Lessard-Sams Outdoor Heritage Council Laws of Minnesota 2020 Accomplishment Plan

Date: December 16, 2019

Program or Project Title: Fisheries Habitat Protection on Strategic North Central Minnesota Lakes - Phase VI (2020)

CLEAN WATER LAND & CAMENDMENT

Funds Recommended: \$3,283,000

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Legislative Citation: ML 2020, Ch. X, Art. 1, Sec. 2, subd XX

Appropriation Language:

County Locations: Aitkin, Cass, Crow Wing, and Hubbard.

Eco regions in which work will take place:

• Northern Forest

Activity types:

- Protect in Easement
- Protect in Fee

Priority resources addressed by activity:

- Forest
- Habitat

Abstract:

The Northern Waters Land Trust (NWLT), in partnership with the Minnesota Land Trust (MLT), will protect high priority critical fish habitat within 15 tullibee "refuge" lakes and their minor watersheds by securing conservation easements and fee title acquisitions. Through this Fisheries Habitat Protection program, NWLT and MLT are working to protect 75% of each targeted watershed, a measure that provides a high probability of maintaining clean water and healthy lake ecosystems. We will permanently protect approximately 522 acres and 812 feet of shoreland through this proposal.

Design and scope of work:

Sustaining a strong angling heritage in North Central Minnesota (along with the local economy it drives) revolves largely around protecting fisheries habitat. Resurging shoreland development pressures and looming climate change are direct threats to the ecology of Minnesota's lakes. Fisheries research has shown that healthy watersheds with intact forests are fundamental to sustaining good fish habitat over the long term; achieving a 75% protection goal for a lake's watershed ensures a highly resilient and healthy lake ecosystem.

Our protection efforts are focused on tullibee (aka cisco), a preferred forage fish of walleye, northern pike, muskellunge and lake trout. They require cold, well oxygenated waters, a condition most common in lakes with deep water and healthy watersheds.

Minnesota DNR Fisheries researchers studied tullibee lakes and designated 68 lakes in Minnesota as the primary "refuge lakes" for tullibee that need protection. We are targeting fifteen (15) of these lakes and their minor watershed located in Hubbard, Crow Wing, Cass, and Aitkin counties. Many are Minnesota's premier recreational lakes.

The Clean Water Critical Habitat (CWCH) Technical Committee evaluated all tullibee lakes in our project area and prioritized 16 lakes and their minor watersheds for action. In assigning priorities, the CWCH considered: (1) the ecological value of the lake, (2) the percent of the minor watershed currently protected, (3) the number of parcels in the watershed greater than 20 acres in size, (4) partner organizations available for advising on outreach efforts, and (5) investment by other agencies and organizations to protect lands and watersheds.

Due to the high level of interest in the program and its great success to date, we are applying for a Phase VI of this effort. In this phase, we will protect 522 strategically important acres of land, 407 acres through conservation easement and 115 acres through fee title acquisition. Program partners will include County Soil & Water Districts, MNDNR Fisheries, Minnesota Land Trust and NWLT. This team will conduct outreach to potential landowners and help evaluate the projects to assure we are prioritizing those projects with the greatest conservation outcomes. In addition, to ensure the best conservation return on the state's investment, landowner willingness to donate a portion of the easement value will be a key component of the parcel's evaluation. MLT will hold the easements.

NWLT proposes securing a fee-title acquisition totaling 115 acres and 812 ft of sensitive shoreland on Wabedo Lake in Cass County. This parcel adjoins county forest lands and would be conveyed to Cass County as managed forest lands.

How does the request address MN habitats that have: historical value to fish and wildlife, wildlife species of greatest conservation need, MN County Biological Survey data, and/or rare, threatened and endangered species inventories:

Tullibee (aka cisco) is the preferred forage fish for walleye, northern pike, muskellunge and lake trout. They require cold, well oxygenated waters - a condition most common in lakes with deep water and healthy watersheds. Tullibee populations are the "canary in the coal mine" for three significant threats to Minnesota's sport fisheries: shoreland development, watershed health and climate warming. Deep, cold water lakes with high quality, well-oxygenated waters and natural, undisturbed land cover along the shorelines and within their watersheds will have the best chance to sustain tullibee populations in the face of these threats and will serve as a "refuge" for the tullibee if annual temperatures increase.

