



Lessard-Sams Outdoor Heritage Council

Protecting Minnesota's Lakes of Outstanding Biological Significance - Phase 4
ML 2025 Request for Funding

General Information

Date: 06/03/2024

Proposal Title: Protecting Minnesota's Lakes of Outstanding Biological Significance - Phase 4

Funds Requested: \$10,161,000

Confirmed Leverage Funds: -

Is this proposal Scalable?: Yes

Manager Information

Manager's Name: Wayne Ostlie

Title: Director of Land Protection

Organization: Minnesota Land Trust

Address: 2356 University Avenue W Suite 240

City: St. Paul, MN 55114

Email: wostlie@mnland.org

Office Number: 651-917-6292

Mobile Number: 651-894-3870

Fax Number:

Website: www.mnland.org

Location Information

County Location(s): Cass, Crow Wing and Itasca.

Eco regions in which work will take place:

- Northern Forest

Activity types:

- Protect in Easement
- Protect in Fee

Priority resources addressed by activity:

- Habitat
- Forest

Narrative

Abstract

This program will bring focused conservation to one of Minnesota's priority aquatic resources, Lakes of Outstanding Biological Significance. These threatened lakes possess outstanding fisheries and provide habitat for a variety of Species in Greatest Conservation Need (SGCN); yet, previous to this program, no habitat protection program specifically targeted these priority resources. Through this proposal, the Minnesota Land Trust and Northern Waters Land Trust will protect through perpetual conservation easement and fee acquisition 1 mile of shoreland and 1,765 acres of habitat associated with the top 10% of these lakes in northeast and northcentral Minnesota.

Design and Scope of Work

Northern Minnesota's lakes comprise one of the most biologically important systems in the state for fish, game and wildlife. They are also one of its most threatened. Development and disturbance of the state's remaining highest quality lakes – Lakes of Outstanding Biological Significance (LOBS) - continues to be a threat identified in many of the State's resource protection plans, including One-Watershed-One-Plan documents and County Water Plans. These lakes represent the "best of the best" aquatic and shoreland habitat and are characterized by exceptional fisheries (both game and non-game), high aquatic plant richness and floristic quality, and populations of endangered or threatened plant and imperiled lake bird species. These lakes are priorities for protection.

To preserve this important component of Minnesota's aquatic natural heritage, Minnesota Land Trust (MLT) and Northern Waters Land Trust (NWLTL) propose to target these LOBS for protection via conservation easements and fee title acquisition. Fee title acquisitions under this program will be conveyed to an accredited organization/agency for long-term management and permanent protection.

This Program fills an otherwise unmet need related to the protection of this resource; no other program is focused principally on the protection of LOBS. This work builds on the success demonstrated in Phases 1-5 of MLTs Critical Shorelands program and is a continuation of the Protecting Minnesota's Lakes of Outstanding Biological Significance program – all funded by the Outdoor Heritage Fund with LSOHC recommendation.

Together, MLT and NWLTL will protect 1,765 acres within watersheds of prioritized LOBS through permanent conservation easements and fee title acquisition. Thirty-four lakes have been prioritized for action based on an evaluation of DNR's benefit-cost score and investment priorities as identified in the County Water Plans and One-Watershed-One-Plan documents. NWLTL was awarded funding through the Midwest Glacial Lakes Partnership to develop a GIS parcel analysis to further refine/score/target properties that complete gaps in existing protected land, contain the highest-quality habitat, and provide the greatest leverage to the state.

MLT and NWLTL actively work with local lake associations, County SWCD's, Tribal interests and DNR to identify protection priorities and opportunities. This takes shape through a Technical Advisory Committee which reviews easement and acquisition applications, active engagement of lake associations, and pro-active coordination with local conservation partners.

MLT will seek donations of easement value and will purchase easements that help complete key complexes. Conservation easements secured under this program will be drafted to prevent fragmentation and destruction of habitat and ensure they remain ecologically viable and productive for fish, game and wildlife by prohibiting land uses that negatively impact the important habitat values.

Outcomes from this project include: 1) healthier populations of fish, waterfowl, and other Species in Greatest Conservation Need; 2) maintaining water quality of priority aquatic resources; 3) increased participation of private landowners in habitat protection projects; and 4) enhancement of prior state and local investments made in shoreland and forest conservation in the region. Program partners will strategically target complexes of protected lands in which these outcomes are located.

