

2003 Project Abstract
For the Period Ending June 30, 2006

TITLE: Restoring Minnesota's Fish and Wildlife Habitat Corridors Phase II – 2(e) Circle of Flight
Area 2 – Mississippi Headwaters

PROJECT MANAGER: John Ringle, Fish and Wildlife Program Director

ORGANIZATION: Leech Lake Band of Ojibwe, Division of Resource Management

ADDRESS: 6530 Highway 2 NW, Cass Lake, MN 56633

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FUND: Restoring Minnesota's Fish and Wildlife Corridors

LEGAL CITATION: ML 2003, Ch. 128, Art. 1, Sec.9, Subd. 5(a)

APPROPRIATION AMOUNT: \$34,700

Overall Project Outcome and Results

The Leech Lake Reservation has over 400,000 acres of lakes, streams and wetlands within its boundaries in the Mississippi Headwaters area of Northern Minnesota. Waterfowl production potential here has not been realized in recent decades due to poor brood feeding habitat resulting from high water levels. These high water levels have promoted increased fish competition for food and declines in wild rice abundance, also an important food source. Wildland fire suppression in recent decades has also allowed woody species to invade sedge meadow wetland and decrease plant diversity. Restoring fire to these ecosystems in the form of prescribed burns helps maintain high quality waterfowl habitat.

Work was performed by the Fish and Wildlife Department of the Leech Lake Band of Ojibwe on 18 impoundments within the Leech Lake Reservation, providing improved water level management on 500 acres of managed forested impoundments. This consisted of maintaining dikes by summer mowing, removal of beaver cutting debris, and replacement of rotted stoplogs. Further repairs to a water control structure on 21 acre Brush Lake Impoundment, cooperatively constructed by Ducks Unlimited, the US Forest Service and Leech Lake, were completed to prevent leakage. Clemson Levelers were replaced or installed in 3 locations and 253 acres of wild rice was seeded at 4 locations to establish or reestablish rice crops for food and habitat. Winter reverse aeration was not conducted because of high water levels and unseasonable warm winters so our Work Plan was modified to include prescribed burns on sedge meadows. We conducted 3 prescribed burns on 765 wetland acres and one pre-burn brush shearing on 10 acres.

Staff constructed 250 and placed 215 waterfowl nest boxes and performed cleaning and maintenance on over 200. A nest box occupancy rate by waterfowl of 55% annually was determined in previous surveys.

Project Results Use and Dissemination

All nest box locations, leveler installation sites, wild rice establishment acres and impoundment locations were GPS identified and included in the overall Habitat Corridors mapping project. Presentations have been made at the Great Lake Regional meeting of the Native American Fish and Wildlife Society.

Techniques developed through the course of this project, especially Clemson leveler installation, will be shared with other resource agencies. It is important to note that enhancement activities completed on impoundments, all of which are public land and open to regulated hunting and other outdoor related activities.

FINAL REPORT

Date of Completion: June 30, 2006
LCMR Final Work Program Report 2003 - Wildlife Corridors Phase II

AUG 14 2006

Date of Next Status Report: Final Report
Last Amendment Approved: Work Plan Amendment April 5, 2006
Project Completion Date: June 30, 2006

- I. **Project Title:** Restoring Minnesota's Fish and Wildlife Habitat Corridors Phase II –
2(e) Circle of Flight.
Area 2 – Mississippi Headwaters

Project Manager: John Ringle, Fish, Wildlife, and Plant Resources Director
Affiliation: Division of Resources Management, Leech Lake Band of Ojibwe
Mailing Address: 6530 Hwy 2 NW, Cass Lake, MN 56633
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Web Address:

Total Biennial LCMR Project Budget:

<u>Fund</u>	<u>Year</u>	<u>Allocat</u>	<u>Liquid</u>	<u>Encumb</u>	<u>Balance</u>
Restoring MN Fish & Wildlife Habitat Corridors II (ETF)					
	Fiscal Year 2003	\$17,700	\$17,352	0	\$ 348
	Fiscal Year 2004	\$17,000	\$15,538	0	\$ 1462
Grand Total		\$34,700	\$32,890	0	\$1,810

