Lessard-Sams Outdoor Heritage Council

Laws of Minnesota 2015 Final Report

General Information

Date: 11/02/2020

Project Title: Southeast Forest Habitat Enhancement

Funds Recommended: $910,000

Legislative Citation: ML 2015, First Sp. Session, Ch. 2, Art. 1, Sec. 2, Subd. 3(g)

Appropriation Language: $910,000 in the first year is to the commissioner of natural resources to enhance forests in southeastern Minnesota. A list of proposed land enhancements must be provided as part of the required accomplishment plan.

Manager Information

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Location Information

County Location(s): Wabasha, Houston, Goodhue, Fillmore and Winona.

Eco regions in which work will take place:

- Southeast Forest

Activity types:

- Enhance

Priority resources addressed by activity:

- Forest

Narrative

Summary of Accomplishments

With these funds the DNR enhanced almost 3,100 acres on 140 different tracts within State Forests and Wildlife Management Area lands in southeastern Minnesota. While a lot of forest management can be conducted with well-planned and carefully conducted timber harvests, these activities enhanced these forested habitats beyond standard harvest practices such as increasing hard mast production (acorns, hickory nuts, etc). This will provide long-term benefits for a range of wildlife species and increased recreational opportunities for Minnesotans.

Process & Methods

With this appropriation, DNR Wildlife and Forestry staff used a range of forest enhancement techniques to increase the quality of habitat for a range of wildlife species. These techniques and their objectives are listed below.

Invasive species removal – There are numerous invasive species in the southeast. Buckthorn may be the species doing the most damage to these forests, but there are other shrubs, vines, and herbaceous plants that also affect forest productivity and diversity. In many cases, this is done shortly after a tree harvest to try to catch invasives at the establishment phase instead of once they have become well-established.

Understory mowing – This is another type of invasive control used where the invasive species are so dense and the patches so large that chemical treatment or hand-work just isn't reasonable.

Tree thinning – Tree thinning is the selective removal of less desirable species, either for timber production or wildlife benefits, that outcompete more desirable species. With less competition, these more desirable species are able to grow and reach maturity much faster as well as produce more mast for food. In some cases, certain trees can be girdled, killing them, but leave them standing. These trees can provide cavities for wildlife. However, this technique isn't used near trails or roads where the tree which will eventually falls could damage property or injure people.

Tree release – Often 'release' is a term used when enhancing mixed hardwood stands and thinning is more often used in areas heavily dominated by a single tree species. The two are variations on a theme but with the same ultimate goal. For instance, if an oak and boxelder or basswood are growing close together, a wildlife biologist might cut the boxelder or basswood and release the oak to grow faster and produce more acorns.

Seedling planting – With this method seedlings of the desired species are planted in an area. By planting seedlings, the trees get a 1-2 year head start on overgrowing other competing vegetation.

Direct seeding – Direct seeding is used with mast species such as oaks where seeds are harvested and then directed spread onto the soil surface. With this method, wildlife managers can do relatively larger acres than with seedling planting. The determination of which of these two methods is most effective is made on a site by site basis.

Herbicide release – Herbicide release is often used to knock back herbaceous vegetation that can shade the soil surface and discourage seed germination or stump/root sprouting.

How did the program address habitats of significant value for wildlife species of greatest conservation need, threatened or endangered species, and/or list targeted species?

Since the early 1990s scientists have pointed to a decline in oaks across eastern North America. This is probably tied to reduced or different types of disturbance compared to historic times. Specifically, fire favors oak and

hickory, and is more damaging to other species. Oaks are obviously important because the acorns they produce are a key food resource for mallards, wood ducks, ruffed grouse, turkey, blue jays, woodpeckers, squirrels, deer, bear, and dozens of other species of wildlife. Hickory nuts and walnuts are also valuable. These can be valuable timber species for forest harvest in several decades.

In other places, foresters and wildlife managers may want to discourage some plant communities or species, such as boxelder, and encourage other species, such as maple or ash for example. These decisions are based on the long-term plans for forest management at a site, current and desired future conditions, and site characteristics such as soil type and hydrology.

