

**LCCMR Work Program Final Report**  
**Restoring Minnesota's Fish and Wildlife Habitat Corridors Phase 4**  
**Habitat Conservation Partnership**

**2C: Living Lakes Enhancement - Ducks Unlimited**

<b>Project Manager:</b>	Jon Schneider	<b>Fund:</b> Environment and Natural Resources Trust Fund
<b>Affiliation:</b>	Ducks Unlimited	
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**Total Biennial Project Budget**

Result	ENTF Allocation	ENTF Funds Spent	ENTF Balance	Other Funds * Proposed	Other Funds * Spent
<b>Restoration</b>	\$300,000	\$300,000	\$0	\$50,000	\$446,839
<b>Total</b>	\$300,000	\$300,000	\$0	\$50,000	\$446,839

\*Other Funds are classified as non-state, non-state leveraged dollars (if partner funds are leveraging State Funds (e.g. RIM) they are not eligible to be considered Other Funds). Please note, however, that this work program has spent the following amounts not shown in the above table:

State Funds: \$46,389.32

See the tables and funding type definitions at the end of this report for further explanation.

**Work Program Summary**

**Overall Project Outcome and Results**

The objective of this project was to accelerate Ducks Unlimited (DU) bio-engineering assistance to help agencies enhance shallow lakes for waterfowl through our Living Lakes Initiative. DU biologists and engineers provided technical assistance to Minnesota DNR, U.S. Fish & Wildlife Service, and private landowners around shallow lakes with a goal of enhancing at least one shallow lake totaling 350 wetland acres with a new water control structure and/or fish barrier, engineering at least five shallow lakes projects, and providing technical assistance to agency field staff on at least 10 other shallow lake projects.

Through this grant project, DU biologists and engineers designed 8 new water control structures and fish barriers for the Minnesota DNR and US Fish & Wildlife Service, and constructed 7 of them including Hjermstad Lake in Murray County, Mott Lake on Mueller WMA in Waseca County, South Twin Lake in Lyon County, Augusta Lake in Cottonwood County, Hanson WPA in Grant County, and Sunset Lake and Golden Pond on the Rydell NWR in Polk County. The construction of these 7 shallow lake structures enhanced 1,123 wetland acres. The eighth water control structure engineered for Smith Lake in Wright County will be constructed in the future after DNR secures an easement for the structure and legally designates the lake for wildlife management purposes. Finally, DU shallow lakes field biologist provided technical assistance to MNDNR and USFWS on 44 shallow lake projects in HCP Project Areas to help assess lake condition and develop new enhancement projects for future implementation.

DU's total cost to provide this service to the state was \$793,228, including \$300,000 from the Environment & Natural Resources Trust Fund, \$46,389 in other state funds (DNR) and \$446,839 in Other Funds (DU and federal funds) that far exceeds the \$50,000 of Other Funds proposed.

**Project Results Use and Dissemination**

This grant helped DU, DNR, and the Service accelerate the assessment and enhancement of shallow lakes throughout southern, central and western Minnesota. DU provided 8 detailed engineering design plans to state and federal agency staff, and informed the public of shallow lake improvement projects through public meetings, news releases sent to the media, and in articles in DU publications. Shallow lake assessment data collected by DU biologists was provided to DNR's shallow lake program and area wildlife managers, and shared with MPCA to aid in their impaired waters assessment.