Explain how the proposal addresses habitat protection, restoration, and/or enhancement for fish, game & wildlife, including threatened or endangered species conservation

The lakes and natural shorelands around Minnesota's celebrated lakes 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 and associated habitats identified by MN DNR as Lakes of Outstanding Biological Significance. These areas protect fish and wildlife populations including trout, walleye, northern pike, various waterfowl, and other SGCN, and help maintain water quality of priority aquatic resources. Some SGCNs that will benefit include American woodcock, olive-sided flycatcher, golden-winged warbler, winter wren, black-backed woodpecker, and common loon.

A recent study published in the journal *Ecology* (Piper et al. 2024) identified a decrease in water clarity as a likely cause of population decline in common loon populations. Deteriorating water clarity in lakes due to increased runoff is made worse by heavier summer rain events fueled by climate change. Various scientific studies have found direct correlations between water clarity (average Secchi depth) for lakes and percentage of forested, agricultural, and urban land within a watershed. Across Minnesota counties, average lake clarity increases with increasing percentages of forested land and decreases with increasing percentages of agricultural and urban land (Brezonik et al. 2007). This grant proposal seeks to permanently protect forested land and ensure that water clarity remains high.

Targeted LOBS in this proposal represent the "best of the best" aquatic and shoreland habitat and are characterized by exceptional fisheries (both game and non-game), high aquatic plant richness and floristic quality, and populations of endangered or threatened plant and imperiled lake bird species.

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 high-quality habitat by securing permanent conservation easements and fee title acquisitions in strategic locations on high biodiversity lakes that do not have other protection programs available available t to them.

What are the elements of this proposal that are critical from a timing perspective?

Development and disturbance of the State's remaining sensitive shoreland habitat continues to be a threat identified in many of the State's resource protection plans. DNR and other scientists indicate that shoreland systems are one of the most biologically diverse and important for a variety of wildlife species; they are also one of Minnesota's most threatened resources.

The COVID-19 pandemic drove many people to relocate to seasonal homes in Northern Minnesota. Landowners can work, live, and play from the same location. Realtors in our program area have reported a rapid increase in demand for lakeshore and rural property. With land values rising in the region and development pressures looming, now is the time to protect these LOBS and maximize the effectiveness of this outstanding habitat

protection project. We are building considerable momentum with effective partnerships and believe these synergistic efforts will increase leveraging and maximize results.

Describe how the proposal expands habitat corridors or complexes and/or addresses habitat fragmentation:

By utilizing conservation easements and fee title acquisitions to protect land within watersheds of LOBS, habitat corridors are expanded, fragmented habitats are connected, and overall ecosystem health is improved. These conservation measures contribute to the long-term preservation of biodiversity and ensure the sustainable management of valuable natural resources.

Specifically, this proposal prioritizes 34 lakes through an evaluation of DNR's Lakes of Outstanding Biological Significance GIS layer for Northeast and North-central Minnesota. The GIS analysis for parcel prioritization, funded by the Midwest Glacial Lakes Program, prioritizes shoreland, streams and larger parcels with adjacency to protected complexes. This prevents habitat fragmentation and protects habitat corridors and water quality by keeping watersheds forested and shorelands undeveloped and intact.

The proposal is significantly informed by scientific assessments and conversations with key scientists working in the field. Our Program is informed heavily through input by MN DNR fisheries biologist Paul Radomski, who developed the methodology that is the basis for DNR's benefit-cost analysis of high-quality and high-value lakes that provides for the greatest return on investment. This benefit-cost score is a function of phosphorus sensitivity, lake size, and catchment disturbance. This benefit-cost analysis is one of the key criteria used in selecting priority LOBS targeted for protection.

Our approach is further informed by research completed by Cross and Jacobson (2013), which noted that phosphorus concentrations generally become elevated when watershed land use disturbance reached 25%. Their research further showed that lakes with watersheds that have less than 40% land use disturbance would be good candidates for protection. For this reason, our focus is on lakes having a protection level of greater than 60% in place.

Which top 2 Conservation Plans referenced in MS97A.056, subd. 3a are most applicable to this project?

- Long Range Plan for Fisheries Management
- Minnesota's Wildlife Action Plan 2015-2025

Explain how this proposal will uniquely address habitat resilience to climate change and its anticipated effects on game, fish & wildlife species utilizing the protected or restored/enhanced habitat this proposal targets.

Minnesota is one of the fastest warming states in the United States. Northern Minnesota is the fastest warming region in the state. This is impacting our cold-water lakes. Late summer surface water temperatures have increased over 3 degrees Fahrenheit between 1985-2019 (Olmanson, personal communication 2021) for northern Minnesota lakes. This warming combined with ongoing land conversion for development, agriculture, and unsustainable logging puts our cold-water fishery at risk.

