

Lessard-Sams Outdoor Heritage Council

Laws of Minnesota 2012 Accomplishment Plan

Date: October , 2011

Program Title: MN Moose Habitat Collaborative

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Funds Recommended: \$ 960,000

Legislative Citation: ML 2011, Ch. X, Art. X, Sec. X, Subd 3 (e): *(to be completed when signed by Governor)*

Abstract:

The Minnesota Moose Habitat Collaborative enhances up to 3569 acres of moose habitat in northern forests within Cook, Lake and St. Louis counties on county, state, and tribal lands.

Program Narrative

Problems to be addressed:

Between the late 1980s and the early 2000s, the estimated moose (*Alces alces*) population in NW Minnesota declined dramatically from over 4,000 to fewer than 100 animals. Moose population estimates, hunter success rates and the anecdotal observations of local residents indicate the population of NE MN moose has been in a slow decline for a number of years. MN Department of Natural Resources (DNR) reports the NE moose population estimate has declined from 8,000 in 2005 to 4,900 in 2011. Of special concern is that mortality rates of radio collared moose in NE MN are comparable to mortality rates observed during the beginning of the decline in the NW MN moose population.

Moose have iconic status in Minnesota and are a critical component of the cultural identity, hunting heritage, and economy of northern Minnesota. Recognizing this significance and the prospective loss of the species from MN, the State Legislature passed legislation in 2008 directed the Minnesota DNR to develop a Management and Research Plan for Moose in Minnesota. In turn, the DNR created a Moose Advisory Committee (MAC) consisting of 18 individuals with varied perspectives and expertise on the status of Minnesota's moose population.

The MAC provided recommendations for suggested components of the Moose Management Plan to the DNR that covered socioeconomics, research, harvest, deer management, funding and habitat.

Specifically, the MAC noted that management for high quality moose habitat will be increasingly important for maintaining a moose population in the state.

The goals and recommendations made by the MAC are consistent with maintaining healthy, viable forests over the long-term. This proposal represents a synergy of managing for a variety of forest conditions and species, while paying special tribute to moose as an emblematic species. The restoration and enhancement actions described in this proposal reflect the intersection of managing for healthy northern forests with an emphasis on moose habitat using techniques such as prescribed fire, brush removal, selective restoration planting, and timber harvest such that the natural variability of northern forests is restored over time. MAC-recommended benefits include providing refugia through restoration and maintenance of high quality cover, restoring habitat complexity, and creating additional high quality browse areas.

Scope of work:

NE Minnesota provides an opportunity for large scale collaborative habitat management because over 82% of this region is in some form of public ownership. Primary moose range in NE Minnesota currently covers approximately 5,500 square miles (about 3.5 million acres). This grant application includes proposed habitat management prescriptions for projects on approximately 3569 acres on county, state, federal, and tribal lands in the heart of Minnesota moose range.

How priorities were set:

Members of the MN Moose Habitat Collaborative established an internal habitat sub-committee, composed of scientists and resource management to vet and rank proposed habitat management projects submitted by the various public land management agencies. This committee evaluated proposed projects based on locations within moose range, degree to which activities support the goals of other statewide conservation plans, existing moose densities, initial habitat research results, and the likelihood of the proposed projects for enhancing moose forage and cover.

Urgency and opportunity:

The substantial cultural and ecological significance of moose to Minnesota merits a prompt effort and long-term commitment to focus forest restoration and enhancement activities within moose range. Over the course of just two decades, the moose population in NW Minnesota effectively “disappeared.” As noted earlier in this proposal, it appears that the moose population in NE Minnesota may well be in the midst of a similar decline. At this point in time, we have a unique opportunity to use lessons learned from the moose decline in NW Minnesota. Utilizing the best available science from NE Minnesota, we propose to take advantage of this robust collaborative formed around the moose issue and take early and aggressive steps to enhance habitat suitable for sustaining the NE Minnesota moose population.

