

Lessard-Sams Outdoor Heritage Council

Fiscal Year 2018 / ML 2017 Request for Funding



Date: June 15, 2016

Program or Project Title: DNR Grasslands - Phase IX (PRE01)

Funds Requested: \$13,184,800

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County Locations: Aitkin, Anoka, Becker, Beltrami, Benton, Big Stone, Blue Earth, Brown, Carver, Chippewa, Clay, Clearwater, Cottonwood, Dakota, Dodge, Douglas, Fillmore, Freeborn, Goodhue, Grant, Houston, Jackson, Kandiyohi, Kittson, Lac qui Parle, Lincoln, Lyon, Mahnomon, Marshall, McLeod, Meeker, Mille Lacs, Morrison, Mower, Murray, Nobles, Norman, Olmsted, Ottertail, Otter Tail, Polk, Pope, Prairie, Red Lake, Redwood, Renville, Roseau, Scott, Sherburne, Stearns, Steele, Stevens, Swift, Todd, Traverse, Wabasha, Washington, Wilkin, Winona, Wright, 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:

- Prairie

Abstract:

We propose to continue our programmatic efforts to enhance and restore prairies, grasslands, and savannas as described in the MN Prairie Conservation Plan and Pheasant Summit Action Plan, primarily relying on contractors and DNR Roving Crews. This proposal has worked on WMAs, SNAs, and Prairie Bank easements in the past. This year we expand enhancement efforts to USFWS Refuges and WPAs as well as BWSR RIM easement. Without periodic ecological disturbances grasslands decline in both plant diversity and wildlife productivity.

Design and scope of work:

Since 2007, Minnesota has lost 685,000 acres of CRP grasslands and uncounted acres of native prairie, pastures, and hayfields. In the next three years, the state is projected to lose another 398,000 acres. Between 2002 and 2012, drainage tile installation in parts of Minnesota increased over 2600 percent. Because of these dramatic losses, it's even more critical for our remaining permanently protected grasslands to be as productive as possible for wildlife.

This programmatic request seeks funding to enhance habitat on permanently protected grasslands and prairies. Without disturbances such as fire, the plant diversity and wildlife productivity will decline. Additionally, invasive species will increase and trees will invade the

grassland, which changes the very character of the habitat. All of the activities listed in this proposal will enhance habitat for grassland wildlife and pollinators. Each part of this request will use BMPs for grassland enhancements and diverse local ecotype seed mixes for restorations.

This request seeks to enhance grassland habitat on WMAs. Enhancements will focus on prescribed fire, woody species removal, invasive species control, and enhancing plant diversity for pollinators and wildlife. Almost all of this work will be completed by local contractors. Request also includes a contract coordinator to assist with grant management and reporting.
WMA Habitat Enhancement (10,900 acres) and Restoration (940 acres) over five years - \$2,662,110.

The request seeks to fund the Region 3 Roving crew for four years. The Roving crews are additive to past habitat enhancement capabilities. They are completing projects that weren't getting done before the OHF. They are completing projects themselves as well as teaming up with other DNR staff or crews from TNC and the USFWS to conduct large-scale projects.
DNR Region 3 Roving Crew (15,000 acres) over four years - \$2,040,000

Within the SNA program, this request will restore severely altered lands (cropland in-holdings or buffers) to suitable native prairie plant communities. We will also enhance prairies through prescribed fire, invasive species control and woody removal. Enhancement activities will focus on native prairies.
SNA Enhancement (5890 acres) and restoration (110 acres) - \$2,943,200

We are expanding our past efforts on DNR WMAs to USFWS WPAs and Refuges. The primary focus of this effort will be increasing prescribed fire capacity on FWS lands. Additionally, we will use local contractors to conduct tree removal and other grassland enhancement work focused on but not limited to Pheasant Action Plan habitat complexes. We will also focus on areas where WMAs and WPAs share a common border to better manage those as single large units than separate smaller units. We request a DNR staff to manage the contracts for these enhancements.
USFWS Prescribed Fire and Grassland Enhancement (72040 acres) - \$5,023,300

BWSR's RIM Program will develop pollinator plots on 333 acres at a cost of \$200,000. These plots will be small, 2-4 acres in size, in the middle of larger existing RIM easements.
BWSR Enhancement (333 acres) - \$200,000

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

- H1 Protect priority land habitats
- H3 Improve connectivity and access to recreation

Which other plans are addressed in this proposal:

- Minnesota Prairie Conservation Plan
- Pheasant Summit Action Plan

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

These plans have two types of indicators, acres and wildlife response. Through the Prairie Plan we are finding it challenging to measure acres, given all the different types of enhancement, ownerships, and funding sources. The DNR has hired two staff recently to work on this effort of coordinating enhancement work among the DNR, USFWS, TNC, and other conservation partners. Sadly, we are finding it even more difficult to measure wildlife responses in a way that is scientifically valid and statistically defensible. We find this very frustrating, but almost everyone in the conservation community deals with these issues. We have made a commitment to continue to work on these issues and keep the Council and staff updated on our progress.

