



Lessard-Sams Outdoor Heritage Council

Moose Habitat Collaborative, Phase IV - NE MN Forest Habitat Enhancement
Laws of Minnesota 2021 Accomplishment Plan

General Information

Date: 04/30/2025

Project Title: Moose Habitat Collaborative, Phase IV - NE MN Forest Habitat Enhancement

Funds Recommended: \$1,809,000

Legislative Citation: ML 2021, First Sp. Session, Ch. 1, Art. 1, Sec. 2, subd. 3(f)

Appropriation Language: \$1,809,000 the first year is to the commissioner of natural resources for an agreement with the Ruffed Grouse Society to restore and enhance public forest lands in the northern forest region for moose habitat purposes. A list of proposed land restoration and enhancements must be provided as part of the required accomplishment plan.

Manager Information

Manager's Name: Scott Johnson

Title: Forest Conservation Coordinator: MN and NW WI

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Location Information

County Location(s): Cook, Lake and St. Louis.

Eco regions in which work will take place:

Northern Forest

Activity types:

Enhance

Priority resources addressed by activity:

Habitat

Narrative**Abstract**

The Ruffed Grouse Society (RGS), in collaboration with federal, state, county, tribal, university and non-governmental organizational (NGO) partners, seeks to continue the successful work of previous Moose Habitat Collaborative (Collaborative) grants to stabilize/sustain Minnesota's moose population by enhancing ~8,000 acres of cover/forage habitat for moose. The project builds on the Collaborative's Phase I-III efforts to improve degraded forest habitats by increasing stand complexity through mixed density/cover type planting methods which enhances overall moose habitat across the landscape. Also, non-grant timber harvests planned in coordination with this grant increase the occurrence of early successional/forage.

Design and Scope of Work

Moose have an iconic status in Minnesota and are a critical component of the cultural identity, hunting heritage and recreational economy of northern Minnesota. Over the past two decades Minnesota's moose population has dramatically fallen, from an estimated 8,840 in 2006 to this year's (2020) estimate of 3,150. Due to a growing public concern and state listing in 2013, the following actions have been undertaken to date:

- the Minnesota Legislature directed the Minnesota Department of Natural Resources (DNR) to establish a Moose Advisory Committee (MAC; August 2009 report).
- primarily based on MAC report recommendations, the DNR completed a Minnesota Moose Research and Management Plan (Moose Plan; December 2011). The strategic vision for this plan is: "Moose have intrinsic value and are recognized for their importance to Minnesota. To the greatest extent possible, moose shall be managed for ecological sustainability, hunting, and viewing opportunities." This plan includes objectives for research, high quality habitat, social science considerations, and dissemination and use of plan information.
- to address research objectives, significant efforts/projects have been undertaken to date: an adult moose mortality study (2013-16), moose calf mortality study (2013-17), and a winter nutrition study (2016-2020).
- to address habitat objectives, significant habitat management efforts have been accomplished through the Moose Habitat Collaborative and related LSOHC Moose Habitat Collaborative grants they have received for Phase I (2,049 acres, \$914,100 in grant funds), Phase II (5,164 acres, \$1,996,400 grant funds), as well as currently funded Phase III (proposed 10,000 affected acres, \$1,938,000 in grant funds).

Due to the success of Moose Habitat Collaborative Phase I-III grants, Collaborative partners would like to build on this success through a FY22 LSOHC grant which will target another ~8,000 acres to enhance/affect at a grant request of ~\$1,809,000.

This effort will again be steered by a broad range of partners that make up the Moose Habitat Collaborative.

Current partners and roles are:

- NGOs: Ruffed Grouse Society (new for Phase IV - grant sponsor, program manager duties, fiscal agent), The Nature Conservancy (site, project, and public land administrator coordination), MN Deer Hunters Association.
- Public land administrators: Superior National Forest; MN DNR – Division of Forestry and Division of Fish and Wildlife; Cook, Lake, St. Louis Counties (site/land manager)
- Tribal authorities: 1854 Treaty Authority, Fond du Lac Band of Lake Superior Chippewa (research/technical)
- Habitat research: University of Minnesota Duluth, Natural Resources Research Institute (UMD-NRRI,

research/technical)

Collaborative partners will again work together to choose sites with forest stands that are either partially harvested, decadent, poorly stocked with trees, or provide such poor forage conditions that they are of little or no benefit to moose. This process is guided by the initial designation of priority moose project/landscape areas, the use of a site level checklist/project documentation form to ensure habitat enhancements are properly vetted, and the use of ongoing site monitoring/validation efforts that serve as a final check/adaptive management step.

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

As noted in previous sections of this grant application, since 2009 Minnesota has undertaken a series of moose assessments, plans, research, monitoring and habitat enhancement efforts that has included the listing of moose as a species of special concern in 2013, notation as such in Minnesota's current Wildlife Action Plan (MN WAP), and the use of a moose as a cover image and wildlife population indicator in DNR's Conservation Agenda, 10-year Strategic Plan. While moose habitat enhancement actions described in this accomplishment plan reflect a primary goal of managing northern forests with an emphasis on moose habitat, numerous other wildlife populations and species of greatest conservation need (SGCN) are also benefited through: 1) various prescribed fire, brush removal, and selective restoration planting techniques being proposed in this grant, and 2) additional non-grant timber harvest that are planned/implemented in conjunction with this grant.

From a "If we build it, they will come" perspective, the following lists SGCN species by two of the primary habitats/native plant communities enhanced by this grant's efforts (White Pine – Red Pine Forest/FDn43a, and, Aspen – Birch Forest /FDn43b).

- Mammals: moose (winter/summer cover and forage), Canada lynx, smoky shrew, northern long-eared bat, and eastern heather vole.
- Birds: Evening Grosbeak, Olive-sided Flycatcher, Spruce Grouse, Purple Finch, Connecticut Warbler, Black-backed Woodpecker, American woodcock, Winter Wren, and the Boreal Owl.

Ultimately, this project will encourage a heterogeneous forest habitat matrix resulting in a landscape that is more resilient, providing for an ecologically diverse and balanced landscape condition with greater benefit to moose, SGCN species, and wildlife as a whole.