Today we have the twin problems of maintaining the species composition we desire in our forests while at the same time the disturbances that often favored these species can allow invasive species to become established.

Southeast Minnesota hardwood forests and woodlands support 30 species of wildlife of greatest conservation need, and 49 rare, threatened, and/or endangered plants and animals. The enhancements conducted with this appropriation should directly and indirectly benefit almost all of these species.

How did the program use science-based targeting that leveraged or expanded corridors and complexes, reduced fragmentation, or protected areas in the MN County Biological Survey.

Blufflands/Rochester Plateau Section Forest Resource Management Plans (SFRMP) used the best available science to assess forest conditions, develop strategic direction and desired future composition goals on DNR lands. The Plan selected forest stands to be visited and potentially treated over the 10-year planning period to implement the strategic direction and goals. The enhancements done under this appropriation were conducted within this larger framework. Because these efforts were done in relatively large forest tracts, there weren't issues of connectivity or fragmentation.

These efforts were more about creating a habitat matrix within larger tracts of forest so that there are different forest ages and compositions across the larger landscape. This provides habitat for a greater range of wildlife and provides habitats for different life stages or seasons of individual species. Brood rearing habitat is often different from adult habitat as summer habitat is often structurally different from winter habitat. Wildlife need a complex matrix of forest types to meet all the requirements for different stages of their lives.

Explain Partners, Supporters, & Opposition

Partners, including Minnesota Deer Hunters Association (MDHA) and National Wild Turkey Federation (NWTF) were active and supportive partners over the course of this appropriation. They we able to contribute $40,000 to this effort.

Exceptional challenges, expectations, failures, opportunities, or unique aspects of program

There were no great challenges and failures. We were able to use these funds to accelerate existing forest management plans for the benefit of wildlife as well as the long-term health of the forest.

What other funds contributed to this program?

What is the plan to sustain and/or maintain this work after the Outdoor Heritage Funds are expended?

DNR staff will continue to spot-check these areas periodically but the goal is for these efforts to put these acres on the desired trajectory for forest development. Ideally, they will need minimal attention for several decades until

the area is harvested again. However, issues such as invasive species will require closer monitoring and follow-up treatments as needed.

Budget

Totals

Item	Request	Spent	Antic. Leverage	Received Leverage	Leverage Source	Original Total	Final Total
Personnel	-	-	-	-	-	-	-
Contracts	$603,000	$553,500	$40,000	$40,000	NWTF, MDHA	$643,000	$593,500
Fee Acquisition w/ PILT	-	-	-	-	-	-	-
Fee Acquisition w/o PILT	-	-	-	-	-	-	-
Easement Acquisition	-	-	-	-	-	-	-
Easement Stewardship	-	-	-	-	-	-	-
Travel	-	-	-	-	-	-	-
Professional Services	-	-	-	-	-	-	-
Direct Support Services	$52,000	$16,300	-	-	-	$52,000	$16,300
DNR Land Acquisition Costs	-	-	-	-	-	-	-
Capital Equipment	-	-	-	-	-	-	-
Other Equipment/Tools	-	-	-	-	-	-	-
Supplies/Materials	$255,000	$334,500	-	-	-	$255,000	$334,500
DNR IDP	-	-	-	-	-	-	-
Grand Total	**$910,000**	**$904,300**	**$40,000**	**$40,000**	**-**	**$950,000**	**$944,300**

Direct Support Services

How did you determine which portions of the Direct Support Services of your shared support services is direct to this program?
The DNR developed a calculator specific to the OHF and ENRTF to determine our DSS.

Explain any budget challenges or successes:

Total Revenue: $0

Revenue Spent: $0

Revenue Balance: $0

Of the money disclosed above, what are the appropriate uses of the money:

- C. This revenue, or a portion of it, was transferred back to the OHF.