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**Restoration Activities**

Project Area - 1 - Aspen Parklands

<b>Project Name:</b>	Rydell National Wildlife Refuge			
<b>Tract:</b>	Sunset Lake Township: 148, Range: 43, Section: 3			
<b>Activity:</b>	Wetland Enhancement			
<b>Landtype:</b>	Public - NWR			
<b>Description:</b>	DU engineered and installed a variable crest water control structure on the outlet of the 50-acre "Sunset Lake" wetland on the Rydell NWR in Polk County near Erskine for the US Fish & Wildlife Service. The Service will use the structure to conduct temporary draw-downs of the basin to eliminate invasive fish and rejuvenate the aquatic ecology of the wetland. Both DU and the Service provided non-state cost-share funding for the project.			
<i>Funding Type</i>	<i>Funds Use</i>	<i>Funding Amount</i>	<i>Prorated Acres</i>	<i>Prorated Shoreline</i>
ENTF	Restoration	\$35,841.07	35.09	0.00
Other Funds	Personnel Expenditures	\$37,494.35	0.00	0.00
Other Funds	Restoration	\$15,223.08	14.91	0.00
<b>Rydell National Wildlife Refuge Sunset Lake Total</b>		<b>\$88,558.50</b>	<b>50.00</b>	<b>0.00</b>
<b>Project Name:</b>	Rydell National Wildlife Refuge			
<b>Tract:</b>	Golden Pond Township: 148, Range: 43, Section: 2			
<b>Activity:</b>	Wetland Enhancement			
<b>Landtype:</b>	Public - NWR			
<b>Description:</b>	DU engineered and installed a variable crest water control structure on the outlet of the 20-acre "Golden Pond" wetland on the Rydell NWR in Polk County near Erskine for the US Fish & Wildlife Service. The Service will use the structure to conduct temporary draw-downs of the basin to eliminate invasive fish and rejuvenate the aquatic ecology of the wetland. Both DU and the Service provided non-state cost-share funding for the project.			
<i>Funding Type</i>	<i>Funds Use</i>	<i>Funding Amount</i>	<i>Prorated Acres</i>	<i>Prorated Shoreline</i>
ENTF	Restoration	\$28,532.50	14.16	0.00
Other Funds	Personnel Expenditures	\$35,297.40	0.00	0.00
Other Funds	Restoration	\$11,766.24	5.84	0.00
<b>Rydell National Wildlife Refuge Golden Pond Total</b>		<b>\$75,596.14</b>	<b>20.00</b>	<b>0.00</b>

**LCCMR Work Program Final Report**  
**Restoring Minnesota's Fish and Wildlife Habitat Corridors Phase 4**  
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Project Area - 8 - Big Woods North

**Project Name:** Smith Lake, Wright County  
Township: 119, Range: 28, Section: 36

**Activity:** Shallow Lake Survey / Design / Wetland Mapping

**Landtype:** Public - Lake

**Description:** DU engineers surveyed and designed a water control structure for the outlet of Smith Lake in Wright County, a shallow lake of importance to migratory birds. DU has previously engineered a velocity tube fish barrier for the downstream outlet channel of Smith Lake. However, this shallow lake has not winterkilled in many years due to landscape drainage, above average precipitation patterns, and an outlet choked with hybrid cattails and sediment. The new outlet structure designed by DU engineers will be implemented in the future. DNR legally designated Smith Lake for active wildlife management in May 2009 with help from DU, and is obtaining a legal easement to place, operate, and maintain the structure. DU plans to construct this new structure for DNR in 2009 or 2010 with funds granted through the LSOHC.

<i>Funding Type</i>	<i>Funds Use</i>	<i>Funding Amount</i>	<i>Prorated Acres</i>	<i>Prorated Shoreline</i>
ENTF	Personnel Expenditures	\$7,150.35	0.00	0.00
Other Funds	Personnel Expenditures	\$12,298.97	0.00	0.00
State Funds	Personnel Expenditures	\$10,000.00	0.00	0.00
<b>Smith Lake, Wright County Total</b>		<b>\$29,449.32</b>	<b>0.00</b>	<b>0.00</b>

**LCCMR Work Program Final Report**  
**Restoring Minnesota's Fish and Wildlife Habitat Corridors Phase 4**  
**Habitat Conservation Partnership**