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

Collaborative biologists, foresters, ecologists and GIS specialists utilize GIS modeling analysis as well as their expertise and field knowledge to select priority landscapes and parcels/sites that have the best potential to achieve project goals to enhance forest habitats for moose as well as other wildlife species that share an affinity to these enhanced moose habitats. At a landscape scale this involves use of USFS moose project management areas and pending DNR moose management opportunity areas. At the site level this is vetted through the use of a Moose Habitat Project Documentation form that lists: 1) Native Plant Community dynamics and a Landscape Context, 2) Short-term desired future condition, 3) Long-term desired future condition, 4) Methods (treatment), 5) Biologist comments, and 6) a listing of moose habitat guidelines.

Also, Collaborative partners will continue to assess the outcomes of different treatment methods and their effectiveness with regard to vegetative response, use by moose and other wildlife species. This analysis has been ongoing since Phase I, and includes:

- Site Verification of Moose Habitat Restoration Report (UMD-NRRI, 2017),
- Monitoring of Moose Habitat Restoration Site Reports (2017, 2018, and 2019) by the 1854 Treaty Authority, and,
- Moose Habitat Survey Reports (annual) by the Fond du Lac Band of Lake Superior Chippewa.

Which two sections of the Minnesota Statewide Conservation and Preservation Plan are most applicable to this project?

H1 Protect priority land habitats

LU10 Support and expand sustainable practices on working forested lands

Which two other plans are addressed in this program?

Moose Advisory Committee Report to the Minnesota DNR

Other : Other: MN Moose Research and Management Plan; MN Forest Resources Council - NE Forest Resources Plan; MN Wildlife Action Plan, 2010-2025; Superior National Forest Land and Resource Management Plan; Fond du Lac Band of Lake Superior Chippewa; Grand Portage Band of Lake Superior Chippewa; DNR's Ruffed Grouse in MN: Long-Range Plan for Management.

Which LSOHC section priorities are addressed in this program?

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

Outcomes

Programs in the northern forest region:

Healthy populations of endangered, threatened, and special concern species as well as more common species ~ *As has been noted, moose are iconic to NE Minnesota's forests and a key representative of healthy forest ecosystems; are important to the region's recreational economy; and provide a tribal heritage, cultural link. To sustain these desirable outcomes, this grant proposes to enhance 8,000 acres (from the parcel list of ~40,000 treatment acres) of moose cover and forage habitat enhancement so as to sustain at least the current moose population level of ~3,500 animals. The Collaborative will continue to work with its Tribal and University partners to assess and evaluate effectiveness of its enhancement efforts.*

Does this program include leveraged funding?

Yes

Explain the leverage:

This Moose Habitat Collaborative Phase IV accomplishment plan will build on the excellent habitat work that has been accomplished under Phase I-III (~22,500 acres). Collaborative partners have learned a lot over the previous three grants and now are more efficient and effective in the delivery of moose habitat benefits through improved landscape and site-level tools. The Collaborative will continue to leverage grant dollars through the use of a significant level of in-kind support by its partners.

Per MS 97A.056, Subd. 24, Please explain 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.

Grant funds requested are for moose habitat enhancement efforts (i.e. prescribed fire and/or cover, forage establishment) that have typically not been met by traditional commercial timber harvest and forest management practices, and truly provide an incentive/supplement to public land forest management efforts.

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

All affected moose habitat enhancement acres to be completed under this grant are on public lands managed by Collaborative partners. Goal of this and previous grants has been to establish enhanced cover/forage areas through a process that can take from 1-5 years (i.e. grants supplemental use for prescribed fire, site prep, planting, bud capping, and release efforts). Once these moose habitat/forest stands are established they typically have a 80-100 year stand life, managed by their respective public land administrator.

Actions to Maintain Project Outcomes

Year	Source of Funds	Step 1	Step 2	Step 3
2024 and beyond	Governmental partners budget	Manage and monitor lands consistent with grant objectives.	-	-

Activity Details

Requirements

If funded, this program 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 or on lands to be acquired in this program?

Yes

Where does the activity take place?

County/Municipal

State Forests

Other : USFS - Superior National Forest

WMA

Land Use

Will there be planting of any crop on OHF land purchased or restored in this program, either by the proposer or the end owner of the property, outside of the initial restoration of the land?

No

Timeline

Activity Name	Estimated Completion Date
Funding available, secure contracts	July-August, 2021
Summer/fall habitat enhancements (i.e. rx fire, cover protection efforts, forage enhancements, etc.)	2/1/22 (6 month status update)
Winter/spring habitat enhancements (i.e. site prep, cover planting, etc.)	8/1/22 (6 month status update)
Summer/fall habitat enhancements (i.e. rx fire, cover protection efforts, forage enhancements, etc.)	2/1/23 (6 month status update)
Winter/spring habitat enhancements (i.e. site prep, cover planting, etc.)	8/1/23 (6 month status update)
Summer/fall habitat enhancements (i.e. rx fire, cover protection efforts, forage enhancements, etc.)	2/1/24 (6 month status update)
Winter/spring habitat enhancements (i.e. site prep, cover planting, etc.)	8/1/24 (final report)

Date of Final Report Submission: 08/01/2026

Availability of Appropriation: Subd. 7. Availability of Appropriation

Money appropriated in this section may not be spent on activities unless they are directly related to and necessary for a specific appropriation and are specified in the accomplishment plan approved by the Lessard-Sams Outdoor Heritage Council. Money appropriated in this section must not be spent on indirect costs or other institutional overhead charges that are not directly related to and necessary for a specific appropriation. For acquiring real property, the amounts in this section are available until June 30, 2025. Money for restoration or enhancement is available until June 30, 2026. Money for restoration and enhancement of land acquired with an appropriation in this article is available for four years after the acquisition date with a maximum end date of June 30, 2029. If a project receives at least 15 percent of its funding from federal funds, the time of the appropriation may be extended to equal the availability of federal funding to a maximum of six years if the federal funding was confirmed and included in the original approved draft accomplishment plan. Money appropriated for acquiring land in fee title may be used to restore, enhance, and provide for public use of the land acquired with the appropriation. Public-use facilities must have a minimal impact on habitat in acquired lands.

Budget

Budget reallocations up to 10% do not require an amendment to the Accomplishment Plan.

