

Lessard-Sams Outdoor Heritage Council

Laws of Minnesota 2012 Accomplishment Plan

Date: October 24, 2011

Program Title: Northeastern Minnesota Sharp-tailed Grouse Habitat Partnership

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Funds Recommended: \$1,340,000

Legislative Citation: ML 2012, Ch. X, Art. X, Sec. X, Subd. 3 (c): *(to be completed when signed by Governor)*

Abstract:

This sharp-tailed grouse habitat partnership will protect, restore and enhance up to 1,015 acres, primarily brushland, in northeastern Minnesota for addition to the WMA system, providing multiple environmental benefits.

Program Narrative

Design and Scope of Work

Until the 1880s, most of Minnesota was inhabited by sharp-tailed grouse where suitable open and brushland habitat, such as prairies, savannas, sedge meadows and open bogs, occurred. This indigenous grouse was once one of Minnesota's most abundant game birds, with over 100,000 harvested annually in the 1940's. Loss, degradation and fragmentation of open and brushland habitat within Minnesota due to natural succession and conversion to other land uses (cropland and tree plantations) has led to a long term decline in this unique grouse's population (estimated harvest of 14,000 in 2008), causing its

listing as a species in greatest conservation need. Today its remaining range in northern Minnesota, which is less than one-third of its historic range, is in jeopardy of additional fragmentation and degradation.

In east central Minnesota, preliminary research results have shown that genetic diversity of the sharp-tailed grouse population may be declining due to increasing isolation of subpopulations. In nearby Wisconsin, genetic diversity (allelic diversity and heterozygosity) has declined so greatly that Wisconsin DNR has begun translocating sharp-tailed grouse to create a genetic infusion to increase the likelihood that populations will persist. Increasing the amount of protected brushland habitat in northeastern Minnesota will be critical to the sustainability of the local sharp-tailed grouse population and gene exchange between Minnesota and Wisconsin populations.

habitat that will be affected and how actions will directly restore, enhance, and/or protect them:

Specific habitats to be affected will include up to 1,015 acres of open, brushland, and forest habitat (including 495 acres wetland and 165 acres forest). Acquisition of the habitats and their transfer to MDNR for management under the state WMA will protect them. Natural habitats will include wet meadow, sedge meadow, shrub wetland, bog, grassland, and aspen and northern hardwoods forest. They will be enhanced with prescribed burning, mowing, shearing, timber harvest, and possibly grazing, biomass harvest and occasional haying to maintain open and brushland landscape. Other land includes hay, pasture and crop land that will be restored to open and brushland habitat through establishment of native vegetation, prescribed burning and natural succession.

Multiple benefits:

Multiple benefits of the above protection, enhancement and restoration actions will include increased plant and animal diversity, carbon sequestration, water retention and filtration, opportunities for biomass harvest, access to public lands for recreation, increases eco-tourism opportunities, economic benefits, and secure habitat for sharp-tailed grouse and other open and brushland species in greatest conservation need.

Wildlife species that will benefit:

In addition to sharp-tailed grouse, several other species that use or depend upon open and brushland habitats are also in decline, listed as species in greatest conservation need, and will benefit from this project, including bobolinks, loggerhead shrikes, short-eared owls, yellow rails, eastern meadowlarks, American bittern, northern harrier, golden-winged warblers, Henslow's sparrow, Le Conte's sparrow, Nelson's sharp-tailed sparrow, and American woodcock. Six of these species are state listed as endangered, threatened or special concern.

Game species that will benefit include white-tailed deer, waterfowl (mallards, blue-winged teal, Canada geese, and more species during migration), wild turkey, American woodcock, common snipe, ruffed grouse, cottontail rabbit, snowshoe hare, fox, raccoon, and bobcat. Many nongame species such as the Eastern bluebird, American kestrel, brown thrasher, gray catbird, common yellowthroat, sora rail, sedge wren, and spring peeper will benefit, as well as the sandhill crane which is expanding its range.

Urgency and opportunity:

If not acquired while the opportunities exist (i.e., willing sellers and funding opportunities), the chance to protect these priority tracts permanently from land practices incompatible as open and brushland wildlife habitat, and from fragmentation, parcelization and development may be lost.