**2C:Living Lakes Enhancement - Ducks Unlimited**

Project Area - 9 - Des Moines River Valley

<b>Project Name:</b>	Augusta Lake Township: 106, Range: 37, Section: 3			
<b>Activity:</b>	Wetland Enhancement			
<b>Landtype:</b>	Public - Lake			
<b>Description:</b>	DU engineers designed and installed a velocity tube fish barrier structure on the outlet channel of Augusta Lake in Cottonwood County near Storden for the Minnesota DNR to prevent carp and other invasive fish from entering Augusta Lake and other wetlands from Highwater Creek. DNR obtained a permanent easement on the site that allows for placement and maintenance of the structure, and DNR will monitor and manage it in perpetuity. DU awarded an \$80,000 construction contract for the project in September 2008, the work began in October 2008, and was completed by early December 2008. Funding for this project included a combination of DU, DNR, LCCMR, and NAWCA small grant funds.			
<i>Funding Type</i>	<i>Funds Use</i>	<i>Funding Amount</i>	<i>Prorated Acres</i>	<i>Prorated Shoreline</i>
ENTF	Personnel Expenditures	\$7,623.91	0.00	0.00
ENTF	Restoration	\$6,992.59	58.36	0.00
Other Funds	Personnel Expenditures	\$29,413.66	0.00	0.00
Other Funds	Professional Services	\$1,701.98	0.00	0.00
Other Funds	Restoration	\$53,275.84	444.61	0.00
State Funds	Restoration	\$21,212.70	177.03	0.00
<b>Augusta Lake Total</b>		<b>\$120,220.68</b>	<b>680.00</b>	<b>0.00</b>
<b>Project Name:</b>	Hjermstad Lake Township: 108, Range: 43, Section: 11			
<b>Activity:</b>	Wetland Enhancement			
<b>Landtype:</b>	Public - WMA			
<b>Description:</b>	DU engineered and constructed a new water control structure on the outlet of 63-acre Hjermstad Lake on Hjermstad WMA in Murray County. DU used a combination of LCCMR, DNR, DU, and federal NAWCA funds to complete this shallow lake enhancement work, and DNR will now use the structure to actively manage the lake in perpetuity to improve it and keep it productive for wildlife.			
<i>Funding Type</i>	<i>Funds Use</i>	<i>Funding Amount</i>	<i>Prorated Acres</i>	<i>Prorated Shoreline</i>
ENTF	Personnel Expenditures	\$4,448.75	0.00	0.00
ENTF	Restoration	\$69,328.21	63.00	0.00
Other Funds	Personnel Expenditures	\$34,412.87	0.00	0.00
State Funds	Personnel Expenditures	\$10,000.00	0.00	0.00
<b>Hjermstad Lake Total</b>		<b>\$118,189.83</b>	<b>63.00</b>	<b>0.00</b>

**LCCMR Work Program Final Report**  
**Restoring Minnesota's Fish and Wildlife Habitat Corridors Phase 4**  
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<b>Project Name:</b>	South Twin Lake Township: 109, Range: 40, Section: 30			
<b>Activity:</b>	Wetland Enhancement			
<b>Landtype:</b>	Private - Lake			
<b>Description:</b>	DU engineers designed and installed a water control structure on the outlet of South Twin Lake in Lyon County (just 3 miles west of Tracy, MN) for the Minnesota DNR and US Fish & Wildlife Service to allow DNR to conduct temporary draw-downs to rejuvenate aquatic ecology and enhance water quality in the basin. The Minnesota DNR obtained flowage easements from each of three riparian landowners and an easement for the structure in spring 2008. The Service provided a \$15,000 challenge cost-share grant for construction of the project. DU awarded a construction contract for the project in September 2008, and the project was completed in November 2008.			
<i>Funding Type</i>	<i>Funds Use</i>	<i>Funding Amount</i>	<i>Prorated Acres</i>	<i>Prorated Shoreline</i>
ENTF	Restoration	\$31,340.00	93.00	0.00
Other Funds	Personnel Expenditures	\$22,030.86	0.00	0.00
State Funds	Personnel Expenditures	\$5,176.62	0.00	0.00
<b>South Twin Lake Total</b>		<b>\$58,547.48</b>	<b>93.00</b>	<b>0.00</b>

Project Area - 10 - Southern Lakes

<b>Project Name:</b>	Mott Lake Fish Barrier Township: 106, Range: 24, Section: 25			
<b>Activity:</b>	Wetland Enhancement			
<b>Landtype:</b>	Public - WMA			
<b>Description:</b>	DU engineered and installed a velocity tube fish barrier in the outlet ditch downstream of Mott Lake on the Mueller WMA in Waseca County to prevent carp and other fish from entering this shallow lake. Mott Lake routinely winterkills, and this fish barrier will ensure the basin becomes fish free and is maintained in the clear water state. The Minnesota DNR annually monitors and manages Mott Lake as part of its work on Mueller WMA, and is working to minimize fish and encourage natural winterkill events in the lake.			
<i>Funding Type</i>	<i>Funds Use</i>	<i>Funding Amount</i>	<i>Prorated Acres</i>	<i>Prorated Shoreline</i>
ENTF	Personnel Expenditures	\$12,035.40	0.00	0.00
ENTF	Restoration	\$24,935.76	115.00	0.00
Other Funds	Personnel Expenditures	\$16,444.50	0.00	0.00
<b>Mott Lake Fish Barrier Total</b>		<b>\$53,415.66</b>	<b>115.00</b>	<b>0.00</b>