Prior to the harvest and management of forests in this region, fire was the most important disturbance that resulted in foraging habitat. In this project, moose foraging habitat will be restored by brush shearing, prescribed burning, selective planting, and by timber harvest on up to 3569 acres. Each of these methods is designed to mimic natural disturbance, an approach that is consistent with multiple habitat and ecological objectives, and will set forest habitat back on project sites to a younger seedling-sapling stage providing nutritious moose browse.

This project will enhance forest landscape objectives by increasing stand complexity, promoting shrub production and diversity, and maintaining thermal cover components with variable thinning and planting. Intermediate and partial harvests will be designed to mimic disturbance patterns

caused by stand decline due to age, fire, wind-throw and insect and disease outbreaks. Regeneration techniques will encourage mixed stands similar in composition, age, and size to those existing under the range of natural variation and discourage the establishment of stands uniformly dominated by a single species. In other words, this project will provide immediate benefits for moose forage through the creation of early succession habitat and ultimately result in a heterogeneous habitat matrix similar to what existed when fire was the main disturbance agent and increase the long term benefit to moose for both cover and forage.

The project selection committee chose project sites with forest stands that were partially harvested, decadent, poorly stocked with trees, or provided such poor browse condition that they were of little or no benefit to moose. Site preparation of the project sites will include a variety of treatments such as shearing, rock raking and disc trenching, over story tree harvest, tree planting, and burning. This will result in vigorous new shrub and tree sprouting. In addition, selective planting of low density conifers on some units will eventually lead to more cover interspersed with browse.

Moose are a top-level herbivore in NE Minnesota and wider ranging than many of the mammal species that will use this restored habitat. This project will result in immediate, large scale benefits by creating moose foraging habitat. Browse will be available on sites that currently have little or no value to moose or other species. In the longer-term, establishment of conifers will provide thermal and escape covers. Ultimately, this project will encourage a heterogeneous habitat matrix that will result in a healthy landscape that is more resilient providing for an ecologically diverse and balanced landscape condition with greater benefit to moose and a number of Species of Greatest Conservation Need.

Many of the prescriptions proposed in this project involve regeneration of brush in old cuts, planting sites, and mature forest gaps of various size; and most include conifer planting. In the short-term, these habitat enhancement prescriptions will result in a multitude of regional forestry job opportunities which will include a management staff member for site preparations, contract work oversight and ground-truthing as well as numerous contracting agencies from local communities. In the long-term, this project will result in improved forest habitat, forest productivity, and product diversity.

5. Stakeholder involvement and/or opposition:

The Minnesota Moose Habitat Management Collaborative includes representatives from county, state, federal, tribal agencies, private organizations, and academia. Although each partner organization has a unique mission, this proposal represents a common commitment to restoration and enhancement of northern forests within moose range, collaborative forest management, and a concern for sustaining Minnesota's rare and declining wildlife species. We have not encountered stakeholder opposition to this proposal, which is designed to be inclusive of numerous partners:

: Minnesota Deer Hunters Association (MDHA), The Nature Conservancy (TNC)
Counties: Cook, Lake, and St. Louis
Tribal Agencies: 1854 Treaty Authority, Fond du Lac Band of Lake Superior
Chippewa, Grand Portage Band of Lake Superior Chippewa
Federal: Superior National Forest (SNF)
University: University of Minnesota Duluth (UMD)
State Agencies: MN Department of Natural Resources (DNR)

NE MN has a track record of successful landscape collaborative. A subset of the Moose Habitat Collaborative participants including the DNR, The Nature Conservancy, Minnesota Forest Resources Council, USFS, St. Louis County, and Lake County, have been working effectively together for over a decade to implement cross-boundary restoration and reforestation projects under the auspices of the Minnesota Forest Resource's Northeast Landscape Plan.

Ultimately, "stakeholders" include the general populace of Minnesota, but NE MN especially. From a hunting perspective, moose hunting licenses generate revenue used to fund DNR moose research and management. Each year Minnesota's "once in a lifetime" moose hunt garners tremendous amounts of publicity, public interest and enthusiasm regarding this largest of Minnesota's prey species. Tribal members are allowed to hunt moose annually and moose meat is a very important staple of their subsistence. Even more important is the moose's contribution to tribal hunting heritage.

