COMPLETE	AMNR-1	10019067	Amnicon River -- DC Fish and Game Launch
08/19/2008 11:15	COMPLETE	PB-1	10028980	Pokegama Bay - Pokegama River Site-1
08/19/2008 11:35	COMPLETE	PB-3	10028982	Pokegama Bay - Pokegama River Site-3
08/19/2008 16:25	COMPLETE	PB-2	10028981	Pokegama Bay - Pokegama River Site-2
09/05/2008 08:20	COMPLETE	AR-1	10019067	Amnicon River -- DC Fish and Game Launch
09/05/2008 16:55	COMPLETE	MBC-1	10029156	Mouth of Bear Creek - Allouez Bay
09/05/2008 17:10	COMPLETE	AB-1	163221	Lake Superior - Superior-Duluth Harbor/Allouez Bay
09/05/2008 17:30	COMPLETE	AB-3	10028979	Allouez Bay-Lake Superior NW end station.

Documents

Title	Description	Author	Published	Comments
NOR8_09 Budget		Frank Koshere	03/25/2008	Could reduce project cost by approximately 35-40% by eliminating Pokegama Bay if necessary (Allouez Bay is coming up on everyone's radar as a restoration site.)
St. Louis AOC Aq. Veg. St. Louis Vegetation Assessment Final Report	Progress report for 3 year study	Clifford LaVigne	01/11/2012	

Budget

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Combined Budgets:

Combined SLOH:

Combined Total:

Funding

Organization	Source	Type	Amount	Start Date	End Date
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