Research by Cross and Jacobson (2010, 2013) has demonstrated that keeping watersheds forested and achieving a 75% protection level are an important strategy for long term protection of cold-water lakes. The Nature Conservancy's resilient and connected landscapes tool is being used to help evaluate and prioritize the highest

scoring properties that contribute to a climate resilient landscape. Our proposal will protect important terrestrial habitat complexes and our highest quality coldwater lakes, along with the fish, plants, and wildlife they support.

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 this project/program will produce and demonstrate a significant and permanent conservation legacy and/or outcomes for fish, game, and wildlife, and if not permanent outcomes, why it is important to undertake at this time:

Our Lakes of Outstanding Biological Significance Program focuses on permanently 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 permanently protecting northern Minnesota’s LOBS.

Unique plant or animal presence, or combinations thereof, is the primary measure of a lake's biological significance. Lakes are rated and grouped for each of the following communities: aquatic plants, fish, birds, and amphibians. As a result, our protection strategies for each priority lake will be tailored towards the unique plant and animal community presence that determined a lake’s outstanding score. For example, for a lake ranked highly because of its outstanding fishery, a greater emphasis may be on watershed protection, targeting a 75% protection goal. Alternatively, a high score for aquatic plant or bird communities may drive a more shoreland-oriented focus.

This program will secure permanent conservation easement and fee title acquisitions on priority lands that serve to build complexes of protected habitat. This will enhance the State's prior investments in habitat protection and leave a larger, lasting legacy. Our program cultivates a high conservation ethic and develops effective tools for landowners to protect their land and waters. It also creates a great shared responsibility essential to maximizing our investment to achieve our targeted protection goals.

Outcomes

Programs in the northern forest region:

- Healthy populations of endangered, threatened, and special concern species as well as more common species ~ *Priority watershed are protected from development and fragmentation. This program will permanently protect 1,765 acres of watersheds and 1 mile of shoreland associated with some of the most biologically significant LOBS in northern Minnesota. Measure: Acres protected.*

What other dedicated funds may collaborate with or contribute to this proposal?

- N/A

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.

Lands acquired in fee by NWLT and conveyed to a governmental agency will become part of that agency’s respective owned and managed forest land portfolio, increasing management efficiency and public access.

Actions to Maintain Project Outcomes

Year	Source of Funds	Step 1	Step 2	Step 3
2030 and in perpetuity	MLT Long-Term Stewardship and Enforcement Fund	Annual monitoring of all easement projects	Enforcement as necessary	-
2030 and in perpetuity	Fee acquisition - funds from the managing organization/agency	Management as necessary	-	-

Provide an assessment of how your program may celebrate cultural diversity or reach 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 multi-year-long process to assess how Minnesota Land Trust 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 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.

The Land Trust launched its “Ambassador Lands Program” in 1922, which connects willing conservation landowners to diverse community groups that desire access to private land for a variety of programming purposes, such as youth mentor hunts, cultural or ceremonial use, conservation employment training, nature-based education, and much more. This will 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.

NWLT deeply values inclusiveness, collaboration, teamwork and diversity in all of our programs, projects, and community work. We believe that enduring conservation success depends on the active involvement of people and

partners whose lives and cultures are linked to the natural systems we seek to conserve. Currently, NWLT is directly including Leech Lake Band of Ojibwe in these protection efforts by engaging in quarterly discussions, acknowledging which lands have cultural and ecological significance, and engaging in partnership on conservation projects where possible. NWLT is focused on building relationships based on trust, listening, and mutual respect.

Activity Details

Requirements

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 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, either by the proposer or the end owner of the property, outside of the initial restoration of the land?

No

Will insecticides or fungicides (including neonicotinoid and fungicide treated seed) be used within any activities of this proposal either in the process of restoration or use as food plots?

No

Is this land currently open for hunting and fishing?

No

Will the land be open for hunting and fishing after completion?

Yes

Describe any variation from the State of Minnesota regulations:

All fee title acquisitions conveyed to a government agency will be open to hunting and fishing.

Who will eventually own the fee title land?

- State of MN
- County

Land acquired in fee will be designated as a:

- WMA
- AMA
- County Forest
- State Forest
- SNA
- Tribal

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?

Yes

Other OHF Appropriation Awards

Have you received OHF dollars through LSOHC in the past?

Yes

Are any of these past appropriations still OPEN?

