



# Lessard-Sams Outdoor Heritage Council

## Fiscal Year 2020 / ML 2019 Request for Funding

**Date:** May 30, 2018

**Program or Project Title:** DNR Grasslands - Phase XI

**Funds Requested:** \$18,035,000

**Manager's Name:** Greg Hoch  
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**County Locations:** Aitkin, Anoka, Becker, Beltrami, Big Stone, Blue Earth, Brown, Cass, Chippewa, Chisago, Clay, Clearwater, Cottonwood, Dakota, Douglas, Fillmore, Freeborn, Goodhue, Grant, Hennepin, Houston, Hubbard, Isanti, Jackson, Kanabec, Kandiyohi, Kittson, Lac qui Parle, Lac Qui Parle, LeSueur, Lincoln, Lyon, Mahnommen, Marshall, Martin, McLeod, Meeker, Mille Lacs, Mower, Murray, Nicollet, Norman, Olmsted, Otter tail, Otter Tail, Pennington, Pipestone, Polk, Pope, Red Lake, Redwood, Renville, Rice, Roseau, Sherburne, Stevens, Swift, Todd, Traverse, Wabasha, Wilkin, Winona, Wright, yellow Medicine, and Yellow Medicine.

### Regions in which work will take place:

- Northern Forest
- Forest / Prairie Transition
- Southeast Forest
- Prairie
- Metro / Urban

### Activity types:

- Restore
- Enhance

### Priority resources addressed by activity:

- Wetlands
- Prairie
- Habitat

### Abstract:

Grasslands continue to be the most threatened habitat in the state. This programmatic request will build on the DNR's history of enhancing and restoring grasslands, embedded wetlands, and savannas to increase wildlife populations. The Prairie Plan, Pheasant Plan, and Wildlife Action Plan will guide our efforts and ensure we are operating in a strategic and targeted manner. This proposal will enhance and restore grasslands on parcels that are permanently protected and most open to public hunting. These include DNR WMAs, SNAs, AMAs, Native Prairie Bank (NPB) easements, State Forests, as well as federal WPAs and NWRs.

### Design and scope of work:

A drive through northern Minnesota takes you through forests of oak or aspen or pine of different age structures, bogs, sedge meadows, and brushland. Each of these is habitat for a wide range of species. A drive through southern Minnesota, especially in the winter finds mowed ditches and disced fields. There is little food and less cover.

In many farmland counties less than five percent of the area is in public wildlife lands, often much less. Since 2007, Minnesota has lost nearly a million acres of CRP. This fall, another 203,000 acres will expire from the program. The nine county area of southwest Minnesota has lost 52 square miles of CRP since 2007. They will lose another 50 square miles in the next three years. Minnesota is scheduled to lose another 865 square miles of CRP enrollments over the five year period of this request.

Wildlife and pollinator populations are a fraction of what they were even a decade ago. Water quality, especially nitrate contamination, is a human health and wildlife issue. Restoring and enhancing grasslands are one of the most effective ways to improve all of these issues.

Because of the losses of grassland and wetland habitat across western Minnesota both historically and in recent years, it is that much more important that the public grasslands in Minnesota are as productive as possible for wildlife and pollinators.

This programmatic request seeks funding to enhance grassland habitat on permanently protected grasslands and prairies, most of which are open to public hunting. Without periodic management to simulate historical disturbance patterns, grassland lose diversity and productivity. Invasive species may increase and woody vegetation will encroach into the grasslands, changing their very character and the species that inhabit the area. The activities listed in this proposal will use BMPs for grassland enhancement and diverse local ecotype seed mixes for restoration.

Contract work for prescribed fire, woody species removal, invasive species control, grassland restoration, and other enhancement efforts. Requests includes a contract coordinator.

WMA Habitat Enhancement and restoration (74,300 acres) over five years - \$7,916,000

This request seeks to enhance grassland habitat by continuing funding a DNR Region 1 (northwestern) Roving Crew. Building on this successful model, this year we are proposing a new Roving Crew for the south-central part of the state.

Two DNR Roving Crews (69,000 acres) over 5 years - \$6,122,000

This request will restore and enhance native prairies on SNAs and Native Prairie Bank (NPB) easements as described above for WMAs. SNA/NPB Enhancement and restoration (3,000 acres) over five years- \$2,297,000

We are partnering with the USFWS to increase their capacity for prescribed fire in WPAs and National Wildlife Refuges (NWR).

USFWS Prescribed Fire Enhancements (50,000 acres) over five - \$1,700,000

We realize this is a large request. However, we also feel like we have the capacity to have a large return in habitat enhancement and restoration for this investment.

## Which sections of the Minnesota Statewide Conservation and Preservation Plan are applicable to this project:

- H1 Protect priority land habitats
- H5 Restore land, wetlands and wetland-associated watersheds

## Which other plans are addressed in this proposal:

- Long Range Plan for the Ring-Necked Pheasant in MN
- Minnesota Prairie Conservation Plan

## Describe how your program will advance the indicators identified in the plans selected:

Both the Prairie Plan and Pheasant Plan identify target acreages for enhancement and help guide where on the landscape those activities should occur. These funds, combined with other DNR funds and funding through the USFWS, as well as other grants to our conservation partners (ie. North American Wetland Conservation Act and others), are all part of the overall strategy among the conservation community for increasing the acres enhanced and restored of grasslands and associated wetlands in Minnesota.

These plans also help guide and focus that work where the science tells us we will have the biggest return in habitat quality and wildlife populations for the investment. Conservation partners in the prairie region continue to apply existing monitoring protocols such as the Grassland Monitoring Team (GMT) and work to develop statistically robust new monitoring protocols.

## Which LSOHC section priorities are addressed in this proposal:

### Prairie:

- Restore or enhance habitat on public lands

### Forest / Prairie Transition:

- Protect, enhance, and restore rare native remnant prairie

### Northern Forest:

- Restore and enhance habitat on existing protected properties, with preference to habitat for rare, endangered, or threatened species identified by the Minnesota County Biological Survey

**Metro / Urban:**

- Protect, enhance, and restore remnant native prairie, Big Woods forests, and oak savanna with an emphasis on areas with high biological diversity

**Southeast Forest:**

- Protect, enhance, and restore remnant goat prairies

**Describe how your program will produce and demonstrate a significant and permanent conservation legacy and/or outcomes for fish, game, and wildlife as indicated in the LSOHC priorities:**

The work conducted under this proposal will be done on land under permanent conservation protection. However, by the very nature of habitat and wildlife management, these enhancements will not be permanent. Grasslands rely on periodic disturbances. To maintain the health and diversity of grasslands, they need burning, grazing, or other ecological disturbances, or every 4 to 6 years.