Which LSOHC section priorities are addressed in this proposal:

Prairie:

- Protect, enhance, or restore existing wetland/upland complexes, or convert agricultural lands to new wetland/upland habitat complexes

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

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:

While the enhancement and restoration activities in this request are on permanently protected lands, by their very nature the enhancements are impermanent. Grasslands need to be repeatedly enhanced to maintain their plant diversity and wildlife productivity. Through the process of adaptive management, we have had increasing success with our restoration activities. We do things very differently today than we did 25 years ago. It's easy to see those differences today when walking around on an older vs newer restoration. Our more recent restorations generally have a much greater level of plant diversity. It is much easier to 'do it right' the first time and start with a high diversity plant community than to have to have to repeat the restoration. This speaks to the permanence of the quality of the habitat. That said, there is still much we need to learn.

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:

This request is building on the foundations provided by the MN Prairie Conservation Plan as well as the Pheasant Summit Action Plan. Both of these plans were heavily dependent on the best available science on wildlife and habitat management. The Prairie Plan especially is focused on areas identified as having the highest densities of remaining native prairie. We know that small and/or isolated populations can suffer from genetic deterioration and have a high risk of local extinction from disease outbreak or severe weather. The Prairie Plan and Pheasant Plan are built around developing, protecting, and enhancing/managing large landscape complexes of habitat. This strategy will support large populations of a diverse number of wildlife. Complexes also allow us to incorporate many habitat types (dry upland prairie, sedge meadow, brushland, wetlands and cattail marshes) and a variety of enhancement activities or land uses (prescribed fire, grazing, haying, etc) that we simply can't do on a small parcel of habitat. This mix of habitat types and structures then provides optimal habitat for the range of species who require dry to wet grasslands, or shorter to taller vegetation.

The Prairie Plan specifically addresses the issue of corridors. Corridors allow movement across the region. This enhances genetic diversity of populations and allow habitats to be quickly recolonized in the event of a local extinction event or if the population becomes too low to be sustainable. The north-south orientation of the Prairie Plan facilitates the migration of waterfowl and songbirds in the spring and fall. The national monarch conservation plan is largely built around a monarch migration corridor that follows Interstate 35 from Texas to Minnesota and then follows the Prairie Passage into and up the western side of Minnesota.

DNR, USFWS, and TNC researchers are continuing to refine our landscape and wildlife population models so that we can continue to do the best work where it will do the most good. This effort will never be finished as there is always more research being published and new ways to refine our models and conservation efforts.

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:

Across western Minnesota and the rest of the Upper Midwest and Great Plains, grassland birds and other wildlife continue their steep decline. Nationally, grassland birds continue to be ranked as the most threatened. In Minnesota, songbird censuses continue to show declines in grassland dependent species. As we all know, pheasant harvest continues to decline despite some of our best conservation efforts in the state. This is simply because for every acre of fee title or conservation easement, we're losing many acres of CRP grasslands. We are still losing grasslands across the region at nearly unprecedented levels.

At the same time, there are several T&E species in western Minnesota. Two butterflies (skippers) were recently listed and one of them may be extinct in the state. The Minnesota Zoo has developed a captive breeding program, but without safe, high quality, permanently protected grasslands, there will be no or few places to release these individuals and try to re-establish populations. In the most recent state wildlife action plan, 89 of the Species of Greatest Conservation Need are grassland dependent.

We have also dramatically improved the way we restore and enhance grasslands in the last couple decades. Early 'restorations' used very few species and we often didn't know the seed origin. Today we focus on local ecotype seed and often uses very diverse seed mixes. While this will provide improved habitat for the game species agencies have traditionally managed for, it will be even more

beneficial to songbird, pollinators, and nongame wildlife.

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

By measuring the ratios of CRP acres in Minnesota to pheasant harvest over the last 15 years, we can estimate that every three acres of grassland habitat restored or enhanced will potentially increase the pheasant harvest by one rooster.

According to the research literature and personal observations in Minnesota, prairie chickens require a minimum of 320 acres of high quality grasslands with no wildlife hostile habitat (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.

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.

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 *The DNR Ecological and Water Resources staff, including the Biological Survey, are primarily involved with this type of monitoring.*

Programs in forest-prairie transition region:

- Protected, restored, and enhanced nesting and migratory habitat for waterfowl, upland birds, and species of greatest conservation need *We currently do not have a statistically valid way of monitoring or addressing these issues. The DNR and partners are committed to working on this issue and keeping Council members and staff informed on these efforts. DNR Wildlife Research recently completed a study of mallard population monitoring that identified several issues that complicate small and large-scale monitoring in statistically defensible ways.*

Programs in metropolitan urbanizing region:

- Core areas protected with highly biologically diverse wetlands and plant communities, including native prairie, Big Woods, and oak savanna *DNR EWR staff will be primarily leading this effort to monitor outcomes in this part of the state.*

Programs in southeast forest region:

- Healthier populations of endangered, threatened, and special concern species as well as more common species *Again, DNR EWR researchers will be the primary way we can monitor populations in this part of the state.*

Programs in prairie region:

- Improved condition of habitat on public lands *The multi-agency Grassland Monitoring Team will continue to evaluate plant diversity. The USFWS Native Prairie Adaptive Management program focuses on the effects of enhancements on native plant diversity. DNR Wildlife has hired a new Habitat Biologist who specializes in pollinators. She will play an active role in monitoring impacts of enhancement activities on the invertebrate community. DNR Wildlife Research staff also have ongoing projects that study habitat and wildlife population responses to habitat quality.*

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

Routine maintenance of these sites will be conducted by Area Wildlife staff on WMAs, DNR EWR staff on SNAs and Prairie Bank Easements, and USFWS staff on Refuges and WPAs. Maintaining prescribed levels of management will be dependent on future requests from the OHF, Game and Fish Fund, bonding, USFWS operating budgets and federal grant programs such as NAWCA (North American Wetland Conservation Act), ENRTF, or Special Project funds for SNAs.