Project Area - 3-7-8 - Border Prairie Transition Zone

<b>Project Name:</b>	Hanson WPA Township: 127, Range: 41, Section: 4			
<b>Activity:</b>	Wetland Enhancement			
<b>Landtype:</b>	Public - WPA			
<b>Description:</b>	DU engineered and installed a variable crest water control structure on the outlet of a 102-acre wetland on the Hanson WPA in Grant County near Hoffman for the US Fish & Wildlife Service. The Service will use the structure to conduct temporary draw-downs of the basin to eliminate invasive fish and rejuvenate the aquatic ecology of the wetland.			
<i>Funding Type</i>	<i>Funds Use</i>	<i>Funding Amount</i>	<i>Prorated Acres</i>	<i>Prorated Shoreline</i>
ENTF	Personnel Expenditures	\$3,196.96	0.00	0.00
ENTF	Restoration	\$30,000.00	36.51	0.00
Other Funds	Personnel Expenditures	\$27,557.63	0.00	0.00
Other Funds	Restoration	\$53,805.60	65.49	0.00
<b>Hanson WPA Total</b>		<b>\$114,560.19</b>	<b>102.00</b>	<b>0.00</b>

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**Restoration Project Totals (By Funding Type)**

Funding Type	Funding Amount	Acres	Shoreline Feet
ENTF:	\$261,425.50	415.12	0.00
Other Funds:	\$350,722.98	530.85	0.00
State Funds:	\$46,389.32	177.03	0.00
<b>Total:</b>	<b>\$658,537.80</b>	<b>1,123.00</b>	<b>0.00</b>

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**Work Program Expenditures - Not Attributable to Specific Projects**

<i>FundingType</i>	<i>Category</i>	<i>Amount</i>	<i>Description</i>
ENTF	Personnel Expenditures	\$21,844.16	Technical Assistance provided in the Prairie Transition HCP Project Area (#3-7-8) by DU biologists to DNR, US Fish & Wildlife Service, local units of government, and private landowners regarding shallow lake assessment, improvement and management.
ENTF	Personnel Expenditures	\$5,495.49	Technical Assistance provided in the Prairie Coteau HCP Project Area #9 by DU biologists to DNR, US Fish & Wildlife Service, local units of government, and private landowners regarding shallow lake assessment, improvement and management.
ENTF	Personnel Expenditures	\$3,420.51	Technical Assistance provided in the Upper Minnesota River HCP Project Area #6 by DU biologists to DNR, US Fish & Wildlife Service, local units of government, and private landowners regarding shallow lake assessment, improvement and management.
ENTF	Personnel Expenditures	\$7,814.34	Technical Assistance provided in the Southern Lakes HCP Project Area #10 by DU biologists to DNR, US Fish & Wildlife Service, local units of government, and private landowners regarding shallow lake assessment, improvement and management.
Other Funds	Personnel Expenditures	\$49,403.36	DU staff time spent on HCP part 2c Phase 4 grant administration and coordination of DU bio-engineering field work to assess, enhance, and manage shallow lakes in partnership with DNR's Shallow Lakes Program and with U.S. Fish & Wildlife Service's Wetland Management Districts.
Other Funds	Personnel Expenditures	\$27,245.08	Technical Assistance provided in the Prairie Transition HCP Project Area (#3-7-8) by DU biologists to DNR, US Fish & Wildlife Service, local units of government, and private landowners regarding shallow lake assessment, improvement and management.
Other Funds	Personnel Expenditures	\$6,229.51	Technical Assistance provided in the Prairie Coteau HCP Project Area #9 by DU biologists to DNR, US Fish & Wildlife Service, local units of government, and private landowners regarding shallow lake assessment, improvement and management.
Other Funds	Personnel Expenditures	\$3,907.73	Technical Assistance provided in the Upper Minnesota River HCP Project Area #6 by DU biologists to DNR, US Fish & Wildlife Service, local units of government, and private landowners regarding shallow lake assessment, improvement and management.
Other Funds	Personnel Expenditures	\$9,330.05	Technical Assistance provided in the Southern Lakes HCP Project Area #10 by DU biologists to DNR, US Fish & Wildlife Service, local units of government, and private landowners regarding shallow lake assessment, improvement and management.
<b>Total:</b>		<b>\$134,690.23</b>	

