



Lessard-Sams Outdoor Heritage Council

ML 2022 Request for Funding

General Information

Date: 06/03/2021

Proposal Title: Protecting Coldwater Fisheries on Minnesota's North Shore - Phase 2

Funds Requested: \$4,391,000

Manager Information

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Location Information

County Location(s):

Eco regions in which work will take place:

- Northern Forest

Activity types:

- Protect in Easement

Priority resources addressed by activity:

- Wetlands
- Forest
- Habitat

Narrative

Abstract

The magnitude, timing, and frequency of flow are key attributes governing the structure of native fish and aquatic communities. Through targeted protection projects, the Minnesota Land Trust will conserve these attributes and ensure resiliency of priority coldwater tributaries to Lake Superior. The Land Trust will protect 840 acres and 2 miles of shoreline by targeting high quality, priority parcels that will protect habitats for coldwater species such as trout and cisco, but also provide habitat for a number of wildlife species such as American woodcock and golden-winged warbler.

Design and Scope of Work

Lake Superior and its tributaries in Minnesota have some of the most important cold-water trout habitat in the State, supporting native brook trout and naturalized populations of salmon, steelhead, and brown trout. This coldwater fishery is vulnerable to climate and landcover change as it is mostly surface water fed. Combined, these factors may result in water temperature increases and flow regime changes that threaten support of cold-water fish species such as trout and salmon.

Protection of shaded shorelines and headwaters wetlands within these tributary streams and rivers are critical for maintaining the coldwater resources and flow regimes that support this fishery. The magnitude, timing, frequency of flow are key attributes governing the structure of native fish and aquatic communities. For example, along the North Shore, stream discharge and water temperature are the major signals influencing the timing of the juvenile steelhead migration. Significant alterations to natural patterns of hydrology impact the suitability of those systems for native aquatic biodiversity.

The Ecological Limits of Hydrologic Alteration (ELOHA) 2016 study assessed management criteria to sustain healthy aquatic ecosystems in a changing climate. This study found that the combination of climate change and land use changes can be expected to result in increased intensity of storm events, increased runoff and increased erosion, which will in turn drive a series of cascading impacts to streams, including higher temperatures, reduced dissolved oxygen, increased primary production rates, and increased biological oxygen demand. These changes will negatively impact fish and other organisms in the stream. Similar impacts are expected in deep, cold lakes that support trout, cisco and other coldwater species. The ELOHA study recommends management actions that focus on protecting baseflows. This includes: 1) Protection of wetlands, vernal pools and floodplains that slowly release water into the system; 2) Management and maintenance of riparian zones, forest cover/shade and 3) Promotion and restoration of connectivity.

We propose to strategically procure conservation easements within high-quality watersheds. We will work in line with the methodology developed by the ELOHA program to identify priority watersheds and target properties to protect both water temperature as well as flow regimes. Conservation easements secured under this program will be perpetual and drafted to prevent the fragmentation and destruction of existing habitat. These easements will ensure that the sensitive shoreline and headwaters habitat will remain ecologically viable and productive for fish, game and wildlife by prohibiting land uses that negatively impact the important habitat values and requiring habitat management plans to maximize the benefits of shoreland and associated forested uplands.

Outcomes from this project include: 1) healthy populations of trout and other fish species, and other Species in Greatest Conservation Need; 2) maintenance of water quality within targeted aquatic resources; and 3) increased participation of private landowners in natural habitat protection projects.

Phase 1 funding has been largely committed to existing projects. We desire to build upon the momentum being created through our first grant and further elevate protection of these critical resources.

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

The natural shoreland around Lake Superior's lakes and rivers comprises one of the most biologically important systems in the state for fish, game and wildlife and is also one of its most threatened. This program will preserve critical shoreland habitats and protect headwaters of some of the most sensitive lakes, streams and rivers that flow into Lake Superior - important components of the state's natural heritage - essential to maintaining healthy populations of the region's fish and wildlife populations (trout and other fish, waterfowl, and other Species in Greatest Conservation Need) and maintaining water quality of aquatic resources. Some SGCNs that would benefit include American woodcock, olive-sided flycatcher, golden-winged warbler, winter wren, black-backed woodpecker and cisco. Numerous plans have identified the protection of these habitats as a conservation priority for Minnesota, including the Minnesota Wildlife Action Plan, DNR's Aquatic Management Area program, the State Conservation and Preservation Plan, Minnesota DNR Strategic Conservation Agenda, and Outdoor Heritage Fund: A 25 Year Framework. The central goal of this program is to protect and restore high quality habitat by securing permanent conservation easements in strategic locations within priority watersheds of North Shore coldwater streams.

