Environment and Natural Resources Trust Fund (ENRTF)
M.L. 2013 Work Plan

Date of Status Update Report: May 15, 2013

Date of Next Status Update Report: Dec. 31, 2013

Date of Work Plan Approval: June 25, 2013

Project Completion Date: June 30, 2016 **Is this an amendment request?** no

PROJECT TITLE: Conservation Grazing to Improve Wildlife Habitat on Wildlife Management Areas

Project Manager: Mike Tenney

Affiliation: DNR Wildlife

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City/State/Zip Code: St. Paul, MN 55045

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Email Address: mike.tenney@state.mn.us

Web Address: www.dnr.state.mn.us

Location: Becker, Big Stone, Blue Earth, Brown, Chippewa, Clay, Douglas, Faribault, Grant, Kittson, Lac qui Parle, Mahnomen, Norman, Otter Tail, Polk, Pope, Redwood, Stearns, Stevens, Traverse, Wilkin

Total ENRTF Project Budget:		
	ENRTF Appropriation:	**$600,000**
	Amount Spent:	**$0**
	Balance:	**$600,000**

Legal Citation: M.L. 2013, Chp. 52, Sec. 2, Subd. 04i

Appropriation Language:
$600,000 the first year is from the trust fund to the commissioner of natural resources to develop grazing plans and provide infrastructure to support conservation grazing on approximately 10,000 acres of targeted wildlife management areas in partnership with local livestock producers. Any revenue generated as a result of this appropriation must be reinvested in producing plans, conducting maintenance, or building infrastructure for new or existing conservation grazing efforts. This appropriation is available until June 30, 2016, by which time the project must be completed and final products delivered.

I. PROJECT TITLE: Conservation Grazing on WMAs in the Prairie Region

II. PROJECT STATEMENT: Periodic disturbances, such as grazing and fire, are necessary to invigorate grasslands. While fire has been used for decades, DNR Wildlife Managers are beginning to use conservation grazing as a management tool to increase habitat diversity for the benefit of game and nongame wildlife. Many suitable grazing areas lack boundary fencing. This project will provide needed infrastructure to implement conservation grazing on 5,000 acres of targeted Wildlife Management Areas (WMAs). We will prioritize the original 10,000 acres to 5,000 acres through the implementation process.

Grazing animals were a crucial part of the original prairie ecosystem. Grazing increases the diversity in the plant community and provides structural diversity. The shorter grass of grazed areas enhances habitat for several prairie obligate birds of high conservation interest, including greater prairie chicken, marbled godwit, upland sandpiper, western meadowlark, loggerhead shrike, and chestnut-collared longspur. Grazing infrastructure will provide the capability to use grazing as a management tool (5,000 acres represents less than .05% of the WMA acreage). With the option of grazing on state grasslands, wildlife managers can form agreements with livestock producers to rest their pastures thus improving the quality of habitat on private lands. These public-private partnerships will benefit local economies and habitat.

The DNR sees conservation grazing as a tool by which wildlife management objectives can be accomplished with reduced costs and at a landscape scale which is additive to our other management tools such as fire. This is not about producing more or heavier cows but rather achieving management objects such as increasing plant and structural diversity which in turn increase insect abundance which increases wildlife productivity of both game and nongame species.

It is important for the public (DNR) to own the permanent infrastructure on WMAs. Permanent fencing, gates, etc. is necessary on the perimeter of units to ensure that sound, safe and hunter friendly conditions exist both at the time of grazing as well as when the parcel is being rested. While the public needs to maintain control of permanent perimeter infrastructure we will expect producers to provide, install, maintain and remove temporary infrastructure such as internal temporary fence, watering devices (when necessary), salt licks, portable corrals, etc.

There are two options for developing grazing agreements with producers; Cooperative Farming Agreements (a bartering system) and cash leases via a competitive bid process. CFAs exchange work for grazing rights. In addition to installing and maintaining temporary fence, monitoring grass conditions, and moving cattle between paddocks, cooperators may be asked to install food plots, spray weeds, etc. With CFAs no money exchanges hands. This is the mechanism that has been used in the past to accomplish much work on WMAs.

With a cash lease system producers competitively bid for grazing rights. This system has not been used previously by DNR. There appear to be both pros and cons to this method and we believe that it is worth trying. Pros include: 1) Generating revenue that can be reinvested into the grazing program with the goal of becoming financially self-sustaining, 2) The Minnesota Cattleman's Association has asked us to make this option available, 3) There is a "fairness" (real or perceived) about going out for bid. Con's include having potentially different grazers to work with each year rather than developing a long-term relationship built upon trust and the desire for future mutual benefit and, the necessity of tracking and proportionally allocating revenue back to one or more funding sources. We do expect that there will not be significant revenue generated through leasing as producers will be expected to install and maintain temporary fence, monitor grass conditions and move cattle from paddock to paddock just as we would with a CFA. These work expectation will very likely reduce bid amounts.

The goals and outcomes of this project include the following:

1) Improve habitat quality; reduce management costs; replicate natural processes/disturbances to increase natural diversity through the careful and well-timed placement of livestock on WMAs.

2) Increase the amount of grazing on state WMAs from the current 10,179 acres to approximately 15,000acres. Our long-term goal is to have conservation grazing on 50,000 acres.

3) MN WMAs belong to the public and must be managed to maintain their long-term ecological integrity. Therefore, grazing will occur where it is most needed to achieve management objectives.

4) Provide economic benefits to local grass-based livestock operators and beginning/organic farmers.

5) Provide private jobs through contracts for installing the fencing and other needed infrastructure.

6) Monitoring will be instituted on a sample of grazing sites in order to provide information that will inform the development of grazing plans that ultimately result in desired ecological conditions.