Many communities and entrepreneurs use moose as trademark and advertising tools to promote or sell their area or business. Much the same as moose hunting, they are directly impacted by the abundance or scarcity of moose in the NE. Economically, sociologically and ecologically, moose are intimately beneficial to Minnesota.

Planning

The project will make significant, on-the-ground progress toward achieving multiple components of the LSOHC's "Northern Forest Section Vision," The work emphasizes restoration and forest-based management on public lands within moose range given recent population declines, economic importance, and cherished status of this iconic species. The project will also benefit a suite of wildlife Species of Greatest Conservation Need (SGCN) identified in Tomorrow's Habitat for the Wild and Rare (2006) and are listed below. In particular, this proposal directly emphasizes implementation of actions 3 & 4 under the "Priority Actions for the Northern Forest Section:"

This project relates to several science-based, statewide conservation and habitat plans described below.

1. Statewide Conservation and Preservation Plan (2008): Of the four primary areas of recommendation proposed by the 2008 plan, our project will implement key aspects of the Land Use and Habitat categories. The specific recommendations the project addresses fall under the Strategic Areas of; II) Land and Water Restoration and Protection; and III) Sustainable Practice (p. 32). In particular, the proposed work will implement the following recommendations for forest land actions (pp. 131-133) paraphrased here - Support and expand sustainable practices on forested lands such as: 10c) Promote collective/cooperative management of forests to increase multiple benefits; 10e) Develop management practices that improve ecosystem resilience; 10f) Support use of fire to increase forest health and biodiversity.
2. Strategic Conservation Agenda (2009-2013): The Minnesota DNR in its Strategic Conservation Agenda explicitly identifies restoration and enhancement of degraded habitats through conservation partnerships as goals.
3. Habitat for the Wild and Rare: an Action Plan for Minnesota Wildlife (2006): The proposed restoration and enhancement work will improve habitat for several Species of Greatest Conservation Need addressed in the 2006 plan 1) early-successional enhancements (moose foraging habitat) - golden winged warbler, black-backed

woodpecker, heather vole and American woodcock; 2) Conifer plantings (moose cover) - gray wolf, lynx, northern goshawk, winter wren, boreal chickadee, boreal owl, Canada warbler, and Connecticut warbler. The management activities (pp. 124-195) implement priority conservation actions called for across multiple ecological subsections with an emphasis on incorporating Species of Greatest Conservation Need habitat concerns in forest management and planning within mixed conifer forest and aquatic habitats.