What is the degree of timing/opportunistic urgency and why it is necessary to spend public money for this work as soon as possible?

The development of the State's remaining sensitive shoreland and headwaters habitat continues to be a threat identified in many of the State's resource protection plans. Many of Minnesota's most desirable lakes have been fully developed the pressure is now moving to rivers and streams. DNR and other scientists indicate that the shoreland zone is one of the most biologically diverse and important habitat types for a variety of wildlife species.

The recent lull in the real-estate market has given many landowners an opportunity to reflect on the future of their lands, providing a narrow window of time to invest in these shoreland protection projects. With the real estate market again growing, additional pressure is once again being placed on these resources. Outreach conducted under previous grants has generated tremendous landowner interest that will be met through this proposed work.

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

The ELOHA study states that populations of coldwater fish species face limiting factors due to the area's bedrock geology including warm water temperatures, lack of suitable spawning and nursery habitat, and reduced stream connectivity. These factors coupled with low base flows and high storm flows makes these streams and the fish and other aquatic life that live there vulnerable to changes in flow as a result of climate change. The ELOHA study looks at stream vulnerability, and identifies management actions that can be taken to maintain and enhance the natural resilience of streams.

A key recommendation of the study is to mitigate impacts on baseflow and water temperatures through protection of wetlands, vernal pools, riparian areas and forest cover. This program will use the insights from the ELOHA study and other data to develop an analysis and scoring and ranking methodology to identify priority watersheds and a targeted list of critical private lands for protection.

Habitat management plans developed with each easement project completed through this program will promote climate change resilient forests and shaded riparian areas.

Established conservation plans such as the Minnesota Land Trust's Conservation Agenda 2017-2027, State Conservation and Preservation Plan, Minnesota DNR's Strategic Conservation Agenda, Minnesota's Wildlife Action Plan 2015-2025, and Outdoor Heritage Fund: A 25 Year Framework will be used to identify priority areas for work and combined with GIS analysis will identify potential project areas that fill in gaps or leverage existing land protection. Criteria used will incorporate site specific assessment of parcel quality, landscape context, return on investment, and urgency. The program emphasizes protecting shoreland habitat on coldwater lakes, streams and rivers, headwater wetlands, and spawning areas.

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

- H2 Protect critical shoreland of streams and lakes
- H5 Restore land, wetlands and wetland-associated watersheds

Which two other plans are addressed in this proposal?

- Minnesota's Wildlife Action Plan 2015-2025
- Outdoor Heritage Fund: A 25 Year Framework

Describe how your program will advance the indicators identified in the plans selected:

Once secured, conservation easements will protect in perpetuity the important shoreland, headwaters and associated upland habitats adjacent to some of Minnesota's premier aquatic resources. Habitat management plans will be developed and provided to the landowners for use in enhancing and maintaining each protected parcel's important habitat. Protection of these critical habitats advances a primary goal identified by the Minnesota Wildlife Action Plan through stabilization of Species in Greatest Conservation Need (SGCN). Protection and stewardship of private forest lands, wetlands, and grasslands will promote conservation of natural lands, fisheries, and wildlife as a priority statewide action identified in the DNR Strategic Conservation Agenda.

Which LSOHC section priorities are addressed in this proposal?

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

Describe how your program will produce and demonstrate a significant and permanent conservation legacy and/or outcomes for fish, game, and wildlife as indicated in the LSOHC priorities:

The Land Trust's Protecting Coldwater Fisheries on Minnesota's North Shore Program focuses on protecting some of the most important recreational and sport fisheries resources in Minnesota and helps preserve this State's proud angler heritage. When many residents endorsed the Legacy Amendment, they indicated a strong interest in seeing our water resources protected. This program takes a science based and targeted approach to protect key habitat to sustain one of Minnesota's most important cold-water fisheries.