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**Work Program Expenditures (Not Attributable to Specific Projects) By Funding Type**

Funding Type	Amount
ENTF	\$38,574.50
Other Funds	\$96,115.73
<b>Total</b>	<b>\$134,690.23</b>

**Work Program Expenditures Breakdown**

Funding Type:	Restoration Projects	Not Attributable to Specific Projects	Total
ENTF	\$261,425.50	\$38,574.50	\$300,000.00
Other Funds	\$350,722.98	\$96,115.73	\$446,838.71
State Funds	\$0.00	\$0.00	\$46,389.32
<b>Total</b>	<b>\$658,537.80</b>	<b>\$134,690.23</b>	<b>\$793,228.03</b>

**Funding Type Definitions**

<b>ENTF:</b>	Grant dollars provided through the Minnesota Environment and Natural Resources Trust Fund
<b>Other Funds:</b>	Non-state, non-state leveraged dollars (if partner funds are leveraging State Funds (e.g. RIM) they are not eligible to be considered Other Funds)
<b>State Funds:</b>	State Funds expended on HCP projects (not eligible for use as Other Funds commitment)
<b>Partner's State Leveraged Funds:</b>	Non State Funds that have leveraged State Funds as part of an HCP project (not eligible for use as Other Funds commitment)
<b>Other:</b>	Any other expenditures (e.g. grant income funds)

