

Lessard-Sams Outdoor Heritage Council

Final Accomplishment Plan Report

Date: August 16, 2011

Program Title: Lake Rebecca Water Quality Improvement Project

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Funds Recommended: \$450,000

Legislative Citation and Appropriation Language:

ML 2009, Ch. 172, Art. 1, Sec. 2, Subd. 5(e)

(e) Lake Rebecca Water Quality Improvement Project

\$450,000 in fiscal year 2010 is to the commissioner of natural resources for an agreement with the Three Rivers Park District to improve the water quality in Lake Rebecca in Lake Rebecca Park Reserve in Hennepin County. A description of the activities to enhance fish habitat in Lake Rebecca must be provided as part of the required accomplishment plan.

Outcomes

This project improved the water quality of Lake Rebecca in Lake Rebecca Park Reserve, and improved the fish habitat in the premier muskellunge brood stock lake in Minnesota. Water quality improvements were achieved through a combination of implementing manure management activities in the watershed to reduce phosphorus inflow to Lake Rebecca, control of the invasive species curly-leaf pondweed, and application of alum (aluminum sulfate) to reduce internal phosphorus loading. The in-lake phosphorus concentration, as of June 2011 was reduced to less than 40 ppb and the lake water clarity was improved to over three meters Secchi disk visibility. Visibility for game fish such as muskellunge, is significantly improved. Fewer than 70 acres of Curly-leaf pondweed were present in the lake in spring 2011 after three years of treatment. The habitat availability resulting from the decrease in the exotic curly-leaf pondweed population is being utilized by native aquatic macrophytes which are increasing in distribution and density.

Maintenance

There are no specific maintenance needs for the project outcomes. Long term management to maintain improved water quality levels are described in the Sustainability Section of this report.

Sustainability

As noted above, the 256-acre Lake Rebecca has experienced improved water clarity and replacement of invasive plants with native plant populations as a result of project implementation. Because the Park District owns the entire lake shoreline, no herbicide applications to control native plants along the lake shoreline will be done. Thus, native plant populations are expected to increase in the long term. In addition, the Park District will protect and enhance shoreline buffer areas along the lake shoreline, a practice shown to benefit native aquatic plant populations.

Three Rivers Park District works very closely with the local landowners, municipalities and watershed management organization to plan and implement water quality management programs. The Park District is continuing to work with adjacent landowners and the Pioneer Sarah Creek Watershed Management Commission to further reduce nutrient loading Lake Rebecca. In particular, efforts are underway to improve manure management on a parcel adjacent to the Regional Park. In addition, the Pioneer-Sarah Creek WMO has adopted a “non-degradation” policy to ensure long term protection of water resources as urban development increase in the lake watershed.

The curly-leaf pondweed (CLP) control component of this project will extend beyond the timeline of the available funding. Therefore, Three Rivers Park District initiated the control program in April 2009, treating 120 acres of this invasive plant. Post treatment plant surveys conducted in June, 2009 and April 2010 indicated that the initial treatment was successful in reducing CLP density. The lake area needing treatment in 2010 was significantly reduced from the 2009 treatment, and 75 acres were treated on April 28, 2010. A further reduction to 65 acres was experience in 2011. The Park District will continue to control Curly-leaf Pondweed in the lake beyond the timeframe of the grant project. 2012 expenditures for this task are estimated at \$15,000 with funding from the Park District Capital Improvement Program.

The Park District will also continue to monitor the in-lake quality and the quality of stormwater discharge to the lake. The monitoring is being completed as the first phase of a watershed wide TMDL study for the Pioneer Sarah Creek Watershed Commission. The Park District has an in-house certified laboratory and is able to collect and analyze water quality samples for this type of work. The Park District operating budget funds ongoing monitoring programs in the District.

Table B-2. Other Outcome Table

(This table should be used for activities that are not counted in acres, miles etc.)

Goal 1	Activity – P/R/E	Measure	Impact	Ecological Type
Goal 2				

Attachments (on spreadsheet workbook – 3 separate tabs):

- A. Budget
- B. Proposed Output Tables
- C. Parcel List

Program Name:	Lake Rebecca Water Quality Improvement Project
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Table 1 and Table 3 column totals should be the same AND Table 2 and Table 4 column totals should be the same

If your project has lakes or shoreline miles instead of land acres, convert miles to acres

for Tables 1 and 3 using the following conversion:

Lakeshore = 6 acres per lakeshore mile / Stream & River Shore = 12 acres per linear mile, if both sides

Table 1. Acres by Resource Type

Table 1 & 2 ask for Initial and Final information. INITIAL information means the data in the FIRST accomplishment plan approved by the Council, NOT approved versions thereafter.