Minnesota DNR Fisheries research studied tullibee lakes and designated 68 lakes in Minnesota as primary "refuge lakes" for tullibee that need protection. Fifteen (15) of these lakes and their minor watersheds representing 23.5% of the designated "refuge" lakes (and minor watersheds) are located in Crow Wing, Aitkin, Cass and Hubbard counties. These lakes are premier recreational and sport fishery lakes. Fisheries research has shown that healthy watersheds with intact forest are fundamental to good fish habitat. MN DNR Fisheries Habitat Plan, states near shore fish habitat affected by shoreland disturbance can impact fisheries. Maintaining good water quality is critical to sustaining tullibees as determined by the water's oxygen level and nutrient content. Lakeshore development decreases a lakes ability to function as a healthy ecosystem for sport fish and their forage, due to increased runoff, but also through physical alternation by lakeshore owners.

Describe the science based planning and evaluation model used:

Timothy Cross and Peter Jacobson in their white paper, "Landscape factors influencing lake phosphorus concentrations across Minnesota" determined coldwater fish communities are especially vulnerable to eutrophication from increased phosphorus concentrations. Decreases in hypolimnetic oxygen concentrations have direct negative effects on fish such as Tullibee that physiologically require oxygenated cold water to survive, grow and reproduce. Protection is viewed as the most cost-effective strategy when applied to watersheds where human activities have not already significantly elevated phosphorus levels.

Peter Jacobson and Mike Duval, in "Protecting Watershed of Minnesota Lakes with Private Forest Conservation Easements: A Suggested Strategy", stated that protecting the forests in these watersheds from development is critical for maintaining water quality in these lakes. While large areas of land in forested portions are under public ownership, a considerable amount is also owned by private individuals in some of our most critical lake watersheds. These parcels are increasingly being "split up" and sold. Modeling by MN DNR Fisheries research unit suggests that total phosphorus concentrations remain near natural background levels when less than 25% of a lake's watershed is disturbed. Tullibee "refuge" lakes have watersheds with less than 25% disturbed land uses and are good candidates for protection. Very deep lakes with exceptional water quality to support coldwater fish populations like tullibee were considered priorities by the report.

Minnesota DNR Fisheries researchers studied tullibee lakes and designated 68 lakes in Minnesota as the primary "refuge lakes" for tullibee. We focused our protection efforts of the highest quality tullibee lakes that will require modest to moderate levels of land protection to achieve 75% protection levels. Protecting the habitats of tullibee "refuge" lakes along the shoreline and surrounding forest lands is essential to a sustained sport fishery.

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

- H1 Protect priority land habitats
- H2 Protect critical shoreland of streams and lakes

Which other plans are addressed in this program:

- Long Range Plan for Fisheries Management
- Leech Lake River Comprehensive Watershed Management Plan (LLRCWMP)

Which LSOHC section priorities are addressed in this program:

Northern Forest:

 Protect shoreland and restore or enhance critical habitat on wild rice lakes, shallow lakes, cold water lakes, streams and rivers, and spawning areas

Relationship to other funds:

• Not Listed

Does this program include leverage in funds:

Yes

This proposal includes the following funds as leverage to our OHF request:

- Landowner donation in the amount of \$167,000 in easement value is proposed.
- Landowner, lake association and county donation in the amount of \$76,350 is proposed for fee acquisitions.

Per MS 97A.056, Subd. 24, Any state agency or organization requesting a direct appropriation from the OHF must inform the LSOHC at the time of the request for funding is made, 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:

Funding procured by NWLT and MLT through funding from this Outdoor Heritage Fund proposal will not supplant or substitute any previous funding from a non-Legacy fund used for the same purpose.