Totals

Item	Funding Request	Leverage	Leverage Source	Total
Personnel	\$136,000	\$10,000	Ruffed Grouse Society	\$146,000
Contracts	\$1,669,000	\$100,000	Moose habitat collaborative partners	\$1,769,000
Fee Acquisition w/ PILT	-	-	-	-
Fee Acquisition w/o PILT	-	-	-	-
Easement Acquisition	-	-	-	-
Easement Stewardship	-	-	-	-
Travel	\$4,000	-	-	\$4,000
Professional Services	-	-	-	-
Direct Support Services	-	-	-	-
DNR Land Acquisition Costs	-	-	-	-
Capital Equipment	-	-	-	-
Other Equipment/Tools	-	-	-	-
Supplies/Materials	-	-	-	-
DNR IDP	-	-	-	-
Grand Total	\$1,809,000	\$110,000	-	\$1,919,000

Personnel

Position	Annual FTE	Years Working	Funding Request	Leverage	Leverage Source	Total
Ruffed Grouse Society, admin. & field positions	0.25	3.0	\$36,000	\$10,000	Ruffed Grouse Society	\$46,000
Forest Conservation Coordinator: MN	0.5	2.5	\$100,000	-	-	\$100,000

Amount of Request: \$1,809,000

Amount of Leverage: \$110,000

Leverage as a percent of the Request: 6.08%

DSS + Personnel: \$136,000

As a % of the total request: 7.52%

Easement Stewardship: -

As a % of the Easement Acquisition: -

How will this program accommodate the reduced appropriation recommendation from the original proposed requested amount?

To meet LSOHC's \$1,809,000 funding recommendation for this effort this accomplishment plan site/parcel list was

reviewed and edited to reflect a pool of treatment sites/acres necessary to reach a current goal of enhancing/affecting ~8,000 acres.

Describe and explain leverage source and confirmation of funds:

Leverage is expected to primarily come from public land administrators through landscape and project/site planning, related resource assessment needs, and contract support for enhancement efforts (i.e. staff salaries, travel, etc.). RGS will also leverage a portion of their DSS cost and field staff time to monitor and manage.

Personnel

Has funding for these positions been requested in the past?

No

Contracts

What is included in the contracts line?

\$1,649,000 is for contracts (public land administrator bid/contract process) to hire private contractors for moose habitat enhancement efforts; \$120,000 is for GIS support, assessment/monitoring needs, and grant management.

Travel

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

No

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

none

I understand and agree that lodging, meals, and mileage must comply with the current MMB Commissioner Plan:

Yes

Federal Funds

Do you anticipate federal funds as a match for this program?

No

Output Tables**Acres by Resource Type (Table 1)**

Type	Wetland	Prairie	Forest	Habitat	Total Acres
Restore	-	-	-	-	-
Protect in Fee with State PILT Liability	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-
Protect in Easement	-	-	-	-	-
Enhance	-	-	-	8,000	8,000
Total	-	-	-	8,000	8,000

Total Requested Funding by Resource Type (Table 2)

Type	Wetland	Prairie	Forest	Habitat	Total Funding
Restore	-	-	-	-	-
Protect in Fee with State PILT Liability	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-
Protect in Easement	-	-	-	-	-
Enhance	-	-	-	\$1,809,000	\$1,809,000
Total	-	-	-	\$1,809,000	\$1,809,000

Acres within each Ecological Section (Table 3)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest	Total Acres
Restore	-	-	-	-	-	-
Protect in Fee with State PILT Liability	-	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-	-
Protect in Easement	-	-	-	-	-	-
Enhance	-	-	-	-	8,000	8,000
Total	-	-	-	-	8,000	8,000

Total Requested Funding within each Ecological Section (Table 4)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest	Total Funding
Restore	-	-	-	-	-	-
Protect in Fee with State PILT Liability	-	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-	-
Protect in Easement	-	-	-	-	-	-
Enhance	-	-	-	-	\$1,809,000	\$1,809,000
Total	-	-	-	-	\$1,809,000	\$1,809,000

Average Cost per Acre by Resource Type (Table 5)

Type	Wetland	Prairie	Forest	Habitat
Restore	-	-	-	-
Protect in Fee with State PILT Liability	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-
Protect in Easement	-	-	-	-
Enhance	-	-	-	\$226

Average Cost per Acre by Ecological Section (Table 6)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest
Restore	-	-	-	-	-
Protect in Fee with State PILT Liability	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-
Protect in Easement	-	-	-	-	-
Enhance	-	-	-	-	\$226

Target Lake/Stream/River Feet or Miles

Parcels

Parcel Information

Sign-up Criteria?

No

Explain the process used to identify, prioritize, and select the parcels on your list:

Parcel list notes potential treatment acres by County by Township (TRDS). Potential treatment sites, acres typically are 3-5 times higher than actual/final affected acres due to the fact that treatment acres are method/step in the process to enhance moose habitat (i.e. site prep, plant, bud cap over three years, release). This grant's accomplishment plan reflects budget numbers and estimated final/affected acres (~8,000) that will be accomplished if the treatment steps (~40,000 acres) are completed from priority sites noted in the parcel list. Affected acres reflect a final product made possible by a series of treatments. Site/parcel names will be formalized when grant partners set field level work plans once funding is in hand.