Yes

Approp Year	Funding Amount Received	Amount Spent to Date	Funding Remaining	% Spent to Date
2024	\$4,540,000	-	-	-
2023	\$3,648,000	\$949,444	\$2,698,556	26.03%
2021	\$1,477,000	\$1,001,110	\$475,890	67.78%
Totals	\$9,665,000	\$1,950,554	\$7,714,446	20.18%

Timeline

Activity Name	Estimated Completion Date
Acquire conservation easements: 1) identify priority landowners, 2) negotiate, draft and complete easements, and 3) dedicate funds for long-term stewardship.	June 30, 2029
Protection of 270 acres via fee acquisition; conveyance to governmental agency.	June 30, 2029

Budget

Grand Totals Across All Partnerships

Item	Funding Request	Total Leverage	Leverage Source	Total
Personnel	\$532,000	-	-	\$532,000
Contracts	\$181,000	-	-	\$181,000
Fee Acquisition w/ PILT	\$4,000,000	\$400,000	-, Landowners; Lake Associations	\$4,400,000
Fee Acquisition w/o PILT	-	-	-	-
Easement Acquisition	\$4,000,000	\$600,000	Landowners	\$4,600,000
Easement Stewardship	\$364,000	-	-	\$364,000
Travel	\$32,000	-	-	\$32,000
Professional Services	\$733,000	-	-	\$733,000
Direct Support Services	\$156,000	-	-	\$156,000
DNR Land Acquisition Costs	\$96,000	-	-	\$96,000
Capital Equipment	-	-	-	-
Other Equipment/Tools	\$3,000	-	-	\$3,000
Supplies/Materials	\$4,000	-	-	\$4,000
DNR IDP	\$60,000	-	-	\$60,000
Grand Total	\$10,161,000	\$1,000,000	-	\$11,161,000

Partner: Northern Waters Land Trust

Totals

Item	Funding Request	Total Leverage	Leverage Source	Total
Personnel	\$232,000	-	-	\$232,000
Contracts	\$80,000	-	-	\$80,000
Fee Acquisition w/ PILT	\$4,000,000	\$400,000	Landowners; Lake Associations	\$4,400,000
Fee Acquisition w/o PILT	-	-	-	-
Easement Acquisition	-	-	-	-
Easement Stewardship	-	-	-	-
Travel	\$12,000	-	-	\$12,000
Professional Services	\$362,000	-	-	\$362,000
Direct Support Services	\$75,000	-	-	\$75,000
DNR Land Acquisition Costs	\$96,000	-	-	\$96,000
Capital Equipment	-	-	-	-
Other Equipment/Tools	-	-	-	-
Supplies/Materials	\$3,000	-	-	\$3,000
DNR IDP	\$60,000	-	-	\$60,000
Grand Total	\$4,920,000	\$400,000	-	\$5,320,000

Personnel

Position	Annual FTE	Years Working	Funding Request	Total Leverage	Leverage Source	Total
NWLT Land Protection Staff	0.75	4.0	\$232,000	-	-	\$232,000

Partner: Minnesota Land Trust

Totals

Item	Funding Request	Total Leverage	Leverage Source	Total
Personnel	\$300,000	-	-	\$300,000
Contracts	\$101,000	-	-	\$101,000
Fee Acquisition w/ PILT	-	-	-	-
Fee Acquisition w/o PILT	-	-	-	-
Easement Acquisition	\$4,000,000	\$600,000	Landowners	\$4,600,000
Easement Stewardship	\$364,000	-	-	\$364,000
Travel	\$20,000	-	-	\$20,000
Professional Services	\$371,000	-	-	\$371,000
Direct Support Services	\$81,000	-	-	\$81,000
DNR Land Acquisition Costs	-	-	-	-
Capital Equipment	-	-	-	-
Other Equipment/Tools	\$3,000	-	-	\$3,000
Supplies/Materials	\$1,000	-	-	\$1,000
DNR IDP	-	-	-	-
Grand Total	\$5,241,000	\$600,000	-	\$5,841,000

Personnel

Position	Annual FTE	Years Working	Funding Request	Total Leverage	Leverage Source	Total
MLT Land Protection Staff	0.75	4.0	\$300,000	-	-	\$300,000

Amount of Request: \$10,161,000

Amount of Leverage: \$1,000,000

Leverage as a percent of the Request: 9.84%

DSS + Personnel: \$688,000

As a % of the total request: 6.77%

Easement Stewardship: \$364,000

As a % of the Easement Acquisition: 9.1%

Total Leverage (from above)	Amount Confirmed	% of Total Leverage	Amount Anticipated	% of Total Leverage
\$1,000,000	-	0.0%	\$1,000,000	100.0%

Detail leverage sources and confirmation of funds:

The Minnesota Land Trust encourages landowners to fully/partially donate conservation easement value. Our leverage goal is a conservative estimate of value we expect to see donated.

NWLT works with landowners and lake associations to donate funds. Expenses not covered by this grant will be funded through general operating income.

Does this proposal have the ability to be scalable?