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

Year	Source of Funds	Step 1	Step 2	Step 3
2020	Those listed in table above and OHF	monitor a subset of completed projects	document results using Strategic Habitat Conservation framework	Determine capacity for traditional funds to meet these objectives
2021 and beyond	Those listed above and OHF	continue to iteratively apply SHC framework to projects	adapt results to future projects	continue monitoring and research

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

Every year woody invasion and invasive species increase while native plant diversity and wildlife populations often declines. In prairie enhancement, an ounce of prevention is definitely better than a pound of cure. Catching invasive species at the beginning of an infestation allows us to quickly and inexpensively treat the small area of the invasion before they expand to a large percentage of the unit. Woody removal can be even more expensive if we have to remove dense stands of large trees compared to a few small trees or saplings.

The Governor has made water quality, especially in western Minnesota, a major focus of his administration. Research has shown that one of the best ways to prevent sediment and chemical inputs into streams, rivers, and lakes is by having high quality grasslands on the landscape that prevent erosion and filter sediment and chemicals from the water before they enter waterways.

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

Not Listed

Relationship to other funds:

- Not Listed

Describe the relationship of the funds:

Not Listed

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

Appropriation Year	Source	Amount
2015	Game and Fish (Wildlife Operations)	22,400,000
2015	Dedicated Account Funds (Duck Stamp, Pheasant Stamp, etc)	7,300,000
2015	Heritage Enhancement Account	4,300,000

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 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, Refuge Lands, RIM and Prairie Bank easements)

Do you anticipate federal funds as a match for this program - **Yes**

Are the funds confirmed - **Yes**

[Documentation](#)

What are the types of funds?

Land Use:

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

Explain

The primary purposes of WMAs are to develop and manage for the production of wildlife and for compatible outdoor recreation. To fulfill those goals, the DNR may use limited farming specifically to enhance or benefit the management of state lands for wildlife. This proposal may include initial development plans or restoration plans to utilize farming to prepare previously farmed sites for native plant seeding. This is a standard practice across the Midwest to prepare the seedbed for native seed planting. On a small percentage of WMAs (less than 2.5%), DNR uses farming to provide a winter food source for a variety of wildlife species in agriculture-dominated landscapes largely devoid of winter food sources.

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

Accomplishment Timeline

Activity	Approximate Date Completed
WMA enhancement/restoration (excluding Roving Crew)	6/30/2022
SNA / Prairie Bank enhancement/restoration	6/30/2022
Roving Crew enhancement/restoration	6/30/2021
Pollinator Plots on RIM easements	6/30/2022
WPA / Refuge enhancement	6/30/2022

Budget Spreadsheet

Total Amount of Request: \$13,184,800

Budget and Cash Leverage

BudgetName	LSOHC Request	Anticipated Leverage	Leverage Source	Total
Personnel	\$2,547,400	\$0		\$2,547,400
Contracts	\$8,535,900	\$0		\$8,535,900
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	\$912,300	\$0		\$912,300
Professional Services	\$0	\$0		\$0
Direct Support Services	\$425,100	\$0		\$425,100
DNR Land Acquisition Costs	\$0	\$0		\$0
Capital Equipment	\$0	\$0		\$0
Other Equipment/Tools	\$2,500	\$0		\$2,500
Supplies/Materials	\$761,600	\$0		\$761,600
DNR IDP	\$0	\$0		\$0
Total	\$13,184,800	\$0	-	\$13,184,800

Personnel

Position	FTE	Over # of years	LSOHC Request	Anticipated Leverage	Leverage Source	Total
Roving Crew Leader and Crew (1 leader plus 5 crew members)	6.00	4.00	\$1,200,000	\$0		\$1,200,000
Grant coordinators (2) - FAW	2.00	5.00	\$484,000	\$0		\$484,000
Contract and Project Mgt - EWR	0.18	4.00	\$63,000	\$0		\$63,000
SNA-NPB specs and technicians - EWR	2.63	4.00	\$737,300	\$0		\$737,300
laborers and seasonals	0.45	4.00	\$63,100	\$0		\$63,100
Total	11.26	21.00	\$2,547,400	\$0	-	\$2,547,400

Amount of Request: \$13,184,800

Amount of Leverage: \$0

Leverage as a percent of the Request: 0.00%

DSS + Personnel: \$2,972,500

As a % of the total request: 22.54%

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:

DNR calculates DSS costs that are directly related to and necessary for each request based on the type of work being done and which division it's being done by.

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

Almost all of the R/E funds will be for contract 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:

The amount requested in the travel line includes traditional travel costs of mileage, food, and lodging and it also includes funding for specialized equipment used by Roving Habitat Crews such as tracked vehicles, Bobcat-type vehicles, and heavy equipment.

Describe and explain leverage source and confirmation of funds:

Fire detailers and contractors will be paired with existing FWS fire crews. Funds expended by FWS fire staff during prescribed fires will be used as match.