4. Advisory Committee Report to the Minnesota Department of Natural Resources (2009): The proposed project will implement several of the Habitat Management Recommendations within the Northeast moose range (pp. 34-35): Increase stand complexity, promote regeneration techniques that encourage mixed stands (e.g., range of natural variability), promote browse production in proximity to winter/summer thermal cover and aquatic feeding areas, promote more regular use of prescribed fire.
5. Forest Resources Council (MFRC) Northeast Minnesota Landscape Plan (2003): The landscape plan's desired future conditions focus on moving towards the natural range of variability in forest conditions in order to provide a diverse range of habitat conditions that can maintain viable plant and animal populations. While proposed treatments focus on moose habitat, the long-term focus on restoring mixed-conifer and hardwood forests is very consistent with the MFRC's Northeast Minnesota Landscape Plan objectives. Prescribed burns and other treatments will improve the quality of existing early succession habitat while the planting of long-lived conifers and some hardwoods will increase species diversity and help meet long-term landscape plan objectives.
6. Nature Conservancy's Superior Mixed Forest Ecoregional Plan (2002): identified a suite of conservation areas that best represent the ecosystems and species to serve as a blueprint for conservation action in this ecoregion. This plan identified a number of key threats to ecosystems and species, including moose. This proposal addresses two of those key threats; altered fire regimes and forests outside the range of natural variation. The fire treatments, in addition to improving moose habitat, will create mineral soil seedbeds for conifers and reduce hazardous fuel loads. The conifer planting, along with creating cover and future mixed forest habitat will also help move forests towards natural variability conditions.
7. National Forest Land and Resource Management Plan (2004): This 10-15 year duration plan, built with extensive public, Tribal, and other public agency input, has a goal of managing high quality and well-distributed forest habitat to support populations of wildlife, including moose, for their many cultural, subsistence, wildlife watching, hunting, recreational and other values now and into the future (p2-27, 2-36). Specifically, the plan's forest habitat objectives include increasing habitats that benefit moose: young forest to provide high quality browse; older forests with gaps in the canopy for browse; older conifer forest to provide cover from heat and predators (pp 2-22 to 2-24; 2-61 to 2-78).
8. S. Fish & Wildlife Strategic Habitat Conservation model (SHC) (2008): This grant proposal is based on science-based strategic planning and evaluation, similar to the SHC. Determining the cause, identifying population objectives, implementing management actions, results verification and utilizing partnerships are SHC objectives (p11-17). In agreement with SHC guidelines, this grant's treatment proposal implements several types of management treatments to create and restore moose foraging habitat through implementation methods that set back forest succession to an earlier seedling-sapling stage on treatment sites.
9. Fond du Lac Resource Management Division Integrated Resource Management Plan (2008): Moose are identified as an important species for the Fond du Lac Band of Lake Superior Chippewa and the Band's Resource Management Division should seek to maintain and enhance moose numbers and moose habitat (pp. 53-57).

10. Grand Portage Forest Resource Management Plan (1987): The scope of this plan addresses six wildlife entities which the Band has identified as being of particular importance; 1) Moose, 2) Whitetail Deer, 3) Ruffed Grouse, 4) Furbearers, 5) Waterfowl, 6) Black Bear. The plan states a desire “to manage for optimum moose habitat.”

Relationship to Other Constitutional Funds

The Minnesota Moose Habitat Collaborative will coordinate with other conservation organizations receiving constitutional funding to ensure projects are compatible and complementary; do not have duplicated efforts; and together address the Council’s statewide and section priorities.

Of the Environment and Natural Resources Trust Fund, Clean Water Fund, Parks and Trails Fund, and Outdoor Heritage Fund, this project is best suited to apply for funds from the latter because it meets the OHF’s objective of restoring and enhancing wildlife habitat. This project will have multiple natural resource, economic, and social benefits, but its greatest benefit is in the enhanced habitat it will provide for a unique mammal, the entire suite of plants and wildlife that utilize the same habitat, and citizens who benefit from the continued existence of moose in the State of Minnesota.

Relationship to Current Organizational Budget

Outside of this grant proposal to LSOHC, Minnesota Deer Hunters Association does not have an existing budget for restoration of Moose Habitat in NE Minnesota. Therefore, this funding is essential and will not substitute for traditional funding sources. Additionally, the project site treatments outlined within this grant are above and beyond the normal scope of the collaborators. Chosen sites are of sub-commercial grade timber, are inaccessible, are decadent, or are otherwise predisposed to be disadvantageous for timber harvest. As such, other than through this grant, funding would not be readily available to accomplish the moose habitat enhancement prescribed

Sustainability and Maintenance

The Minnesota Moose Habitat Collaborative project will serve as a platform for developing an even larger scale, decade or longer, vision for management of northern forests within the in NE Minnesota moose range. Implementation of management activities included in this project proposal will coincide with an update of the Minnesota Forest Resources Council’s Northeast Landscape Plan. Through the process of updating this plan, Minnesota Forest Resources Council’s Northeast Landscape Committee support and advice will be sought as a connection with existing resource management collaborative already operating in northern Minnesota. County, state, tribal, federal and university wildlife and forestry professionals will also be consulted to review result verifications and pursue further collaboration toward advancement and expansion of moose habitat enhancement and maintenance.