Wildlife such as American woodcock, ruffed grouse, olive-sided flycatcher and golden-winged warbler will benefit by protection of shorelines and headwaters wetlands associated with cold water stream habitat.

This program will secure permanent conservation easements on priority lands with high quality habitats that also serve to build complexes of protected habitat. The program will enhance the State's and MLT's prior investments in

habitat protection and will result in an even larger, lasting legacy thanks to the permanency of the easements and the participation of Minnesota's landowners in our State's conservation efforts. The Land Trust's program is cultivating a high conservation ethic and developing effective tools for landowners to protect their lands and waters.

What other fund may contribute to this proposal?

- N/A

Does this proposal include leveraged funding?

Yes

Explain the leverage:

The Land Trust encourages landowners to fully or partially donate the value of conservation easements. MLT also has private funding available to work in this landscape. The leverage portion of the easement acquisition line item (\$700,000) is a conservative estimate of value we expect to see donated by landowners.

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.

This request is not supplanting or substituting for any previous funding. This is entirely new work.

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

The land protected through conservation easements will be sustained through the best standards and practices for conservation easement stewardship. The Minnesota Land Trust is a nationally-accredited and insured 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. Funding for these easement stewardship activities is included in the project budget.

In addition, the Land Trust prepares for each landowner a habitat management plan that provides recommendations for use in ecologically managing the property over time. The Land Trust actively encourages landowners to manage their properties in line with the conservation easement, and works with landowners to address any financial or informational obstacles that stand in the way of them doing so.

Actions to Maintain Project Outcomes

Year	Source of Funds	Step 1	Step 2	Step 3
2027	MLT Long-Term Stewardship and Easement Fund	Annual monitoring of property in perpetuity	Enforcement as necessary	-

Identify indicator species and associated quantities this habitat will typically support:

DNR staff, in consultation with a variety of experts in NGOs and other agencies, have compiled a select group of species and associated quantities to be used as indicators. The metrics are derived from existing data sources and/or scientific literature, but are necessarily gross averages; they are not accurate at a site-specific scale. Therefore, they are not intended to be used to score or rank requests but represent the best information we have for immediate support to the Council's objective.

1. Forests - Two species have been identified to represent various forest habitats:

Ovenbird: Are found in relatively mature forest but can also be found in younger forests. While territories vary in size and may overlap, an average of 16 pairs for every 40 acres may be expected.

Golden-winged warbler: Often associated with shrubland habitat and regenerating forests, a variety of forest habitats are required (a matrix of shrubby wetlands and uplands, regenerating forests, and mature forests). While territories vary in size, roughly 6 pairs for every 40 acres may be expected.

2. Aquatic Species - The information below is based on general averages for potential aquatic indicator species in Minnesota, and does not capture the variability inherent in populations of fish and mussels. Natural populations, including healthy populations with good habitat, vary among locations, and also rise and fall within lakes and rivers.

Trout: 40 lbs per acre.

How will the program directly involve, engage, and benefit BIPOC (Black, Indigenous, People of Color) and diverse communities:

One of the Minnesota Land Trust's core public values is a commitment to diversity, equity, and inclusion. We have been engaged in a year-long process to assess how the conservation community—and the Minnesota Land Trust in particular—can better address these issues. To date, we have demonstrated this commitment when possible given the funding parameters and our unique role in working with private landowners, including numerous projects to protect the camps and nature centers that serve a diversity of Minnesota youth and a long-term partnership with the Fond du Lac Band of Lake Superior Chippewa on wild rice restoration.

Going forward, we intend to build on this engagement by using diversity, equity, and inclusion as a lens in project, partner, and contractor selection. In each of our program areas, we intend to listen and seek out potential, authentic partnerships that can advance our goals of conserving the best of Minnesota's remaining habitats and, at the same time, being a more inclusive organization. One related program we are exploring is a new "Ambassador Lands Program" which would connect willing conservation landowners to diverse community groups that need access to land for a variety of programming purposes, such as youth mentor hunts, cultural or ceremonial use, conservation employment training, bird banding, and much more. This would add greatly to the more universal public benefits of conserved lands such as wildlife habitat, clean water, and climate mitigation.