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

Not Listed

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

NWLT and MLT are long standing conservation organizations that do not depend on Outdoor Heritage Funds to sustain or maintain our work. The majority of financial support for both NWLT and MLT must be raised on an annual basis. The work in this proposal allows both organizations to enhance and accelerate ongoing conservation efforts in North Central Minnesota; these grant funds will not substitute for or supplant other funding sources.

The fee-title acquisition will be owned and managed by Cass County. The Minnesota Land Trust will hold the conservation easements acquired, which will be sustained through the best standards and practices for conservation easement stewardship. The Minnesota Land Trust is a nationally-accredited land trust with a very successful stewardship program that includes annual property monitoring, effective records management, addressing inquiries and interpretations, tracking changes in ownership, investigating potential violations and defending the easement in case of a true violation. In addition, MLT encourages landowners to undertake active ecological management of their properties, provides them with habitat management plans, and works with them over time to secure resources (expertise and funding) to undertake these activities over time.

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

Year	Source of Funds	Step 1	Step 2	Step 3
2024 and in perpetuity	MLT stewardship fund	Annually monitor easements	Enforcement as necessary	

Activity Details:

If funded, this program will meet all applicable criteria set forth in MS 97A.056 - Yes

Will there be planting of corn or any crop on OHF land purchased or restored in this program - No

Will county board or other local government approval be formally sought prior to acquisition, per 97A.056 subd 13(j) - Yes

Is the land you plan to acquire (fee title) free of any other permanent protection - Yes

Is this land currently open for hunting and fishing - No

Will the land be open for hunting and fishing after completion - Yes

Cass County would manage one Wabedo property as managed forest lands.

Who will eventually own the fee title land?

County

Land acquired in fee will be designated as a:

County Forest

What is the anticipated number of closed acquisitions (range is fine) you plan to accomplish with this appropriation?

One fee title acquisition will be purchased and conveyed to Cass County.

Will the eased land be open for public use - No

Is the land you plan to acquire (easement) free of any other permanent protection - Yes

Who will manage the easement?

Minnesota Land Trust.

Who will be the easement holder?

Minnesota Land Trust.

What is the anticipated number of easements (range is fine) you plan to accomplish with this appropriation?

Minnesota Land Trust expects to close between 5-8 easements under this grant, depending on size and cost.

Are there currently trails or roads on any of the acquisitions on the parcel list - Yes

Describe the types of trails or roads and the allowable uses:

Most conservation easements are established on private lands, many of which have driveways, field roads and trails located on them. Often, the conservation easement permits the continued usage of established trails and roads so long as their use does not significantly impact the conservation values of the property. Creation of new roads/trails or expansion of existing ones is typically not allowed.

Will the trails or roads remain and uses continue to be allowed after OHF acquisition - Yes

How will maintenance and monitoring be accomplished:

Existing trails and roads on easement lands are identified in the project baseline report and will be monitored annually as part of the Land Trust's stewardship and enforcement protocols. Maintenance of permitted roads/trails in accordance with the terms of the easement will be the responsibility of the landowner.

Will new trails or roads be developed or improved as a result of the OHF acquisition - No

Will the acquired parcels be restored or enhanced within this appropriation? - Yes

Restoration and enhancement may be completed on some easement parcels, depending on the the need and condition of each parcel. For the fee title project, restoration and enhancement will not be necessary within the appropriation.

Accomplishment Timeline:

Activity	Approximate Date Completed
Landowner outreach, consultation, technical assistance and easement preparation	ongoing through June 2023
Protect 115 acres on Wabedo Lake; convey to Cass County	6/30/2023
Protect 407 acres on targeted riparian and forested watershed parcels via conservation easements	6/30/2023

Date of Final Report Submission: 11/1/2023

Federal Funding:

Do you anticipate federal funds as a match for this program - No

Outcomes:

Programs in the northern forest region:

• Increased availability and improved condition of riparian forests and other habitat corridors Private shoreline habitat and forested parcels totaling 522 acres will be permanently protected from development and fragmentation through conservation easements. Riparian forest lands under easement will maintain healthy habitat complexes for upland and aquatic species; forest cover will enhance water quality habitat for tullibee lakes. Conservation easement properties will protect fish habitat to insure high quality fishing opportunities. Greater public access for wildlife and outdoors-related recreation will be attained through Fee-Title acquisition of properties to be conveyed to Cass County as forest management lands.