Legal Citation: M.L. 2003, Chap. 128, Art. 1, Sec. 9, Subd. 2(e)2

Appropriation Language: \$4,850,000 (Env. Trust Fund) Restoring Minnesota's Fish and Wildlife Habitat Corridors Phase II - \$2,450,000 the first year and \$2,450,000 the second year are from the trust fund to the commissioner of natural resources for the second biennium for acceleration of agency programs and cooperative agreements with Minnesota Deer Hunters Association, Ducks Unlimited, Inc., National Wild Turkey Federation, Pheasants Forever, The Nature Conservancy, Minnesota Land Trust, the Trust for Public Land, Minnesota Valley Trust, Inc., U.S. Fish and Wildlife Service, U.S. Bureau of Indian Affairs, Red Lake Band of Chippewa, Leech Lake Band of Chippewa, Fond du Lac Band of Chippewa, USDA-Natural Resources Conservation Service, and the Board of Water and Soil Resources to plan, restore, and acquire fragmented landscape corridors that connect areas of quality habitat to sustain fish, wildlife, and plants. As part of the required work program, criteria and priorities for planned acquisition and restoration activities must be submitted to the legislative commission on Minnesota resources for review and approval before expenditure. Expenditures are limited to the 11 project areas as defined in the work program. Land acquired with this appropriation must be sufficiently improved to meet at least minimum habitat and facility management standards as determined by the commissioner of natural resources. This appropriation may not be used for the purchase of residential structures unless expressly approved in the work program. Any land acquired in fee title by the commissioner of natural resources with money from this appropriation must be designated: (1) as an outdoor recreation unit under Minnesota Statutes, section 86A.07; or (2) as provided in Minnesota Statutes, sections 89.018, subdivision 2, paragraph (a); 97A.101; 97A.125; 97C.001; and

97C.011. The commissioner may so designate any lands acquired in less than fee title. The appropriation is available until June 30, 2006, at which time the project must be completed and final products delivered, unless an earlier date is specified in the work program.

II. and III. FINAL PROJECT SUMMARY:

The Leech Lake Reservation has over 400,000 acres of lakes, streams and wetlands within its boundaries in the Mississippi Headwaters area of Northern Minnesota. Waterfowl production potential here has not been realized in recent decades due to poor brood feeding habitat resulting from high water levels. These high water levels have promoted increased fish competition for food and declines in wild rice abundance, also an important food source. Wildland fire suppression in recent decades has also allowed woody species to invade sedge meadow wetland and decrease plant diversity. Restoring fire to these ecosystems in the form of prescribed burns helps maintain high quality waterfowl habitat.

Work was performed by the Fish and Wildlife Department of the Leech Lake Band of Ojibwe on 18 impoundments within the Leech Lake Reservation, providing improved water level management on 500 acres of managed forested impoundments. This consisted of maintaining dikes by summer mowing, removal of beaver cutting debris, and replacement of rotted stoplogs. Further repairs to a water control structure on 21 acre Brush Lake Impoundment, cooperatively constructed by Ducks Unlimited, the US Forest Service and Leech Lake, were completed to prevent leakage. Clemson Levelers were replaced or installed in 3 locations, and 253 acres of wild rice was seeded at 4 locations to establish or reestablish rice crops for food and habitat. Winter reverse aeration was not conducted because of high water levels and unseasonable warm winters, so our Work Plan was modified to include prescribed burns on sedge meadows. We conducted 3 prescribed burns on 765 wetland acres and one pre-burn brush shearing on 10 acres.

Staff constructed 250 and placed 215 waterfowl nest boxes and performed cleaning and maintenance on over 200. A nest box occupancy rate by waterfowl of 55% annually was determined in previous surveys

IV. Outline of Project Results:

Result 1: Impoundment Management

Description: Provide better water level management on 18 impoundments totaling about 500 acres and located within the Leech Lake Reservation for the benefit of waterfowl and other wildlife that utilize this type of habitat.

Impoundment that over the years have been built on the reservation and in need of management and maintenance to maximize their benefit for waterfowl. This work includes water level management, summer mowing, beaver dam removal, drawn downs, dike maintenance and repair as well as beaver control in some cases. We conducted further repairs on Brush lake Impoundment, rebuilt in Phase I with Ducks Unlimited and US Forest Service partnerships.

Leaking around the outlet structure, caused by animal burrowing, was repaired by installing an anti-seep collar and rebuilding and compacting the dike. We were unable to expend \$1,366 in the personnel portion of the budget as we probably tried to micromanage the six project result areas too closely and could not attribute and spend all the funding available to Impoundment Management, but spent more that available on other result areas.

Summary Budget Information for Result 1:	LCMR Budget	\$ 9,500
	Balance	\$ 1,366

Completion Date: June 30, 2006

Result 2: Clemson Leveler Installation

Description: We installed Clemson levelers on three wetlands to enhance brood habitat. Bag Lake got a new leveler, as did Cuba Hill Impoundment and Ketchum Impoundment. These devises are in many cases very cost effective in controlling water level while reducing costs and the need to eliminate beavers from impoundments and natural waters. The leveler in Brush Lake was also raised. We have found that by supporting levelers off the bottom substrate, they last longer and stay free from debris and silt. Again, for the reason stated in Result 1, we were unable to expend \$444 in personnel costs.