Restore / Enhance Parcels

Name	County	TRDS	Acres	Est Cost	Existing Protection	Description
079/069	Cook	06105228	168	-	Yes	Release
AndyJackson	Cook	06304211	30	\$10,000	Yes	release
Bally Creek Non-Harvest (2-224-044)	Cook	06101215	23	-	Yes	Planting
Banjo Burn	Cook	06301202	390	\$50,000	Yes	Rx Burn
Beefarino 1 CC	Cook	06004202	54	\$30,000	Yes	Site Prep and plant
Binky 2	Cook	06203223	18	\$1,113	Yes	Planting
Binky 2	Cook	06203223	18	\$5,000	Yes	release
Binky 3	Cook	06203223	42	\$10,000	Yes	release
Binky 3	Cook	06203223	42	\$2,541	Yes	Planting
Binky NH	Cook	06203224	16	\$1,302	Yes	Planting
Binky NH	Cook	06203224	16	\$10,000	Yes	release
Blinky PU2	Cook	06203223	30	\$6,000	Yes	mechanical site prep
Blinky PU3	Cook	06203224	30	\$6,000	Yes	mechanical site prep
BlinkyNHSP	Cook	06203224	20	\$4,000	Yes	TSI site prep
Blue Cascade Moose NE	Cook	06102213	76	\$4,798	Yes	Planting
Blue Cascade Moose NE	Cook	06102213	79	\$30,000	Yes	Site Prep and plant
Blue Cascade Moose SW	Cook	06102214	66	\$4,084	Yes	Planting
Blue Cascade Moose SW	Cook	06102214	66	\$30,000	Yes	Site Prep and plant
Blue Moon 9	Cook	06104232	28	\$1,000	Yes	release
Cedar Creek 1	Cook	06005234	14	-	Yes	Site Prep
Cedar Creek 2	Cook	06005234	10	-	Yes	Site Prep
Cedar Creek 3	Cook	06005226	2	-	Yes	Site Prep, Planting
Cedar Creek 4	Cook	06005235	75	-	Yes	Site Prep, Planting
Cedar Creek 5	Cook	06005235	37	-	Yes	Site Prep, Planting
Cedar Creek 6	Cook	06005235	25	-	Yes	Site Prep, Planting
Cook Lake RACR	Cook	06205229	148	-	Yes	Release, Planting
Dave Possible site 2	Cook	06202230	100	\$10,000	Yes	site prep
Dave Possible site 3	Cook	06203225	100	\$10,000	Yes	site prep
Dave Possible site 4	Cook	06202231	100	\$10,000	Yes	site prep
Dave possible site	Cook	06202229	100	\$10,000	Yes	Mechanical site prep
Dave possible site 5	Cook	06202232	100	\$10,000	Yes	site prep
Deer Yard Northern Hardwoods	Cook	06002205	84	-	Yes	Browse Prot
Frisk 10	Cook	06004216	38	\$2,541	Yes	Planting
Frisk 10	Cook	06004216	38	\$5,000	Yes	release
Frisk 11	Cook	06004216	8	\$693	Yes	Planting

Frisk 12	Cook	06004216	71	\$5,701	Yes	Planting
Frisk 13	Cook	06004215	6	\$409	Yes	Planting
Frisk 7	Cook	06004216	100	\$30,000	Yes	release
Frisk 7	Cook	06004216	100	\$6,342	Yes	Planting
Frisk 8	Cook	06004209	9	\$567	Yes	Planting
Ham Lake 018-023	Cook	06504233	110	-	Yes	Release
Hog Toohey 5	Cook	06105222	62	-	Yes	Site Prep, Planting
Honeymoon 8	Cook	06004202	17	\$1,869	Yes	Planting
Honeymoon 8	Cook	06004202	17	\$10,000	Yes	release
Honeymoon 9	Cook	06004202	31	\$10,000	Yes	release
Honeymoon 9	Cook	06004202	31	\$1,050	Yes	Planting
Hound 1	Cook	06101210	64	\$3,969	Yes	Planting
Hound 10	Cook	06101215	37	\$3,496	Yes	Planting
Hound 3	Cook	06101210	54	\$3,333	Yes	Planting
Hound 4	Cook	06101210	31	\$1,701	Yes	Planting
Hound 5	Cook	06101211	19	\$1,339	Yes	Planting
Jackson lake	Cook	06304228	28	\$1,000	Yes	release
Mark Lake NE 1	Cook	06102205	41	-	Yes	Site Prep, Planting
Mark Lake NE 2	Cook	06102205	51	-	Yes	Site Prep, Planting
Mark Lake SW	Cook	06102207	80	-	Yes	Site Prep, Planting
Moose cover/forage (mechanical, hand)	Cook	06005201	1,000	\$250,000	Yes	release
Moose cover/forage (mechanical, hand)	Cook	06205201	510	\$200,000	Yes	prep/plant/protect/release
Moose cover/forage (mechanical, hand)	Cook	06301201	750	\$187,500	Yes	release
Moose cover/forage (mechanical, hand)	Cook	06303201	750	\$187,500	Yes	release
Moose cover/forage (mechanical, hand)	Cook	06301201	205	\$100,000	Yes	prep/plant/protect/release
Moose cover/forage (prescribed fire)	Cook	06402201	2,000	\$30,000	Yes	prescribed fire
Moose cover/forage (prescribed fire)	Cook	06401201	3,300	\$100,000	Yes	prescribed fire
Moose cover/forage (prescribed fire)	Cook	06304101	1,500	\$50,000	Yes	prescribed fire
Moose cover/forage (prescribed fire)	Cook	06302201	15,000	\$50,000	Yes	prescribed fire
Moose cover/forage (prescribed fire)	Cook	06205201	1,880	\$282,000	Yes	prescribed fire
Moose cover/forage (prescribed fire)	Cook	06008201	400	\$50,000	Yes	prescribed fire
Neptune 2	Cook	06103219	47	-	Yes	Release
Northeast 10	Cook	06204233	28	-	Yes	Release
Ns Non Harv 5	Cook	05904217	161	-	Yes	Browse Prot
Pancake 4	Cook	06005224	97	\$5,764	Yes	Planting
Pancake 5	Cook	06005225	20	\$1,207	Yes	Planting
Pancake 6	Cook	06005225	13	\$798	Yes	Planting
Revere 8	Cook	06302109	24	-	Yes	Release
Richey Lake East	Cook	06005227	24	-	Yes	Site Prep, Planting
SNF TSI	Cook	06105211	40	\$10,000	Yes	release
SNF TSI	Cook	06105212	40	\$10,000	Yes	release
Sawbill 6	Cook	06004210	31	-	Yes	Planting
Sawbill 6	Cook	06004210	31	\$10,000	Yes	Planting
Sawbill 7 (8 West)	Cook	06004209	8	-	Yes	Release
Sawbill 7 (East)	Cook	06004216	19	-	Yes	Release
Tattoo 19	Cook	06302108	65	-	Yes	Release
Trumpet 12	Cook	06105212	34	\$6,000	Yes	planting