7) Monitoring will also provide information critical to ensuring that adverse impacts are minimized. Conservation grazing needs to be managed to ensure that overgrazing does not occur. Overgrazing may cause erosion, habitat destruction, soil compaction, or reduced biodiversity. Grazing will be terminated when necessary.

8) Minimize the potential for invasive species.

9) Develop a conservation grazing curriculum that meets high school science standards for agricultural education students.

III. PROJECT STATUS UPDATES:

Project Status as of: Dec. 31, 2013

Project Status as of: Aug. 31, 2014

Project Status as of: Dec. 31, 2014

Project Status as of: Aug. 31, 2015

Project Status as of: Dec. 31, 2015

Project Status as of: A final report and associated products will be submitted between June 30 and August 15, 2016 as requested by the LCCMR.

IV. PROJECT ACTIVITIES AND OUTCOMES:

ACTIVITY 1: Private livestock producers will graze about 5,000 acres of WMA land in the prairie region
Sufficient infrastructure will be installed on WMAs to allow private livestock producers to graze about 5,000 acres in the prairie region for wildlife management purposes. Infrastructure may include permanent perimeter fence, gates, hunter access points, fencing around sensitive areas, water sources, etc. However, not all of these will be needed at each site. Grazing plans will be developed for each site that identifies wildlife management objectives and the grazing prescriptions that will achieve them.

Description:

Summary Budget Information for Activity 1:

ENRTF Budget: $ 522,240
Amount Spent: $ 0
Balance: $ 522,240

Activity Completion Date:

Outcome	Completion Date	Budget
Grazing infrastructure will be installed. - Fence approx. 64 mi @ $1.30/ft. See map for examples of number of miles of fence required for some projects and the number of acres that will be enclosed. - Solar panels that provide energy for boundary and internal fences as well as water pumps in remote locations - Gates where necessary - Hunter access points which allow hunters to pass easily and safely but prevent cattle from escaping (For example a "zig-zag" in the fence) Identify the conservation objectives (wildlife focus) and develop grazing plans. Grazing agreements will be executed with private livestock producers (mainly beef cattle and cow/calf). Approximately 5,000 acres of public land will be grazed to enhance habitat.	June 30, 2016	$522,240

Activity Status as of: Dec. 31, 2013

Activity Status as of: Aug. 31, 2014

Activity Status as of: Dec. 31, 2014

Activity Status as of: Aug. 31, 2015

Activity Status as of: Dec. 31, 2015

Final Report Summary: A final report and associated products will be submitted between June 30 and August 15, 2016 as requested by the LCCMR.

ACTIVITY 2: Measure the ecological response of grazing on habitat condition and wildlife species. Communicate monitoring results and adjust management practices. Evaluate livestock producers' response to conservation grazing.

Measure the ecological response of grazing on habitat condition and wildlife species. Measuring changes in plant and structural diversity, invasive species abundance, soil conditions, etc will allow adaptive management practices to be implemented which will increase future effectiveness of grazing applications. Communicate monitoring results and adjust management practices. Evaluate livestock producers' response to conservation grazing.

Summary Budget Information for Activity 2:

ENRTF Budget: $ 56,200
Amount Spent: $ 0

Balance: $56,200

Activity Completion Date:

Outcome	Completion Date	Budget
1. Existing habitat condition, as measured by the diversity and abundance of native plants and wildlife, is maintained or improved. The heterogeneity in the targeted prairie supports a broad base of grassland birds and wildlife as a result of the grazing. Local resource managers are equipped to measure if conservation objectives have been met.	June 30, 2016	$56,200

Activity Status as of: Dec. 31, 2013

Activity Status as of: Aug. 31, 2014

Activity Status as of: Dec. 31, 2014

Activity Status as of: Aug. 31, 2015

Activity Status as of: Dec. 31, 2015

Final Report Summary: A final report and associated products will be submitted between June 30 and August 15, 2016 as requested by the LCCMR.

ACTIVITY 3: Collaborate with Future Farmers of America to develop a teaching tool for Conservation Grazing and educate the public about the objectives of conservation grazing.

Collaborate with Future Farmers of America to develop a teaching tool for Conservation Grazing and educate the public about the objectives of conservation grazing. The curriculum will target high school agricultural education students with interest in natural resources. This curriculum will supplement education in natural resources and wildlife management techniques. There will likely be two components: one a brief introduction to conservation grazing that will fit in with existing curriculum or for informing the general public and a second advanced course with a field study component. There are many small WMAs that could benefit from grazing where it would be difficult to entice a commercial producer to stock cows, simply because stocking rates would be so low. However, these sites would be ideal for student projects. Thus the public will receive benefit through habitat improvement on small parcels and students will receive practical experience in conservation grazing.

Summary Budget Information for Activity 3:

ENRTF Budget: $ 21,560
Amount Spent: $ 0
Balance: $ 21,560

Activity Completion Date:

Outcome	Completion Date	Budget
1. Develop conservation grazing curriculum that meets high school science standards for agricultural education students with interest in natural resources, including FFA students. Encourage students to do projects on WMAs. Share curriculum with others for their Prairie training programs. Contract curriculum writer may be a high school science teacher or other qualified writer. Final product will be posted on DNR Academic Standards Correlation Database and DNR education webpage at a minimum.	June 30, 2016	$21,560

Activity Status as of: Dec. 31, 2013

Activity Status as of: Aug. 31, 2014

Activity Status as of: Dec. 31, 2014

Activity Status as of: Aug. 31, 2015

Activity Status as of: Dec. 31, 2015

Final Report Summary: A final report and associated products will be submitted between June 30 and August 15, 2016 as requested by the LCCMR.