With our restorations, we are leaving a lasting legacy. In recent years the use of 40-80 species seed mixes and local ecotype seed is dramatically improving the quality of our restorations for wildlife and pollinators. The diversity and structure of our newer restorations looks much better than restorations from even a few years ago.

**Describe how the proposal uses science-based targeting that leverages or expands corridors and complexes, reduces fragmentation or protects areas identified in the MN County Biological Survey:**

The projects in this proposal will be guided primarily by the Prairie Conservation Plan and Pheasant Summit Action Plan. First and foremost, these Plans outline focal areas (Core Areas and Habitat Complexes) where we can build on an existing base of conservation lands and improve the habitat there. The Prairie Plan identifies specific corridors and complexes that connect larger core areas.

The latest science is telling us that it isn't the size of an individual habitat parcel that matters as much as the amount of habitat in the larger surrounding landscape. These Plans, and the work proposed here, build on these concepts of landscape level habitat planning. We will not restrict ourselves to these focal areas. There are critical habitats outside these areas. However, we will use these Plans to focus our efforts in areas where they can have the greatest wildlife benefits.

The new Wildlife Action Plan is currently being integrated with the Prairie Plan to help us determine where to focus our monitoring efforts. The first Conservation Focus Area is in the prairie region of the state.

Additionally, conservation partners (DNR, USFWS, TNC, and Audubon) recently received a grant through the USFWS to help us monitor habitat quality, wildlife abundance, and the response of wildlife to all OHF funded activities in these areas. Another federal monitoring-focused grant was submitted in May 2018. An LCCMR monitoring proposal was also submitted in 2018. The DNR and our conservation partners take these funds, and the monitoring of outputs and outcomes, seriously.

**How does the proposal address habitats that have significant value for wildlife species of greatest conservation need, and/or threatened or endangered species, and list targeted species:**

Grasslands and grassland wildlife continue to be the most threatened habitat and populations, both in Minnesota and across the Midwest.

According to the Wildlife Action Plan, Minnesota's grasslands contain 4 state threatened species, 14 state endangered species, and 29 species of concern. The species on this list include 1 amphibian, 11 birds, 5 mammals, 16 moths and butterflies, 9 other invertebrates, and 5 reptiles. The Dakota skipper was recently federally listed as threatened and the Poweshiek's skipperling as endangered. Minnesota is a key state for monarch butterflies and they need the pollen and nectar found in grasslands to complete their life cycle.

With few exceptions, grasslands for game species, nongame species, SGCN, and T&E species are similar. They all need habitat composed of a diversity of native grasses and forbs. Enhancements for one species will almost always benefit dozens of other species in the habitat. Many species of invertebrates and pollinators need a diversity and abundance of flowering plants. Many birds need grassland free of trees. All species need clean water free of sediment and chemical pollutants. While the work proposed here will benefit game species, non-game species, SGCN, and T&E, it will also go beyond these objectives to provide numerous ecosystem services such as water filtration, floodwater retention and reduced flood damage, and creating pollinator habitat to help sustain segments of the agricultural economy.

## Identify indicator species and associated quantities this habitat will typically support:

### Pheasant

By looking at the ratios of CRP acres in Minnesota to pheasant harvest, we can estimate that every three acres of grassland habitat has the potential to produce one harvested pheasant rooster.

### Prairie Chickens

According to the research literature and personal observations in Minnesota, prairie chickens require a minimum of 320 acres of high quality grasslands with no areas hostile to grassland wildlife (woodlots, farmsteads, etc) near these grasslands. For every 320 acre patch of high quality grassland in the prairie chicken range in the northwest part of the state, we can expect there to be a lek, or booming ground. The average size of booming grounds in Minnesota is roughly 11 males.

### Bobolink and Grasshopper Sparrow

The breeding territory size of bobolinks and grasshopper sparrows is 1.7 and 2.1 acres respectively in high quality habitat in Wisconsin. If all of the habitat was occupied, a 100 acres of habitat could potentially hold approximately 60 and 48 pairs of bobolinks and grasshopper sparrows respectively.

### Monarch Butterfly

Research from the University of Minnesota has shown that it takes approximately 30 milkweed result in one monarch butterfly contributing to the overwintering Mexican population. Grasslands can have between 100-250 milkweed stems per acre. An acre of restored or enhanced grassland could potentially contribute 3 to 8 monarchs to the population.

## Outcomes:

### Programs in the northern forest region:

- Healthy populations of endangered, threatened, and special concern species as well as more common species *Monitoring will take place with the base level monitoring conducted by DNR staff and staff from other agencies/NGOs. This includes surveys such as pheasant, sharp-tailed grouse, and woodcock, which are all dependent on open areas.*

### Programs in forest-prairie transition region:

- Protected, restored, and enhanced nesting and migratory habitat for waterfowl, upland birds, and species of greatest conservation need *This proposal will be primarily focused on enhancing grasslands. Migratory game and non-game birds will be some of the primary beneficiaries of this work. We are working with the University of Minnesota to incorporate graduate students into research and monitoring work.*

### Programs in metropolitan urbanizing region:

- Core areas protected with highly biologically diverse wetlands and plant communities, including native prairie, Big Woods, and oak savanna *Monitoring will take place with the base level monitoring conducted by DNR staff and staff from other agencies/NGOs.*

### Programs in southeast forest region:

- Healthier populations of endangered, threatened, and special concern species as well as more common species *Monitoring will primarily be done through studies conducted by the DNR's Ecological and Water Resources Division of key indicator species such as timber rattlesnakes.*

### Programs in prairie region:

- Restored and enhanced upland habitats *The multi-agency/NGO Grassland Monitoring Team (GMT) has developed standardized protocols for sampling grassland vegetation and a number of the sites on this request will be sampled over the 5 year period.*

## How will you sustain and/or maintain this work after the Outdoor Heritage Funds are expended:

Continuing maintenance and enhancement of these sites will be conducted by DNR Wildlife staff on WMAs, DNR EWR staff on SNAs and NPB, and by the USFWS on WPAs and Refuges. Maintaining appropriate levels of enhancement on all conservation lands will be dependent on future requests from OHF, Game and Fish Fund, bonding, USFWS operating budgets, Special Projects funds for SNA, and other grants such as the North American Wetland Conservation Act (NAWCA). The OHF provides Minnesota's conservation community with a large amount of non-Federal dollars as match that other Midwestern states don't have. In recent years, the Minnesota prairie conservation partners have been maximizing our efforts in these areas.