Output Tables

Acres by Resource Type (Table 1)

Type	Wetland (AP)	Wetland (Final)	Prairie (AP)	Prairie (Final)	Forest (AP)	Forest (Final)	Habitat (AP)	Habitat (Final)	Total Acres (AP)	Total Acres (Final)
Restore	0	0	0	0	0	0	0	0	0	0
Protect in Fee with State PILT Liability	0	0	0	0	0	0	0	0	0	0
Protect in Fee w/o State PILT Liability	0	0	0	0	0	0	0	0	0	0
Protect in Easement	0	0	0	0	0	0	0	0	0	0
Enhance	0	0	0	0	2,800	3,095	0	0	2,800	3,095
Total	**0**	**0**	**0**	**0**	**2,800**	**3,095**	**0**	**0**	**2,800**	**3,095**

Total Requested Funding by Resource Type (Table 2)

Type	Wetland (AP)	Wetland (Final)	Prairie (AP)	Prairie (Final)	Forest (AP)	Forest (Final)	Habitat (AP)	Habitat (Final)	Total Funding (AP)	Total Funding (Final)
Restore	-	-	-	-	-	-	-	-	-	-
Protect in Fee with State PILT Liability	-	-	-	-	-	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-	-	-	-	-	-
Protect in Easement	-	-	-	-	-	-	-	-	-	-
Enhance	-	-	-	-	$910,000	$904,300	-	-	$910,000	$904,300
Total	**-**	**-**	**-**	**-**	**$910,000**	**$904,300**	**-**	**-**	**$910,000**	**$904,300**

Acres within each Ecological Section (Table 3)

Type	Metro / Urban (AP)	Metro / Urban (Final)	Forest / Prairie (AP)	Forest / Prairie (Final)	SE Forest (AP)	SE Forest (Final)	Prairie (AP)	Prairie (Final)	N. Forest (AP)	N. Forest (Final)	Total (AP)	Total (Final)
Restore	0	0	0	0	0	0	0	0	0	0	0	0
Protect in Fee with State PILT Liability	0	0	0	0	0	0	0	0	0	0	0	0
Protect in Fee w/o State PILT Liability	0	0	0	0	0	0	0	0	0	0	0	0
Protect in Easement	0	0	0	0	0	0	0	0	0	0	0	0

Enhance	0	0	0	0	2,800	3,095	0	0	0	0	2,800	3,095
Total	**0**	**0**	**0**	**0**	**2,800**	**3,095**	**0**	**0**	**0**	**0**	**2,800**	**3,095**

Total Requested Funding within each Ecological Section (Table 4)

Type	Metro / Urban (AP)	Metro / Urban (Final)	Forest / Prairie (AP)	Forest / Prairie (Final)	SE Forest (AP)	SE Forest (Final)	Prairie (AP)	Prairie (Final)	N. Forest (AP)	N. Forest (Final)	Total (AP)	Total (Final)
Restore	-	-	-	-	-	-	-	-	-	-	-	-
Protect in Fee with State PILT Liability	-	-	-	-	-	-	-	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-	-	-	-	-	-	-	-
Protect in Easement	-	-	-	-	-	-	-	-	-	-	-	-
Enhance	-	-	-	-	$910,000	$904,300	-	-	-	-	$910,000	$904,300
Total	**-**	**-**	**-**	**-**	**$910,000**	**$904,300**	**-**	**-**	**-**	**-**	**$910,000**	**$904,300**

Average Cost per Acre by Resource Type (Table 5)

Type	Wetland (AP)	Wetland (Final)	Prairie (AP)	Prairie (Final)	Forest (AP)	Forest (Final)	Habitat (AP)	Habitat (Final)
Restore	-	-	-	-	-	-	-	-
Protect in Fee with State PILT Liability	-	-	-	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-	-	-	-
Protect in Easement	-	-	-	-	-	-	-	-
Enhance	-	-	-	-	$325	$292	-	-

Average Cost per Acre by Ecological Section (Table 6)