Yes

If the project received 50% of the requested funding

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

This proposal is true to budget and protection goals and would be most effective if funded fully. If 50% funding was received, outputs would be reduced by 50-60%. NWLT would protect 135 acres in fee. MLT 's reduction in outputs would be modestly less than a proportional.

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

Personnel and DSS will be reduced, but 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 30% of the requested funding

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

This proposal is true to budget and protection goals and would be most effective if funded fully. If 30% funding was received, outputs would be reduced by 70-80%. NWLT would protect 80 acres in fee. MLT 's reduction in outputs would modestly less than a proportional.

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

Personnel and DSS will be reduced, but 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?

MLT - FTEs listed in the proposal are a coarse 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.

NWLT estimates the personnel costs for fee title acquisition, conservation easement outreach and grant administration activities to accomplish the specific outcomes for each grant.

Contracts

What is included in the contracts line?

MLT - Funds in the contract line are for the writing of habitat management plans via qualified vendors, outreach to landowners through SWCDs and other local partners, and posting of easement boundaries.

NWLT - Contracts for acquisition services; outreach services to connect with prospective landowners.

Professional Services

What is included in the Professional Services line?

- Appraisals
- Other : Environmental Assessments, Minerals Assessments, Project Mapping, Fee Acquisition Services
- Surveys
- Title Insurance and Legal Fees

Fee Acquisition

What is the anticipated number of fee title acquisition transactions?

NWLT expects to complete 6 fee title acquisitions through this proposal.

Easement Stewardship

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

MLT expects to close 8-13 conservation easements through this proposal. The average cost per easement to fund the Minnesota Land Trust's perpetual monitoring and enforcement obligations is \$28,000, although in extraordinary circumstances a larger amount 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

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

NWLT's travel budget does not include equipment/vehicle rental.

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?

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.

NWLT - In a process approved by MNDNR on March 20, 2023, Northern Waters Land Trust used a simplified allocation methodology that resulted in MNDNR approving an indirect rate of allowable expenses. NWLT anticipates a similar rate for this proposal.

Other Equipment/Tools

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

GPS units, field safety gear, etc.

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	615	615
Protect in Fee w/o State PILT Liability	0	0	0	0	0
Protect in Easement	0	0	0	1,150	1,150
Enhance	0	0	0	0	0
Total	0	0	0	1,765	1,765

Total Requested Funding by Resource Type (Table 2)

Type	Wetland	Prairie	Forest	Habitat	Total Funding
Restore	-	-	-	-	-
Protect in Fee with State PILT Liability	-	-	-	\$4,788,500	\$4,788,500
Protect in Fee w/o State PILT Liability	-	-	-	-	-
Protect in Easement	-	-	-	\$5,372,500	\$5,372,500
Enhance	-	-	-	-	-
Total	-	-	-	\$10,161,000	\$10,161,000

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	615	615
Protect in Fee w/o State PILT Liability	0	0	0	0	0	0
Protect in Easement	0	0	0	0	1,150	1,150
Enhance	0	0	0	0	0	0
Total	0	0	0	0	1,765	1,765

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	-	-	-	-	\$4,788,500	\$4,788,500
Protect in Fee w/o State PILT Liability	-	-	-	-	-	-
Protect in Easement	-	-	-	-	\$5,372,500	\$5,372,500
Enhance	-	-	-	-	-	-
Total	-	-	-	-	\$10,161,000	\$10,161,000

Average Cost per Acre by Resource Type (Table 5)

Type	Wetland	Prairie	Forest	Habitat
Restore	-	-	-	-
Protect in Fee with State PILT Liability	-	-	-	\$7,786
Protect in Fee w/o State PILT Liability	-	-	-	-
Protect in Easement	-	-	-	\$4,671
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	-	-	-	-	\$7,786
Protect in Fee w/o State PILT Liability	-	-	-	-	-
Protect in Easement	-	-	-	-	\$4,671
Enhance	-	-	-	-	-

Target Lake/Stream/River Feet or Miles

1 mile

Parcels

Sign-up Criteria?

