

**Environment and Natural Resources Trust Fund (ENRTF)  
2010 Work Program**

**Date of Report:** Nov. 20, 2009  
**Date of Next Progress Report:** Nov. 1, 2010  
**Date of Work Program Approval:**  
**Project Completion Date:** Nov. 1, 2011

**I. PROJECT TITLE:** Shallow Lake Habitat Enhancement and Wild Rice Enhancement and Monitoring to Assess Relationship to Waterfowl Abundance (2f)

**Project Manager:** Steve Mortensen  
**Affiliation:** Leech Lake Band of Ojibwe  
**Mailing Address:** 115, 6<sup>th</sup> St. NW  
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**Location:** *Leech Lake Reservation, Cass, Itasca, Beltrami and Hubbard Counties (see enclosed map)*

<b>Total ENRTF Project Budget:</b>	<b>ENRTF Appropriation</b>	<b>\$ 50000</b>
	<b>Minus Amount Spent:</b>	<b>\$</b>
	<b>Equal Balance:</b>	<b>\$ 50000</b>

**Legal Citation:** ML 2010, Chap.[\_\_\_\_], Sec.[\_\_\_\_], Subd.\_\_\_\_\_.

**Appropriation Language:**

**II. PROJECT SUMMARY AND RESULTS:** The goals of this project will be to continue to improve shallow lakes and marshes and especially forested impoundment habitats for nesting and feeding waterfowl within the Leech Lake Reservation (LLIR) boundaries. Due to changes and degradation in waterfowl brood habitats, competition of invasive species, uncontrolled and fluctuating water levels, and more recently drought conditions in these forested habitats, waterfowl production has been negatively impacted. Management activities to improve habitat conditions for waterfowl include prescribed burns, water level control including summer drawdown, bog and beaver dam removal to restore flow and seeding of wild rice to reestablish habitat.

Building directly on a recent LLIR Division of Resources Management project, we will refine newly developed methodology and technical capacity to produce a 17-year-long data set of natural wild rice, *Zizania purpurea*, productivity on the Leech Lake Reservation based on aerial photography from standardized photos taken by Pro West and Assoc. annually since 1981. We will also implement long-term monitoring of this resource, which is of very high value to the Ojibwe people, spiritually, culturally, and economically. The high value of wild rice habitat to fish, waterfowl, and other aquatic animals has long been recognized by the stakeholders of Minnesota as well. We are

committed to partner with the USFWS and the MNDNR to analyze regional species counts of mallard and ring-necked ducks for the same 17-year period. Through this analysis, the relationship between waterfowl abundance and wild rice productivity will be explored. Completing these analyses could ultimately lead to better management and land use practices. Methodology could be then be implemented on a statewide basis if so desired.

This project is directly tied to the LCCMR funding priorities of restoring high quality habitat for wildlife and open to public use in addition to re-establishing habitat impacted by invasive species. This project would also further Minnesota Habitat Conservation Partnership strategic objectives by complementing investments of the US Forest Service and the Leech Lake Indian Reservation in managing waterfowl production areas in forested habitats. Additional leveraged funding from the Leech Lake Band and in-kind services from the US Forest Service will facilitate partnerships between the State of MN and these entities to bring conservation benefits to a variety of public user groups. The wild rice analysis project is a direct result of the legislatively mandated Minnesota statewide Wild Rice Study in 2008.

### III. PROGRESS SUMMARY AS OF

### IV. OUTLINE OF PROJECT RESULTS:

#### RESULT 1:

**1. Description:** Water level control and management on forested impoundments and water ways will continue. The goal is to provide better habitat for reproducing waterfowl by regulating water levels, controlling beaver activity and conducting periodic water level drawdowns. Much of this work will be conducted on forest impoundments including the following:

In Cass County: Bag Lake (17 acres), Highland Creek (48 acres), Cuba (44 acres), Sucker Bay (51 acres), Brush Lake (13 acres), Ketchum (38 acres), Middle Sucker (7), Ojibwe I (3 acres), Ojibwe II (4 acres), West Banks I (42 Acres), West Banks II (17 acres), Snake Brook (33 acres), Bear Brook (18 acres), Six Mile (8 Acres).

In Itasca County: Upper Third River (28 acres), Amik Lake (68 acres), Pigeon River (53), Ball Club (82 acres)

This is an important project due to declining waterfowl habitat in the forested region of MN. Continued maintenance will be provided using a cooperative agreement between the LLIR and USFS.