Type	Metro / Urban (AP)	Metro / Urban (Final)	Forest / Prairie (AP)	Forest / Prairie (Final)	SE Forest (AP)	SE Forest (Final)	Prairie (AP)	Prairie (Final)	N. Forest (AP)	N. Forest (Final)
Restore	-	-	-	-	-	-	-	-	-	-
Protect in Fee with State PILT Liability	-	-	-	-	-	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-	-	-	-	-	-

Protect in Easement	-	-	-	-	-	-	-	-	-	-
Enhance	-	-	-	-	$325	$292	-	-	-	-

Target Lake/Stream/River Feet or Miles

Outcomes

Programs in southeast forest region:

- Healthier populations of endangered, threatened, and special concern species as well as more common species ~ *The Fish and Wildlife, Ecological and Water Resources (non0game program), and Forestry Divisions of the DNR all have on-going and long-term monitoring programs in place. Although no specific outcomes monitoring will be done on these acres, they will be incorporated into existing monitoring efforts.*

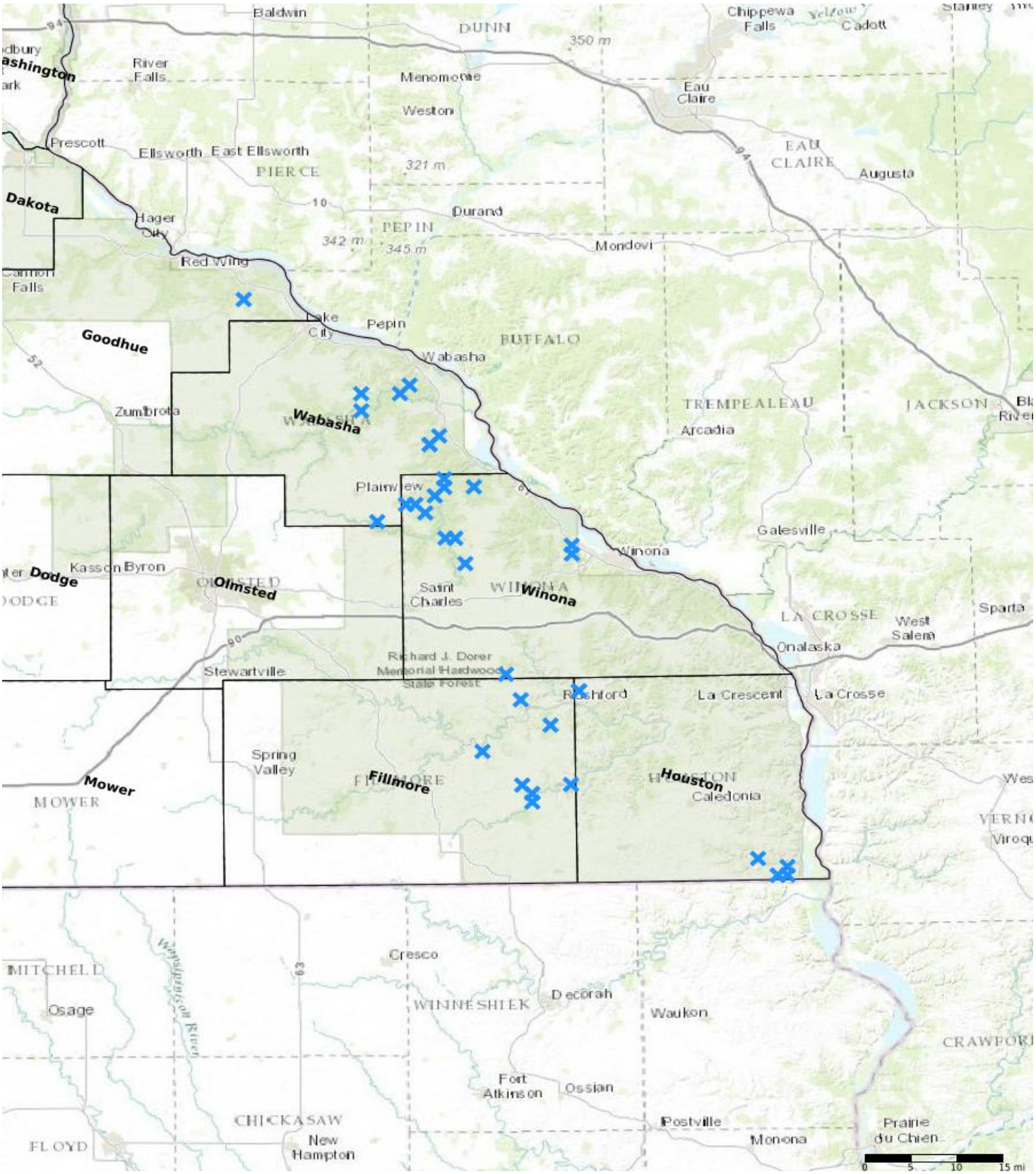
Parcels

Sign-up Criteria?

Yes

Restore / Enhance Parcels

Name	County	TRDS	Acres	Est Cost	Existing Protection
RJ Dorer State Forest	Fillmore	10208217	292	-	Yes
RJ Dorer State Forest; Gribben Valley EastTract	Fillmore	10309216	85	-	Yes
RJ Dorer State Forest; Peterson Walnut Tract	Fillmore	10408218	24	-	Yes
RJ Dorer State Forest	Fillmore	10208208	173	-	Yes
RJ Dorer State Forest	Fillmore	10208206	108	-	Yes
RJ Dorer State Forest	Fillmore	10408234	246	-	Yes
Choice WMA	Fillmore	10208201	35	-	Yes
RJ Dorer State Forest	Goodhue	11213220	244	-	Yes
RJ Dorer State Forest; North New Albin Tract	Houston	10104227	92	-	Yes