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

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

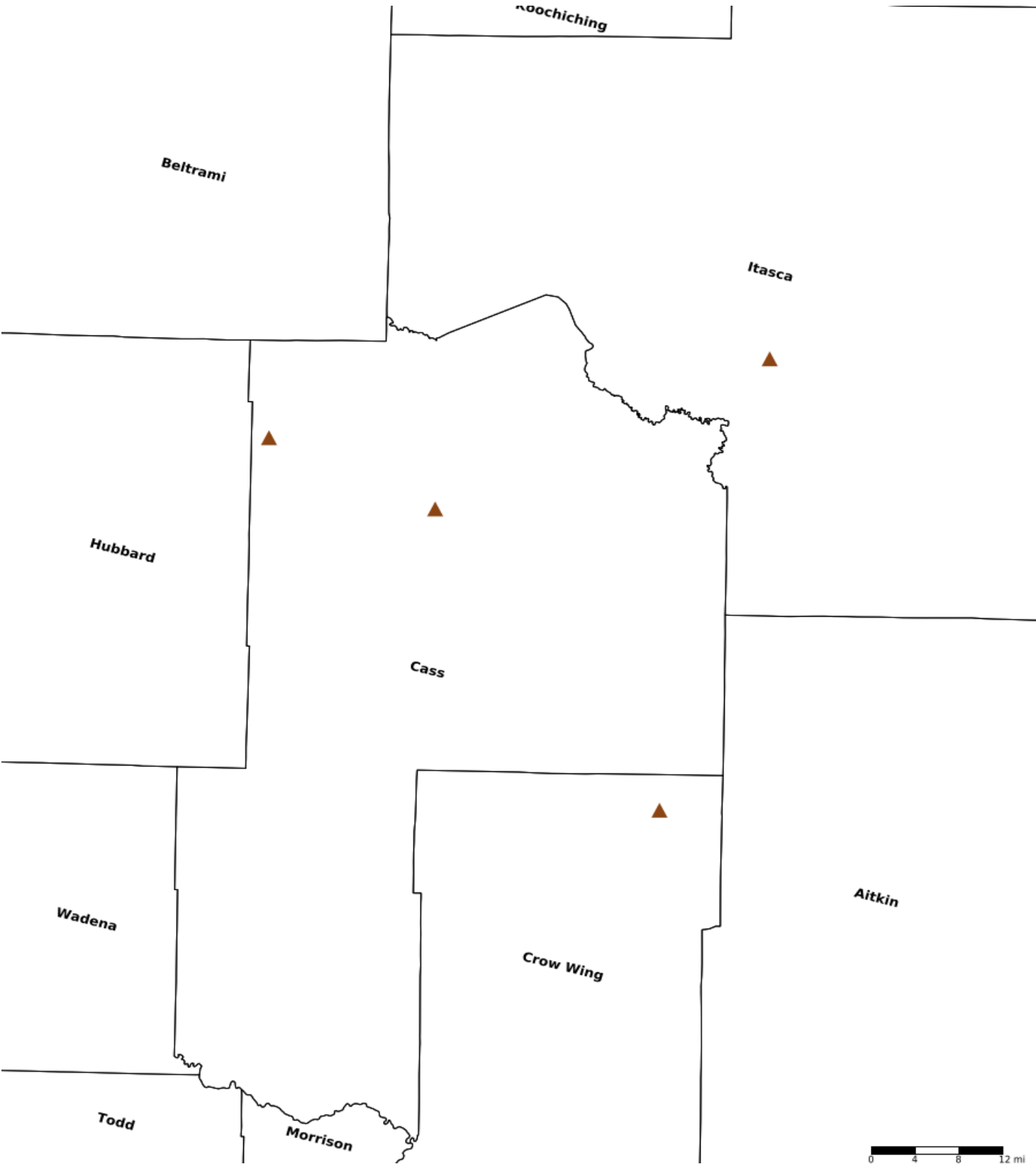
Solicitation for potential projects employs a diverse strategy of direct outreach to landowners in high priority conservation areas and coordinated outreach with conservation partners including lake associations, Soil and Water Conservation Districts, and others. Leads for potential projects are pursued 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 provided by a regional technical advisory committee, 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
NWLT - Leech	Cass	14329226	38	\$1,000,000	No
NWLT - Steamboat	Cass	14431220	23	\$550,000	No
NWLT - Duck	Crow Wing	13825219	200	\$628,400	No
NWLT - Moose	Itasca	05726230	93	\$1,180,000	No

Parcel Map



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

Protecting Minnesota's Lakes of Outstanding Biological Significance

Phase 4



Request **\$10,161,000**

Leverage **\$1,000,000**

Acres protected **1,765**

Protect in easement 1,150

Protect in fee w/PILT 615

For more information:

Ruurd Schoolderman

Program Manager

Minnesota Land Trust

rschoolderman@mnland.org

(218) 336-2031

Northern Minnesota's Lakes of Outstanding Biological Significance (LOBS)—the state's remaining highest quality lakes—comprise one of the most biologically important systems in the state for fish, game and wildlife. Development and disturbance of these systems threaten their exceptional fisheries, aquatic plant richness, and populations of endangered or threatened species.