V. DISSEMINATION: This is primarily an infrastructure project; however, information learned will be shared with DNR staff and our partners through our normal information dissemination channels such as DNR staff meetings, professional conferences, etc.

Description:

Status as of: Dec. 31, 2013

Status as of: Aug.31, 2014

Status as of: Dec. 31, 2014

Status as of: Aug. 31, 2015

Status as of: Dec. 31, 2015

Final Report Summary: A final report and associated products will be submitted between June 30 and August 15, 2016 as requested by the LCCMR.

VI. PROJECT BUDGET SUMMARY:

A. ENRTF Budget:

Budget Category	$ Amount	Explanation
Professional/Technical/Service Contracts:	$538,861	Fencing contracts under competitive bid for purchase & installation of approx. 64 miles of fence @ 1.30/ft x5280ft/mi=$440,011 (includes grass mowing and small brush clearing), Installation of approx 50 gates16-ft & hunter access gates @ $285 for both=$14,250; Installation of electric hookup or solar energizers & solar panels ($800ea/20=$16,000) Installation of 20 cattle exclosure fences for monitoring @ 5 WMAs $430each x 4/site =$8,600. One Botanist for 2 years = $40,000

		(potentially DNR employees); Contract for curriculum writer=$20,000
Equipment/Tools/Supplies:	$1,000	At least 160 Aluminum Grazing notification signs required by law @ $6/ea=$1,000;
Travel Expenses in MN:	$10,800	For habitat monitoring $10,800
Direct and Necessary Services for the Appropriation	$49,339	Direct Support Services- DNR's direct and necessary business services required to support this proposal.
TOTAL ENRTF BUDGET:	**$600,000**	

Explanation of Use of Classified Staff: N/A

Explanation of Capital Expenditures Greater Than $3,500: N/A

Number of Full-time Equivalent (FTE) funded with this ENRTF appropriation: N/A

Number of Full-time Equivalent (FTE) estimated to be funded through contracts with this ENRTF appropriation: N/A

B. Other Funds:

Source of Funds	$ Amount Proposed	$ Amount Spent	Use of Other Funds
Non-state Other Non-State $ Being Applied to Project During Project Period: USDA General Funds and EQIP Funds	150,000		NRCS Grazing Specialists to write Grazing Plans at approximately $30/acre for 5,000 acres=$150,000. This includes writing, travel, time spent meeting with representatives of DNR, etc.
State: MDA General Funds & dedicated funds	$12,600		MN Dept. of Agriculture Livestock Development Team - mapping, promotions and outreach to livestock producers to find cooperators at 20 locations x 10 hrs ea. x $35/hr = $7,000. Field demonstration days, conservation walks, and workshops to train partners on livestock and conservation grazing four programs in 2 yrs x 40 hrs x $35 = $5,600.
TOTAL OTHER FUNDS:	**$162,600**	**$**	

VII. PROJECT STRATEGY:

A. Project Partners: Funds for this project will go to the DNR, primarily for contracts. Project assistance will be provided by: the Minnesota Department of Agriculture (MDA), Minnesota Grazing Lands Conservation Association, Minnesota State Cattlemen's Association, Board of Water and Soil Resources (BWSR), Natural Resource Conservation Service (NRCS), U.S. Fish and Wildlife Service (USFWS), Soil and Water Conservation Service (SWCD), The Nature Conservancy, and the Land Stewardship Project in helping locate prospective grazing partners. Pheasants Forever, Ducks Unlimited, Minnesota Prairie Chicken Society, and other conservation groups have offered to help educate our interest groups about this new management practice and the resource benefits.

B. Project Impact and Long-term Strategy: Conservation grazing will continue on these sites using adaptive management protocols. Information learned from this process will be applied to other WMAs as the DNR

grazing program expands. Ultimate results will be increased plant and structural diversity leading to greater insect abundance and increased wildlife populations on WMAs.

C. Spending History:

Funding Source	M.L. 2007 or FY08	M.L. 2008 or FY09	M.L. 2009 or FY10	M.L. 2010 or FY11	M.L. 2011 or FY12-13

VIII. ACQUISITION/RESTORATION LIST: N/A

IX. MAP(S): See Attachment

X. RESEARCH ADDENDUM: N/A

XI. REPORTING REQUIREMENTS:
Periodic work plan status update reports will be submitted not later than Dec. 31, 2013, Aug. 31, 2014, Dec. 31, 2014, Aug. 31, 2015 and Dec 31, 2015. A final report and associated products will be submitted between June 30 and August 15, 2016 as requested by the LCCMR.

Environment and Natural Resources Trust Fund

M.L. 2013 Acquisition/Restoration List

Project Title: Conservation Grazing to Improve Wildlife Habitat on Wildlife Management Areas