Summary Budget Information for Result 2:	LCMR Budget	\$ 5,000
	Balance	\$ 444

Completion Date: June 30, 2006

Result 3: Wild Rice Reseeding

Description: Wild rice beds on the reservation and through out the state have declined due to high and stable water levels, and possibly other human induced activities. We reseeded or attempted to develop new rice beds in suitable waters for the benefit of waterfowl and other wildlife that utilize this type of habitat. Two thousand pounds of wild rice seed was reseeded on 253 acres on Lost Lake, Gould Lake, Webegon Lake and Rice Lake, all near Onigum, MN, to reestablish the Leech Lake strain rice that had diminished or disappeared. On all seeded lakes, wild rice was reestablished and a rice crop, suitable for wildlife habitat, was the result. Because of high water in 2004 and 2005 that resulted in poor rice seed crops, making obtaining suitable seed rice impossible, our Work Plan was modified to be able to utilize unspent funds for an alternative Project Result, Prescribed Burning.

Summary Budget Information for Result 3:	LCMR Budget	\$ 7,200 4,055
	Balance	\$ 3,145 0

Completion Date: October 2004

Result 4: ~~Lake renovation utilizing reverse aeration.~~ Prescribed burning for Habitat enhancement.

Description: This result was modified to exclude winter aeration because the winters of 2004 and 2005 were not severe enough to have adequate ice thickness or deep enough snow cover. Winter aeration is successful only if conditions are such that there is deep snow and ice. When conditions are right, winter aeration that induces a winterkill can be very effective for eliminating minnow predation of invertebrate waterfowl food.

Wildland fire suppression in recent decades has also allowed woody species to invade sedge meadow wetland and decrease plant diversity. Restoring fire to these ecosystems in the form of prescribed burns helps maintain high quality waterfowl habitat.

Prescribed burns were conducted cooperatively with the US Forest Service at three locations in the early spring of 2006. The Boy River sedge meadow burn restored fire to 715 acres in one unit of the Boy River. A 40 acre sedge meadow near Sugar Point of Leech Lake was also burned. A smaller, 10 acre burn at the Winnie Tribal Wildlife Management Area was also completed. On Laura Lake, pre-burn winter brush cutting on 10 acres was utilized to set back willow growth in the sedge meadow and provide fuel for a prescribed burn in the upcoming season. In all, 775 acres were burned prescriptively or prepared for burning.

Summary Budget Information for Result 4:	LCMR Budget	\$ 3,500- 6,645
	Balance	\$ 3,500 0

Completion Date: June 2006

Result 5: Waterfowl nest box construction, installation and maintenance.

Description: Over the years the construction and installation of nest boxes has proven to be one of the most beneficial means of increasing the numbers of waterfowl that utilize these structures. Natural cavities are lacking due to intensive timber harvest and a general attitude that decadent trees should be removed. Staff constructed 250 nest boxes. 215 nest boxes were erected in 19 different locations in groups of 10-15 boxes per site, each box was located with GPS and recorded in the overall database. Each group location became a location for inclusion into the Phase II electronic reporting system and entered. An additional 35 boxes were given to a school group and also to individuals for placement near residences. Maintenance, consisting of winter cleaning and replacement of nesting substrate, was performed on an additional 300 nest boxes installed in Phase I of the Habitat Corridors for Wildlife Project.

Summary Budget Information for Result 5:

**LCMR Budget
Balance**

**\$ 9,500
\$ 0**

Completion Date: June 2006

V. TOTAL LCMR PROJECT BUDGET: (see attachment A and page 1)

All Results: Personnel: \$ 21,390
All Results: Equipment: \$
All Results: Development: \$ 11,500
All Results: Acquisition: \$
All Results: Other: \$
TOTAL LCMR PROJECT BUDGET: \$32,890

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

VI. PAST, PRESENT AND FUTURE SPENDING

- A. Past Spending:** During the 2001-2002 biennium in Phase I, we were obligated \$76,910 in LCMR funding and a 1-to-1 matching Bureau of Indian Affairs, Circle of Flight program funding amount of \$76,910. In Phase II we have been allocated \$34,700. We have liquidated \$32,890 in LCMR funding and have a balance of \$1,890 to be returned the Environment and Natural Resources Trust Fund.
- B. Current Spending:** The Bureau of Indian Affairs, Circle of Flight program has obligated a matching amount of \$36,000 to go toward a match to this Phase II project
- C. Required Match (if applicable):** N/A
- D. Future Spending:** The Leech Lake Band of Ojibwe, Division of Resource Management is committed to the ongoing management and maintenance of the impoundments, nest boxes, levelers, and rice beds into the future.