Trumpet 12	Cook	06105212	55	\$10,000	Yes	Planting
Trumpet 6	Cook	06105212	73	\$15,000	Yes	planting
Trumpet 6	Cook	06105212	55	\$15,000	Yes	Planting
USFS Moose Site 018/043	Cook	06504227	2	-	Yes	Release
USFS Moose Site G-35	Cook	06504227	11	-	Yes	Release
USFS Moose Site G-37	Cook	06504234	23	-	Yes	Release
USFS Richey Lake East	Cook	06005235	293	\$50,000	Yes	Planting
USFS Richie Lake East	Cook	06005235	293	\$50,000	Yes	planting
Vat 13	Cook	06103227	9	-	Yes	Release
Waffle 7	Cook	06005212	14	-	Yes	Release
Waffle 8	Cook	06005212	76	-	Yes	Release
Waffle 9	Cook	06005212	104	-	Yes	Release
Ward Lake Northern Hardwoods	Cook	06002205	46	-	Yes	Browse Prot
1213	Lake	05609201	8	-	Yes	Release
2020-S01	Lake	05806231	34	-	Yes	Release
2020-S02	Lake	05806230	13	-	Yes	Release
2020-S06	Lake	05806220	28	-	Yes	Release
2020-S07	Lake	05806219	5	-	Yes	Release
2020-S08	Lake	05806219	24	-	Yes	Release
2020-S10	Lake	05806205	80	-	Yes	Release
461	Lake	05511235	46	-	Yes	Browse Prot
507	Lake	05609204	17	-	Yes	Release
521	Lake	05511202	12	-	Yes	Browse Prot
522	Lake	05609206	37	-	Yes	Release, Browse Prot
539	Lake	05609203	12	-	Yes	Release
900	Lake	05806207	13	-	Yes	Release
968	Lake	05707206	69	-	Yes	Browse Prot
BIG Fish	Lake	06310219	93	-	Yes	Release
Beaver East Roadside	Lake	05609202	6	-	Yes	Release
Beaver Hut North	Lake	06110230	39	-	Yes	Release, Planting
Beaver Hut South	Lake	06110231	24	-	Yes	Release
Beaver River East Pit	Lake	05709233	15	-	Yes	Release
Beaver River North Pit	Lake	05709233	12	-	Yes	Release, Browse Prot
Beaver River Skeleton North	Lake	05709234	35	-	Yes	Release
Beaver River Skeleton South	Lake	05609203	14	-	Yes	Release
Beaver River Skinny Uphill	Lake	05609204	20	-	Yes	Release
Big Cow	Lake	05806208	47	-	Yes	Planting
Bill lake RACR	Lake	06106201	88	-	Yes	Release, Planting
Birch Islands (Beaver River Big One)	Lake	05709227	79	-	Yes	Planting
Bobcat Bones	Lake	05806217	77	-	Yes	Site Prep
Caribou Silver South	Lake	05806214	70	-	Yes	Release
Cat in the Box	Lake	05807225	100	-	Yes	Site Prep
Creepy Crawler	Lake	05709225	27	-	Yes	Release, Browse Prot
Crown Creek	Lake	05708204	78	-	Yes	Browse Prot
Cty Hwy 8 Stand 13	Lake	05806201	7	-	Yes	Release
DNR Beaver River Lil West	Lake	05609205	3	-	Yes	Release
DNR Forestry Lake County Seeding	Lake	05611216	163	\$12,225	Yes	Aerial Seeding Mixed Conifer Seed
Denley II PU2A	Lake	06110230	10	-	Yes	Release, Planting
Denley II PU2B	Lake	06110230	18	-	Yes	Release, Planting
Denley II PU2C	Lake	06110230	27	-	Yes	Planting
Dubbins Co North	Lake	05707221	14	-	Yes	Release
Dubbins Pit County South	Lake	05707228	39	-	Yes	Release
Duncan Spent	Lake	05511230	71	\$15,446	Yes	Planting
Earl West Hook	Lake	05807213	27	-	Yes	Browse Prot
Earl West N	Lake	05807213	35	-	Yes	Browse Prot

East General Grade Restoration	Lake	05907231	14	-	Yes	Planting
Eddy Sale	Lake	06109215	50	\$10,000	Yes	Plant, Protect, Release
Eddy Sale	Lake	06109222	27	\$10,000	Yes	Plant, Protect, Release
Eddy Sale	Lake	06109221	17	\$6,000	Yes	Plant, Protect, Release
Eddy Sale	Lake	06109216	40	\$8,000	Yes	Plant, Protect, Release
Egge Creek Road	Lake	05707203	17	-	Yes	Release, Browse Prot
El Loco P05	Lake	06110234	26	\$2,121	Yes	Planting
El Loco PU5	Lake	06110234	32	-	Yes	Site Prep, Planting
El Loco PU6	Lake	06110234	26	-	Yes	Site Prep, Planting
Fernberg 2021	Lake	06311215	79	-	Yes	Release, Browse Prot
Fernberg 2021	Lake	06311215	79	\$8,000	Yes	browse
Fernberg LC North	Lake	06311214	43	-	Yes	Browse Prot
Fernberg LC North	Lake	06311214	43	\$10,000	Yes	browse
Fernberg LC South	Lake	06311214	57	\$6,000	Yes	browse
Fernberg LC South	Lake	06311214	57	-	Yes	Browse Prot
GNA KANE LAKE PU 3 2-AGED SHWD	Lake	05609220	260	\$18,421	Yes	Planting
Galaxy Burn Unit 1	Lake	05907231	166	\$20,000	Yes	Rx burn siteprep
Galaxy Burn Unit 2	Lake	05907231	77	\$10,000	Yes	Rx Burn Siteprep
Galaxy Burn Unit 3	Lake	05907206	97	\$10,000	Yes	RxBurn Siteprep
Galaxy Rx Burn Unit 4	Lake	05907206	144	\$15,000	Yes	Rx burn siteprep
Glipi East	Lake	06310219	20	\$2,000	Yes	browse
Glipi East	Lake	06310219	20	-	Yes	Release, Browse Prot
Glipi Junction	Lake	06311222	5	\$500	Yes	browse
Glipi Junction	Lake	06311222	5	-	Yes	Release, Browse Prot
Glipi North	Lake	06311223	16	\$2,000	Yes	browse
Glipi North	Lake	06311223	16	-	Yes	Browse Prot
Glipi S31	Lake	06311223	30	-	Yes	Browse Prot
Glipi South	Lake	06311223	14	-	Yes	Release, Browse Prot
Glipi South	Lake	06311223	14	\$2,000	Yes	browse
Gods Wilderness Lake Co East	Lake	05709228	21	-	Yes	Release
Gods Wilderness Lake Co Island	Lake	05709228	29	-	Yes	Release
Greenwood Fire Seeding N	Lake	05909203	30	\$2,250	Yes	Aerial Seeding Mixed Conifer Seed
Greenwood Fire Seeding N2	Lake	05909204	65	\$4,875	Yes	Aerial Seeding Mixed Conifer Seed
Greenwood Fire Seeding N3	Lake	05909206	40	\$3,000	Yes	Aerial Seeding Mixed Conifer Seed
Greenwood Fire Seeding N4	Lake	05909207	35	\$2,625	Yes	Aerial Seeding Mixed Conifer Seed
Greenwood Fire Seeding N5	Lake	05909209	65	\$4,875	Yes	Aerial Seeding Mixed Conifer Seed
Greenwood Fire Seeding N6	Lake	05909216	328	\$24,600	Yes	Aerial Seeding Mixed Conifer Seed
Greenwood Fire Seeding N7	Lake	05909221	30	\$2,250	Yes	Aerial Seeding Mixed Conifer Seed
Greenwood Fire Seeding Ne1	Lake	05909203	26	\$1,950	Yes	Aerial Seeding Mixed Conifer Seed
Greenwood Fire Seeding SE4	Lake	05910229	15	\$1,125	Yes	Aerial Seeding Mixed Conifer Seed
Greenwood Fire Seeding SE5	Lake	05910232	15	\$1,125	Yes	Aerial Seeding Mixed Conifer Seed
Greenwood Fire Seeding SE6	Lake	05910233	5	\$375	Yes	Aerial Seeding Mixed Conifer Seed
Greenwood Fire Seeding SE7	Lake	05910234	201	\$15,075	Yes	Aerial Seeding Mixed Conifer Seed
Greenwood Lake 1 Release	Lake	05810217	24	-	Yes	Release
Greenwood Lake 2 Release	Lake	05810216	14	-	Yes	Release