The Moose Habitat Collaborative intends to pursue other long-term funding for moose habitat and other related forest restoration projects from federal, private and tribal sources. Also, at the end of the term of this grant, the Collaborative will re-apply to LSOHC for additional state funds. This second phase of funding will be complemented by a mix of federal, tribal and private funding proposals, and will support ongoing stewardship of lands treated with funding from this request, along with management activities on new sites identified for treatment by the Moose Habitat Collaborative.

Outcomes

- Increase in quantity and diversity of quality browse available for moose and other Species of Greatest Conservation Need
- Increase stand complexity, thermal cover and overall condition of habitat in the NE MN forest area conducive to the moose population and other Species of Greatest Conservation Need
- Increased public awareness and interest in moose and the need for quality moose habitat across NE Minnesota
- Greater tourism satisfaction towards NE MN forests and wildlife

Accomplishment Timeline

Activity	Milestone	Date completed
Funding Available	Secure work/contract agreements with agencies and contactors	July 2012
Initiate Enhancements	Site development & preparation	August 2012
Enhancements Continued	Winter enhancements complete	February 2013
Enhancements Continued	Burn preparation complete	March 2013
Enhancements Continued	Prescribed burns complete	June 2013
Enhancements Continued	Summer enhancements completed	September 2013
Enhancements Continued	Additional winter enhancements complete	February 2014
Enhancements Continued	Additional burn preparation & prescribed burns complete	June 2014
Enhancements Continued	Additional summer enhancements complete	September 2014
Enhancements Continued	Additional winter enhancements complete	February 2015
Enhancements Continued	Remaining burn preparations complete	June 2015
Enhancements Complete	Remaining burns complete	June 2015

Table B-2. Other Outcome Table – N/A

Attachments:

- A. Budget
- B. Proposed Outcome Tables
- C. Parcel List

Attachment A. Budget Spreadsheet

Name of Proposal:	MN Moose Habitat Collaborative
Legislative Citation:	
Date:	24-Oct-11

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

Total Amount of Request \$ 960,000 *From page 1 on the funding form.*

Personnel

Position breakdown here	FTE	Over # of years	Anticipated Cash		Cash Leverage Source	Total
			LSOHC Request	Leverage		
<i>Grant Manager - Fiscal Agent</i>	0.6	3	\$ 105,372			\$ 105,372
						\$ -
						\$ -
						\$ -
						\$ -
						\$ -
Total	0.6		\$ 105,372	\$ -	\$ -	\$ 105,372

Budget and Cash Leverage *(All your LSOHC Request Funds must be direct to and necessary for program outcomes.)*

Please describe how you intend to spend the requested funds.

Budget Item	Anticipated Cash		Cash Leverage Source	Total
	LSOHC Request	Leverage		
Personnel - <i>auto entered from above</i>	\$ 105,372	\$ -	\$ -	\$ 105,372
Contracts	\$ 842,877	\$ 332,332	<i>GP-FDL-USFS</i>	\$ 1,175,209
Fee Acquisition w/ PILT <i>(breakout in table 7)</i>				\$ -
Fee Acquisition w/o PILT <i>(breakout in table 7)</i>				\$ -
Easement Acquisition				\$ -
Easement Stewardship				\$ -
Travel (in-state)	\$ 10,251	\$ 8,701	<i>FDL & MDHA</i>	\$ 18,952
Professional Services	\$ 1,500	\$ 1,600	<i>MDHA</i>	\$ 3,100
Direct Support Services	\$ -	\$ 120,034	<i>MDHA</i>	\$ 120,034
DNR Land Acquisition Costs				\$ -
Other				\$ -
Capital Equipment <i>(auto entered from below)</i>				\$ -
Other Equipment/Tools				\$ -
Supplies/Materials				\$ -
	\$ 960,000	\$ 462,667	\$ -	\$ 1,422,667

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

Item Name	LSOHC Request	Leverage
Total	-	-

Attachment B. Output Tables

Name of Proposal:	MN Moose Habitat Collaborative
Legislative Citation:	
Date:	10/24/2011