	Wetlands		Prairies		Forest		Habitats		Total	
	Initial	Final	Initial	Final	Initial	Final	Initial	Final	Initial	Final
Restore							256	256	256	256
Protect Fee									0	0
Protect Easement									0	0
Enhance									0	0
Total	0	0	0	0	0	0	256	256	256	256

Table 2. Total Requested Funding by Resource Type

	Wetlands		Prairies		Forest		Habitats		Total	
	Initial	Final	Initial	Final	Initial	Final	Initial	Final	Initial	Final
Restore							\$ 450,000	\$ 448,945	\$ 450,000	\$ 448,945
Protect Fee									\$ -	\$ -
Protect Easement									\$ -	\$ -
Enhance									\$ -	\$ -
Total	0	0	0	0	0	0	450000	448945	\$ 450,000	\$ 448,945

Tables below only ask for final amounts and achievements.

Table 3. Final Acres achieved within each Ecological Section

	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N Forest	Total
Restore	256					256
Protect						0
Enhance						0
Total	256	0	0	0	0	0

Total Acres (sum of Total column)
 Total Acres (sum of Total row)
 Total Acres from Table 1.

256
 256
 0

These three cells should be the same figure.

Table 4. Final Amount spent within each Ecological Section

	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N Forest	Total
Restore	\$ 448,945					\$ 448,945
Protect						\$ -
Enhance						\$ -
Total	\$ 448,945	\$ -	\$ -	\$ -	\$ -	

Total Dollars (sum of Total column) \$ 448,945 *These two cells should be the same figure.*
 Total Dollars (sum of Total row) \$ 448,945
 Check to make sure these amounts are the same as the Funding Request Amount on page 1 of Main Funding Form.

Table 5. Target Lake/Stream/River Miles

miles of Lakes / Streams / Rivers Shoreline

Table 6. Acquisition by PILT Status (enter information in acres)

		Wetlands	Prairies	Forests	Habitats	Total
Acquired in Fee with State PILT Liability	with					0
Acquired in Fee without State PILT Liability						0
Permanent Easement State PILT Liability	NO					0

Table 7. Estimated Value of Acquisition by PILT Status (enter information in dollars)

		Wetlands	Prairies	Forests	Habitats	Total
Acquired in Fee with State PILT Liability	with					\$ -
Acquired in Fee without State PILT Liability						\$ -
Permanent Easement State PILT Liability	NO					\$ -

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[Link HERE to definitions of the budget items below.](#)

Total Amount of Request \$ *From page 1 on the funding form.*

Personnel

Position breakdown here	FTE	Over # of years	Initial OHF Request	Actual OHF Expended	Actual Cash Leverage	Cash Leverage Source
<i>Manager of Programs</i>						
<i>Admin Asst</i>						
<i>position 3</i>						
<i>position 4</i>						
<i>position 5</i>						
<i>position 6</i>						
<i>position 7</i>						
<i>position 8</i>						
<i>position 9</i>						
<i>position 10</i>						
Total	0			\$ -	\$ -	\$ -

Budget and Cash Leverage *(All your LSOHC Request Funds must be direct to and necessary for program outcomes.)*

Please describe how you intend to spend the requested funds.

Budget Item	Initial OHF Request	Actual OHF Expended	Actual Cash Leverage	Cash Leverage Source
Personnel - <i>auto entered from above</i>		\$ -	\$ -	\$ -
Contracts	450,000	\$ 448,945		
Fee Acquisition w/ PILT <i>(breakout in table 7)</i>				
Fee Acquisition w/o PILT <i>(breakout in table 7)</i>				
Easement Acquisition				
Easement Stewardship				
Travel (in-state)				
Professional Services				
Direct Support Services				
DNR Land Acquisition Costs				
Other				
Capital Equipment <i>(auto entered from below)</i>				
Other Equipment/Tools				
Supplies/Materials				
		\$ 448,945	\$ -	\$ -

Capital Equipment *(single items over \$10,000 - auto entered into table above)*

Item Name	Initial OHF Request	Actual OHF Request	Leverage	Disposition Plan

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Please include ALL parcels in which OHF money was spent, regardless of whether acquired.

Parcel Name	County	Township	Range	Direction	Section	TRDS	# of acres	Cost to OHF	Primary habitat type: wetland, prairie, forest, aquatic	Activity: R=Restore PF=Protect Fee PE=Protect Easement E=Enhance (Note: these figures should be the same as those in Attachment B)	LSOHC Section: Metro-Urbanizing = MU Southeast Forest=SEF Northern Forest= NF Prairie-Transition PT Prairie= P	Open to hunting and fishing? (yes/no)	Identify state or federal disposition: WPA, WMA, AMA, SNA, State Forest	If easement, what is the easement cost as a percentage of the fee acquisition?
Lake Rebecca	Hennepin		119	24	2	31	11924231	256	\$448,945	A	R	MU	Y	N/A