**Summary Budget Information for Result 1:** ENRTF Budget: \$9435  
 Amount Spent: \$  
 Balance: \$ 9435

Deliverable	Completion Date	Budget
1. Waterfowl habitat management and improvement	Nov. 1, 2011	\$9435

**Result Completion Date:** *Nov.1, 2011*

**Result Status as of Nov. 1, 2010**

**Result Status as of May 1, 2011**

**Final Report Summary:** Nov. 1, 2011

**RESULT 2:**

**Description:** Wild rice reseeding on 200 acres

Several locations within the Leech Lake Reservation totaling about 200 acres will be reseeded with native wild rice. This will enhance habitat for waterfowl cover and foraging over the time period of this program. Due to high water levels in the recent past the wild rice in this area has been degraded. Beaver control efforts are currently underway in this area, so now is an opportune time to reseed wild rice. Once established it is anticipated that by continued management of water levels the rice will prosper and acreage will expand.

**Summary Budget Information for Result 1:** ENRTF Budget: \$4333  
Amount Spent: \$  
Balance: \$ 4333

Deliverable	Completion Date	Budget
2.Wild rice reseeding and management	Nov. 1, 2011	4333

**Result Completion Date:** *Nov.1, 2011*

**Result Status as of Nov. 1, 2010**

**Result Status as of May 1, 2011**

**Final Report Summary:** Nov. 1, 2011

**RESULT 3:**

**Description:** Monitoring wild rice and the relationship between rice abundance and waterfowl abundance.

Wild rice is likely an important cover and food source for waterfowl in the forested regions of Minnesota. The Leech Lake Reservation is located in the heart of wild rice country in the state, and climate change predictions indicate that this region will become increasingly important in the future for waterfowl. By gaining a better understanding of historical trends and what is needed to maintain healthy wild rice waters, we will be in a better position to maintain this resource in the future.

Using aerial photos of major rice beds, which have been photographed annually for the past 18 years, we will analyze changes in rice beds and whether or not the abundance of rice relates to an increase in waterfowl usage in and around these locations. Waterfowl abundance data will

be provided by the MN DNR from waterfowl surveys that have been conducted over the same time period.

**Summary Budget Information for Result 1:** ENRTF Budget: \$36232  
 Amount Spent: \$  
 Balance: \$ 36232

Deliverable	Completion Date	Budget
2. Wild rice monitoring and relation to waterfowl abundance study	Nov. 1, 2011	36232

**Result Completion Date:** Nov. 1, 2011

**Result Status as of** Nov. 1, 2010

**Result Status as of** May 1, 2011

**Final Report Summary:** Nov. 1, 2011

**V. TOTAL ENRTF PROJECT BUDGET:**

**Personnel:** \$ 39902

Botanist 10%

GIS Technician 57%

Field Technicians (2) for rice ground truthing 10%

Field Technicians (2) for other field work 10%

**Contracts:** \$ 1000

USDA Wildlife Service's Beaver trapping

**Equipment/Tools/Supplies:** \$ 8098, (Clemson levelers kits (3-5@\$549), stop logs for controls (\$200), road and dike culverts (2-4@\$303), water control parts, hardware (\$541), gasoline (\$400), rice seed (1500@\$2))

**Acquisition (Fee Title or Permanent Easements):** \$ 0.00

**Travel:** \$ 1000

**Additional Budget Items:**

**TOTAL ENRTF PROJECT BUDGET: \$50,000**

**Explanation of Capital Expenditures Greater Than \$3,500:**

**VI. PROJECT STRATEGY:**

**A. Project Partners:** Various parts of this project will partern with other agencies including US Forest Service, Impoundment, management, water and beaver control, MN DNR Waterfowl Research, Provide data on waterfowl for rice/duck usage of rice beds. Neither of these agencies will receive any funding from this proposal

USDA, Wildlife Services will receive up to \$1000 for beaver trapping to keep them from replugging streams and impoundments.

**B. Project Impact and Long-term Strategy:** This project in part is the continuation of management of forested wetlands for the enhancement of waterfowl nesting and brood habitat. This habitat is of critical importance to the success of nesting waterfowl in the forested region of the state. The rice bed monitoring and the relationship of waterfowl to rice abundance will help to assess changes in rice beds and waterfowl abundance patterns over time.

**C. Other Funds Proposed to be spent during the Project Period:**

**BIA Circle of Flight \$25,000**

**USFS Cooperative agreement for impoundment management \$40,000**

**MN DNR Waterfowl Research \$3,200 and \$2,200 inkind**

**Leech Lake Res. DRM inkind \$12,998**

**D. Spending History:**

<i>2001 Phase I</i>	<i>76,910</i>
<i>2003 Phase II</i>	<i>34,700</i>
<i>2005 Phase III</i>	<i>28,000</i>
<i>2007 Phase IV</i>	<i>30,000</i>
<i>2008 Phase V</i>	<i>30,000</i>