How priorities were set / Parcel selection and scoring process:

For consideration of protection and enhancement efforts by the partnership, open and brushland tracts must be located within an ECS landtype association identified as a priority open landscape through DNR's SFRMP landscape planning process. Further criteria to prioritize which tracts are most critical include a ranking system based upon county location, distance to active sharp-tailed grouse lek, tract size, and distance to protected brushland.

of stakeholder opposition and involvement:

No stakeholder opposition to proposed acquisitions has been encountered. Proposals to protect land and manage them as public conservation lands are locally-driven by conservation groups, hunters, conservation agency staff, and willing sellers due to the multiple benefits such land protection and management can provide. Local government has been or will be contacted and their support sought.

Planning

Relationship to the Minnesota Conservation and Preservation Plan and other Published Resource Management Plans:

- Minnesota Statewide Conservation and Preservation Plan, 2008 – This partnership will address and advance the Habitat Recommendations of 1. Protect priority land habitats (p. 63), 3. Improve connectivity and access to outdoor recreation (p. 74), 5. Restore land, wetlands, and wetland-associated watershed (p. 80), and 7. Keep water on the landscape (p.84).
- MDNR, Tomorrow's Habitat for the Wild and Rare, 2006 – Lists sharp-tailed grouse and other open and brushland wildlife species that are species in greatest conservation need (App. B) and key habitats which occur in brushland ecosystems (wetland-nonforest, shrub/woodland-upland, forest-lowland conifer) of the Tamarack Lowland and Mille Lacs Upland ECS Subsections (profiles on pages 184 and 154, respectively) where the proposed open and brushland tracts to acquire are located. The goal of stabilizing and increasing populations of species in greatest conservation need will be addressed.
- MDNR, A Strategic Conservation Agenda, 2009-2013
 - Trend: Changes in Outdoor Recreation Participation
Strategic Direction: Connecting People to Minnesota's Great Outdoors (p.13, Long term Desired Outcomes regarding Minnesotan's outdoor recreation needs and increasing participation and opportunities in nature-based outdoor recreation.) – Additional access to public conservation lands will help meet these needs.
 - Trend: Changes Related to Energy and Climate

Strategic Direction: Conservation-based Energy Sources (p. 19, Key Measure on DNR-administered lands) – Biomass harvesting has great potential to serve as a management tool in open and brushland habitats.

- Trend: Landscape Changes from Growth and Development

Strategic Direction: Integrated Public and Private Land Management (p. 29, Key Measure of number of acres protected in WMAs) – This project will add WMAs to the system.

- Minnesota's Wildlife Management Area Acquisition (2002) – The Next 50 Years – Habitat is the Key – This partnership will help meet goals of additional WMA acres in Ecological Sections 5 (p.10, Northern Lakes) and 8 & 9 (p. 15, Superior Uplands) in which sharp-tailed grouse are noted as a focus species.

-based strategic planning and evaluation:

This proposal is based on science-based strategic planning and evaluation, similar to the US Fish and Wildlife Service's Strategic Habitat Conservation model. This model uses biological planning, conservation design, delivery, monitoring and research, and adjustments in strategies as needed to maintain an adaptive approach.

In 2002, DNR Division of Wildlife completed "An Assessment of Open Landscapes for Management of Brushland Wildlife Habitat in Northern and Central Minnesota" to provide information on open landscape wildlife locations, pre-settlement vegetation, land use and cover and landownership/administration to resource managers for identification and prioritization of large, open landscapes. The assessment has been used in DNR's landscape planning effort, Subsection Forest Resource Management Planning, and priority open landscapes (ECS landtype associations) have been identified. All of the open and brushland parcels proposed for acquisition lie within or at the edge of these priority open landscapes.

Sharp-tailed grouse leks (dancing grounds) are the essential hubs of subpopulations. Nesting and brooding rearing occur in suitable habitat within approximately a two-mile radius of leks. Six parcels proposed for protection either have active leks located on them (Olson), less than 0.5 mile away (Thompson, Thompson, Bork), one mile away (Rezac) or less than two miles away (Slade). One parcel (Linder) is slightly over 2 miles from an active lek however sharp-tailed grouse have been observed on it.