Finally, we welcome more conversations with the LSOHC and conservation community about how these values can be better manifest in all our shared work going forward.

Activity Details

Requirements

If funded, this proposal will meet all applicable criteria set forth in MS 97A.056?

Yes

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

Yes

Land Use

Will there be planting of any crop on OHF land purchased or restored in this program?

No

Will the eased land be open for public use?

No

Are there currently trails or roads on any of the proposed acquisitions?

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, these established trails and roads are permitted in the terms of the easement and can be maintained for personal use if 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 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 line 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 land that you acquire (fee or easement) be restored or enhanced within this proposal's funding and availability?

No

Explain how, when, and source of the R/E work:

Lands protected via easement will be assessed as to their need for R/E work by the Land Trust's Restoration Program. If R/E needs are identified, they will be built into future funding proposals.

Other OHF Appropriation Awards

Have you received OHF dollars in the past through LSOHC?

Yes

Approp Year	Approp Amount Received	Amount Spent to Date	Leverage Reported in AP	Leverage Realized to Date	Acres Affected in AP	Acres Affected to Date	Complete/Final Report Approved?
2020	\$1,809,000	\$6,200	\$240,000	-	358	0	No

Timeline

Activity Name	Estimated Completion Date
Acquire conservation easements: 1) identify priority landowners; 2) negotiate, draft and complete easements; 3) dedicate funds for stewardship	June 30, 2026

Budget

Totals

Item	Funding Request	Antic. Leverage	Leverage Source	Total
Personnel	\$247,000	-	-	\$247,000
Contracts	\$65,000	-	-	\$65,000
Fee Acquisition w/ PILT	-	-	-	-
Fee Acquisition w/o PILT	-	-	-	-
Easement Acquisition	\$3,500,000	\$700,000	Landowner and private	\$4,200,000
Easement Stewardship	\$240,000	-	-	\$240,000
Travel	\$10,000	-	-	\$10,000
Professional Services	\$257,000	-	-	\$257,000
Direct Support Services	\$67,000	-	-	\$67,000
DNR Land Acquisition Costs	-	-	-	-
Capital Equipment	-	-	-	-
Other Equipment/Tools	\$5,000	-	-	\$5,000
Supplies/Materials	-	-	-	-
DNR IDP	-	-	-	-
Grand Total	\$4,391,000	\$700,000	-	\$5,091,000

Personnel

Position	Annual FTE	Years Working	Funding Request	Antic. Leverage	Leverage Source	Total
MLT Protection Staff	0.65	4.0	247000	-	-	\$247,000

Amount of Request: \$4,391,000

Amount of Leverage: \$700,000

Leverage as a percent of the Request: 15.94%

DSS + Personnel: \$314,000

As a % of the total request: 7.15%

Easement Stewardship: \$240,000

As a % of the Easement Acquisition: 6.86%

Describe and explain leverage source and confirmation of funds:

The Land Trust encourages landowners to fully or partially donate the value of conservation easements. MLT also has private money available to work in this landscape. The leverage portion of the easement acquisition line item is a conservative estimate of value we expect to see donated to the Land Trust.

Does this proposal have the ability to be scalable?

Yes

If the project received 70% of the requested funding

Describe how the scaling would affect acres/activities and if not proportionately reduced, why?

Scaling of deliverables and activities will be proportionate to the funding received.

Describe how personnel and DSS expenses would be adjusted and if not proportionately reduced, why?

Personnel and DSS will be reduced, but moderately less than proportional. Some costs are fixed (landowner recruitment; grant management) and must occur regardless of grant amount. Projects can fail midstream after investment of time. Donation of easement value (high in this program) can inflate the number of projects pursued/completed.

If the project received 50% of the requested funding

Describe how the scaling would affect acres/activities and if not proportionately reduced, why?

Scaling of deliverables and activities will be proportionate to the funding received.

Describe how personnel and DSS expenses would be adjusted and if not proportionately reduced, why?

Personnel and DSS will be scaled, but moderately less than proportional. Some costs are fixed (landowner recruitment; grant management) and must occur regardless of grant amount. Projects can fail midstream after investment of time. Donation of easement value (high in this program) can inflate the number of projects pursued/completed.

Personnel

Has funding for these positions been requested in the past?