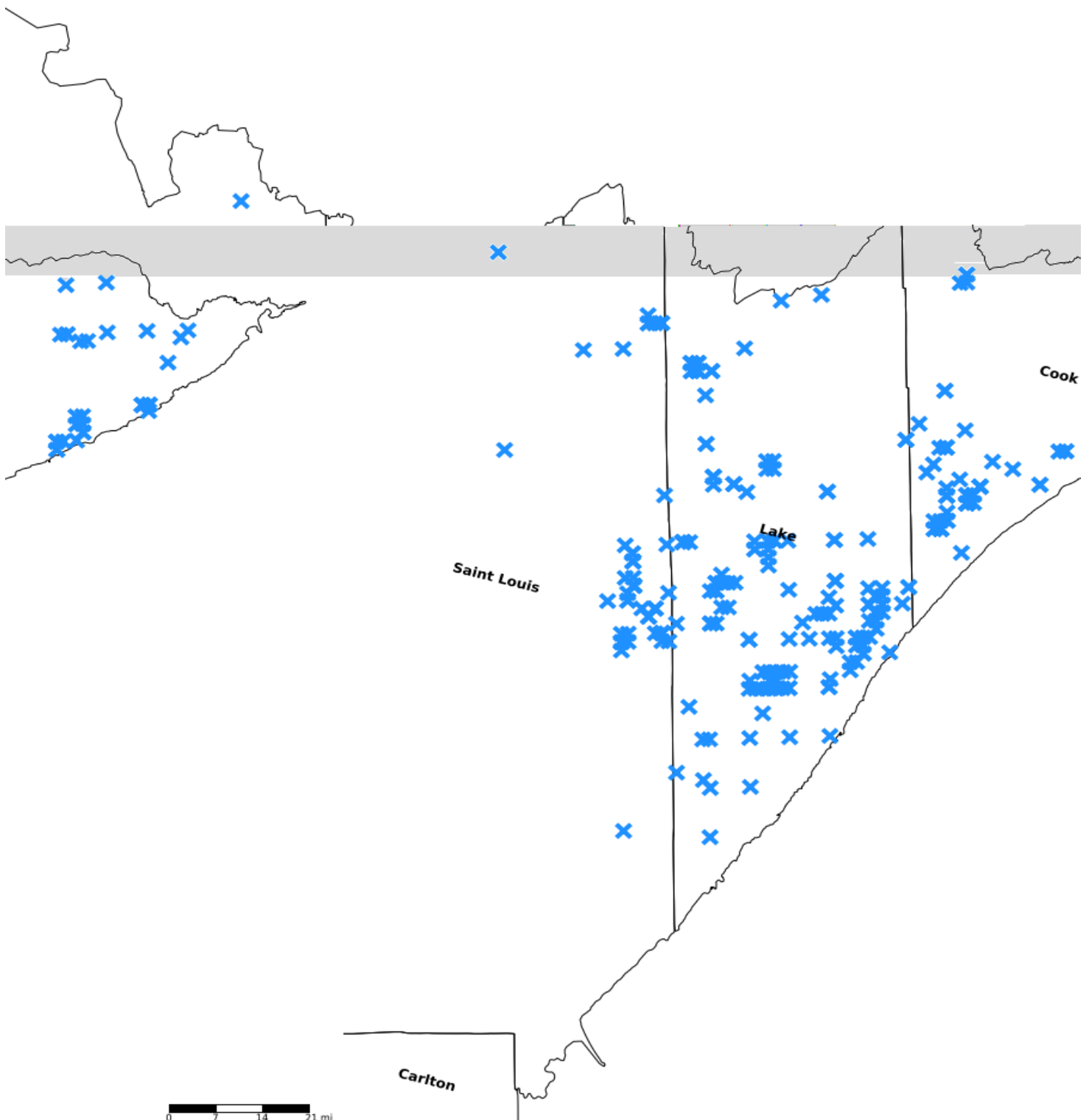
Greenwood fire seeding NE3	Lake	05909207	15	\$1,125	Yes	Aerial Seeding Mixed Conifer Seed
Happy Oaks North	Lake	05707203	10	-	Yes	Release, Browse Prot
Happy Oaks South	Lake	05707210	4	-	Yes	Release, Browse Prot
Harvest 2021	Lake	05807218	40	-	Yes	Release, Browse Prot
Homestead 45	Lake	05811225	9	-	Yes	Browse Prot
Homestead 46	Lake	05811225	17	-	Yes	Browse Prot
Homestead 47	Lake	05811225	4	-	Yes	Browse Prot
Homestead 48	Lake	05811225	12	-	Yes	Browse Prot
Homestead 99	Lake	05810230	7	-	Yes	Browse Prot
Hut South	Lake	05707207	92	\$14,028	Yes	Planting
Hwy 1 / KC Road	Lake	05808222	37	-	Yes	Planting
KC Lake North	Lake	05808224	37	-	Yes	Release, Browse Prot
KC North	Lake	05808223	11	-	Yes	Planting
Libations	Lake	05709226	12	-	Yes	Release, Browse Prot
Lillian Moose	Lake	05709229	63	-	Yes	Release, Browse Prot
Lillian SE	Lake	05709229	39	-	Yes	Browse Prot
Lillian South	Lake	05709228	53	-	Yes	Release
Little Marais	Lake	05706216	18	-	Yes	Site Prep, Planting
Moose Collar	Lake	05808212	163	-	Yes	Site Prep
Moose Rut	Lake	05710236	62	-	Yes	Browse Prot
Moose cover/forage (mechanical, hand)	Lake	05610201	750	\$390,000	Yes	prep/plant/protect/release
Moose cover/forage (mechanical, hand)	Lake	05809201	21	\$9,354	Yes	prep/plant/protect/release
Moose cover/forage (mechanical, hand)	Lake	05907201	200	\$58,000	Yes	prep/plant/protect/release
Moose cover/forage (mechanical, hand)	Lake	05909201	50	\$22,792	Yes	prep/plant/protect/release
Moose cover/forage (mechanical, hand)	Lake	05807201	282	\$130,000	Yes	prep/plant/protect/release
Moose cover/forage (mechanical, hand)	Lake	06008201	200	\$60,000	Yes	prep/plant/protect/release
Moose cover/forage (mechanical, hand)	Lake	05508201	500	\$60,000	Yes	prep/plant/protect/release
Moose cover/forage (mechanical, hand)	Lake	06310201	38	\$17,480	Yes	prep/plant/protect/release
Moose cover/forage (mechanical, hand)	Lake	05710201	48	\$21,843	Yes	prep/plant/protect/release
Moose cover/forage (mechanical, hand)	Lake	06010201	200	\$150,000	Yes	prep/plant/protect/release
Moose cover/forage (mechanical, hand)	Lake	05410201	89	\$41,000	Yes	prep/plant/protect/release
Moose cover/forage (mechanical, hand)	Lake	06106201	1,568	\$520,000	Yes	prep/plant/protect/release
Moose cover/forage (mechanical, hand)	Lake	06111201	100	\$40,000	Yes	prep/plant/protect/release
Moose cover/forage (mechanical, hand)	Lake	05411201	664	\$320,000	Yes	prep/plant/protect/release
Moose cover/forage (mechanical, hand)	Lake	05509201	88	\$45,000	Yes	prep/plant/protect/release
Moose cover/forage (mechanical, hand)	Lake	05510201	559	\$260,000	Yes	prep/plant/protect/release
Moose cover/forage (mechanical, hand)	Lake	05511201	376	\$175,000	Yes	prep/plant/protect/release
Moose cover/forage (mechanical, hand)	Lake	05608201	244	\$120,000	Yes	prep/plant/protect/release
Moose cover/forage	Lake	05609201	175	\$80,000	Yes	prep/plant/protect/release