## Explain the things you will do in the future to maintain project outcomes:

Year	Source of Funds	Step 1	Step 2	Step 3
2022	Those listed above and OHF	Monitor subset of projects	Document results	Determine capacity for traditional funds to meet objectives
2023 and beyond	Those listed above and OHF	Continue long-term monitoring	Adapt results for future projects	Seek funds for ongoing monitoring, develop relationships with university programs

## What is the degree of timing/opportunistic urgency and why it is necessary to spend public money for this work as soon as possible:

Traditionally, grasslands and wetlands have been seen primarily as wildlife habitat. We have Plans that tell us how to best do this work on the landscape. In recent years, and just earlier this year, researchers in Minnesota and surrounding states are showing how strategic landscape planning for grassland/wetland work can improve water quality for wildlife and people. Water quality issues continue to be an economic and health problem in rural Minnesota. Combining wildlife and water plans shows how strategic planning can benefit wildlife and people at the same time.

## How does this proposal include leverage in funds or other effort to supplement any OHF appropriation:

The DNR's Division of Fish and Wildlife (WMA and AMA) and Ecological and Water Resources (SNA and NPB easement), as well as the USFWS (WPA, NWR) all contribute staff and resources to ongoing enhancement and restoration efforts. While this is not a formal leverage, it does show the ongoing commitment of the agencies.

## Relationship to other funds:

- Not Listed

## Describe the relationship of the funds:

Not Listed

## Per MS 97A.056, Subd. 24, Any state agency or organization requesting a direct appropriation from the OHF must inform the LSOHC at the time of the request for funding is made, whether the request is supplanting or is a substitution for any previous funding that was not from a legacy fund and was used for the same purpose:

These funds are for additional enhance/restoration work beyond what the DNR is already conducting. These funds are not supplanting or substituting any funds.

## Describe the source and amount of non-OHF money spent for this work in the past:

Appropriation Year	Source	Amount
2017	Game and Fish (Wildlife Operations)	22700000
2017	Dedicated Accounts (Duck Stamp, Pheasant Stamp, etc)	5600000
2017	Heritage Enhancement Acct	3400000

## Activity Details

### Requirements:

If funded, this proposal will meet all applicable criteria set forth in MS 97A.056 - **Yes**

Will restoration and enhancement work follow best management practices including MS 84.973 Pollinator Habitat Program - **Yes**

Is the restoration and enhancement activity on permanently protected land per 97A.056, subd 13(f), tribal lands, and/or public waters per MS 103G.005, Subd. 15 - **Yes (WMA, WPA, SNA, AMA, Private Land, Refuge Lands, State Forests)**

Do you anticipate federal funds as a match for this program - **No**

### Land Use:

Will there be planting of corn or any crop on OHF land purchased or restored in this program - **Yes**

Explain

There may be an instance of very limited rowcrop planting as part of a restoration process. But this would only be for a very short time before the site is planted to native grasses and forbs. Some of the crops may be GMO, but none of the crops should be treated with neonicotinoid seed coats and any farming will follow standard chemical use practices as outlined in DNR Operational Orders.

Are any of the crop types planted GMO treated - **Yes**

## Accomplishment Timeline

Activity	Approximate Date Completed
WMA Enhancement / Restoration - contracts	6/30/2024
SNA / NPB Easement Enhancement	6/30/2024
Roving Crew Enhancement / Restoration	6/30/2024
WPA/NWR Prescription Fire	6/30/2024

# Budget Spreadsheet

**Total Amount of Request: \$18,035,000**

## Budget and Cash Leverage

BudgetName	LSOHC Request	Anticipated Leverage	Leverage Source	Total
Personnel	\$5,441,200	\$0		\$5,441,200
Contracts	\$6,622,800	\$0		\$6,622,800
Fee Acquisition w/ PILT	\$0	\$0		\$0
Fee Acquisition w/o PILT	\$0	\$0		\$0
Easement Acquisition	\$0	\$0		\$0
Easement Stewardship	\$0	\$0		\$0
Travel	\$1,573,200	\$0		\$1,573,200
Professional Services	\$0	\$0		\$0
Direct Support Services	\$606,200	\$0		\$606,200
DNR Land Acquisition Costs	\$0	\$0		\$0
Capital Equipment	\$0	\$0		\$0
Other Equipment/Tools	\$3,500	\$0		\$3,500
Supplies/Materials	\$3,788,100	\$0		\$3,788,100
DNR IDP	\$0	\$0		\$0
Total	\$18,035,000	\$0	-	\$18,035,000

## Personnel

Position	FTE	Over # of years	LSOHC Request	Anticipated Leverage	Leverage Source	Total
Contract Specialist	1.00	5.00	\$425,000	\$0		\$425,000
Region 1 Roving Crew (6 positions)	6.00	5.00	\$2,239,000	\$0		\$2,239,000
Southern Roving Crew (6 positions)	6.00	5.00	\$2,239,000	\$0		\$2,239,000
SNA Contract and Project Mgt	0.10	4.00	\$35,000	\$0		\$35,000
SNA-NPB Specs and Techs	1.55	4.00	\$433,200	\$0		\$433,200
SNA Laborers and seasonals	0.50	4.00	\$70,000	\$0		\$70,000
Total	15.15	27.00	\$5,441,200	\$0	-	\$5,441,200

Amount of Request: \$18,035,000

Amount of Leverage: \$0

Leverage as a percent of the Request: 0.00%

DSS + Personnel: \$6,047,400

As a % of the total request: 33.53%

Easement Stewardship: \$0

As a % of the Easement Acquisition: -%

### How did you determine which portions of the Direct Support Services of your shared support services is direct to this program:

We used the DNR's Direct and Necessary (D&N) calculator that was created for LSOHC/OHF and LCCMR/ENRTF proposals.

### Does the amount in the contract line include R/E work?

Yes, 100% of the contract work will be for R/E work.

### Does the amount in the travel line include equipment/vehicle rental? - Yes

### Explain the amount in the travel line outside of traditional travel costs of mileage, food, and lodging:

All activities related to travel for the Roving Crews we place in the travel line. This includes basic mileage and lodging as well as equipment rentals and leases, etc.

### Describe and explain leverage source and confirmation of funds:

Not Listed

**Does this proposal have the ability to be scalable? - Yes**

**Tell us how this project would be scaled and how administrative costs are affected, describe the “economy of scale” and how outputs would change with reduced funding, if applicable:**

Because this programmatic request consists of a number of smaller projects, we can scale our number of projects and resulting acres up or down. Administrative costs would be refigured to address a different budget.