Project Manager Name: Mike Tenney

M.L. 2013 ENRTF Appropriation: $600,000

#	Parcel Name	Geographic Coordinates		Estimated Cost	County	Ecological Status	Activity Description	# of Acres	Grazing Plan Writer	WMA Manager	Project Status	Prairie Plan Location
		Latitude	Longitude									
1	Caribou WMA	48.97658	-96.57022	TBD	Kittson	Brushy, degraded/overgrown native prairie	6.5 miles of fencing, open corridor, water, 5 gates	1100		Christine Reisz	Confirmed site	Core
2	*Pittman-Roberson WMA - in limbo due to NRCS Indemnification clause*			*TBD*	*Polk*	*Combination of degraded native prairie, restored prairie, and brushland*	*1 mile new fencing, 2 miles upgrading, water pump and tank for existing well.* ***470 acres***			*Ross Hier*	*Pending*	*Core*
3	Neal WMA	47.18933	-96.33408	TBD	Norman	Combination of restored prairie and degraded native prairie	3 miles of fencing, need water pump, tanks, 1 gate, 1 solar panel, no funds for well, may need to haul water. Possibly additional **140 acres** if land sale with TNC goes through.	250	Wayne Monson - MDA	Blane Klemek	Confirmed site	Core
4	Fergus Falls WMA	46.30164	-96.09142	TBD	Otter Tail	Restored prairie	3 Units - 6.2 miles of fencing, need water pump, tanks, 5 gates, solar panels	310		Don Schultz	Confirmed site	Core
5	Barnseville WMA	46.76517	-96.36107	TBD	Clay	Combination of degraded native prairie, restored, and brushland	2.1 miles of fence, open corridor/remove some trees, water pump, line & tanks, 2 gates, solar panels	170		Don Schultz	Confirmed site	Corridor complex
6	Rothsay WMA	46.45073	-96.35668	TBD	Wilkin	Combination of degraded native prairie, & restored prairie	10 miles of fencing, open corridor/remove some trees, water pump, line & tanks, 7-10 gates, solar panels	345		Don Schultz	Confirmed site	Core
7	Doran WMA	46.15356	-96.24167	TBD	Otter Tail	Mostly restored prairie, 3 acres of native prairie	5.5 miles of fence	554		Don Schultz	Confirmed site	Corridor complex
8	Eldorado WMA	45.72561	-96.14238	TBD	Gramt	Restored prairie	3 miles of fencing, need water pump, line & tanks, 1 gate, 1 solar panel	320	Kelly Anderson MDA	Kevin Kotts	Confirmed site	Corridor
9	Wilts WMA	45.83615	-96.06747	TBD	Grant	Restored prairie	2.1 miles of fencing, need water pump, line & tanks, 1 gate, 1 solar panel	80	Kelly Anderson - MDA	Kevin Kotts	Confirmed site	Corridor complex
10	Lac qui Parle WMA	45.17718	-96.06986	TBD	LQP/Swift	Restored prairie and degraded native prairie	Reippel Tract 4.5 miles of fencing, water ? 3 gates, 3 hunter access, 1 solar panel	540		Dave Trauba	Confirmed site	Core
11	Swan Lake WMA Courtland Middle Unit	44.34785	-94.27408	TBD	Nicollet	Restored Prairie and Wetlands	4 Miles of Fence, 2 gates	195		Joe Stangel	Confirmed site	Ag Matrix
12	Ras-Lynn WMA	44.34785	-94.27408	TBD	McLeod	Restored Prairie and Wetlands	7.1 miles, 4 Gates	648		Joe Stangel	Confirmed site	Ag Matrix
13	Lane WMA	44.34785	-94.27408	TBD	Faribault	Combination of Restored Prairie and Old Pasture	1.24 Miles of Fence Needed and 4 Gates, two pumps and tanks	60		Joe Stangel	Confirmed site	Ag. Matrix
							TOTAL ACRES	**4572.00**				

NOTES: The geographical emphisis of this grazing project will be in the Prairie Plan core and corridor areas. Due to a variety of reasons, some of our intial site selections have been postponed or dropped. Additional sites in the Agricultura Matrix area will be determined in the near future and an amendment will be requested. We seek to achieve 5,000 -10,000 acres of conservation grazing, as funding permits. Initial target is 5,000 acres.

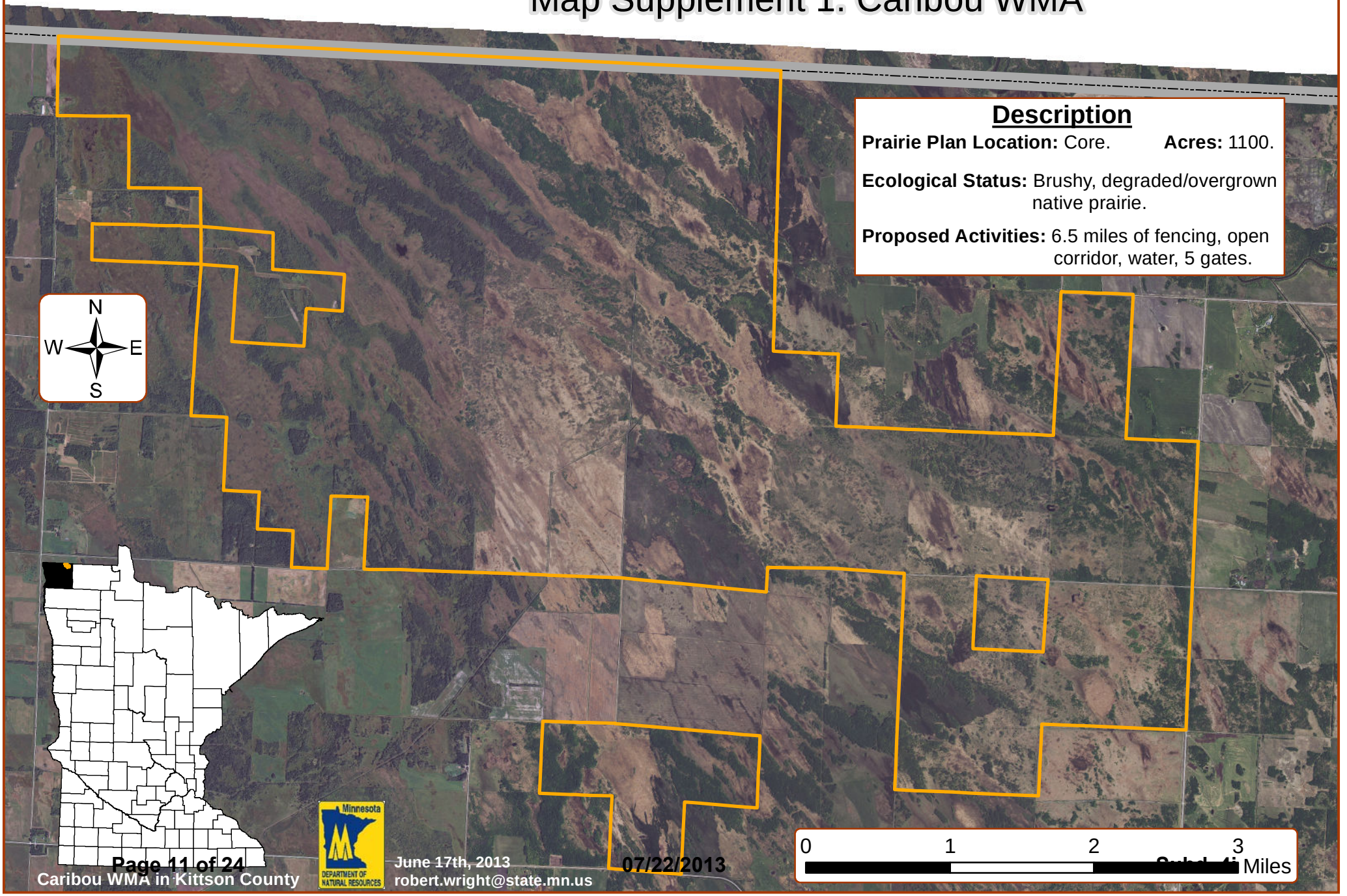
Attachment A: Budget Detail for M.L. 2013 Environment and Natural Resources Trust Fund Projects