Table 1 and Table 3 column totals should be the same AND Table 2 and Table 4 column totals should be the same

If your project has lakes or shoreline miles instead of land acres, convert miles to acres for Tables 1 and 3 using the following conversion:

Lakeshore = 6 acres per lakeshore mile / Stream & River Shore = 12 acres per linear mile, if both sides

Table 1. Acres by Resource Type

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

	Wetlands	Prairies	Forest	Habitats	Total
Restore					0
Protect Fee					0
Protect Easement					0
Protect Other					0
Enhance			3569		3569
Total	0	0	3569	0	

Total Acres (sum of Total column)	3569	<i>These two cells should be the same figure.</i>
Total Acres (sum of Total row)	3569	

Table 2. Total Requested Funding by Resource Type

	Wetlands	Prairies	Forest	Habitats	Total
Restore					\$ -
Protect Fee					\$ -
Protect Easement					\$ -
Protect Other					\$ -
Enhance			\$ 960,000		\$ 960,000
Total	\$ -	\$ -	\$ 960,000	\$ -	

Total Dollars (sum of Total column)	\$ 960,000	<i>These two cells should be the same figure.</i>
Total Dollars (sum of Total row)	\$ 960,000	

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

Table 3. Acres within each Ecological Section

	Metro/Urban	Forest/Prairie	SE Forest	Prairie	Northern Forest	Total
Restore						0
Protect Fee						0
Protect Easement						0
Protect Other						0
Enhance					3569	3569
Total	0	0	0	0	3569	

Total Acres (sum of Total column)	3569	<i>These three cells should be the same figure.</i>
Total Acres (sum of Total row)	3569	
Total Acres from Table 1.	3569	

Attachment B. Output Tables

Table 4. Total Requested Funding within each Ecological Section

	Metro/Urban	Forest/Prairie	SE Forest	Prairie	Northern Forest	Total
Restore						\$ -
Protect Fee						
Protect Easement						
Protect Other						\$ -
Enhance					\$ 960,000	\$ 960,000
Total	\$ -	\$ -	\$ -	\$ -	\$ 960,000	

Total Dollars (sum of Total column)

\$ 960,000

These two cells should be the same figure.

Total Dollars (sum of Total row)

\$ 960,000

Check to make sure these amounts are the same as the Funding Request Amount on page 1 of Main Funding Form.

Table 5. Target Lake/Stream/River Miles

miles of Lakes / Streams / Rivers Shoreline

Table 6. Acquisition by PILT Status (enter information in acres)

	Wetlands	Prairies	Forests	Habitats	Total
Acquired in Fee with State PILT Liability					0
Acquired in Fee w/o State PILT Liability					0
Permanent Easement <i>PILT Liability</i> NO State					0
	0	0	0	0	

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

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

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

Attachment C. Parcel List

MN Moose Habitat Collaborative

24-Oct-11

Name of Proposal:
Legislative Citation:
Date:

County	Township (25-258)	Range (01-51)	Direction	Section (01 thru 36)	TRDS	# of acres	Budgetary Estimate	Description	Activity	If Easement, what is the easement cost as a % of the fee acquisition?	Any existing protection? (yes/no)	Open to hunting and fishing? (yes/no)
County	Varies	Varies	Varies	Varies	Varies	~300	\$89,277	Based on the cost/acre, we will do approximately 300 acres of enhancement from listed applications below.	E	N/A	Yes	Yes
St. Louis County	59	12	2	22	5912222	149		These are poorly stocked units with a large component of decadent brush. A variety of mechanical treatments would be used to prepare units for planting. A mix of species would be planted. Deer browse protection applied to any white pine/cedar.	E	N/A	Yes	Yes
St. Louis County	59	12	2	30	5912230	16		Small openings cut in mature aspen-birch with brush saws followed by mixed species planting. No timber harvest. Deer browse protection applied to any white pine/cedar. These stands have some mature timber and a heavy brush component. Timber harvest would be followed by mechanical site preparation and mixed species planting. Deer browse protection applied to any white pine/cedar.	E	N/A	Yes	Yes
St. Louis County	58	12	2	27	5812227	156		Based on the cost/acre, we will do approximately 1000 acres of enhancement from listed applications below.	E	N/A	Yes	Yes
Lake County Projects	Lake County	Varies	Varies	Varies	Varies	~1000	\$943,109	These stands have a low density of conifers and a heavy brush component. The conifers would be released by hand cutting of the brush. Hand release would also protect and encourage the growth of birch and aspen. Deer browse protection applied to any white pine/cedar.	E	N/A	Yes	Yes
LC121	Lake County	57	09	2	33	5709233	19	These are small openings in mature conifer stands filled with decadent brush. The brush would be cut and a mix of tree species planted. Deer browse protection applied to any white pine/cedar.	E	N/A	Yes	Yes
LC13	Lake County	58	07	2	28	5807228	15	These stands have a low density of conifers and a heavy brush component. The conifers would be released by hand cutting of the brush. Hand release would also protect and encourage the growth of birch and aspen. Deer browse protection applied to any white pine/cedar.	E	N/A	Yes	Yes
LC130	Lake County	58	08	2	24	5808224	29	These stands have some mature timber and a heavy brush component. Timber harvest would be followed by mechanical site preparation and mixed species planting. Deer browse protection applied to any white pine/cedar.	E	N/A	Yes	Yes
LC137	Lake County	58	07	2	05	5807205	126	These are small openings in mature conifer stands filled with decadent brush. The brush would be cut and a mix of tree species planted. Deer browse protection applied to any white pine/cedar.	E	N/A	Yes	Yes
LC14	Lake County	58	08	2	12	5808212	13	These stands have some mature timber and a heavy brush component. Timber harvest would be followed by mechanical site preparation and mixed species planting. Deer browse protection applied to any white pine/cedar.	E	N/A	Yes	Yes
LC140	Lake County	58	07	2	08	5807208	108	These are poorly stocked units with a large component of decadent brush. A variety of mechanical treatments would be used to prepare units for planting. A mix of species would be planted. Deer browse protection applied to any white pine/cedar.	E	N/A	Yes	Yes
LC50	Lake County	57	09	2	26	5709226	40		E	N/A	Yes	Yes
LC51	Lake County	57	09	2	27	5709227	113		E	N/A	Yes	Yes
LC52	Lake County	57	09	2	36	5709236	42		E	N/A	Yes	Yes
LC66	Lake County	58	07	2	02	5807202	6		E	N/A	Yes	Yes
LC67	Lake County	58	07	2	22	5807222	15		E	N/A	Yes	Yes
LC68	Lake County	58	07	2	25	5807225	28		E	N/A	Yes	Yes
LC70	Lake County	57	09	2	27	5709227	78		E	N/A	Yes	Yes
LC71	Lake County	58	07	2	08	5807208	38		E	N/A	Yes	Yes
LC72	Lake County	58	08	2	25	5808225	132		E	N/A	Yes	Yes
LC73	Lake County	58	07	2	26	5807226	9		E	N/A	Yes	Yes
LC74	Lake County	58	07	2	33	5807233	24		E	N/A	Yes	Yes
LC75	Lake County	58	07	2	34	5807234	13		E	N/A	Yes	Yes
LC76	Lake County	58	08	2	29	5808229	124		E	N/A	Yes	Yes
LC77	Lake County	58	08	2	30	5808230	17		E	N/A	Yes	Yes
LC89	Lake County	57	09	2	34	5709234	43		E	N/A	Yes	Yes
US Forest Service	Lake County	Varies	Varies	Varies	Varies	~2150	\$578,361	Based on the cost/acre, we will do approximately 2149 acres of enhancement from listed applications below.	E	N/A	Yes	Yes

Attachment C. Parcel List

MN Moose Habitat Collaborative

24-Oct-11

Name of Proposal:
Legislative Citation:
Date:

Parcel Name	County	Township (25-258)	Range (01-51)	Direction most parcels are 2, with the exception of some areas of Cook County which is 1	Section (01 thru 36)	TRDS	# of acres	Budgetary Estimate includes related costs and do not include matching money contributed or earned by the transaction)	Description	Activity PF=Protect Fee PE=Protect Easement PO=Protect Other R=Restore E=Enhance	If Easement, what is the easement cost as a % of the fee acquisition?	Any existing protection? (yes/no)	Open to hunting and fishing? (yes/no)
USFS - Crab Lake Burn	St. Louis County	63	14	2	14	6314214	568		Prescribed fire in the BWCA. Primary goal is fuel reduction to reduce the intensity of any future wildfires.	E	N/A	Yes	Yes
USFS - Cross River 1	Cook County	59	5	2	9	5905209	87.0		Mowing of existing upland brush and encroaching trees followed by 2 Rx burns to maintain brush component.	E	N/A	Yes	Yes
USFS - Duncan Lake Burn	Cook County	65	1	2	27	6501227	800		Prescribed fire in the BWCA. Primary goal is fuel reduction to reduce the intensity of any future wildfires.	E	N/A	Yes	Yes
USFS - Laurentian brush 1	St. Louis County	57	13	2	13	5713213	32.9		Mechanical shearing of decadent brush.	E	N/A	Yes	Yes
USFS - Laurentian Shear and plant 1	St. Louis County	59	12	2	18	5912218	30.2		Mechanical shearing of decadent brush followed by conifer planting in clumps. The timber in these units is hard to access and has little commercial value. This will be a thinning of spruce/fir.	E	N/A	Yes	Yes
USFS - Lillian 1	Lake County	57	9	2	18	5709218	45.5		The stands in this area have low timber volumes and little commercial value. A variety of mechanical site preparations would be used to prepare seedbeds for plantings of conifers, paper and yellow birch	E	N/A	Yes	Yes
USFS - Mid-temperance 1	Cook County	60	4	2	5	6004205	43.9		Prescribed fire in the BWCA. Primary goal is fuel reduction to reduce the intensity of any future wildfires.	E	N/A	Yes	Yes
USFS - Morgan Lake 1	Cook County	64	1	2	21	6401221	455.0			E	N/A	Yes	Yes
USFS - Morgan Lake 2	Cook County	64	1	2	29	6401229	409.3			E	N/A	Yes	Yes
USFS - Morgan Lake 3	Cook County	64	1	2	28	6401228	227.2			E	N/A	Yes	Yes
USFS - Morgan Lake 4	Cook County	64	1	2	28	6401228	465.0			E	N/A	Yes	Yes
USFS - Twins 1	Cook County	63	1	2	24	6301224	82.7		The remaining timber has no commercial value. The site will be burned first, followed by a mix of natural regeneration (most acres) and seeding of birch and jack pine.	E	N/A	Yes	Yes
The Nature Conservancy & DNI										E	N/A	Yes	Yes
Based on the cost/acre, we will do approximately 119 acres of enhancement from listed applications below.										\$32,130.00			
TNC - DNR1	Lake County	59	07	2	16	5907216	26		These stands have a low density of conifers and a heavy brush component. The conifers would be released by hand cutting of the brush. Hand release would also protect and encourage the growth of aspen and birch. Deer browse protection applied to any white pine/cedar	E	N/A	Yes	Yes
TNC - DNR2	Lake County	58	08	2	15	5808215	8			E	N/A	Yes	Yes
TNC - DNR3	Lake County	58	08	2	22	5808222	11			E	N/A	Yes	Yes
TNC - DNR4	Lake County	58	08	2	23	5808223	24			E	N/A	Yes	Yes
TNC - DNR5	Lake County	57	08	2	14	5708214	19			E	N/A	Yes	Yes
TNC - DNR6	Lake County	57	08	2	23	5708223	12			E	N/A	Yes	Yes
TNC - DNR7	Lake County	57	08	2	07	5708207	19			E	N/A	Yes	Yes