Yes

Please explain the overlap of past and future staffing and position levels previously received and how that is coordinated over multiple years?

FTEs listed in the proposal are an estimate of the personnel time required to deliver the grant outputs included in this proposal. An array of staff may work on projects to complete legal review, sub-contracts, negotiating with landowners, drafting conservation easements, completing baseline reports and managing the grant. MLT's basis for billing is the individual Protection project we work on, ensuring allocation to the appropriate grant award, and by using a timesheet based approach we use only those personnel funds actually expended to achieve the goals of the grant.

Contracts

What is included in the contracts line?

Funds in the contract line are for the writing of habitat management plans via qualified vendors and posting of easement boundaries.

Easement Stewardship

What is the number of easements anticipated, cost per easement for stewardship, and explain how that amount is calculated?

The budget is based on the procurement of 8-10 easements. The average cost per easement to fund the Minnesota Land Trust's perpetual monitoring and enforcement obligations is \$24,000, but under extraordinary circumstances higher amounts may be warranted. 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.

Travel

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.

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

Yes

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

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.

Other Equipment/Tools**Give examples of the types of Equipment and Tools that will be purchased?**

GPS systems, satellite communicators and other safety equipment.

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	0	0	0	0	0
Protect in Fee with State PILT Liability	0	0	0	0	0
Protect in Fee w/o State PILT Liability	0	0	0	0	0
Protect in Easement	0	0	0	840	840
Enhance	0	0	0	0	0
Total	0	0	0	840	840

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	-	-	-	\$4,391,000	\$4,391,000
Enhance	-	-	-	-	-
Total	-	-	-	\$4,391,000	\$4,391,000

Acres within each Ecological Section (Table 3)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest	Total Acres
Restore	0	0	0	0	0	0
Protect in Fee with State PILT Liability	0	0	0	0	0	0
Protect in Fee w/o State PILT Liability	0	0	0	0	0	0
Protect in Easement	0	0	0	0	840	840
Enhance	0	0	0	0	0	0
Total	0	0	0	0	840	840

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	-	-	-	-	\$4,391,000	\$4,391,000
Enhance	-	-	-	-	-	-
Total	-	-	-	-	\$4,391,000	\$4,391,000

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	-	-	-	\$5,227
Enhance	-	-	-	-

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	-	-	-	-	\$5,227
Enhance	-	-	-	-	-

Target Lake/Stream/River Feet or Miles

2 miles

Outcomes

Programs in the northern forest region:

- Increased availability and improved condition of riparian forests and other habitat corridors ~ *This program will permanently protect approximately 840 acres of strategic northern forest region habitats and approximately 2 miles of undeveloped shoreline. Measure: Acres and feet of shoreline protected.*

Parcels

Sign-up Criteria?

[Yes](#)

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

Solicitation for potential projects employs a diverse strategy of direct outreach to landowners in high priority conservation areas and coordinated outreach with conservation partners such as Trout Unlimited, Encampment Forest Association, various lake associations, and local and national organizations. Leads for potential projects are pursued following initial assessment and scoring against criteria identified in established conservation plans. Criteria based scoring systems provide a standardized set of data from which multiple projects can be compared relative to each other and individual projects can be compared against a baseline. Scoring systems are a set of data, not a final, complete decision making tool. Local expertise and experience, programmatic goals, timelines, available resources, capacity, and other more subjective factors might also come into play in project selection and decision-making.

The attached scoresheet provides an approach to criteria based scoring that considers: 1) Ecological Integrity/Viability as current status; 2) Threat/Urgency as a future scenario if protection is not afforded; and 3) Cost reflecting the overall value realized through the acquisition of a conservation easement (including a reflection of donative value). Ecological Integrity weights property size, condition, and context equally (at least as an initial starting point). The three primary factors, when taken together, provide a good estimate of long-term viability for biodiversity at the site: 1) Size of the parcel to be protected, 2) Condition of the habitat on the parcel, and 3) its Landscape context (both from a protection and ecological standpoint).



Protecting Coldwater Fisheries on Minnesota's North Shore

Phase 2

The Minnesota Land Trust is requesting \$4,391,000 for the Protecting Coldwater Fisheries on Minnesota's North Shore program.