Budget Spreadsheet

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

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

Outputs were reduced proportionately to the funding that was allocated. Funding was allocated to ensure NWLT would secure one priority parcel in fee title acquisition and conduct effective landowner outreach. MLT's budget would enable a proportionate amount of conservation easements.

Total Amount of Request: \$ 3283000

Budget and Cash Leverage

Budget Name	LSOHC Request	Anticipated Leverage	Leverage Source	Total
Personnel	\$210,000	\$0		\$210,000
Contracts	\$88,000	\$0		\$88,000
Fee Acquisition w/ PILT	\$763,500	\$76,300	Cass County, Lake Assoc., Individuals	\$839,800
Fee Acquisition w/o PILT	\$0	\$0		\$0
Easement Acquisition	\$1,702,000	\$167,000	Landowner Donation of Easement Value	\$1,869,000
Easement Stewardship	\$192,000	\$0		\$192,000
Travel	\$18,000	\$0		\$18,000
Pro fessio nal Services	\$202,500	\$0		\$202,500
Direct Support Services	\$74,000	\$0		\$74,000
DNR Land Acquisition Costs	\$20,000	\$0		\$20,000
Capital Equipment	\$0	\$0		\$0
Other Equipment/Tools	\$5,000	\$0		\$5,000
Supplies/Materials	\$8,000	\$0		\$8,000
DNR IDP	\$0	\$0		\$0
Total	\$3,283,000	\$243,300		\$3,526,300

Personnel

Position	FTE	Over#ofyears	LSOHC Request	Anticipated Leverage	Leverage Source	Total
NWLT Staff	0.50	3.00	\$90,000	\$0		\$90,000
MLT Protection Staff	0.42	3.00	\$120,000	\$0		\$120,000
Total	0.92	6.00	\$210,000	\$0		\$210,000

Budget and Cash Leverage by Partnership

Budget Name	Partnership	LSOHC Request	Anticipated Leverage	Leverage Source	Total
Personnel	Northern Waters Land Trust	\$90,000	\$0		\$90,000
Contracts	Northern Waters Land Trust	\$40,000	\$0		\$40,000
Fee Acquisition w/ PILT	Northern Waters Land Trust	\$763,500	\$76,300	Cass County, Lake Assoc., Individuals	\$839,800
Fee Acquisition w/o PILT	Northern Waters Land Trust	\$0	\$0		\$0
Easement Acquisition	Northern Waters Land Trust	\$0	\$0		\$0
Easement Stewardship	Northern Waters Land Trust	\$0	\$0		\$0
Travel	Northern Waters Land Trust	\$8,000	\$0		\$8,000
Pro fessio nal Services	Northern Waters Land Trust	\$59,000	\$0		\$59,000
Direct Support Services	Northern Waters Land Trust	\$41,500	\$0		\$41,500
DNR Land Acquisition Costs	Northern Waters Land Trust	\$20,000	\$0		\$20,000
Capital Equipment	Northern Waters Land Trust	\$0	\$0		\$0
Other Equipment/Tools	Northern Waters Land Trust	\$0	\$0		\$0
Supplies/Materials	Northern Waters Land Trust	\$8,000	\$0		\$8,000
DNR IDP	Northern Waters Land Trust	\$0	\$0		\$0
Total		\$1,030,000	\$76,300		\$1,106,300

Personnel - Northern Waters Land Trust

Position	FTE	Over # of years	LSOHC Request	Anticipated Leverage	Anticipated Leverage Leverage Source	
NWLT Staff	0.50	3.00	\$90,000	\$0		\$90,000
Total	0.50	3.00	\$90,000	\$0		\$90,000