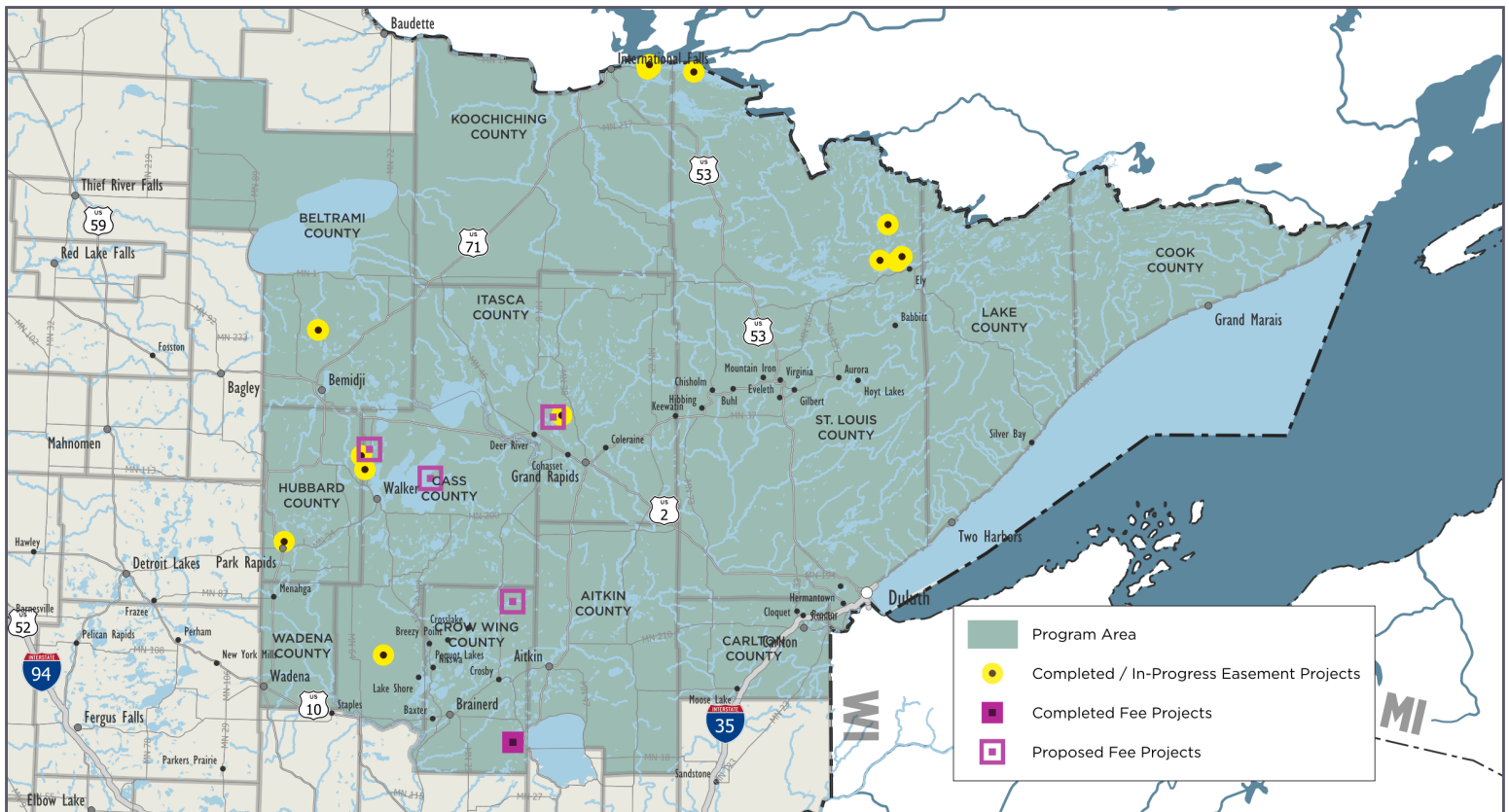
The Minnesota Land Trust (MLT) and Northern Waters Land Trust (NWLT) propose to target these irreplaceable lakes for protection via conservation easement and fee title acquisition.

How Does the Program Support State Goals?

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.

What Are the Outcomes?

- 1,765 acres of protection within watersheds of prioritized LOBS through permanent conservation easement and fee title acquisition.
- Healthier populations of fish, waterfowl, and other Species in Greatest Conservation Need.
- Maintaining water quality of priority aquatic resources.
- Increased participation of private landowners in habitat protection projects.
- Enhancement of prior state and local investments made in shoreland and forest conservation in the region.



What has Been Accomplished to Date?