Lake Superior and its tributaries in Minnesota have some of the most important coldwater trout habitat in the State, supporting native brook trout and naturalized populations of salmon, steelhead, and brown trout. This coldwater fishery is vulnerable to climate and landcover change as it is mostly surface water fed, resulting in water temperature increases and flow regime changes which threaten these coldwater fish species. Protection and restoration of shaded shorelines and headwaters wetlands within these tributary streams and rivers is critical for maintaining this coldwater fishery and for wildlife such as Woodcock, Ruffed Grouse, Olive-sided Flycatcher, and Golden-winged Warbler.

How Does the Program Support State Goals?

This program will preserve and restore critical shoreland headwaters of some of the most sensitive lakes, streams and rivers that flow into Lake Superior—important components of the state's natural heritage. These actions have been identified as a conservation priority in numerous plans for Minnesota, including the *Minnesota Wildlife Action Plan*, the *DNR's Aquatic Management Area program*, the *State Conservation and Preservation Plan*, *Minnesota DNR Strategic Conservation Agenda*, and *Outdoor Heritage Fund: A 25 Year Framework*.



Proposal Facts

Project Partners:
Minnesota Land Trust

Request **\$4,391,000**

Leverage **\$700,000**

Acres protected **840**

Conservation easements 840

For more information:

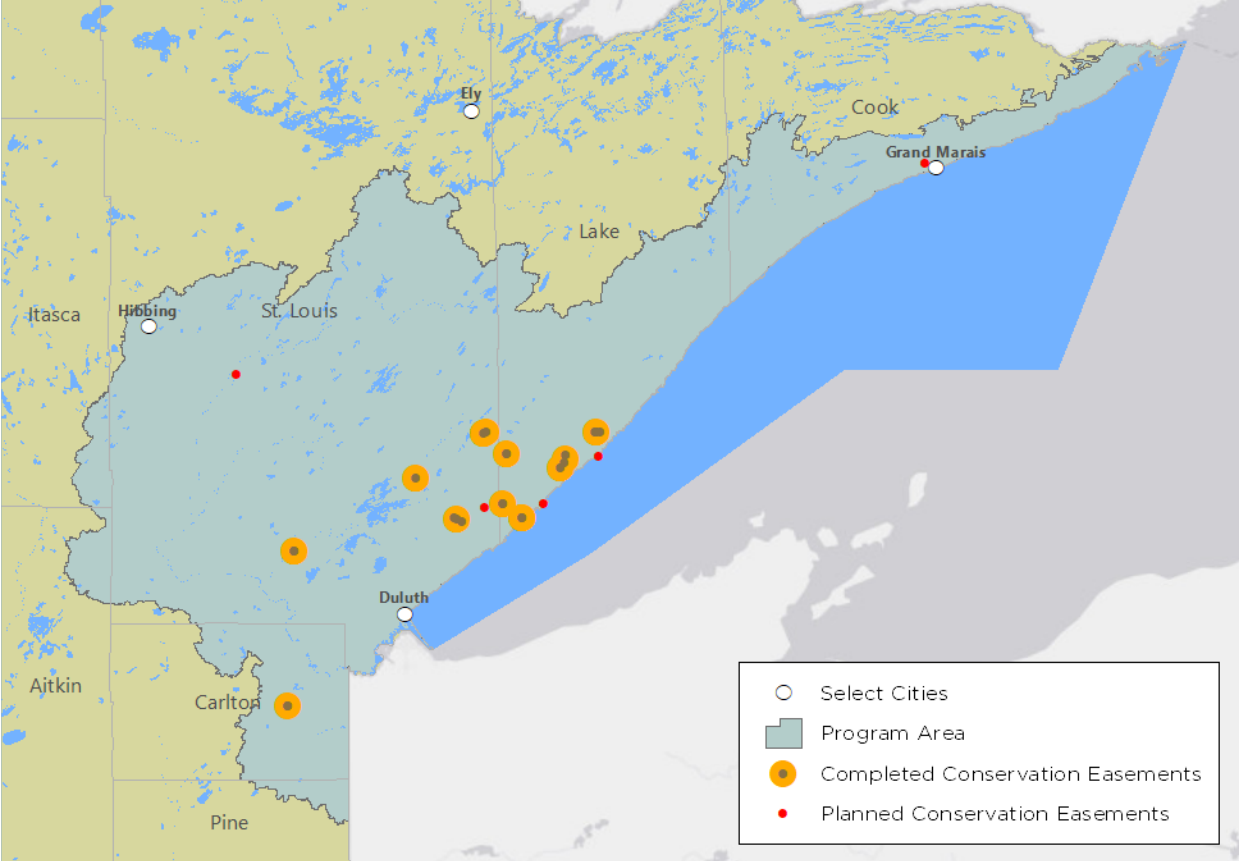
Wayne Ostlie

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What Are the Outcomes?

- Healthy coldwater fisheries benefiting a variety of species in greatest conservation need.
- Maintenance of water quality within targeted aquatic resources.
- Increased participation of private landowners in habitat projects.
- Enhancement of prior public investments made in shoreland and forest conservation in the region.

Hansi Johnson



MINNESOTA LAND TRUST

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What has Been Accomplished to Date?

The Minnesota Land Trust has been protecting properties in this program area for many years through our related the Critical Shorelands program.

Completed Programs (Critical Shorelands Phases 1, 2, 3)

Completed 8 conservation easements within program area protecting **2,078 acres** of habitat and **9.8 miles of shoreline**.

Programs In Progress

(Critical Shorelands Phase 4, 5; North Shore Coldwater Fisheries 1)
4 conservation easements have been completed protecting **1,093 acres** of habitat and **9.6 miles of shoreline**.

Proposed Program (Lakes of Biological Significance)

Starting in July, we will begin the Lakes of Biological Significance program to protect 216 acres and 2,640 ft of shoreline on some of Minnesota's priority aquatic resources.

The Critical Shorelands Program has generated considerable awareness and interest among landowners in protecting these places. Within the program area, landowners have **collectively contributed over \$6.3 million in easement value as leverage to the \$4.4 million investment from the Outdoor Heritage Fund**.





MINNESOTA LAND TRUST

A Decision Support Tool for Prioritizing Conservation Easement Opportunities

The Minnesota Land Trust often employs within its conservation program areas an RFP (Request for Proposals) model to both identify high-quality projects and introduce a level of competition into the easement acquisition process. Below, we briefly discuss how the system works and the framework put in place to sort the varied opportunities that come before us.

How the Ranking System Works

The parcel ranking framework employed through the Minnesota Land Trust's RFP process is intended as a **decision support tool** to aid in identifying, among the slate of landowners submitting bids for conservation easements, the most ecologically significant opportunities for the price. Using this framework, the Land Trust and its partners use an array of weighted data sets tailored to the specific circumstances inherent in a program area to identify those worthy of consideration.

It is important to note that this parcel ranking framework enables the Land Trust to rank projects *relative* to one another. That's important to do, but it's also important to understand how a project (or suite of projects) relates to the ideal situation (i.e., a project that is of exceptional size, condition and superb landscape context). If, for example, an RFP generated 20 proposals in a program area, the framework would effectively sift among them and identify the relatively good from those relatively bad. However, this information alone would not determine whether any of those parcels were of sufficient quality to pursue for protection (all may be of insufficient quality to warrant expenditure of funds). To solve this problem and make sure ranked projects are high priorities for conservation, we step back and evaluate them relative to the ideal - i.e., is each project among the best opportunities for conservation we can expect to find in the program area?

As part of its proposals to LSOHC, the Land Trust included easement sign-up criteria that laid out at a general level the framework utilized by the organization. Below is a more detailed description of the process the Land Trust utilizes in ranking potential parcels relative to one another, and identifying those with which a conservation easement will be pursued. We also include a ranking form illustrating the representative weighting applied to each criteria. These weightings will be refined as we move forward in applying this approach in each program area.

The Framework

We evaluate potential projects based on two primary factors: ecological significance and cost. Both are assessed independent of one another.

Factor 1: Ecological Significance

The Ecological Significance score is determined by looking at 3 subfactors, each weighted equally (as a default). Each of these constitutes 1/3 of the total ecological significance score.