Budget Name	Partnership	LSOHC Request	Anticipated Leverage	Leverage Source	Total
Personnel	Minnesota Land Trust	\$120,000	\$0		\$120,000
Contracts	Minnesota Land Trust	\$48,000	\$0		\$48,000
Fee Acquisition w/ PILT	Minnesota Land Trust	\$0	\$0		\$0
Fee Acquisition w/o PILT	Minnesota Land Trust	\$0	\$0		\$0
Easement Acquisition	Minnesota Land Trust	\$1,702,000	\$167,000	Landowner Donation of Easement Value	\$1,869,000
Easement Stewardship	Minnesota Land Trust	\$192,000	\$0		\$192,000
Travel	Minnesota Land Trust	\$10,000	\$0		\$10,000
Pro fessio nal Services	Minnesota Land Trust	\$143,500	\$0		\$143,500
Direct Support Services	Minnesota Land Trust	\$32,500	\$0		\$32,500
DNR Land Acquisition Costs	Minnesota Land Trust	\$0	\$0		\$0
Capital Equipment	Minnesota Land Trust	\$0	\$0		\$0
Other Equipment/Tools	Minnesota Land Trust	\$5,000	\$0		\$5,000
Supplies/Materials	Minnesota Land Trust	\$0	\$0		\$0
DNR IDP	Minnesota Land Trust	\$0	\$0		\$0
Tota	I	\$2,253,000	\$167,000		\$2,420,000

Personnel - Minnesota Land Trust

Po sitio n	FTE	Over#ofyears	LSOHC Request	Anticipated Leverage	Leverage Source	Total
MLT Protection Staff	0.42	3.00	\$120,000	\$0		\$120,000
Total	0.42	3.00	\$120,000	\$0		\$120,000

Amount of Request: \$3,283,000

Amount of Leverage: \$243,300

Leverage as a percent of the Request: 7.41%

DSS + Personnel: \$284,000

As a % of the total request: 8.65%

How did you determine which portions of the Direct Support Services of your shared support services is direct to this program:

NWLT and MLT have individual, pre-determined percentages.

MLT - In a process that was approved by the DNR on March 17, 2017, Minnesota Land Trust determined our direct support services rate to include all of the allowable direct and necessary expenditures that are not captured in other line items in the budget, which is similar to the Land Trust's proposed federal indirect rate. We will apply this DNR-approved rate only to personnel expenses to determine the total amount of direct support services.

What is included in the contacts line?

NWLT - One sole source provider contractor.

MLT - Writing of habitat management plans by vendors.

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

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

Land Trust staff regularly rent vehicles for grant-related purposes, which is a significant cost savings over use of personal vehicles.

Describe and explain leverage source and confirmation of funds:

NWLT plans to cover any expenses not covered by this grant through donations or general operating income.

MLT encourages landowners to fully or partially donate the value of conservation easements to the program; the leverage amount is a

conservative estimate of value we expect to see donated by landowners.

What is the cost per easement for stewardship and explain how that amount is calculated?

The average cost per easement to fund the Minnesota Land Trust's perpetual monitoring and enforcement obligations is \$24,000. This figure is derived from MLT's detailed stewardship funding "cost analysis" which is consistent with Land Trust Accreditation standards. MLT shares periodic updates to this cost analysis with LSOHC staff.

Output Tables

Table 1a. Acres by Resource Type

Туре	Wetlands	Prairies	Forest	Habitats	Total
Restore	0	0	0	0	0
Pro tect in Fee with State PILT Liability	0	0	0	115	115
Protect in Fee W/O State PILT Liability	0	0	0	0	0
Protect in Easement	0	0	0	40 7	40 7
Enhance	0	0	0	0	0
Total	0	0	0	522	522

Table 2. Total Funding by Resource Type

Туре	Wetlands	Prairies	Forest	Habitats	Total
Restore	\$0	\$0	\$0	\$0	\$0
Protect in Fee with State PILT Liability	\$0	\$0	\$0	\$918,200	\$918,200
Protect in Fee W/O State PILT Liability	\$0	\$0	\$0	\$0	\$0
Pro tect in Easement	\$0	\$0	\$0	\$2,364,800	\$2,364,800
Enhance	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$0	\$0	\$3,283,000	\$3,283,000