## Output Tables

**Table 1a. Acres by Resource Type**

Type	Wetlands	Prairies	Forest	Habitats	Total
Restore	0	4,694	0	0	4,694
Protect in Fee with State PILT Liability	0	0	0	0	0
Protect in Fee W/O State PILT Liability	0	0	0	0	0
Protect in Easement	0	0	0	0	0
Enhance	0	191,606	0	0	191,606
Total	0	196,300	0	0	196,300

**Table 1b. How many of these Prairie acres are Native Prairie?**

Type	Native Prairie
Restore	0
Protect in Fee with State PILT Liability	0
Protect in Fee W/O State PILT Liability	0
Protect in Easement	0
Enhance	5,000
Total	5,000

**Table 2. Total Requested Funding by Resource Type**

Type	Wetlands	Prairies	Forest	Habitats	Total
Restore	\$0	\$4,240,900	\$0	\$0	\$4,240,900
Protect in Fee with State PILT Liability	\$0	\$0	\$0	\$0	\$0
Protect in Fee W/O State PILT Liability	\$0	\$0	\$0	\$0	\$0
Protect in Easement	\$0	\$0	\$0	\$0	\$0
Enhance	\$0	\$13,794,100	\$0	\$0	\$13,794,100
Total	\$0	\$18,035,000	\$0	\$0	\$18,035,000

**Table 3. Acres within each Ecological Section**

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	Northern Forest	Total
Restore	16	5	917	3,248	508	4,694
Protect in Fee with State PILT Liability	0	0	0	0	0	0
Protect in Fee W/O State PILT Liability	0	0	0	0	0	0
Protect in Easement	0	0	0	0	0	0
Enhance	184	69,853	1,648	104,479	15,442	191,606
Total	200	69,858	2,565	107,727	15,950	196,300

**Table 4. Total Requested Funding within each Ecological Section**

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	Northern Forest	Total
Restore	\$11,900	\$2,500	\$821,100	\$3,003,200	\$402,200	\$4,240,900
Protect in Fee with State PILT Liability	\$0	\$0	\$0	\$0	\$0	\$0
Protect in Fee W/O State PILT Liability	\$0	\$0	\$0	\$0	\$0	\$0
Protect in Easement	\$0	\$0	\$0	\$0	\$0	\$0
Enhance	\$132,300	\$787,500	\$858,900	\$11,835,400	\$180,000	\$13,794,100
Total	\$144,200	\$790,000	\$1,680,000	\$14,838,600	\$582,200	\$18,035,000

**Table 5. Average Cost per Acre by Resource Type**

Type	Wetlands	Prairies	Forest	Habitats
Restore	\$0	\$903	\$0	\$0
Protect in Fee with State PILT Liability	\$0	\$0	\$0	\$0
Protect in Fee W/O State PILT Liability	\$0	\$0	\$0	\$0
Protect in Easement	\$0	\$0	\$0	\$0
Enhance	\$0	\$72	\$0	\$0

**Table 6. Average Cost per Acre by Ecological Section**

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	Northern Forest
Restore	\$744	\$500	\$895	\$925	\$792
Protect in Fee with State PILT Liability	\$0	\$0	\$0	\$0	\$0
Protect in Fee W/O State PILT Liability	\$0	\$0	\$0	\$0	\$0
Protect in Easement	\$0	\$0	\$0	\$0	\$0
Enhance	\$719	\$11	\$521	\$113	\$12

**Target Lake/Stream/River Feet or Miles**

0

I have read and understand Section 15 of the Constitution of the State of Minnesota, Minnesota Statute 97A.056, and the Call for Funding Request. I certify I am authorized to submit this proposal and to the best of my knowledge the information provided is true and accurate.

# Parcel List

**Explain the process used to select, rank and prioritize the parcels:**

We have identified a number of protected grasslands in Minnesota for this work. To maintain their productivity all parcels need periodic enhancement. However, we have several plans such as the Prairie Plan, Pheasant Plan, and Wildlife Action Plan where we will focus these efforts as the best science tells us we will get the greatest return for our efforts for wildlife populations in these areas.

## Section 1 - Restore / Enhance Parcel List

### Aitkin

Name	TRDS	Acres	Est Cost	Existing Protection?
Gun Lake WMA	04825204	240	\$136,800	Yes

### Anoka

Name	TRDS	Acres	Est Cost	Existing Protection?
Blaine Preserve SNA	03123226	4	\$14,700	Yes
Blaine Preserve SNA	03123226	10	\$12,600	Yes

### Becker

Name	TRDS	Acres	Est Cost	Existing Protection?
Callaway WMA	14139208	50	\$7,500	Yes
Hamden Slough NWR	13942202	320	\$4,000	Yes

### Beltrami

Name	TRDS	Acres	Est Cost	Existing Protection?
Beltrami Island SF	15538224	15,000	\$65,000	Yes

### Big Stone

Name	TRDS	Acres	Est Cost	Existing Protection?
Bonanza Prairie SNA	12348220	7	\$9,100	Yes
Clinton Prairie SNA	12347216	45	\$9,100	No
Foster 34-1 NPB	12348234	25	\$6,000	Yes
Johnson NPB	12247212	2	\$1,500	Yes
Lac qui Parle WMA: Main Unit	12044224	26	\$15,600	Yes
Odessa 19-1 NPB	12145219	8	\$14,300	Yes
Odessa 19-1 NPB	12145219	20	\$6,000	Yes

### Blue Earth

Name	TRDS	Acres	Est Cost	Existing Protection?
O A Vee Memorial WMA	10828225	35	\$24,500	Yes

### Brown

Name	TRDS	Acres	Est Cost	Existing Protection?
Bashaw WMA: Dahl Unit	10834216	74	\$55,500	Yes
Cottonwood River Prairie SNA	10935231	35	\$4,700	Yes
Linden 6-1 NPB	10830206	9	\$4,200	Yes
Mulligan 18-1 NPB	10833218	55	\$5,300	Yes
Wood Lake WMA	10833228	120	\$54,000	Yes

### Cass

Name	TRDS	Acres	Est Cost	Existing Protection?
Harold & Marie Deutsch WMA	13531222	85	\$90,875	Yes