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:

This request is a series of discrete projects. If we received reduced funding, we would simply revisit our project list and prioritize projects up to the funding level.

Output Tables

Table 1a. Acres by Resource Type

Type	Wetlands	Prairies	Forest	Habitats	Total
Restore	0	1,056	0	0	1,056
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	98,035	0	0	98,035
Total	0	99,091	0	0	99,091

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	\$727,300	\$0	\$0	\$727,300
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	\$12,457,500	\$0	\$0	\$12,457,500
Total	\$0	\$13,184,800	\$0	\$0	\$13,184,800

Table 3. Acres within each Ecological Section

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	Northern Forest	Total
Restore	95	0	136	85	740	1,056
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	11,817	15,983	8,505	61,501	229	98,035
Total	11,912	15,983	8,641	61,586	969	99,091

Table 4. Total Requested Funding within each Ecological Section

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	Northern Forest	Total
Restore	\$72,200	\$0	\$198,700	\$96,300	\$360,100	\$727,300
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	\$1,308,800	\$1,556,700	\$2,139,300	\$7,095,900	\$356,800	\$12,457,500
Total	\$1,381,000	\$1,556,700	\$2,338,000	\$7,192,200	\$716,900	\$13,184,800

Table 5. Average Cost per Acre by Resource Type

Type	Wetlands	Prairies	Forest	Habitats
Restore	\$0	\$689	\$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	\$127	\$0	\$0

Table 6. Average Cost per Acre by Ecological Section

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	Northern Forest
Restore	\$760	\$0	\$1,461	\$1,133	\$487
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	\$111	\$97	\$252	\$115	\$1,558

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:

Parcels are selected by Prairie Plan Core Areas and then by areas where we can do the most work most efficiently in the agricultural matrix of the state. We also try to identify issues early on so that we can proactively treat the area early and more cost effectively compared to once a problem gets out of hand, such as invasive species.

Section 1 - Restore / Enhance Parcel List

Anoka

Name	TRDS	Acres	Est Cost	Existing Protection?
Blaine Preserve	03123226	4	\$15,400	Yes
Blaine Preserve	03123226	10	\$13,200	Yes

Big Stone

Name	TRDS	Acres	Est Cost	Existing Protection?
Akron 13-1 NPB	12044213	30	\$6,300	Yes
Bonanza SNA	12348220	50	\$5,300	Yes
Johnson NPB	12247201	2	\$1,300	Yes

Brown

Name	TRDS	Acres	Est Cost	Existing Protection?
Cottonwood River Prairie	10935231	50	\$3,800	Yes
Eden North 19-1 NPB	11233219	4	\$8,400	Yes
Linden 6-1 NPB	10830206	10	\$4,700	Yes
Mulligan 18-1 NPB	10833218	68	\$4,700	Yes

Carver

Name	TRDS	Acres	Est Cost	Existing Protection?
Seminary Fen	11623235	8	\$36,900	Yes
Seminary Fen	11623235	20	\$16,900	Yes
Seminary Fen	11623235	20	\$20,000	Yes

Chippewa

Name	TRDS	Acres	Est Cost	Existing Protection?
Gneiss	11539211	20	\$4,200	Yes

Clay

Name	TRDS	Acres	Est Cost	Existing Protection?
Assinaboia	14245220	10	\$21,100	Yes
Assinaboia	14245220	150	\$15,800	Yes
B-B Ranch	14146213	150	\$15,800	Yes
Bicentennial	14145205	100	\$10,500	Yes
Blanket Flower Prairie	13744211	15	\$21,100	Yes
Blanket Flower Prairie	13744211	150	\$15,800	Yes
Shrike	14245230	40	\$4,700	Yes
Strand N NPB	14244219	45	\$4,700	Yes
Strand S	14244230	20	\$10,500	Yes
Ulen 29	14244229	40	\$4,700	Yes

Cottonwood

Name	TRDS	Acres	EstCost	Existing Protection?
Ann 25-1 NPB	10838225	24	\$4,200	Yes
Carson 5-1 NPB	10635205	5	\$1,100	Yes
Great Bend 29-1 NPB	10536229	2	\$500	Yes
Rock Ridge	10735205	35	\$2,600	Yes
Storden 4-1 NPB	10737204	40	\$4,700	Yes

Dakota

Name	TRDS	Acres	EstCost	Existing Protection?
Chimney Rock	11417231	4	\$10,700	Yes
Chimney Rock	11417231	5	\$11,100	Yes
Chimney Rock	11417231	28	\$49,000	Yes

Douglas

Name	TRDS	Acres	EstCost	Existing Protection?
Lund 2	13040202	6	\$25,300	Yes
Lund 2	13040202	7	\$5,800	Yes
Lund 2	13040202	80	\$8,400	Yes
Lund 21	13040221	5	\$15,800	Yes

Fillmore

Name	TRDS	Acres	EstCost	Existing Protection?
Pin Oak Prairie	10412224	12	\$3,700	Yes
Pin Oak Prairie	10412224	20	\$50,000	Yes
Rushford Complex	10408214	285	\$59,800	Yes
Rushford Complex	10408219	30	\$72,700	Yes