Table 3. Acres within each Ecological Section

Туре	Metro Urban	Fo rest Prairie	SE Forest	Prairie	N Forest	Total
Restore	0	0	0	0	0	0
Protect in Fee with State PILT Liability	0	0	0	0	115	115
Pro tect in Fee W/O State PILT Liability	0	0	0	0	0	0
Protect in Easement	0	0	0	0	40 7	40 7
Enhance	0	0	0	0	0	0
Total	0	0	0	0	522	522

Table 4. Total Funding within each Ecological Section

Туре	Metro Urban	ForestPrairie	SEForest	Prairie	N Forest	Total
Restore	\$0	\$0	\$0	\$0	\$0	\$0
Protect in Fee with State PILT Liability	\$0	\$0	\$0	\$0	\$918,200	\$918,200
Protect in Fee W/O State PILT Liability	\$0	\$0	\$0	\$0	\$0	\$0
Protect in Easement	\$0	\$0	\$0	\$0	\$2,364,800	\$2,364,800
Enhance	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$0	\$0	\$0	\$3,283,000	\$3,283,000

Table 5. Average Cost per Acre by Resource Type

Туре	Wetlands	Prairies	Forest	Habitats
Restore	\$0	\$0	\$0	\$0
Protect in Fee with State PILT Liability	\$0	\$0	\$0	\$7984
Protect in Fee W/O State PILT Liability	\$0	\$0	\$0	\$0
Protect in Easement	\$0	\$0	\$0	\$5810
Enhance	\$0	\$0	\$0	\$0

Table 6. Average Cost per Acre by Ecological Section

Туре	Metro/Urban	Forest/Prairie	SEForest	Prairie	Northern Forest
Restore	\$0	\$0	\$0	\$0	\$0
Protect in Fee with State PILT Liability	\$0	\$0	\$0	\$0	\$7984
Protect in Fee W/O State PILT Liability	\$0	\$0	\$0	\$0	\$0
Protect in Easement	\$0	\$0	\$0	\$0	\$5810
Enhance	\$0	\$0	\$0	\$0	\$0

Automatic system calculation / not entered by managers

Target Lake/Stream/River Feet or Miles

812 shoreline feet for fee title acquisition

Parcel List

For restoration and enhancement programs ONLY: Managers may add, delete, and substitute projects on this parcel list based upon need, readiness, cost, opportunity, and/or urgency so long as the substitute parcel/project forwards the constitutional objectives of this program in the Project Scope table of this accomplishment plan. The final accomplishment plan report will include the final parcel list.

Section 1 - Restore / Enhance Parcel List

No parcels with an activity type restore or enhance.

Section 2 - Protect Parcel List

Aitkin

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
Cedar Lake/watershed	0 4727231	0	\$0	No		
Long Lake/watershed	04625210	0	\$0	No		
Round Lake/watershed	0 4923225	0	\$0	No		
Cass						

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
Girl Lake/watershed	14128233	0	\$0	No		
Little Boy Lake/watershed	14028210	0	\$0	No		
Long Lake/watershed	14231233	0	\$0	No		
Roosevelt Lake/watershed	13826208	0	\$0	No		
Wabedo Lake	140 28 232	118	\$763,500	No	Full	Full
Wabedo Lake/watershed	14828232	0	\$0	No		

Crow Wing

Name	TRDS	Acres	EstCost	Existing Protection?	Hunting?	Fishing?
Borden Lake/watershed	0 4428214	0	\$0	No		
Island Lake/Loon Lake watershed	13727205	0	\$0	No		
Ossawinamakee Lake/watershed	13628204	0	\$0	No		
Whitefish Lake/watershed	13728207	0	\$0	No		

Hubbard

Name	TRDS	Acres	EstCost	Existing Protection?	Hunting?	Fishing?
Big Mantrap Lake/watershed	14233232	0	\$0	No		
Big Sand Lake/watershed	14138228	0	\$0	No		
Kabekona Lake/watershed	14332230	0	\$0	No		

Section 2a - Protect Parcel with Bldgs

No parcels with an activity type protect and has buildings.

Section 3 - Other Parcel Activity

No parcels with an other activity type.

Parcel Map