A study in 1999 revealed 13 sharp-tailed grouse leks in northeastern Minnesota that had the greatest potential (based on longevity and number of birds using the leks) to be maintained as large active leks and serve as core populations. 87% of these leks were located on private land and vulnerable to land use changes. In Aitkin County, two parcels proposed for protection each have one of these leks 0.1 to 0.5 mile away (Thompson, Thompson).

All of the tracts will be critical to providing suitable patches of nesting and brood rearing habitat for subpopulations of sharp-tailed grouse in northeastern Minnesota. Research by Stanley Temple in Wisconsin suggests that suitable habitat patches of 4000 ha (roughly 10,000 acres, 15½ sq. miles, or a 2.2 mile radius circle) are needed for a sharp-tailed grouse population to survive. Opportunities to protect and connect suitable patches of this size are dwindling due to development, parcelization and other landscape change pressures.

A nearly completed, sharp-tailed grouse habitat model will help further refine open landscape management and acquisition decisions made within the priority open landscapes.

A pilot study in Aitkin County was conducted in spring/summer 2009 as part of a planned long term study that will examine habitat selection, nest success and survival of sharp-tailed grouse. This long term study will occur in 2012 and 2013 in east central Minnesota. Data will provide additional information to improve and keep brushland management adaptive.

Annual spring surveys of sharp-tailed grouse leks allow for monitoring of local populations and the effect that habitat protection and enhancement and other land management activities have on them.

section priorities addressed:

As noted in the LSOHC's Northern Forest Section Vision, "Of special concern is the condition of brushlands within forestlands. These lands, along with early successional forest habitat are crucial for game species and non-game species and need restoration and enhancement work so as to ensure ample availability of this habitat type." Also, "These and other key habitats are envisioned to protect endangered, threatened and species of special concern." The priority action - "Restore forest-based wildlife habitat that has experienced substantial decline in aerial extent in recent decades" – is specifically addressed. Additionally, nearly all of the Statewide Priority Criteria are addressed.

Relationship to Other Constitutional Funds

The partnership will coordinate with other conservation organizations receiving Constitutional Funding to ensure projects are compatible and complementary; do not have duplicated efforts and together address the Council's statewide and section priorities.

Of the Environment and Natural Resources Trust Fund, Clean Water Fund, Parks and Trail Fund, and Outdoor Heritage Fund, this project is best suited to apply for funds from the latter because it is a habitat-based project. This project will have multiple natural resource, economic and social benefits, but its greatest benefit is in the habitat it will provide for a unique, native game bird that is also a species in greatest conservation need, the entire suite of plants and wildlife that also inhabit the same brushland communities, and the outdoor enthusiasts who enjoy and utilize them.

Relationship to Current Organizational Budget

MSGS and PF do not have a specific, existing budget for protection of critical brushland parcels within the sharp-tailed grouse range of Minnesota, other than a FY11 OH grant and potential FY12 OH grant. Availability of acquisition funds has been limited and often directed toward other areas of the state, such as for grassland and wetland protection in the western and southern portions of Minnesota.

Sustainability and Maintenance

After the period of grant funding has ended, the proposed parcels will become part of the state WMA system, being sustained and managed by local DNR Wildlife Area staff involved in the partnership. Maintenance will be funded through the DNR budget and funds provided by partners. Partner funds will come from conservation organization's general membership and grants, such as OH and Heritage Enhancement grants.

Stewardship plans for these tracts entail maintenance as integral portions of priority open landscapes. After initial protection and enhancement is completed, the primary habitat management technique will be prescribed burning. It will be used as needed, roughly once every three to seven years, to maintain their open structure and stimulate native vegetation. Brushland prescribed burn costs average approximately \$30/acre, depending upon burn unit size and equipment and personnel needed. Other habitat management techniques may be involve prescribed grazing or haying through cooperative agreements (no cost) or mechanical treatment of woody vegetation such as mowing (\$130/acre), shearing (\$80/acre), timber harvest (no cost), or biomass harvest (\$100/acre).

