



Lessard-Sams Outdoor Heritage Council

Protecting Coldwater Fisheries on Minnesota's North Shore - Phase 2
Laws of Minnesota 2022 Accomplishment Plan

General Information

Date: 06/12/2023

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

Funds Recommended: \$3,395,000

Legislative Citation: ML 2022, Ch. 77, Art. 1, Sec. 2, subd. 5(c)

Appropriation Language: \$3,395,000 the second year is to the commissioner of natural resources for an agreement with Minnesota Land Trust to acquire permanent conservation easements and to restore and enhance wildlife habitat in priority coldwater tributaries to Lake Superior. Of this amount, up to \$240,000 is to establish a monitoring and enforcement fund as approved in the accomplishment plan and subject to Minnesota Statutes, section 97A.056, subdivision 17. A list of proposed conservation easement acquisitions, restorations, and enhancements must be provided as part of the required accomplishment plan.

Manager Information

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Location Information

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

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 600 acres and 1.4 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 plan 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.

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

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 program?

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

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

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 600 acres of strategic northern forest region habitats and approximately 1.4 miles of undeveloped shoreline. Measure: Acres and feet of shoreline protected.*

Does this program 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 (\$458,000) 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	-

Provide an assessment of how your program celebrates cultural diversity or reaches diverse communities in Minnesota, including reaching low- and moderate-income households:

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 program 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

Who will manage the easement?

Minnesota Land Trust will manage the easements.

Who will be the easement holder?

Minnesota Land Trust will hold the conservation easements.

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

Minnesota Land Trust anticipates closing on 3-8 conservation easements with this appropriation, depending on size and cost of respective prioritized parcels.

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 acquired parcels be restored or enhanced within this appropriation?

No

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.

Will the land that you acquire (fee or easement) be restored or enhanced within this program'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.

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

Date of Final Report Submission: 11/01/2026

Availability of Appropriation: Subd. 7. Availability of Appropriation

(a) Money appropriated in this section may not be spent on activities unless they are directly related to and necessary for a specific appropriation and are specified in the accomplishment plan approved by the Lessard-Sams Outdoor Heritage Council. Money appropriated in this section must not be spent on indirect costs or other institutional overhead charges that are not directly related to and necessary for a specific appropriation. Money appropriated to acquire land in fee may be used to restore, enhance, and provide for public use of the land acquired with the appropriation. Public-use facilities must have a minimal impact on habitat in acquired lands.

(b) Money appropriated in this section is available as follows:

(1) money appropriated for acquiring real property is available until June 30, 2026;

(2) money appropriated for restoring and enhancing land acquired with an appropriation in this act is available for four years after the acquisition date with a maximum end date of June 30, 2030;

(3) money appropriated for restoring or enhancing other land is available until June 30, 2027;

(4) notwithstanding clauses (1) to (3), money appropriated for a project that receives at least 15 percent of its funding from federal funds is available until a date sufficient to match the availability of federal funding to a maximum of six years if the federal funding was confirmed and included in the original approved draft accomplishment plan; and

(5) money appropriated for other projects is available until the end of the fiscal year in which it is appropriated.

Budget

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

Totals

Item	Funding Request	Leverage	Leverage Source	Total
Personnel	\$200,000	-	-	\$200,000
Contracts	\$64,000	-	-	\$64,000
Fee Acquisition w/ PILT	-	-	-	-
Fee Acquisition w/o PILT	-	-	-	-
Easement Acquisition	\$2,594,000	\$500,000	Private Landowners	\$3,094,000
Easement Stewardship	\$216,000	-	-	\$216,000
Travel	\$8,000	-	-	\$8,000
Professional Services	\$255,000	-	-	\$255,000
Direct Support Services	\$54,000	-	-	\$54,000
DNR Land Acquisition Costs	-	-	-	-
Capital Equipment	-	-	-	-
Other Equipment/Tools	\$1,000	-	-	\$1,000
Supplies/Materials	\$3,000	-	-	\$3,000
DNR IDP	-	-	-	-
Grand Total	\$3,395,000	\$500,000	-	\$3,895,000

Personnel

Position	Annual FTE	Years Working	Funding Request	Leverage	Leverage Source	Total
MLT Land Protection Staff	0.53	4.0	\$200,000	-	-	\$200,000

Amount of Request: \$3,395,000

Amount of Leverage: \$500,000

Leverage as a percent of the Request: 14.73%

DSS + Personnel: \$254,000

As a % of the total request: 7.48%

Easement Stewardship: \$216,000

As a % of the Easement Acquisition: 8.33%

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

The number of easements and acres/shoreland feet to be protected are scaled from the original proposal.

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.

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 up to 8 conservation 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	-	-	-	-	-
Protect in Fee with State PILT Liability	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-
Protect in Easement	-	-	600	-	600
Enhance	-	-	-	-	-
Total	-	-	600	-	600

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	-	-	\$3,395,000	-	\$3,395,000
Enhance	-	-	-	-	-
Total	-	-	\$3,395,000	-	\$3,395,000

Acres within each Ecological Section (Table 3)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest	Total Acres
Restore	-	-	-	-	-	-
Protect in Fee with State PILT Liability	-	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-	-
Protect in Easement	-	-	-	-	600	600
Enhance	-	-	-	-	-	-
Total	-	-	-	-	600	600

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	-	-	-	-	\$3,395,000	\$3,395,000
Enhance	-	-	-	-	-	-
Total	-	-	-	-	\$3,395,000	\$3,395,000

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	-	-	\$5,658	-
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	-	-	-	-	\$5,658
Enhance	-	-	-	-	-

Target Lake/Stream/River Feet or Miles

1.4 miles

Parcels

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.