Subfactors:

- **Size or Quantity** – the area of the parcel to be protected (how big is it?), length of shoreline, etc. The bigger the better.
- **Condition or Quality** – the condition of the natural communities and/or target species found on a parcel. The higher quality the better.
- **Landscape Context** – what’s around the parcel, both ecologically and from a protected status standpoint. The more ecologically intact the surrounding landscape the better; the extent to which a parcel builds off of other protected lands to form complexes or corridors, the better.

Note that we have the ability to emphasize one subfactor over another if the specific circumstances warrant it, but we begin with a default standard at the onset. At present, all of our geographies are using the default standard.

Indicators:

A suite of weighted indicators is used to score each parcel relative to each of the above subfactors. Indicators are selected based on their ability to effectively inform the scoring of parcels relative to each of the respective subfactors. Weightings for each criterion are assessed and vetted to ensure that a set of indicators for each subfactor produces meaningful results, then applied across each of the proposed parcels. Finally, we vet and make improvements to the scoring matrix when we identify issues or circumstances where results seem erroneous.

Data sets used for this purpose must offer wall-to-wall coverage across the program area to ensure that bias for or against parcels does not creep into the equation. Where gaps in such coverages exist, we attempt to fill them in to the extent feasible (via field inventory, etc.). Finally, we vet and make improvements to the scoring matrix when we identify issues or circumstances where results seem erroneous.

Factor 2: Cost

Cost is a second major factor used in our consideration of parcels. Although ecological significance is *the* primary factor in determining the merits of a project, our RFP programs also strive to make the greatest conservation impact with the most efficient use of State funds. As such, we look at the overall cost of each project relative to its ecological significance; we also ask landowners to consider donating all or some of their easement value to the cause and to better position their proposals. Many landowners participate in that fashion.

Cost, as a primary factor, is assessed independently of the ecological factors. Given equal ecological significance, a project of lower cost will be elevated over those of higher cost in the ranking. That said, exceptionally high quality projects are likely to be pursued even if no or modest landowner donation is put forward. Alternatively, there are projects offered as full donations that are not moved forward because their ecological significance is not acceptable. The degree to which cost factors into the ranking of parcels relative to one another is made on a case-by-case basis.

MINNESOTA LAND TRUST North Shore Coldwater Fisheries Conservation Easement Selection Worksheet		SITE 1	SITE 2	SITE 3	SITE 4	SITE 5	SITE 6	SITE 7	SITE 8	SITE 9	SITE 10	SITE 11	SITE 12	Notes
COUNTY														
100 Pts	ECOLOGICAL SIGNIFICANCE													
Weighting Factor	Size/Abundance of Habitat (33 points)													
	a) Size (33 pts): Acres of Habitat to be Protected by an Easement													
	SUBTOTAL:	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighting Factor	Quality of Natural Resources to be Protected by the Easement (33 points)													
	a) Habitat Quality (28 pts): Quality of Existing Ecological Systems (Terrestrial & Aquatic)													
	b) Imperiled Species (5 pts): Occurrence of Documented Rare Species on Parcel													
	SUBTOTAL:	0	0	0	0	0	0	0	0	0	0	0	0	0
Weighting Factor	Landscape Context (34 points)													
	Current Status (30 points)													
	a) Protection Context (15 points)													
	i. Size of Contiguous Protected Lands (8 pts)													
	ii. Amount of Protected Lands within 3 miles of Property													
	: Protected Land within 0.5 miles of Property (4 pts)													
	: Protected Land 0.5-3 miles from Property (3 pts)													
	b) Ecological Context (15 points)													
	i. Size of Contiguous Ecological Habitat (8 pts)													
	ii. Amount of Ecological Habitat within 3 miles of Property													
	: Ecological Habitat within 0.5 miles of Property (4 pts)													
	: Ecological Habitat 0.5-3 miles from Property (3 pts)													
	Future Potential (4 points)													
	a) Conservation Plan Context (2 pts)													
	b) Amount of Existing Activity (2 pts)													
	SUBTOTAL:	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL ECOLOGICAL VALUE POINTS	0	0	0	0	0	0	0	0	0	0	0	0	0
COST														
	i. Bid amount (\$)/acre	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	ii. Estimated donative value (\$)/acre	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	TOTAL ACQUISITION COST (\$)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

KEY	
	Priority
	Possible
	Out