Project Title: CONSERVATION GRAZING ON WMAs IN THE PRAIRIE REGION
Legal Citation: M.L. 2013, Chp. 52, Sec. 2, Subd. 04i
Project Manager: Mike Tenney
M.L. 2013 ENRTF Appropriation: $ 600,000
Project Length and Completion Date: 3 years - June 30, 2016
Date of Update: 5-15-13

ENVIRONMENT AND NATURAL RESOURCES TRUST FUND BUDGET	Activity 1 Budget	Amount Spent	Balance	Activity 2 Budget	Amount Spent	Balance	Activity 3 Budget	Amount Spent	Balance	TOTAL BUDGET	TOTAL BALANCE
BUDGET ITEM	Private livestock producers will graze about 5,000 acres of WMA land in the prairie region.			Measure the ecological response of grazing on habitat condition and wildlife species. Communicate monitoring results and adjust management practices. Evaluate livestock producers' response to conservation grazing.			Collaborate with Future Farmers of America to develop a teaching tool for Conservation Grazing and educate the public about the objectives of conservation grazing.				
Professional/Technical/Service Contracts Fencing contracts for purchase & installation of 64 miles of fence @ 1.30/ft x5280ft/mi=$440,011 (includes grass mowing and small brush clearing with an ASV with mowing head and grinding head), Installation of approx 50 gates16-ft & hunter access gates @ $285 for both=$14,250; Installation of electric hookup or solar energizers & solar panels ($800ea/20=$16,000) Installation of cattle exclosure fences for monitoring @ 5 WMAs $430each x 4/site=$8,600.	478,861	0	478,861							478,861	478,861
One Botanist for 2 years - **contract** per standard DNR contractual process.				40,000	0	40,000				40,000	40,000
Curriculum writer-**contract** per standard DNR contractual process.							20,000	0	20,000	20,000	20,000
Direct and Necessary Services for the Appropriation	42,379	0	42,379	5,400	0	5,400	1,560	0	1,560	49,339	49,339
Equipment/Tools/Supplies At least 160 Aluminum Grazing notification signs required by law @ $6/ea=$1,000; $6,000/yr for 3 yrs for coordinator communications, supplies, computer services, postage, etc=$18,000.	1,000	0	1,000							1,000	1,000
Travel expenses in Minnesota For habitat monitoring $10,800; – fleet and other travel expenses				10,800	0	10,800				10,800	10,800
COLUMN TOTAL	**$522,240**	**$0**	**$522,240**	**$56,200**	**$56,200**	**$56,200**	**$21,560**	**$21,560**	**$21,560**	**$600,000**	**$600,000**

LCCMR Project Proposal Title: Conservation Grazing to Improve Wildlife Habitat on Wildlife Management Areas

Map Supplement 1: Caribou WMA



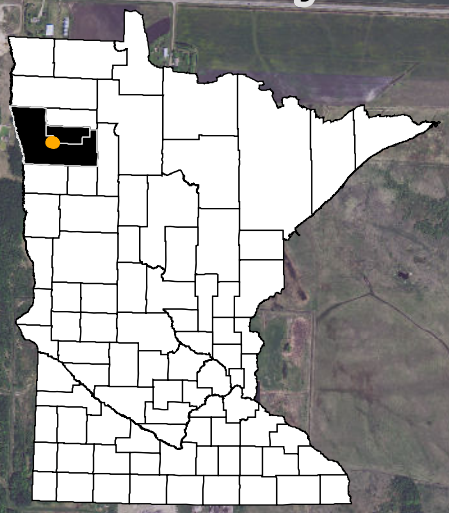
Caribou WMA in Kittson County

June 17th, 2013
robert.wright@state.mn.us

07/22/2013

LCCMR Project Proposal Title: Conservation Grazing to Improve Wildlife Habitat on Wildlife Management Areas

Map Supplement 2: Pittman-Robertson WMA



Pittman-Robertson in Polk and Red Lake Counties

Description

Prairie Plan Location: Core. **Acres:** 470.