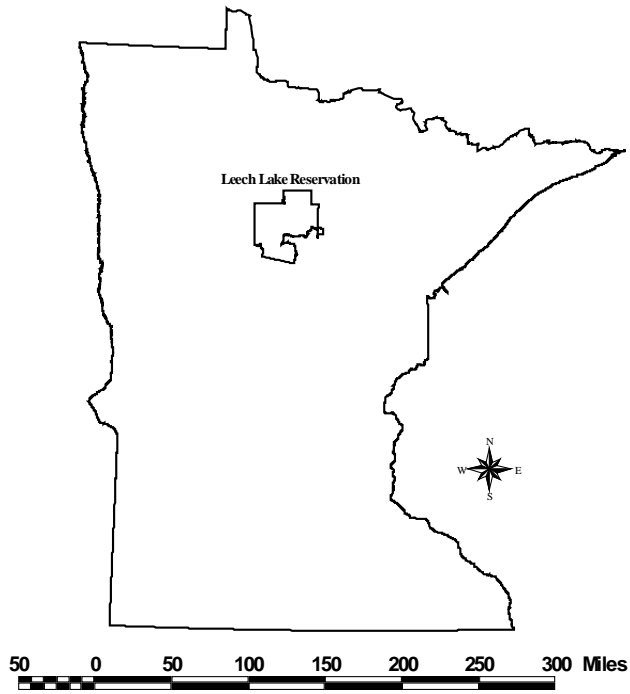
**VII. DISSEMINATION:**

*Information will be disseminated through the HCP web site as well as other publication appropriate for the information.*

**VIII. REPORTING REQUIREMENTS:** Periodic work program progress reports will be submitted not later than May 1 and Nov.1 of each year. A final work program report and associated products will be submitted between June 30 and August 1, 2012 as requested by the LCCMR.

**IX. RESEARCH PROJECTS:**

**Location of the Leech Lake Reservation in Minnesota**



Attachment A: Budget Detail for Phase VII 2009 Projects - Summary and a Budget page for each partner											
Project Title: Shallow Lake Habitat Enhancement and Wild rice Enhancement and Monitoring to Assess Relationship to Waterfowl Abundance (2f)											
Minnesota's Habitat Conservation Partnership (VII)											
Project Manager Name: Steve Mortensen											
Trust Fund Appropriation: \$50,000											
1) See list of non-eligible expenses, do not include any of these items in your budget sheet											
2) Remove any budget item lines not applicable											
2009 Trust Fund Budget	Result 1 Budget:	Amount Spent (date)	Balance	Result 2 Budget:	Amount Spent (date)	Balance	Result 3 Budget:	Amount Spent (date)	Balance (date)	TOTAL BUDGET	TOTAL BALANCE
	Waterfowl habitat management and improvement	0	\$9,435	Wild rice reseeding	0	4,333	Monitoring wild rice and waterfowl abundance	0	36232		
<b>BUDGET ITEM</b>			0			0			0	0	0
<b>PERSONNEL: wages and benefits</b>	Field Technicians @ \$19.59/hr GIS Technician @ \$20.02 Botanist @30.23	3,004	0	1,000		1,000	35,898		35,898	39,902	39,902
			0						0	0	0
<b>Professional/technical:</b>	Beaver trapping , USDA Wildlife Services	1,000		1,000					0	1,000	1,000
<b>Other contracts</b> (with whom?, for what?) list out: personnel, equipment, etc.				0					0	0	0
<b>Other direct operating costs</b> (for what? – be specific)				0					0	0	0
<b>Equipment / Tools</b>				0					0	0	0
<b>Office equipment &amp; computers - NOT ALLOWED</b> unless unique to the project				0					0	0	0
<b>Other Capital equipment</b> (list specific items)				0					0	0	0
<b>Land acquisition</b>				0					0	0	0
<b>Land rights acquisition</b> (less than fee)				0					0	0	0
<b>Professional Services for Acq.</b>				0					0	0	0
<b>Printing</b>				0					0	0	0
<b>Other Supplies</b> :Clemson levelers kits (3-5@\$549), stop logs for controls (\$200), road and dike culverts (2-4@\$303), water control parts, hardware (\$541), gasoline (\$400), rice seed (1500@\$2)		5,098		3,000		3,000			0	8,098	8,098
<b>Travel expenses in Minnesota</b>		333		333		333	334		334	1,000	1,000
<b>Travel outside Minnesota</b> (where?)				0		0			0	0	0
<b>Construction</b> (for what?)				0		0			0	0	0
<b>Other land improvement</b> (for what?)				0		0			0	0	0
<b>Other</b> (Describe the activity and cost) be specific				0		0			0	0	0
<b>COLUMN TOTAL</b>		<b>\$9,435</b>	<b>\$0</b>	<b>\$9,435</b>	<b>\$4,333</b>	<b>\$0</b>	<b>\$4,333</b>	<b>\$36,232</b>	<b>\$0</b>	<b>\$36,232</b>	<b>\$50,000</b>