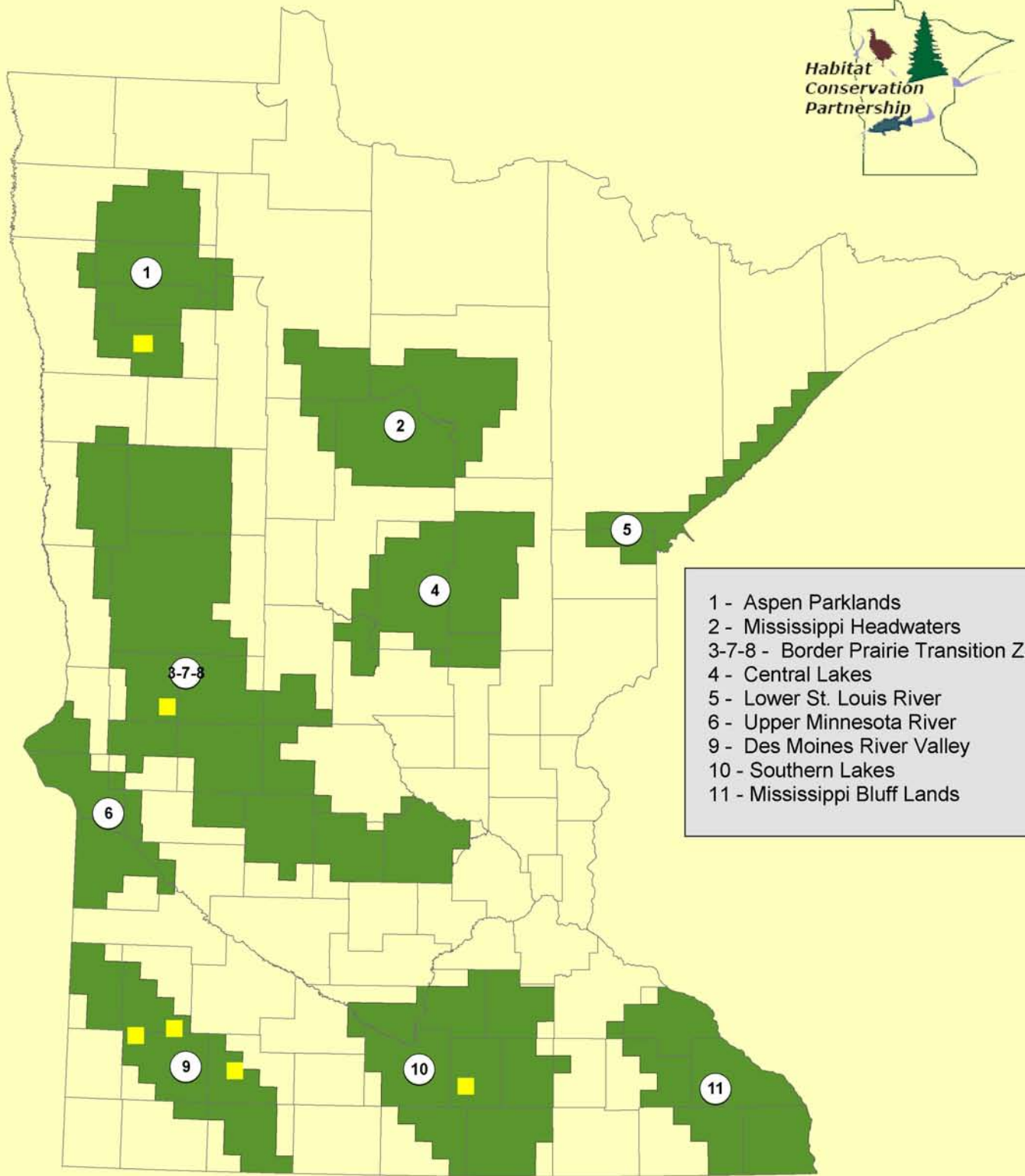


**Attachment A: Budget Detail for 2007 Projects****Project Title: Living Lakes Enhancements 2c & Easements 3c****Project Manager Name: Jon Schneider, DU****Trust Fund Appropriation: \$500,000****Date: Final Report July 2009**

<b>2007 Trust Fund Budget</b>	<b>Result 1 Budget:</b>	<b>Amount Spent</b>	<b>Balance</b>	<b>Result 2 Budget:</b>	<b>Amount Spent</b>	<b>Balance</b>	<b>TOTAL BUDGET</b>	<b>TOTAL SPENT</b>	<b>TOTAL BALANCE</b>
	<i>Living Lakes Enhancements</i>			<i>Living Lakes Easements</i>					
<b>BUDGET ITEM</b>									
<b>PERSONNEL:</b> (wages and benefits for DU staff professional biologists and engineers to deliver habitat projects)	\$73,030	\$73,030	\$0	\$23,411	\$23,411	\$0	\$96,441	\$96,441	\$0
<b>Contracts</b>	\$226,970		\$0	\$24,770		\$0	\$251,740	\$251,740	\$0
<b>Professional/technical</b> (soils investigations, appraisals, legal, and baseline documentation reports)					\$24,770				
<b>Other contracts</b> (construction of water control structures and fish barriers)		\$226,970							
<b>Equipment / Tools</b>									
<b>Land rights acquisition</b> (easements, not fee)				\$98,050	\$98,050	\$0	\$98,050	\$98,050	\$0
<b>Professional Services for Acquisitions</b>									
<b>Other</b> (Easement Stewardship to DU WAT)				\$53,769	\$53,769	\$0	\$53,769	\$53,769	\$0
<b>COLUMN TOTAL</b>	<b>\$300,000</b>	<b>\$300,000</b>	<b>\$0</b>	<b>\$200,000</b>	<b>\$200,000</b>	<b>0</b>	<b>\$500,000</b>	<b>\$500,000</b>	<b>0</b>

# Habitat Conservation Partnership Phase 4 - Accomplishments

2C - Living Lakes Enhancement - Ducks Unlimited



- 1 - Aspen Parklands
- 2 - Mississippi Headwaters
- 3-7-8 - Border Prairie Transition Zone
- 4 - Central Lakes
- 5 - Lower St. Louis River
- 6 - Upper Minnesota River
- 9 - Des Moines River Valley
- 10 - Southern Lakes
- 11 - Mississippi Bluff Lands

Restorations    Easements    Acquisitions