Parcel Information

Sign-up Criteria?

[Yes - Sign up criteria is attached](#)

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

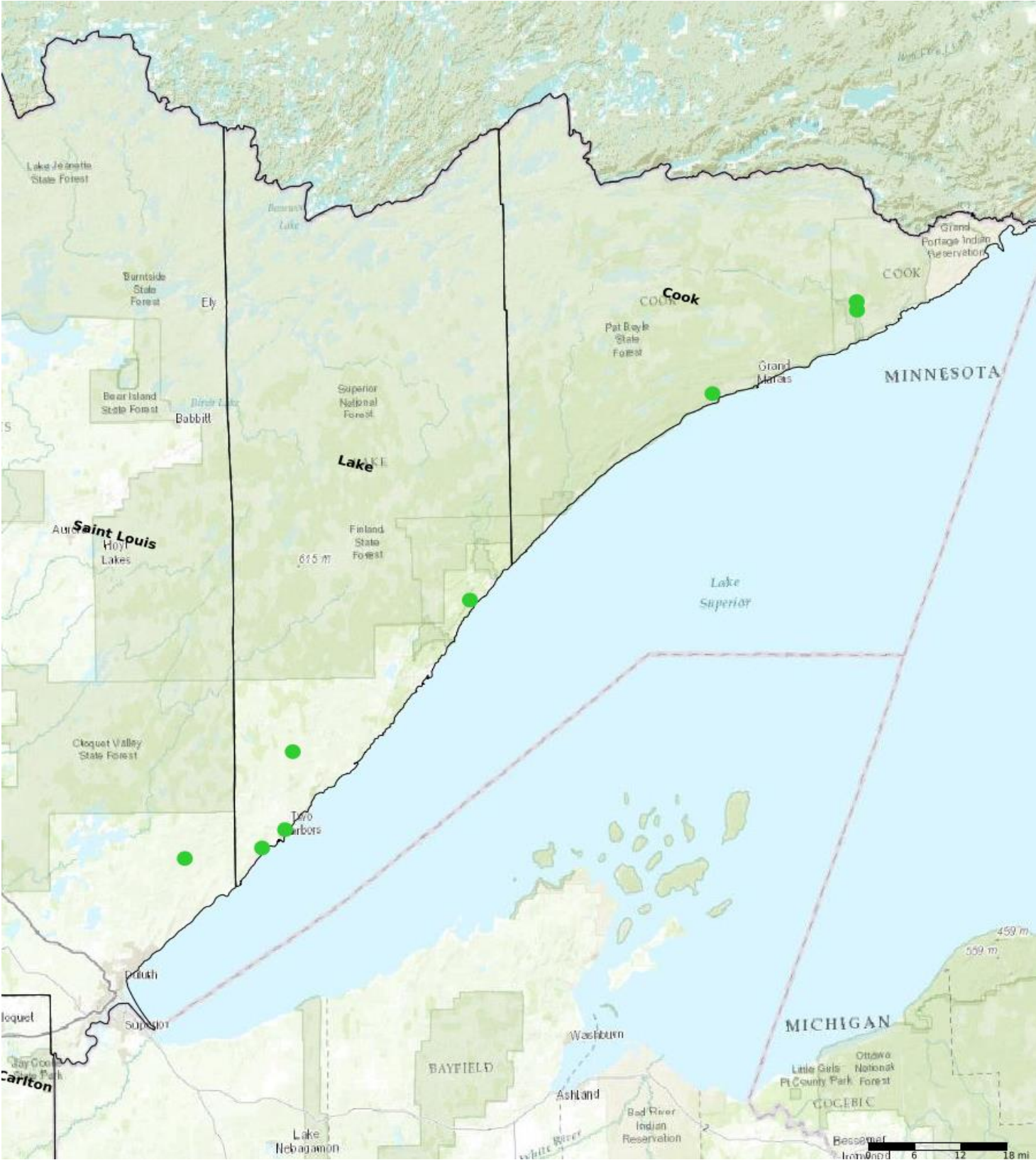
Solicitation for potential projects employs a diverse strategy of direct outreach to landowners in high priority conservation areas and coordinated outreach with conservation partners such as Trout Unlimited, Encampment Forest Association, various lake associations, and local and national organizations. 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).

Protect Parcels

Name	County	TRDS	Acres	Est Cost	Existing Protection
Flute Reed River 1	Cook	06203103	39	\$0	No
Grand Marais 1	Cook	06101228	79	\$100,000	No
Flute Reed River 2	Cook	06203110	153	\$0	No
Lake Superior Little Marais 1	Lake	05706219	90	\$70,000	No
Lake Superior Two Harbors 2	Lake	05211210	13	\$0	No
Lake Superior Two Harbors	Lake	05310231	60	\$1,000,000	No
Encampment River 1	Lake	05410217	160	\$140,000	No
Sucker River 1	St. Louis	05213213	120	\$110,000	No

Parcel Map



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