(mechanical, hand)						
Moose cover/forage (mechanical, hand)	Lake	05708201	85	\$39,000	Yes	prep/plant/protect/release
Moose cover/forage (mechanical, hand)	Lake	05806201	113	\$53,000	Yes	prep/plant/protect/release
Moose cover/forage (mechanical, hand)	Lake	05707201	320	\$150,000	Yes	prep/plant/protect/release
Moose cover/forage (mechanical, hand)	Lake	05709201	1,400	\$700,000	Yes	prep/plant/protect/release
Moose cover/forage (mechanical, hand)	Lake	05811201	80	\$36,622	Yes	prep/plant/protect/release
Moose cover/forage (prescribed fire)	Lake	06408201	1,917	\$75,000	Yes	prescribed fire
Moose cover/forage (prescribed fire)	Lake	05710201	1,000	\$150,000	Yes	prescribed fire
Moose cover/forage (prescribed fire)	Lake	06211201	189	\$75,000	Yes	prescribed fire
Moose cover/forage (prescribed fire)	Lake	05311201	28	\$14,000	Yes	prescribed fire
Moose cover/forage (prescribed fire)	Lake	06409201	1,680	\$75,000	Yes	prescribed fire
Murphy City	Lake	05808223	17	-	Yes	Planting
Nicado North	Lake	05708236	18	-	Yes	Browse Prot
Nicado South	Lake	05608201	96	-	Yes	Browse Prot
Nip Creek PU10	Lake	05911205	12	-	Yes	Site Prep, Planting
Nip Creek PU11	Lake	05911205	12	-	Yes	Site Prep, Planting
Nip Creek PU5	Lake	05911205	36	-	Yes	Site Prep, Planting
Nip Creek PU6	Lake	05911205	21	-	Yes	Planting
Nip Creek PU7	Lake	05911204	56	-	Yes	Site Prep, Planting
Nip Creek PU8	Lake	05911205	33	-	Yes	Site Prep, Planting
Nip Creek PU9	Lake	05911205	12	-	Yes	Site Prep, Planting
Oak Hill	Lake	05707222	11	-	Yes	Release
Park Hill Middle	Lake	05707214	3	-	Yes	Release
Park Hill North	Lake	05707211	9	-	Yes	Release
Park Hill South	Lake	05707214	12	-	Yes	Release
Pine Lake 2H	Lake	05811230	40	-	Yes	Release
Ridgepole 106	Lake	05810206	43	-	Yes	Release
Ridgepole 108	Lake	05810206	54	-	Yes	Release, Browse Prot
Ridgepole 109	Lake	05910231	40	-	Yes	Browse Prot
Ridgepole 113	Lake	05910231	35	-	Yes	Release, Browse Prot
Slipi S31	Lake	06311223	30	\$3,000	Yes	browse
Stand 860	Lake	05808229	39	-	Yes	Browse Prot
Stub Lake	Lake	06311215	30	\$3,000	Yes	browse
Stub Lake	Lake	06311215	30	-	Yes	Browse Prot
Take Cover	Lake	05707202	49	\$8,832	Yes	Planting
greenwood fire seeding ne2	Lake	05909204	11	\$825	Yes	Aerial Seeding Mixed Conifer Seed
21	St. Louis	05812215	17	-	Yes	Browse Prot
21	St. Louis	05812215	17	-	Yes	Browse Prot
429	St. Louis	05912231	4	-	Yes	Browse Prot
430	St. Louis	05912231	3	-	Yes	Browse Prot
431	St. Louis	05912231	1	-	Yes	Browse Prot
452	St. Louis	05812217	26	-	Yes	Browse Prot
B20-541335	St. Louis	05413235	228	\$20,884	Yes	Planting
Big Al 100	St. Louis	05812221	16	-	Yes	Release
Big Al 109 West	St. Louis	05812234	40	-	Yes	Browse Prot
Big Al 4	St. Louis	05812215	15	-	Yes	Browse Prot
Big Al 5	St. Louis	05812215	23	-	Yes	Browse Prot