Ecological Status: Combination of degraded native prairie, restored prairie, and brushland.

Proposed Activities: 1 mile new fencing, 2 miles upgrading, water pump and tank for existing well.

Polk County

Red Lake County

N

W E

S

0 0.25 0.5 0.75 1 Miles

Minnesota Department of Natural Resources

robert.wright@state.mn.us

07/22/2013

Subd. 4i

LCCMR Project Proposal Title: Conservation Grazing to Improve Wildlife Habitat on Wildlife Management Areas

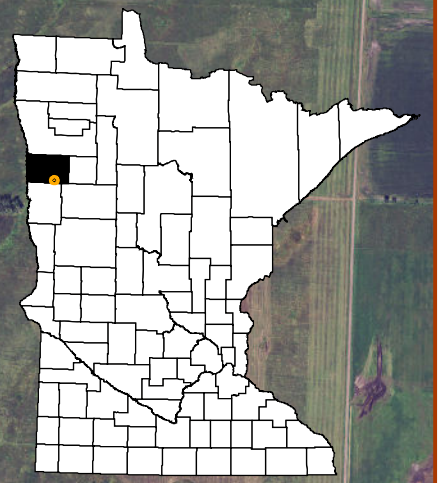
Map Supplement 3: Neal WMA

Description

Prairie Plan Location: Core. **Acres:** 250.

Ecological Status: Combination of restored prairie and degraded native prairie.

Proposed Activities: 3 miles of fencing, water pump, tanks, 1 gate, 1 solar panel.



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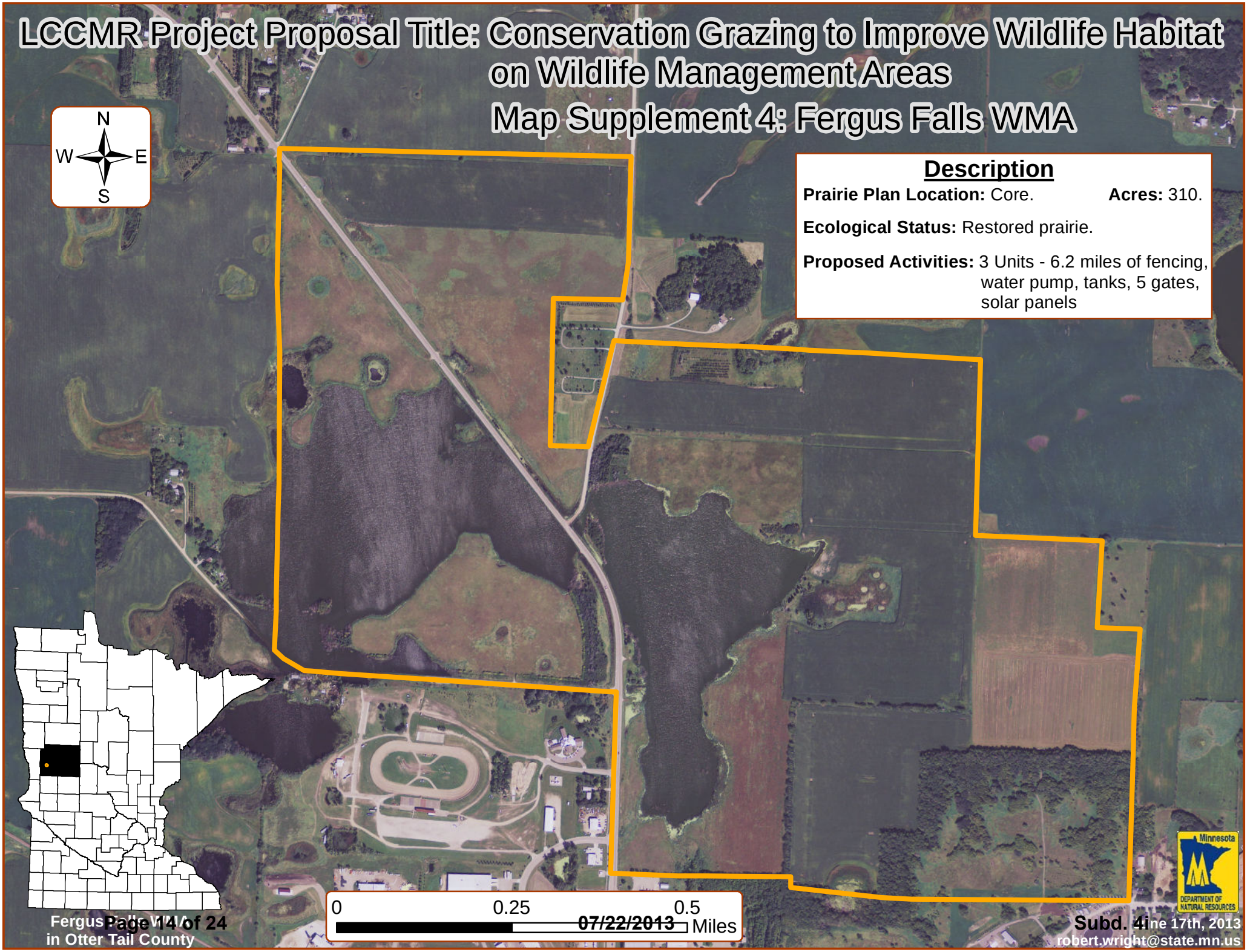
Minnesota Department of Natural Resources

June 27th, 2013
robert.wright@state.mn.us

LCCMR Project Proposal Title: Conservation Grazing to Improve Wildlife Habitat on Wildlife Management Areas

Map Supplement 4: Fergus Falls WMA



Description

Prairie Plan Location: Core. **Acres:** 310.

Ecological Status: Restored prairie.