Outcomes

Short-term and Intermediate Outcomes

- Protection of 1,015 acres of brushland habitat around three existing sharp-tailed grouse leks, providing secure nesting and brood rearing habitat.
- Improved access to public lands (1,015 additional acres of previously private lands protected and opened permanently for public access)

Long Term and End Results

This proposal is working towards a long term outcome of creating stable and/or increasing wildlife populations of game and non-game species while increasing opportunities for wildlife dependent recreation through an increase in permanently protected publicly owned Wildlife Management Areas.

Accomplishment Timeline

Activity	Milestone	Date completed
<i>Funding available</i>	Order appraisals	July 2012
<i>Protection completed</i>	All tracts acquired and transferred to MDNR for WMA system	March 2013
<i>Enhancement underway</i>	Initial site development completed	September 2013
<i>Enhancement underway</i>	Firebreaks cleared, winter mechanical brushland treatments completed	March 2014
<i>Enhancement underway Restoration completed</i>	Prescribed burns completed, native vegetation seeded	June 2014
<i>Enhancement underway</i>	Summer mechanical brushland treatments completed	September 2014
<i>Enhancement underway</i>	Additional firebreaks cleared	March 2015
<i>Enhancement completed</i>	Additional prescribed burns completed	June 2015

Attachments (*on spreadsheet workbook – 3 separate tabs*):

- Budget
- Proposed Outcome Tables
- Parcel List

No Map is needed for the accomplishment plan

Attachment A. Budget Spreadsheet

Name of Proposal:	Northeastern Minnesota Sharp-tailed Grouse Habitat Partnership
Date:	24-Oct-11

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

Total Amount of Request \$ 1,340,000 *From page 1 on the funding form.*

Personnel

Position breakdown here	FTE	Over # of years	LSOHC Request	Anticipated Cash		Total
				Leverage	Cash Leverage Source	
<i>PF Director of Conservation</i>	0.05	3	\$ 12,000		\$	12,000
<i>PF Regional Representative</i>	0.08	3	\$ 8,000		\$	8,000
					\$	-
					\$	-
					\$	-
					\$	-
Total	0.13		\$ 20,000	\$ -	\$ -	\$ 20,000

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	LSOHC Request	Anticipated Cash		Total
		Leverage	Cash Leverage Source	
Personnel - <i>auto entered from above</i>	\$ 20,000	\$ -	\$ -	\$ 20,000
Contracts	\$ 54,000			\$ 54,000
Fee Acquisition w/ PILT <i>(breakout in table 7)</i>	\$ 1,167,000			\$ 1,167,000
Fee Acquisition w/o PILT <i>(breakout in table 7)</i>				\$ -
Easement Acquisition				\$ -
Easement Stewardship				\$ -
Travel (in-state)				\$ -
Professional Services	\$ 30,000			\$ 30,000
Direct Support Services				\$ -
DNR Land Acquisition Costs <i>(\$3,500 per acquisition)</i>	\$ 10,500			\$ 10,500
Other				\$ 58,500
Capital Equipment <i>(auto entered from below)</i>	\$ -	\$ -		\$ -
Other Equipment/Tools				\$ -
Supplies/Materials	\$ 58,500			\$ 58,500
	\$ 1,340,000	\$ -	\$ -	\$ 1,340,000

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

Item Name	LSOHC Request	Leverage
Total	-	-

Attachment B. Output Tables

Name of Proposal:	Northeastern Minnesota Sharp-tailed Grouse Habitat Partnership
Date:	24-Oct-11

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

Describe the scope of the project in acres (use conversion above if needed)

	Wetlands	Prairies	Forest	Habitats	Total
Restore					0
Protect Fee				1015	1015
Protect Easement					0
Protect Other					0
Enhance					0
Total	0	0	0	1015	

Total Acres (sum of Total column)	1015	<i>These two cells should be the same figure.</i>
Total Acres (sum of Total row)	1015	

Table 2. Total Requested Funding by Resource Type

	Wetlands	Prairies	Forest	Habitats	Total
Restore					\$ -
Protect Fee				\$ 1,340,000	\$ 1,340,000
Protect Easement					\$ -
Protect Other					\$ -
Enhance					\$ -
Total	\$ -	\$ -	\$ -	\$ 1,340,000	

Total Dollars (sum of Total column)	\$ 1,340,000	<i>These two cells should be the same figure.</i>
Total Dollars (sum of Total row)	\$ 1,340,000	

Check to make sure this amount is the same as the Funding Request Amount on page 1 of Main Funding Form.