**Chippewa**

Name	TRDS	Acres	Est Cost	Existing Protection?
Benderberg WMA	11941219	300	\$85,800	Yes
Gneiss Outcrops SNA	11539211	150	\$107,500	Yes
Lac qui Parle WMA: Controlled Hunting Zone	11842212	71	\$50,000	Yes
Lac qui Parle WMA: Controlled Hunting Zone	11842212	160	\$80,000	Yes
Lac qui Parle WMA: Controlled Hunting Zone	11842213	25	\$15,000	Yes
Lac qui Parle WMA: Controlled Hunting Zone	11942229	620	\$300,500	Yes
Lac qui Parle WMA: Controlled Hunting Zone	11942230	30	\$18,200	Yes
Lac qui Parle WMA: Controlled Hunting Zone	11942234	21	\$16,000	Yes
Lac qui Parle WMA: Main Unit	11841208	95	\$46,500	Yes

**Chisago**

Name	TRDS	Acres	Est Cost	Existing Protection?
Carlos Avery WMA Complex	03421227	100	\$204,300	Yes

**Clay**

Name	TRDS	Acres	Est Cost	Existing Protection?
B-B NPB	14146213	1	\$4,000	Yes
B-B NPB	14146213	70	\$15,900	Yes
Blanket Flower SNA	13744214	3	\$10,000	Yes
Blanket Flower SNA	13744214	40	\$12,500	Yes
Felton Prairie SNA-Assinaboia	14245229	1	\$4,000	Yes
Felton Prairie SNA-Assinaboia	14245229	15	\$15,200	Yes
Felton Prairie SNA-Bicentennial	14145205	1	\$4,000	Yes
Felton Prairie SNA-County Land	14145206	1	\$4,000	Yes
Felton Prairie SNA-County Land	14145206	5	\$26,700	Yes
Felton Prairie SNA-County Land	14145206	50	\$12,600	Yes
Felton Prairie SNA-Shrike Unit	14245230	1	\$4,000	Yes
Flowing 12-1 NPB	14146212	1	\$4,000	Yes
Flowing 12-1 NPB	14146212	75	\$13,000	Yes
Hoykens WPA	14044217	100	\$3,000	Yes
Strand N & S NPB	14244219	20	\$14,900	Yes
Ulen 29-1 NPB	14244229	1	\$12,000	Yes

**Clearwater**

Name	TRDS	Acres	Est Cost	Existing Protection?
Old Red Lake Trail WMA	14837224	32	\$29,000	Yes

**Cottonwood**

Name	TRDS	Acres	Est Cost	Existing Protection?
Ann 25-1 NPB	10838225	20	\$4,400	Yes
Carson 5-1 NPB	10635205	20	\$4,400	Yes
Storden 21-1 NPB	10737221	20	\$5,200	Yes

**Dakota**

Name	TRDS	Acres	Est Cost	Existing Protection?
Chimney Rock SNA	11417231	5	\$10,600	Yes

**Douglas**

Name	TRDS	Acres	Est Cost	Existing Protection?
Kensington WMA	12740228	11	\$55,000	Yes
Lund 21-1 NPB	13040221	1	\$4,000	Yes
Lund 21-1 NPB	13040221	10	\$10,100	Yes
Lund 2-1 NPB	13040202	1	\$4,000	Yes
Lund 2-1 NPB	13040202	5	\$17,100	Yes

**Fillmore**

Name	TRDS	Acres	Est Cost	Existing Protection?
Beaver Creek WMA	10112204	1,000	\$130,000	Yes
Choice WMA	10208201	60	\$53,000	Yes
Choice WMA	10208211	80	\$275,000	Yes
Choice WMA	10208211	230	\$176,000	Yes
Choice WMA	10208211	233	\$172,550	Yes
Goethite WMA	10213223	7	\$11,500	Yes
Goethite WMA	10213223	27	\$21,500	Yes
No sek WMA	10113224	14	\$47,000	Yes
Pin Oak Prairie SNA	10412224	20	\$47,800	Yes
Yucatan SF complex	10208202	30	\$32,600	Yes
Yucatan SF complex	10208202	150	\$52,400	Yes

**Freeborn**

Name	TRDS	Acres	Est Cost	Existing Protection?
Wo Wacintanka WMA	10419216	60	\$40,000	Yes

**Goodhue**

Name	TRDS	Acres	Est Cost	Existing Protection?
Cannon River Turtle Preserve SNA	11316224	20	\$84,800	Yes
John Peter Hoffman Spring Brook Valley WMA	11215207	30	\$35,000	Yes

**Grant**

Name	TRDS	Acres	Est Cost	Existing Protection?
Elk Lake 19-1 NPB	12841219	1	\$4,000	Yes
Elk Lake 19-1 NPB	12841219	2	\$13,600	Yes
Elk Lake 19-1 NPB	12841219	20	\$10,300	Yes
Olsen NPB	12841206	1	\$4,000	Yes
Woodke A & B NPB	12741232	1	\$4,000	Yes

**Hennepin**

Name	TRDS	Acres	Est Cost	Existing Protection?
Wolsfeld Woods SNA	11823227	23	\$20,300	Yes
Wood-Rill SNA	11823236	18	\$20,200	Yes

**Houston**

Name	TRDS	Acres	Est Cost	Existing Protection?
Chisholm Valley WMA	10307204	10	\$27,000	Yes
Ferndale Ridge WMA	10407232	12	\$15,800	Yes
Ferndale Ridge WMA	10407232	22	\$29,750	Yes
Looney Valley SF Complex	10406202	20	\$31,600	Yes
Reno SF Complex	10204226	73	\$26,200	Yes
Vinegar Ridge SF Complex	10407215	170	\$34,200	Yes
Wetbark SF Complex	10307211	125	\$30,500	Yes

**Hubbard**

Name	TRDS	Acres	Est Cost	Existing Protection?
Badoura SNA	13932211	1	\$4,000	Yes
Badoura SNA	13932211	10	\$10,100	Yes

**Isanti**

Name	TRDS	Acres	Est Cost	Existing Protection?
Dalbo WMA: Main Unit	03725209	51	\$25,500	Yes

**Jackson**

Name	TRDS	Acres	Est Cost	Existing Protection?
Des Moines Prairie SNA	10435219	45	\$6,300	Yes
Petersburg 26-1 NPB	10134226	12	\$4,800	Yes
Petersburg 33-1 NPB	10134233	15	\$4,800	Yes
Sangl WMA	10136221	324	\$25,000	Yes
Toe WMA	10336236	310	\$15,000	Yes

**Kanabec**

Name	TRDS	Acres	Est Cost	Existing Protection?
Kroschel WMA	04222228	1	\$1,500	Yes
Kroschel WMA	04222228	1	\$8,500	Yes
Pomroy Pastures WMA	04122214	440	\$105,000	Yes