Goodhue

Name	TRDS	Acres	EstCost	Existing Protection?
Cannon River Turtle Preserve	11316224	8	\$35,600	Yes
Cannon River Turtle Preserve	11316224	15	\$10,000	Yes
Cannon River Turtle Preserve	11316224	22	\$9,300	Yes
Cannon River Turtle Preserve	11316224	30	\$27,900	Yes
River Terrace Prairie	11217201	8	\$7,500	Yes
River Terrace Prairie	11217201	40	\$4,500	Yes
Spring Creek Prairie	11315234	5	\$4,200	Yes
Spring Creek Prairie	11315234	10	\$9,700	Yes
Spring Creek Prairie	11315234	32	\$138,000	Yes
Spring Creek Prairie	11315234	57	\$19,000	Yes

Grant

Name	TRDS	Acres	EstCost	Existing Protection?
Olson NPB	12841206	20	\$4,700	Yes

Houston

Name	TRDS	Acres	EstCost	Existing Protection?
Hokah Complex	10405234	5	\$13,400	Yes
Jefferson complex	10104219	122	\$69,200	Yes
Mound Prairie	10405234	48	\$8,500	Yes
Reno complex	10104202	63	\$42,100	Yes
Sheldon Complex	10306227	50	\$154,200	Yes
Vinegar Ridge Complex	10407215	180	\$129,800	Yes
Wetbark Complex	10307211	195	\$89,700	Yes

Jackson

Name	TRDS	Acres	EstCost	Existing Protection?
Des Moines	10435219	52	\$4,200	Yes
Petersburg 27-1 NPB	10134227	13	\$11,600	Yes
Petersburg 27-1 NPB	10134227	20	\$5,300	Yes
Petersburg 33-1 NPB	10134233	3	\$2,600	Yes

Kittson

Name	TRDS	Acres	EstCost	Existing Protection?
Lake Bronson	16146225	5	\$19,000	Yes

Lac qui Parle

Name	TRDS	Acres	EstCost	Existing Protection?
Agassiz 23-1 NPB	12045214	80	\$5,300	Yes

Lyon

Name	TRDS	Acres	EstCost	Existing Protection?
Custer 15-1 NPB	10941215	4	\$1,100	Yes
Lyon/Lynd NPB	11142236	1	\$1,700	Yes

Mahnomen

Name	TRDS	Acres	EstCost	Existing Protection?
Santee Prairie	14541206	150	\$15,800	Yes

Marshall

Name	TRDS	Acres	EstCost	Existing Protection?
Marsh Grove 36-1	15645236	5	\$19,000	Yes
Marsh Grove 36-1	15645236	150	\$15,800	Yes

Mower

Name	TRDS	Acres	EstCost	Existing Protection?
Wild Indigo	10316218	24	\$75,800	Yes
Wild Indigo	10316217	20	\$5,300	Yes

Murray

Name	TRDS	Acres	EstCost	Existing Protection?
Holly 2-1 NPB	10839202	3	\$800	Yes
Holly 2 & 3 NPB	10839202	11	\$9,600	Yes

Norman

Name	TRDS	Acres	EstCost	Existing Protection?
Prairie Smoke Dunes	14644217	6	\$22,100	Yes
Prairie Smoke Dunes	14644217	150	\$15,800	Yes
Sandpiper Prairie	14345204	150	\$15,800	Yes

Olmsted

Name	TRDS	Acres	EstCost	Existing Protection?
Oronoco Prairie	10814222	2	\$5,300	Yes
Oronoco Prairie	10814222	10	\$10,000	Yes
Oronoco Prairie	10814222	15	\$6,400	Yes

Otter Tail

Name	TRDS	Acres	EstCost	Existing Protection?
Nidaros 21	13239221	20	\$4,700	Yes
Ottertail Prairie	13144217	160	\$16,900	Yes
Wallace	13140235	100	\$10,500	Yes

Polk

Name	TRDS	Acres	EstCost	Existing Protection?
Crookston	14944213	13	\$21,100	Yes
Crookston	14944213	150	\$15,800	Yes
Foxboro	14845203	6	\$19,000	Yes
Foxboro	14845203	80	\$8,400	Yes

Pope

Name	TRDS	Acres	EstCost	Existing Protection?
Blue Mounds 10-1	12439210	5	\$31,600	Yes
Blue Mounds 10-1	12439210	150	\$10,500	Yes
Lake Johanna 31-2	12336231	5	\$12,600	Yes
Langhei Prairie	12339232	20	\$4,700	Yes
SelixNPB	12439209	20	\$4,700	Yes

Red Lake

Name	TRDS	Acres	EstCost	Existing Protection?
Lake Pleasant 22-1	15044222	40	\$4,700	Yes

Redwood

Name	TRDS	Acres	EstCost	Existing Protection?
Cedar Mountain	11234214	13	\$42,100	Yes
Cedar Mountain	11234214	40	\$4,700	Yes
Cedar Rock	11336203	8	\$26,300	Yes
Delhi 14-1 NPB	11336214	30	\$63,200	Yes
Lamberton 15-1 NPB	10937215	4	\$1,000	Yes
Lamberton 15-1 NPB	10937215	8	\$4,700	Yes
Swedes Forest 28-1 NPB	11437228	3	\$6,300	Yes

Renville

Name	TRDS	Acres	EstCost	Existing Protection?
Morton Outcrops	11334231	4	\$4,200	Yes
Morton Outcrops	11334231	10	\$42,100	Yes