VII. Project Partners: None

- A. Partners Receiving LCMR Funds:** None for these projects
- B. Project Cooperators:** Bureau of Indian Affairs, US Forest Service, MNDNR, MN Waterfowl Association, Ducks Unlimited, USDA Natural Resources Conservation Service

VIII. Dissemination: All data will be mapped using GIS technology and included as part of the overall LCMR Wildlife Habitat Corridors project. Our organization writes an annual

work report and the BIA publishes an annual Circle of Flight report, which will highlight this LCMR project.

IX. Location: All projects will be conducted within the exterior boundaries of the Leech Lake Reservation

X. Reporting Requirement:

Periodic work program progress reports were submitted not later than November 30, 2003; March 30, 2004; November 30, 2004; March 30, 2005; and November 30, 2005 to LCMR. A final work program report and associated products will be submitted by June 30, 2006. Electronic reporting for the Wildlife Habitat Corridors Partnership was also completed.

XI. Research Projects: NA

Attachment A: Budget Detail for 2003 Projects - Summary and a budget page for each partner																			
Proposal Title: Restoring Minnesota's Fish and Wildlife Habitat Corridors Phase II																			
Project Manager Name: John P. Ringle, Fish, Wildlife, and Plant Resources Director																			
Requested Dollars: \$ 34,700.																			
2003 LCMR Proposal Budget	Result 1 Budget:	Amount Spent	Balance	Result 2 Budget:	Amount Spent	Balance	Result 3 Budget:	Result 3 Budget Revised:	Amount Spent	Balance	Result 4 Budget:	Result 4 Budget Revised:	Amount Spent	Balance	Result 5 Budget:	Amount Spent	Balance		
		6-30-06	6-30-06		(date)	(date)			(date)	(date)			(date)	(date)		(date)	(date)		
	Impoundment Management			Clemson Leveler Installation			Wild rice reseeded				Lake renovation	Prescribed Burns			Nest box construction, instal., and maint.				
BUDGET ITEM	Impoundment Management			Clemson Leveler Installation			Wild rice reseeded				Lake renovation				Nest box construction, instal., and maint.		TOTAL FOR BUDGET ITEM		
PERSONNEL: Staff expenses, wages, salaries	Technician 1 \$ 13.98 Technician 2 \$ 13.98 Impoundment Labor	4,719	\$1,059	Technician 1 \$ 13.98 Technician 2 \$ 13.98 Impoundment Labor	1,966	362	Technician 1 \$ 13.98 Technician 2 \$ 13.98 Impoundment Labor	812	812	0	Technician 1 \$ 13.98 Technician 2 \$ 13.98 Impoundment Labor	3,575	3,575	0	Technician 1 \$ 13.98 Technician 2 \$ 13.98 Impoundment Labor	5,404	0	16,476	
PERSONNEL: Staff benefits	Technician 1 \$ 4.20 Technician 2 \$ 4.20	1,415	\$307	Technician 1 \$ 4.20 Technician 2 \$ 4.20	590	82	Technician 1 \$ 4.20 Technician 2 \$ 4.20	243	243	0	Technician 1 \$ 4.20 Technician 2 \$ 4.20	1,070	1,070	0	Technician 1 \$ 4.20 Technician 2 \$ 4.20	1,596	0	4,914	
Contracts																			
Professional/technical																			
Other contracts												\$2,000 Coop Agreement US Forest Service	2,000				0	2,000	
Space rental: NOT ALLOWED	X			X			X												
Other direct operating costs																			
Equipment / Tools																			
Office equipment & computers																			
Other Capital equipment																			
Land acquisition																			
Land rights acquisition																			
Printing																			
Advertising																			
Communications, telephone, mail, etc.																			
Office supplies																			
Other supplies	2,000 Repair materials	2,000	0	2,000 Levelers, pipe, grates, stop logs	2,000	0	4,700 Local wild rice seed	3,000	3,000	0	0	0	0	0	2,500 Box construction materials	2,500	0	9,500	
Travel expenses in Minnesota																			
Travel outside Minnesota																			
Construction																			
Other land improvement																			
Other																			
COLUMN TOTAL		9,500	7,934	1,366	5,000	4,556	444	7,200	4,055	4,055	0	0	6,645	6,645	\$0	9,500	9,500	0	32,890