**Kandiyohi**

Name	TRDS	Acres	Est Cost	Existing Protection?
Burbank WMA	12234226	42	\$25,500	Yes
Cabinrock WMA	12236202	31	\$23,200	Yes
Oleander WMA	12236216	57	\$15,750	Yes
Ringo-Nest WMA	12134230	31	\$21,700	Yes

**Kittson**

Name	TRDS	Acres	Est Cost	Existing Protection?
Beaches Lake WMA: Main South East Unit	16145206	300	\$45,000	Yes
Beaches Lake WMA: Main Unit	16245236	45,000	\$117,000	Yes
Lake Bronson Parkland SNA	16146225	20	\$11,300	Yes

**Lac qui Parle**

Name	TRDS	Acres	Est Cost	Existing Protection?
Hantho 17-1 NPB	11943217	25	\$6,200	Yes
Lac qui Parle 36-1 NPB	11842236	6	\$50,800	Yes
Lac qui Parle 36-1 NPB	11842236	45	\$6,400	Yes
Odden NPB	11645216	12	\$4,800	Yes
YellowBank Hills SNA	11846202	22	\$6,700	Yes

**Lac Qui Parle**

Name	TRDS	Acres	Est Cost	Existing Protection?
Lac qui Parle WMA: Controlled Hunting Zone	11842205	180	\$40,000	Yes
Lac qui Parle WMA: Main Unit	11943210	72	\$140,000	Yes
Lac qui Parle WMA: Main Unit	12045212	111	\$66,000	Yes

**LeSueur**

Name	TRDS	Acres	Est Cost	Existing Protection?
Kasota Prairie SNA	10926207	11	\$4,000	No

**Lincoln**

Name	TRDS	Acres	Est Cost	Existing Protection?
Bosque WMA	11244236	26	\$120,000	Yes
Chain-O-Sloughs WMA	11145216	39	\$12,000	Yes
Prairie Dell WMA	11345216	38	\$15,000	Yes

**Lyon**

Name	TRDS	Acres	Est Cost	Existing Protection?
Buetiful Acres	11141232	168	\$33,000	Yes
Custer 15-1 NPB	10941215	40	\$7,600	Yes
Gabriel Anderson WMA	11340206	10	\$7,500	Yes
Sio uxPrairie WMA	11143207	443	\$36,900	Yes
Vallers WMA	11341230	127	\$76,200	Yes

**Mahnomen**

Name	TRDS	Acres	Est Cost	Existing Protection?
Beaulieu WMA	14540220	50	\$25,000	Yes
Bejou WMA	14642209	200	\$21,500	Yes
Santee Prairie SNA	14541207	1	\$4,000	Yes

**Marshall**

Name	TRDS	Acres	Est Cost	Existing Protection?
Viking 4-1 NPB	15445204	1	\$4,000	Yes

**Martin**

Name	TRDS	Acres	Est Cost	Existing Protection?
Caron WMA	10333223	20	\$8,000	Yes
Leudtke WMA	10229215	50	\$25,000	Yes

**McLeod**

Name	TRDS	Acres	Est Cost	Existing Protection?
Clouster Lake WMA	11727231	7	\$4,900	Yes

**Meeker**

Name	TRDS	Acres	Est Cost	Existing Protection?
Butternut WMA: North Unit	11932219	15	\$20,000	Yes
Knapp WMA	11929201	200	\$25,000	Yes
Madsen WMA	11831226	108	\$54,000	Yes
Manannah WMA	12131236	129	\$64,500	Yes
Teal Scurry WMA	12131207	7	\$6,000	Yes

**Mille Lacs**

Name	TRDS	Acres	Est Cost	Existing Protection?
Mille Lacs WMA	04125229	100	\$120,000	Yes

**Mower**

Name	TRDS	Acres	Est Cost	Existing Protection?
Wild Indigo SNA	10317212	20	\$60,300	Yes

**Murray**

Name	TRDS	Acres	Est Cost	Existing Protection?
Holly 17-1 NPB	10839217	17	\$4,300	Yes
Holly 2-1 NPB	10839202	40	\$5,400	Yes

**Nicollet**

Name	TRDS	Acres	Est Cost	Existing Protection?
Nicollet 33-1 NPB	10928233	30	\$5,000	Yes
Swan Lake WMA	10928206	1,500	\$1,500,000	Yes
Swan Lake WMA: Courtland Central Unit	11029232	225	\$10,000	Yes

**Norman**

Name	TRDS	Acres	Est Cost	Existing Protection?
Agassiz-Olson WMA	14645221	200	\$100,000	Yes
Neal WMA	14344219	700	\$45,000	Yes
Prairie Smoke Dunes SNA	14644217	1	\$4,000	Yes
Sandpiper Prairie SNA	14345204	1	\$4,000	Yes

**Olmsted**

Name	TRDS	Acres	Est Cost	Existing Protection?
Gordon W. Yeager WMA: Nelson Unit	10713233	340	\$340,200	Yes
Oronoco Prairie SNA	10814222	2	\$5,000	Yes
Whitewater WMA	10810227	930	\$930,000	Yes

**Otter tail**

Name	TRDS	Acres	Est Cost	Existing Protection?
Sonnenberg WMA	13740218	5	\$2,500	Yes

**Otter Tail**

Name	TRDS	Acres	Est Cost	Existing Protection?
Nidaros 21-1 NPB	13239221	1	\$4,000	Yes
Wallace NPB	13140235	1	\$4,000	Yes

**Pennington**

Name	TRDS	Acres	Est Cost	Existing Protection?
Higinbotham WMA	15244204	150	\$23,100	Yes
Pembina WMA: Pennington County Unit	15345217	100	\$23,100	Yes

**Pipestone**

Name	TRDS	Acres	Est Cost	Existing Protection?
Prairie Coteau SNA	10844232	30	\$6,900	Yes

**Polk**

Name	TRDS	Acres	Est Cost	Existing Protection?
Agassiz Dunes SNA	14844230	1	\$4,000	Yes
Agassiz Dunes SNA	14844230	20	\$10,300	Yes
Chicog WMA	14745216	440	\$73,500	Yes
Chicog WMA	14844215	400	\$54,000	Yes
Garfield 30-1 NPB	14744230	2	\$12,700	Yes
Garfield 30-1 NPB	14744230	40	\$12,500	Yes
Godfrey 7-1 NPB	14844207	30	\$12,400	Yes
Gully Fen SNA	15039223	1	\$4,000	Yes
Mentor Prairie WMA	14943216	1	\$15,000	Yes
Pembina Trail Preserve SNA-Crookston Unit	14944213	40	\$10,000	Yes
Pembina Trail Preserve SNA-Foxboro Unit	14845203	1	\$4,000	Yes
Pembina Trail Preserve SNA-Foxboro Unit	14845203	10	\$18,100	Yes