Roseau

Name	TRDS	Acres	EstCost	Existing Protection?
Two Rivers AP	16044217	20	\$15,800	Yes
Two Rivers AP	16044219	6	\$19,000	Yes
Two Rivers AP	16044219	250	\$21,100	Yes

Scott

Name	TRDS	Acres	EstCost	Existing Protection?
Savage Fen	11521217	10	\$25,500	Yes
Savage Fen	11521217	35	\$152,700	Yes

Sherburne

Name	TRDS	Acres	EstCost	Existing Protection?
Harry Cater Prairie	03530222	11	\$4,700	Yes
Uncas Dunes	03427221	11	\$5,300	Yes
Uncas Dunes	03427221	20	\$45,300	Yes

Stearns

Name	TRDS	Acres	Est Cost	Existing Protection?
Quarry Park	12428229	4	\$17,900	Yes
Sedan Brook Prairie	12435217	14	\$27,400	Yes
Sedan Brook Prairie	12435217	17	\$41,600	Yes
Sedan Brook Prairie	12435217	40	\$15,000	Yes

Swift

Name	TRDS	Acres	Est Cost	Existing Protection?
Appleton 19-1 NPB	12043219	30	\$6,300	Yes
Fairfield 31-1 NPB	12242231	6	\$1,700	Yes

Traverse

Name	TRDS	Acres	Est Cost	Existing Protection?
Fibranz	12747232	40	\$4,700	Yes
Walls 18-1	12647218	24	\$4,700	Yes
Walls 7-1	12647207	60	\$6,300	Yes
Walls 7-2	12647207	15	\$4,700	Yes
Windsor 13-1	12648212	15	\$31,600	Yes
Windsor 13-1	12648212	90	\$10,500	Yes

Wabasha

Name	TRDS	Acres	Est Cost	Existing Protection?
Kellogg Weaver Dunes	10909206	80	\$7,500	Yes
Kellogg Weaver Dunes	10909206	100	\$34,200	Yes
Kellogg Weaver Dunes	10909206	150	\$148,000	Yes

Washington

Name	TRDS	Acres	Est Cost	Existing Protection?
Grey Cloud Dunes	02721232	16	\$10,500	Yes
Grey Cloud Dunes	02721232	20	\$13,200	Yes
Grey Cloud Dunes	02721232	20	\$75,800	Yes
Lost Valley Prairie	02720228	10	\$7,400	Yes
Lost Valley Prairie	02720228	10	\$12,100	Yes
Lost Valley Prairie	02720228	62	\$23,300	Yes
St. Croix Savanna	02920215	5	\$3,700	Yes
St. Croix Savanna	02920215	7	\$17,900	Yes
St. Croix Savanna	02920215	25	\$13,200	Yes

Wilkin

Name	TRDS	Acres	Est Cost	Existing Protection?
Atherton 5-1	13646205	30	\$4,700	Yes
Tanberg 20-1	13545220	80	\$8,400	Yes
Tanberg 29-1	13545229	80	\$8,400	Yes
Tanberg 29-2	13545229	60	\$6,300	Yes

Yellow Medicine

Name	TRDS	Acres	EstCost	Existing Protection?
Blue Devil	11539204	4	\$15,800	Yes
Fortier 24-1 NPB	11446224	2	\$1,000	Yes
MN Falls 10-1 NPB	11539210	5	\$1,000	Yes
MN Falls 3-1 NPB	11539203	10	\$1,700	Yes
Mound Spring	11546217	10	\$5,300	Yes
Mound Spring	11546217	15	\$3,200	Yes
Mound Spring	11546218	70	\$3,200	Yes
Mound Spring	11546219	40	\$3,200	Yes
Mound Spring	11546229	60	\$4,200	Yes
Swede Forest SNA	11438212	14	\$47,400	Yes
Swede Forest SNA	11438212	20	\$4,200	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

Aitkin

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
Gun Lake Restoration	04825204	740	\$325,000	Yes	Full	Yes

Anoka

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
Burman WMA Savanna Enhancement	03324223	30	\$30,000	Yes	Full	Yes

Becker

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
USFWS Detroit Lakes	13941215	7,500	\$240,000	Yes	Yes	No

Beltrami

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
Bemidji Slough Prairie Enhancement	14633228	33	\$15,230	Yes	Full	Yes
Woodrow Padiocetes Prairie Enhancement	15231227	13	\$4,700	Yes	Full	Yes

Benton

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
Ben-Lacs WMA Prairie Enhancement	03628213	9	\$17,500	Yes	Full	Yes
Glendorado WMA Prairie Enhancement	03628225	12	\$32,500	Yes	Full	Yes

Big Stone

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
USFWS Big Stone NWR	12045208	7,478	\$213,600	Yes	Limited	No

Blue Earth

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
Nicollet Area Woody Removal Projects	10525224	85	\$120,000	Yes	Full	Yes

Brown

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
Bashaw Grove Cutting	10834221	10	\$10,000	Yes	Full	Yes

Chippewa

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
New London area Brome to Natives Conversion	11639205	50	\$55,000	Yes	Full	Yes
New London Area Volunteer Tree Removal	11631204	160	\$48,000	Yes	Full	Yes

Clearwater

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
Carter WMA Native Prairie Enhancement	14838219	18	\$10,000	Yes	Full	Yes
Mosquito Creek Native Prairie Enhancement	14637219	48	\$29,800	Yes	Full	Yes