Proposed Activities: 3 Units - 6.2 miles of fencing, water pump, tanks, 5 gates, solar panels

Fergus Falls WMA
in Otter Tail County

Subd. 4 June 17th, 2013
robert.wright@state.mn.us

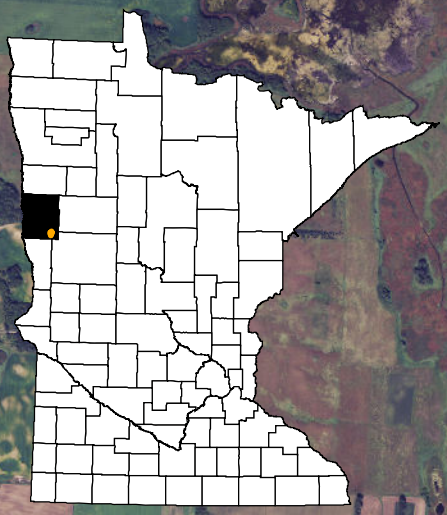
LCCMR Project Proposal Title: Conservation Grazing to Improve Wildlife Habitat on Wildlife Management Areas
Map Supplement 5: Barnesville WMA

Description

Prairie Plan Location: Core. **Acres:** 170.

Ecological Status: Degraded native prarie, restored prairie, and brushland.

Proposed Activities: 2.1 miles of fencing, water pump, tanks, 2 gates, solar panels. Remove trees.



Barnesville WMA in Clay County

June 17th, 2013
robert.wright@state.mn.us

07/22/2013

Subd. 4i

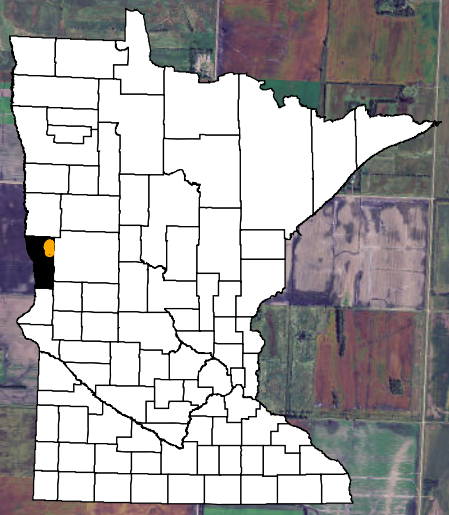
LCCMR Project Proposal Title: Conservation Grazing to Improve Wildlife Habitat on Wildlife Management Areas
Map Supplement 6: Rothsay WMA

Description

Prairie Plan Location: Core. **Acres:** 345.

Ecological Status: Degraded native prarie, restored prairie.

Proposed Activities: 10 miles of fencing, water pump, tanks, 7-10 gates, solar panels. Remove trees.



Rothsay WMA in Wilkin County

N W E S

0 0.5 1 1.5 2 2.5 Miles

Minnesota Department of Natural Resources

June 17th, 2013
robert.wright@state.mn.us

07/22/2013

Subd. 4i

LCCMR Project Proposal Title: Conservation Grazing to Improve Wildlife Habitat on Wildlife Management Areas

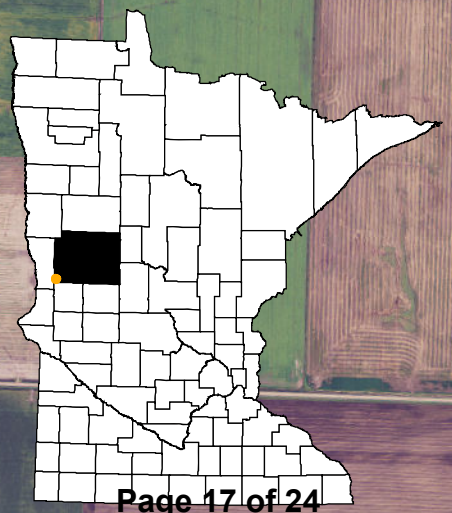
Map Supplement 7: Doran WMA

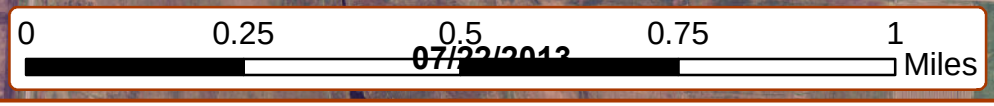
Description

Prairie Plan Location: Core. **Acres:** 554.

Ecological Status: Mostly restored prairie; 3 acres of native prairie.

Proposed Activities: 5.5 miles of fencing





Doran WMA in Otter Tail County

07/22/2013

Subd. 4i

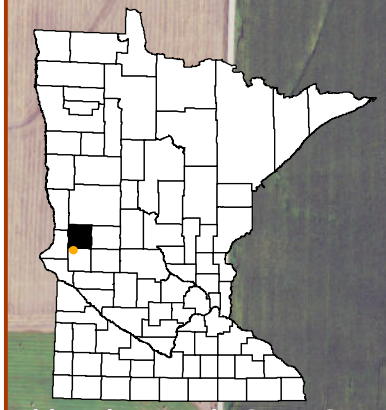
June 17th 2013

robert.wright@state.mn.us

Minnesota Department of Natural Resources

LCCMR Project Proposal Title: Conservation Grazing to Improve Wildlife Habitat on Wildlife Management Areas

Map Supplement 8: Eldorado WMA



Eldorado WMA in Grant County

Description

Prairie Plan Location: Corridor. **Acres:** 320.

Ecological Status: Restored prairie.