**Pope**

Name	TRDS	Acres	Est Cost	Existing Protection?
Blue Mounds 10-1 NPB	12439210	1	\$4,000	Yes
Lake Johanna 31-2 NPB	12335231	10	\$10,100	Yes
Minnewaska 1-1 NPB	12538201	1	\$4,000	Yes
Minnewaska 1-1 NPB	12538201	5	\$22,100	Yes
Minnewaska 1-1 NPB	12538201	20	\$12,300	Yes
Selix NPB	12439209	10	\$10,100	Yes

**Red Lake**

Name	TRDS	Acres	Est Cost	Existing Protection?
Lake Pleasant 22-1 NPB	15044222	1	\$4,000	Yes

**Redwood**

Name	TRDS	Acres	Est Cost	Existing Protection?
Cedar Mountain SNA	11234214	60	\$77,900	Yes
Cedar Rock SNA	11336203	22	\$60,800	Yes
Swedes Forest 22-1 NPB	11437222	6	\$13,700	Yes
Swedes Forest 22-2 NPB	11437222	10	\$21,400	Yes
Swedes Forest 28-1 NPB	11437228	2	\$3,500	Yes

**Renville**

Name	TRDS	Acres	Est Cost	Existing Protection?
Morton Outcrops SNA	11334231	10	\$22,600	Yes
River Warren Outcrops SNA	11436233	29	\$91,400	Yes

**Rice**

Name	TRDS	Acres	Est Cost	Existing Protection?
Cannon River AMA	11120215	23	\$2,000	Yes
Miles WMA	11121209	100	\$88,000	Yes

**Roseau**

Name	TRDS	Acres	Est Cost	Existing Protection?
Two Rivers Aspen Parklands SNA	16044220	50	\$23,100	Yes

**Sherburne**

Name	TRDS	Acres	Est Cost	Existing Protection?
Uncas Dunes SNA	03427221	10	\$5,400	Yes

**Stevens**

Name	TRDS	Acres	Est Cost	Existing Protection?
Verlyn Marth Memorial Prairie SNA	12642206	1	\$4,000	Yes
Verlyn Marth Memorial Prairie SNA	12642206	10	\$10,100	Yes

**Swift**

Name	TRDS	Acres	Est Cost	Existing Protection?
Appleton 19-1 NPB	12043219	20	\$5,500	Yes
Appleton 36-1 NPB	12043236	15	\$4,900	Yes
Fairfield 31-1 NPB	12242231	1	\$1,200	Yes
Lac qui Parle WMA: Main Unit	12043217	50	\$30,000	Yes

**Todd**

Name	TRDS	Acres	Est Cost	Existing Protection?
Aurzada Prairie WMA	12735210	892	\$2,100	Yes

**Traverse**

Name	TRDS	Acres	Est Cost	Existing Protection?
Fibranz NPB	12647206	5	\$12,100	Yes
Walls 7-1 NPB	12647207	1	\$4,000	Yes
Walls 7-2 NPB	12647207	1	\$4,000	Yes
Windsor 13-1 NPB	12648213	1	\$4,000	Yes

**Wabasha**

Name	TRDS	Acres	Est Cost	Existing Protection?
Kellogg Weaver Dunes SNA	10909206	125	\$142,100	Yes
Whitewater WMA: Main Branch Unit	10909231	30	\$15,000	Yes

**Wilkin**

Name	TRDS	Acres	Est Cost	Existing Protection?
Akron WMA	13445222	16	\$8,000	Yes
Atherton 5-1 NPB	13646205	1	\$4,000	Yes
Atherton 5-1 NPB	13646205	1	\$10,000	Yes
Tanberg 20-1 NPB	13545220	1	\$4,000	Yes
Tanberg 29-1 NPB	13545229	1	\$4,000	Yes
Tanberg 33-1 NPB	13545233	1	\$16,000	Yes
Tanberg 33-1 NPB	13545233	2	\$8,000	Yes
Tanberg 33-1 NPB	13545233	20	\$12,300	Yes

**Winona**

Name	TRDS	Acres	Est Cost	Existing Protection?
Whitewater WMA Complex	10810212	230	\$99,200	Yes
Whitewater WMA Complex	10810236	50	\$54,200	Yes
Whitewater WMA: Main Branch Unit	10809226	600	\$20,000	Yes
Whitewater WMA: Main Branch Unit	10810226	50	\$75,000	Yes

**Wright**

Name	TRDS	Acres	Est Cost	Existing Protection?
Woodland WMA	11826201	2	\$1,000	Yes

**yellow Medicine**

Name	TRDS	Acres	Est Cost	Existing Protection?
Wergeland 5-1 NPB	11444205	25	\$5,500	Yes

**Yellow Medicine**

Name	TRDS	Acres	Est Cost	Existing Protection?
Antelope Valley SNA	11444214	35	\$7,000	Yes
Fortier 24-1 NPB	11446224	40	\$6,200	Yes
Minnesota Falls 3-1 NPB	11539203	1	\$1,800	Yes
Minnesota Falls 3-1 NPB	11539203	10	\$4,500	Yes
Mound Spring Prairie SNA	11546217	30	\$7,400	Yes
Mound Spring Prairie SNA	11546217	75	\$62,000	Yes
Mound Spring Prairie SNA	11546218	70	\$7,800	Yes
Swede Forest SNA	11438213	15	\$45,700	Yes

**Section 2 - Protect Parcel List**

No parcels with an activity type protect.