Table 3. Acres within each Ecological Section

	Metro/Urban	Forest/Prairie	SE Forest	Prairie	Northern Forest	Total
Restore						0
Protect Fee					1015	1015
Protect Easement						0
Protect Other						0
Enhance						0
Total	0	0	0	0	1015	

Total Acres (sum of Total column)	1015	<i>These three cells should be the same figure.</i>
Total Acres (sum of Total row)	1015	
Total Acres from Table 1.	1015	

Attachment B. Output Tables

Table 4. Total Requested Funding within each Ecological Section

	Metro/Urban	Forest/Prairie	SE Forest	Prairie	Northern Forest	Total
Restore						\$ -
Protect Fee					\$ 1,340,000	\$ 1,340,000
Protect Easement						\$ -
Protect Other						\$ -
Enhance						\$ -
Total	\$ -	\$ -	\$ -	\$ -	\$ 1,340,000	

Total Dollars (sum of Total column) \$ 1,340,000 *These two cells should be the same figure.*
 Total Dollars (sum of Total row) \$ 1,340,000
 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				1015	1015
Acquired in Fee w/o State PILT Liability					0
Permanent Easement <i>PILT Liability</i> <i>NO State</i>					0
	0	0	0	1015	

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

	Wetlands	Prairies	Forests	Habitats	Total	
Acquired in Fee with State PILT Liability				\$ 1,167,000	\$ 1,167,000	\$ 1,167,000
Acquired in Fee w/o State PILT Liability					\$ -	\$ -
Permanent Easement <i>PILT Liability</i> <i>NO State</i>					\$ -	\$ -
	\$ -	\$ -	\$ -	\$ 1,167,000		

FYI: should match total in budget table that is auto entered below

Attachment C. Parcel List

Northeastern Minnesota Sharp-tailed Grouse Habitat Partnership
24-Oct-11

Name of Proposal:
Date:

County	Township (25-258)	Range (01-51)	Direction most parcels are 2 with the exception of some areas of Cook County which is 1	Section (01 thru 36)	TRDS	# of acres	Budgetary Estimate <small>(includes administrative, restoration or other related costs and do not include matching money contributed or earned by the transaction)</small>	Description	Activity PF=Protect Fee PE=Protect Easement PO=Protect Other R=Restore E=Enhance	If Easement, what is the easement cost as a % of the fee acquisition?	Any existing protection? (yes/no)	Open to hunting and fishing? (yes/no)
	Aitkin	48	25	2	5	482525	297.7	\$695,000	PF, R, E		No	Yes
	Aitkin	48	22	2	6,7	482226,7	394	\$512,200	PF, E		No	Yes
	Aitkin	47	26	2	9	472629	158.5	\$206,050	PF, E		No	Yes
	Pine	41	19	2	13,24	4119213,24	505	\$656,500	PF, R, E		No	Yes
	Carlton	49	20	2	21,28	4920221,28	280	\$364,000	PF, R, E		No	Yes
	Pine	44	19	2	21,22	4419221,22	480	\$624,000	PF, E		No	Yes
	Kanabec	41,42	23	2	3,35	41,4223,35	806	\$1,047,800	PF, R, E		No	Yes

Parcel Name

Gun Lake WMA (addition)
Thompson land

Graying Marsh WMA (addition)
Thompson land

Aitkin WMA (addition)
Rezac land

Bork WMA (new)
Bork land

Cross Lake WMA (new)
Olson land

Rutledge WMA (addition)
Slade land

Peace Ford WMA (new)
Linder land