Proposed Activities: 3 miles of fencing, pump, tanks, 1 gate, 1 solar panel

N
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0 0.1 0.2 0.3 0.4 0.5 Miles

07/22/2013

Minnesota Department of Natural Resources

Jason Wright 2013
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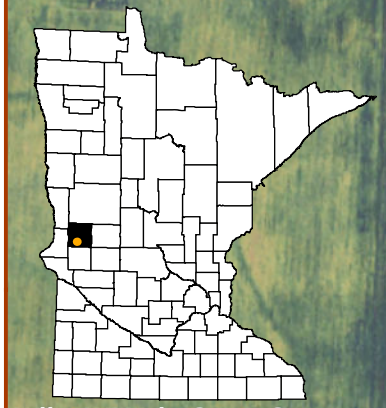
LCCMR Project Proposal Title: Conservation Grazing to Improve Wildlife Habitat on Wildlife Management Areas

Map Supplement 9: Wilts WMA



Wilts WMA in Grant County

Description

Prairie Plan Location: Corridor Complex. **Acres:** 80.

Ecological Status: Restored prairie.

Proposed Activities: 2.1 miles of fencing, pump, tanks, 1 gate, 1 solar panel

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0 0.1 0.2 0.3 Miles

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June 27th, 2013
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Map Supplement 10: Lac qui Parle WMA

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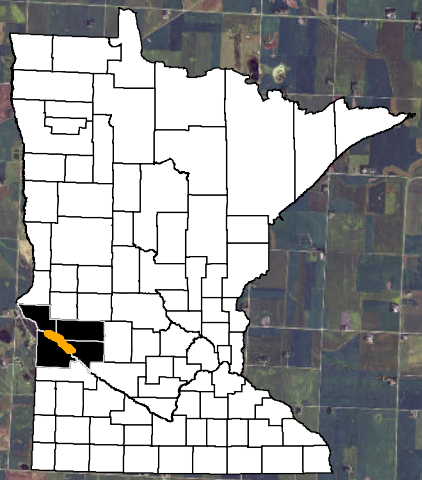
Description

Prairie Plan Location: Core. **Acres:** 540.

Ecological Status: Restored prairie and degraded native prairie.

Proposed Activities: 4.5 miles of fencing, water?, 3 gates, 3 hunter access, 1 solar panel



Lac qui Parle WMA in Big Stone, Chippewa, Lac qui Parle and Swift Counties

0 1 2 3 4 5 Miles

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June 7th, 2013
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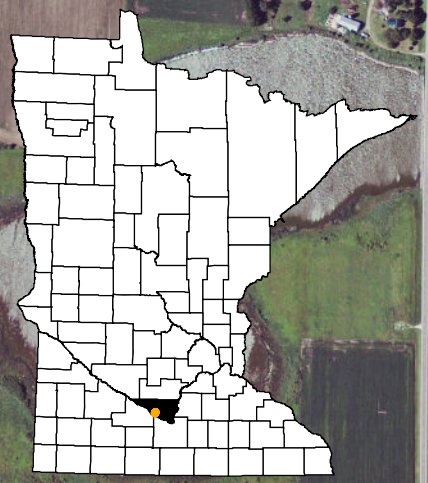
Map Supplement 11: Swan Lake WMA; Courtland Central Unit



Swan Lake WMA;
Courtland Central Unit
in Nicollet County

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Description

Prairie Plan Location: Ag Matrix. **Acres:** 195.

Ecological Status: Restored prairie and wetlands.

Proposed Activities: 4 miles of fencing, 2 gates.

0 0.25 0.5 Miles

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June 27th, 2013
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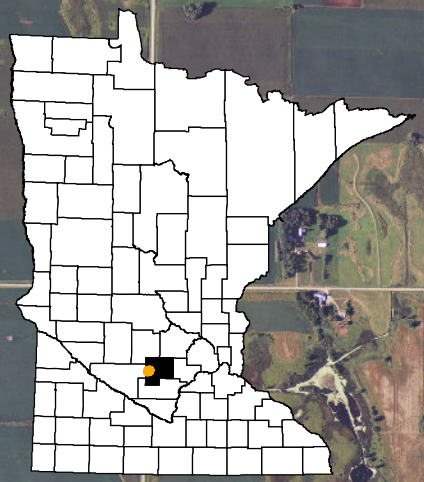
Map Supplement 12: Ras-Lyn WMA



Ras-Lyn WMA in McLeod County

Description

Prairie Plan Location: Ag Matrix. **Acres:** 648.

Ecological Status: Restored prairie and wetlands.

Proposed Activities: 7.1 miles of fencing, 4 gates.

June 27th 2023
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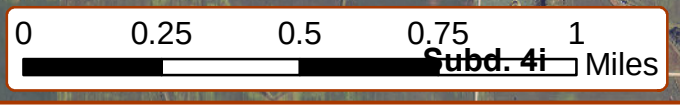

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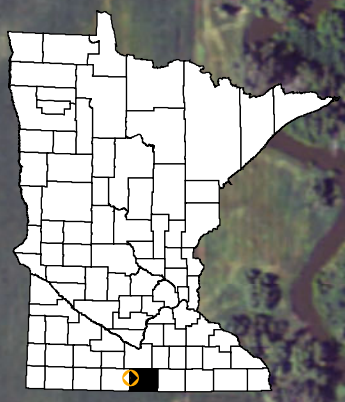
Map Supplement 13: Lane WMA



Lane WMA in Faribault County

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Description

Prairie Plan Location: Ag Matrix. **Acres:** 60.

Ecological Status: Restored prairie and old pasture.

Proposed Activities: 1.25 miles of fencing, two pumps and tanks, 4 gates.

0 0.1 0.2 Miles

Minnesota Department of Natural Resources

June 17th, 2013
robert.wright@state.mn.us

07/22/2013

Subd. 4i