### **Section 2a - Protect Parcel with Bldgs**

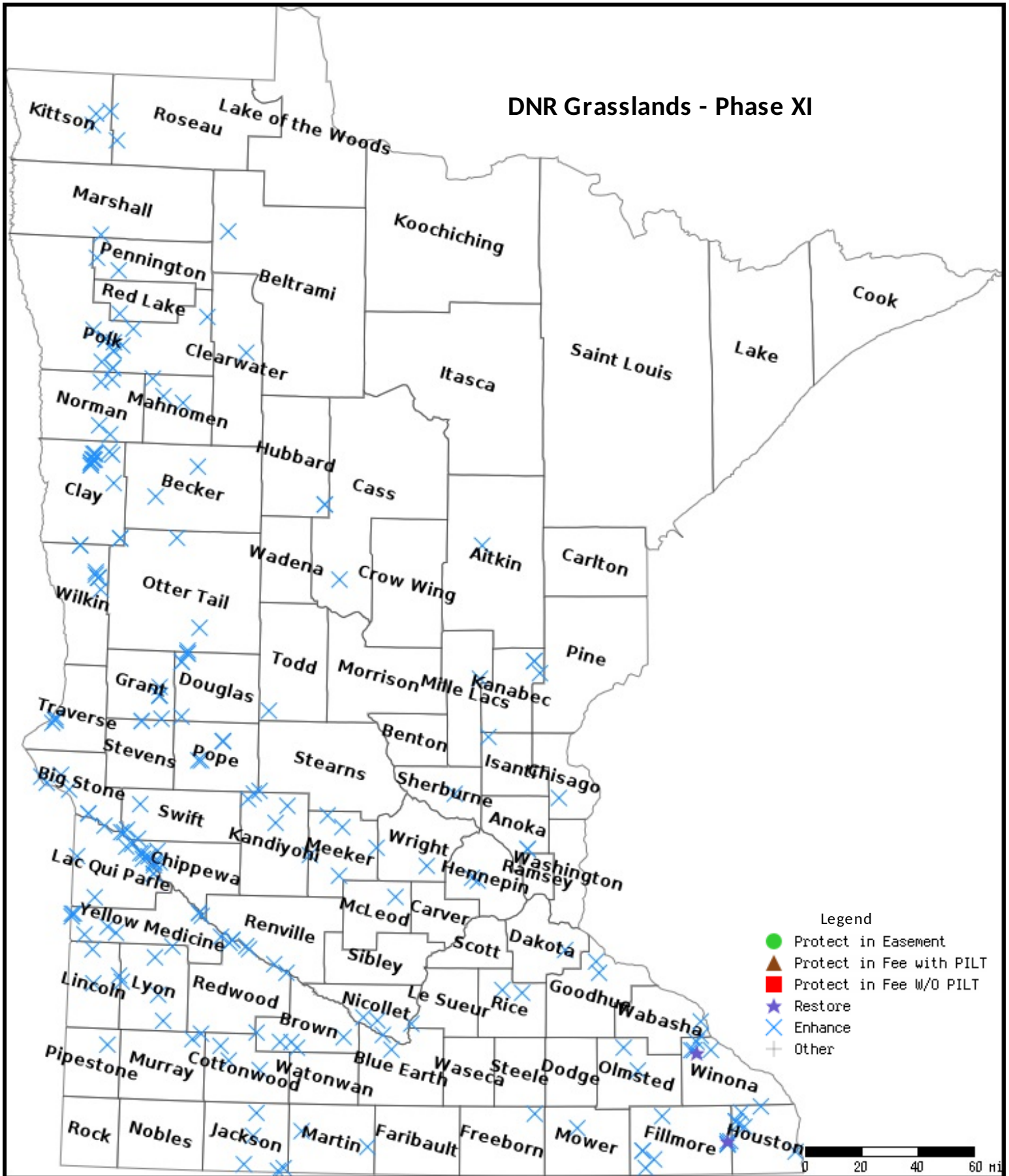
No parcels with an activity type protect and has buildings.

### **Section 3 - Other Parcel Activity**

No parcels with an other activity type.

# Parcel Map

## DNR Grasslands - Phase XI



Data Generated From Parcel List

# DNR Grasslands Phase XI

## WHAT

- Enhancement of Permanently Protected Grasslands
- Guidance from
  - Minnesota Prairie Conservation Plan
  - Pheasant Action Plan Habitat Complexes
  - State Wildlife Plan
- Targeted, strategic conservation efforts

## WHY

- Massive grassland losses in recent and upcoming years
  - 203,000 acres of CRP expirations in 2018
- Remaining public grasslands need to be as productive as possible to maintain grassland wildlife populations
- Game species, songbirds, pollinators, SGCN, T&E species
- Grasslands, Clean Water, and Wildlife are all connected

## HOW

- Prescribed Fire,
- Tree Removal,
- Invasive Species Control
- Diverse, Local Ecotype Seed Mixes

## WHERE

- DNR WMAs, SNAs, and Native Prairie Bank, State Forests
- USFWS Refuges and WPAs

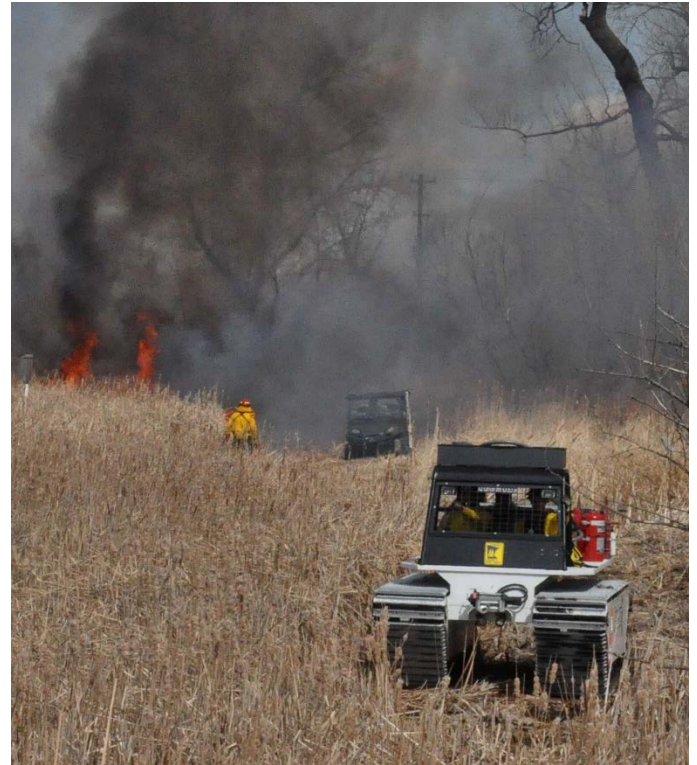
Enhance and restore almost 200,000 acres  
\$18,035,000





Local contractors help agency staff collect large volumes of local ecotype seed from prairies.

Roving crews and their specialized equipment dramatically increase the capacity for habitat enhancement, especially prescribed fire.



When trees get too large, they must be removed mechanically.



**The FINAL PRODUCT, a diverse stand of local ecotype plants providing nesting cover for wildlife, nectar and pollen for pollinators, and a filter for clean water.**