Cottonwood

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
Summer Foliage Tree Spraying	10535231	1,000	\$6,000	Yes	Full	Yes
Tree Pile Burning	10130233	40	\$15,000	Yes	Full	Yes
USFWS Windom	10535219	8,883	\$693,000	Yes	Yes	No
Woody Removal	10535224	304	\$30,000	Yes	Full	Yes

Dodge

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
Dodge County WMAs Woody Removal	10717217	60	\$50,000	Yes	Full	Yes
Tri-Cooperative WMA Woody Removal	10616225	15	\$15,000	Yes	Full	Yes

Douglas

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
local origin diversity plantings	12740226	10	\$12,000	Yes	Full	Yes

Fillmore

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
Chosen Valley WMA Native Prairie	10412206	30	\$30,600	Yes	Full	Yes
Hvoslef WMA Native Prairie	10209226	12	\$16,450	Yes	Full	Yes
Nosek WMA Fen Enhancement	10113224	15	\$28,500	Yes	Full	Yes
OHF FY18 Cherry Grove WMA Woody Cover removal	10112203	78	\$5,750	Yes	Full	Yes
Upper Iowa River Native Prairie	10113231	12	\$12,240	Yes	Full	Yes

Freeborn

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
Wo Wacintanka Grassland	10419216	60	\$35,000	Yes	Full	Yes

Goodhue

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
Understory Brush Mowing_Woody Removal	10515222	200	\$40,000	Yes	Full	Yes

Grant

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
Blakesley tree removal	12843233	5	\$12,000	Yes	Full	Yes

Houston

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
Chisholm Valley WMA, OHF Grassland Improvement	10307204	10	\$6,000	Yes	Full	Yes

Kandiyohi

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
Willmar WMA, tree removal	12035236	29	\$10,000	Yes	Full	Yes

Lincoln

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
Schindel Prairie Restoration	10946222	25	\$7,500	Yes	Full	Yes

Lyon

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
Grandview Woody Removal	11242218	128	\$30,000	Yes	Full	Yes
Rolling Hills Prairie Restoration	11140206	19	\$5,700	Yes	Full	Yes
Sodus Woody Removal	10942201	31	\$6,500	Yes	Full	Yes

Marshall

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
USFWS Agassiz NWR	15641209	9,983	\$299,150	Yes	Limited	No

McLeod

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
Nicollet Area MUA Woody Removal Projects	11628219	56	\$45,000	Yes	Full	Yes

Meeker

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
USFWS Litchfield	11931203	9,086	\$958,600	Yes	Yes	No

Mille Lacs

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
Kunkel Follow-up Brush Treatment	03627235	65	\$6,500	Yes	Full	Yes
Kunkel WMA Prescribed Fire Management	03627235	330	\$19,800	Yes	Full	Yes

Morrison

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
Crane Meadows WMA Savanna Enhancement	03931203	5	\$7,000	Yes	Full	Yes
Little Elk WMA Prairie Enhancement	13031219	20	\$13,000	Yes	Full	Yes
Little Elk WMA Prairie Enhancement	13031219	45	\$34,000	Yes	Full	Yes

Nobles

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
Sherwood WMA Prairie Reconstruction	10243232	28	\$9,000	Yes	Full	Yes

Olmsted

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
CFA Prairie conversions	10515204	65	\$75,000	Yes	Full	Yes

Ottertail

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
USFWS Fergus Falls	13441220	8,180	\$534,000	Yes	Yes	No

Polk

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
Crookston Polk Brush Mowing	14844215	303	\$40,000	Yes	Full	Yes
USFWS Glacial Ridge NWR	14944226	4,470	\$188,000	Yes	Limited	No

Prairie

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
Perched Valley WMA	11213208	125	\$117,500	Yes	Full	Yes

Redwood

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
Tiger Lake Prairie Restoration	11335228	50	\$24,000	Yes	Full	Yes

Renville

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
Whispering Ridge WMA Rock Outcrop Tree Removal	11436229	50	\$100,000	Yes	Full	Yes

Sherburne

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
USFWS Sherburne NWR	03527229	8,000	\$200,000	Yes	Limited	No

Stearns

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
Sauk Rapids Area Wide WMA Tree/Shrub Removal on Grasslands	12334228	75	\$17,000	Yes	Full	Yes
Sauk Rapids Edward Raymond Mohs WMA Grassland Development	12335209	14	\$9,000	Yes	Full	Yes

Steele

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
Somerset WMA Woody Removal	10720229	80	\$80,000	Yes	Full	Yes

Stevens

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
USFWS Morris	12443212	8,460	\$455,000	Yes	Yes	No

Todd

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
Hartford WMA Prairie Enhancement	13033224	22	\$50,500	Yes	Full	Yes
Ireland WMA Grassland Enhancement	12832227	20	\$30,000	Yes	Full	Yes
Kobliska Prairie Enhancement	13132204	41	\$111,000	Yes	Full	Yes
Kobliska Prairie Enhancement	13132204	73	\$111,000	Yes	Full	Yes
Ostendorff WMA Prairie Enhancement	12732204	16	\$31,000	Yes	Full	Yes
Owen-Hinz WMA Prairie Enhancement	12835212	35	\$112,000	Yes	Full	Yes
Santer WMA Prairie Enhancement	12835202	51	\$138,000	Yes	Full	Yes
Santer WMA Prairie Enhancement	12835202	52	\$80,000	Yes	Full	Yes
Sheets Lake WMA Prairie Enhancement	13033209	20	\$14,000	Yes	Full	Yes