Big Al 99	St. Louis	05812221	58	-	Yes	Release, Browse Prot
Big Birch_428	St. Louis	05912231	28	-	Yes	Browse Prot
Big Birch_432	St. Louis	05912231	75	-	Yes	Browse Prot
Big Lake_89	St. Louis	05812221	20	-	Yes	Release
Bundle 1	St. Louis	05813236	47	-	Yes	Browse Prot
Bundle 2	St. Louis	05813235	26	-	Yes	Browse Prot
Checkerboard North	St. Louis	05813212	60	-	Yes	Browse Prot
Checkerboard South	St. Louis	05813212	14	-	Yes	Browse Prot
Cloquet Line MFR 36	St. Louis	06412224	106	\$30,000	Yes	release
Cranberry	St. Louis	05813209	74	-	Yes	Browse Prot
Lazy Lion PU1	St. Louis	06412224	24	\$10,000	Yes	release
Lazy Lion PU21	St. Louis	06412224	7	\$2,000	Yes	release
Moose cover/forage (mechanical, hand)	St. Louis	05912201	28	\$7,215	Yes	prep/plant/protect/release
Moose cover/forage (mechanical, hand)	St. Louis	05913201	152	\$39,000	Yes	prep/plant/protect/release
Moose cover/forage (mechanical, hand)	St. Louis	06012201	82	\$32,800	Yes	prep/plant/protect/release
Moose cover/forage (mechanical, hand)	St. Louis	06111201	300	\$120,000	Yes	prep/plant/protect/release
Moose cover/forage (mechanical, hand)	St. Louis	05713201	112	\$29,000	Yes	prep/plant/protect/release
Moose cover/forage (mechanical, hand)	St. Louis	05813201	125	\$32,000	Yes	prep/plant/protect/release
Moose cover/forage (mechanical, hand)	St. Louis	05712201	27	\$7,000	Yes	prep/plant/protect/release
Moose cover/forage (mechanical, hand)	St. Louis	05812201	242	\$65,000	Yes	prep/plant/protect/release
Moose cover/forage (prescribed fire)	St. Louis	06516201	300	\$75,000	Yes	prescribed fire
Moose cover/forage (prescribed fire)	St. Louis	06314201	2,400	\$100,000	Yes	prescribed fire
Moose cover/forage (prescribed fire)	St. Louis	06313201	40	\$16,000	Yes	prescribed fire
Moose cover/forage (prescribed fire)	St. Louis	06614201	600	\$150,000	Yes	prescribed fire
Nevada 11	St. Louis	05912218	31	-	Yes	Release
Nevada 14	St. Louis	05912218	29	-	Yes	Release
Nevada 15	St. Louis	05912218	34	-	Yes	Release
Nevada 7 East	St. Louis	05912207	29	-	Yes	Release
Nevada 7 West	St. Louis	05912207	6	-	Yes	Release
Partridge	St. Louis	05912230	70	-	Yes	Browse Prot
Pickin1	St. Louis	06412223	40	-	Yes	Release
Pickin2	St. Louis	06412222	93	-	Yes	Release
Pile of Jack Pine	St. Louis	06116201	20	\$3,024	Yes	Planting
Round About 1	St. Louis	05812235	15	-	Yes	Browse Prot
Round About 2	St. Louis	05812235	6	-	Yes	Browse Prot
Round About 4	St. Louis	05812235	13	-	Yes	Browse Prot
Round About 5	St. Louis	05812235	10	-	Yes	Browse Prot
Round About 6	St. Louis	05712202	17	-	Yes	Browse Prot
Round Beaver 10	St. Louis	05812235	38	-	Yes	Browse Prot
Round Beaver 9	St. Louis	05812235	17	-	Yes	Browse Prot
SLC Big Bundle	St. Louis	05713202	71	-	Yes	Browse Prot
SLC Bundle East West	St. Louis	05713202	56	-	Yes	Release, Browse Prot
SLC Bundle South / Moose Bundle	St. Louis	05713211	25	-	Yes	Release, Browse Prot
SLC Bundle Square	St. Louis	05713202	24	-	Yes	Release, Browse Prot
SNF Echo	St. Louis	06412222	40	\$12,000	Yes	plant, protect, release

SNF Echo	St. Louis	06412223	40	\$12,000	Yes	plant, protect, release
SNF Echo	St. Louis	06412215	40	\$12,000	Yes	plant, protect, release
South Branch 18	St. Louis	05913225	70	-	Yes	Browse Prot

Parcel Map



- Protect in Easement
- ▲ Protect in Fee with PILT
- Protect in Fee W/O PILT
- ★ Restore
- ✕ Enhance
- ✚ Other