Winnebago Creek WMA	Houston	10104233	40	-	Yes
Rush Creek Woods WMA	Houston	10407207	42	-	Yes
Rush Creek Woods WMA	Houston	10407207	42	-	Yes
RJ Dorer State Forest	Houston	10104234	9	-	Yes
Winnebago WMA	Houston	10104233	47	-	Yes
RJ Dorer State Forest	Houston	10104219	61	-	Yes
Whitewater WMA	Wabasha	10811234	44	-	Yes
RJ Dorer State Forest	Wabasha	11011213	59	-	Yes
RJ Dorer State Forest	Wabasha	10910216	327	-	Yes
RJ Dorer State Forest	Wabasha	10910210	10	-	Yes
RJ Dorer State Forest; Baker Tract	Wabasha	11011229	8	-	Yes
RJ Dorer State Forest; Kruger Tract	Wabasha	11010207	53	-	Yes
RJ Dorer State Forest; Snake Creek Tract	Wabasha	10910216	153	-	Yes
RJ Dorer State Forest	Wabasha	11011217	45	-	Yes
Whitewater WMA	Winona	10810211	137	-	Yes
RJ Dorer State Forest	Winona	10708224	16	-	Yes
Whitewater WMA ; Beaver Creek Ridge Tract	Winona	10810220	44	-	Yes
Whitewater WMA; County line Tract	Winona	10810202	199	-	Yes
Whitewater WMA	Winona	10809208	34	-	Yes
Whitewater WMA	Winona	10710212	68	-	Yes
Whitewater WMA; Governor Ridge Tract	Winona	10810228	74	-	Yes
Whitewater WMA; Beaver Tract	Winona	10810215	35	-	Yes
Whitewater WMA	Winona	10810219	71	-	Yes
Whitewater WMA	Winona	10709230	43	-	Yes
RJ Dorer State Forest	Winona	10708213	29	-	Yes
RJ Dorer State Forest; North Rollingstone Tract	Winona	10509235	92	-	Yes
Whitewater WMA; Kramer Ridge Tract	Winona	10710211	14	-	Yes



Protect in Easement
Protect in Fee with PILT
Protect in Fee W/O PILT
Restore
Enhance
Other

Parcel Map
Southeast Forest Habitat Enhancement
(Data Generated From Parcel List)