Wabasha

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
McCarthy Lake WMA Native prairie	11010235	4	\$3,340	Yes	Full	Yes

Washington

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
Bayport Savanna Enhancement	02920222	27	\$22,500	Yes	Full	Yes

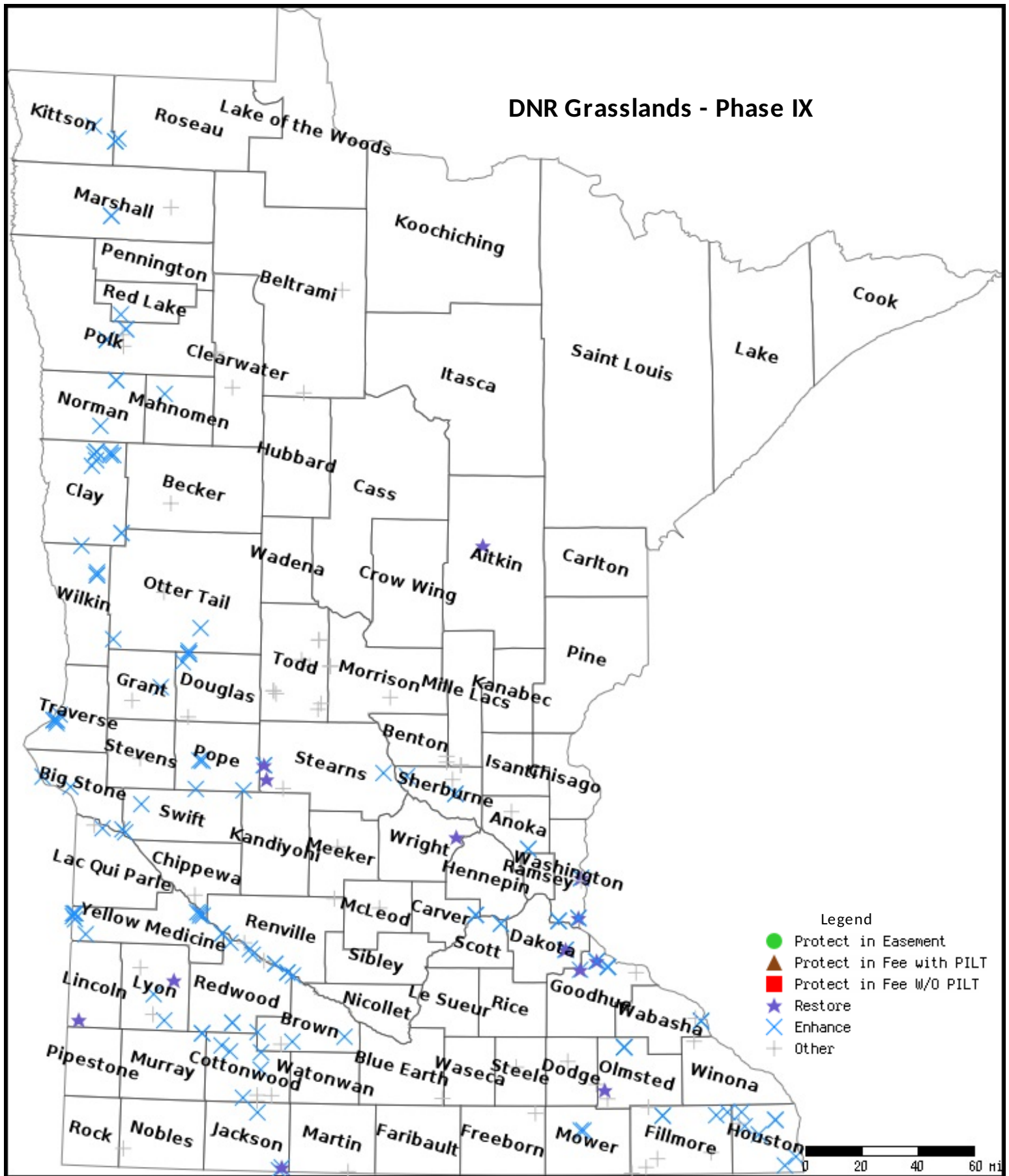
Winona

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
Whitewater Prescribed burning	10810211	600	\$22,000	Yes	Full	Yes

Wright

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
Sauk Rapids Area Wide WMA Grassland Development	12024215	80	\$26,000	Yes	Full	Yes

Parcel Map



Data Generated From Parcel List

DNR Grasslands Phase IX



WHAT

Enhancement of Permanently Protected Grasslands
Focus on Prairie Plan Core Areas and
Pheasant Action Plan Habitat Complexes

WHY

Landscape level approach to conservation
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
USFWS Refuges and WPAs
BWSR Rim easements



Enhance and restore 99,000 acres
\$13,184,800





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



Roving crews and their specialized equipment have dramatically increased our capacity for habitat enhancement.



Snowseeding the mix of dozens of grasses and wildflower seed.



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 as well as nectar and pollen for pollinators.