Lakes of Outstanding Biological Significance, Phase 1 & 2 (In Progress):

Since Protecting Minnesota’s Lakes of Outstanding Biological Significance launched in 2021, we have seen a remarkable interest from landowners in this program.

Northern Waters Land Trust joined as a partner in 2023.

Together, we have spent and committed almost all available funds protecting 1,394 acres of land and 8.5 miles of shoreland; all while obtaining over \$822,000 in leverage to the \$3.7 million invested by the Outdoor Heritage Fund.



Lakes of Outstanding Biological Significance, Phase 3:

Phase 3 will come online in July. We have received a strong response on our current landowner outreach efforts and have an additional approximately 1,000 new acres in the pipeline that will be vetted starting this Summer.



2356 University Ave.
W. Suite 240
St. Paul, MN 55114
(651) 647-9590
mnlnd@mnlnd.org
www.mnlnd.org



800 Minnesota Ave. W
PO Box 124
Walker, MN 56484
(218) 547-4510
info@nwlnt-mn.org

northernwaterslandtrust.org

Sign Up Criteria

Protecting Minnesota's Lakes of Outstanding Biological Significance, Phase 4



Northern Waters Land Trust and Minnesota Land Trust utilize a multi-criteria scoring system to prioritize land protection opportunities in the watersheds of Lakes of Outstanding Biological Significance (LOBS). Each parcel is scored based on two main factors and nine priority factors, as described in Table 1.

In conjunction with this scoring system, we have developed a user-friendly interactive map. This resource identifies properties within LOBS watersheds and utilizes a GIS analysis to score their priority for conservation. The higher the score, the greater the priority for conservation action. Users can click on an individual parcel to see the scoring breakdown (Figure A) The images below show how each parcel is scored for both conservation easements (Figure b) and fee title acquisitions (Figure C). This allows our conservation professionals to quickly assess and prioritize properties as they become available.

Figure A: Scored Parcel Example

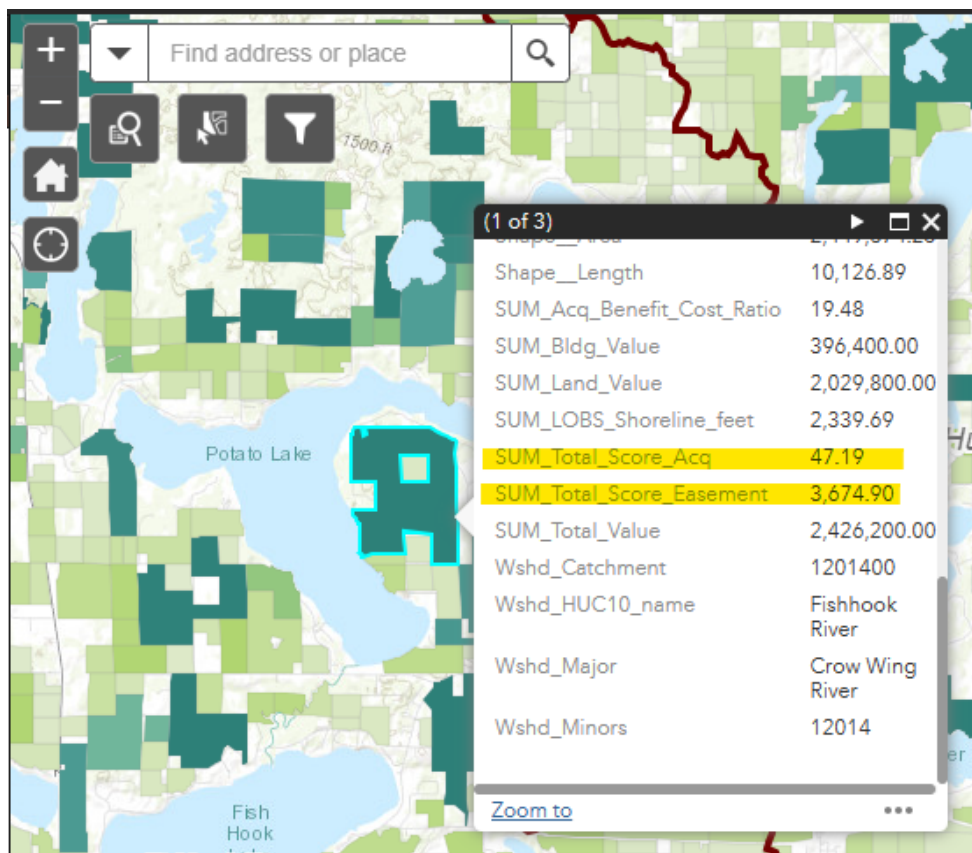


Figure B: Conservation Easement Scoring

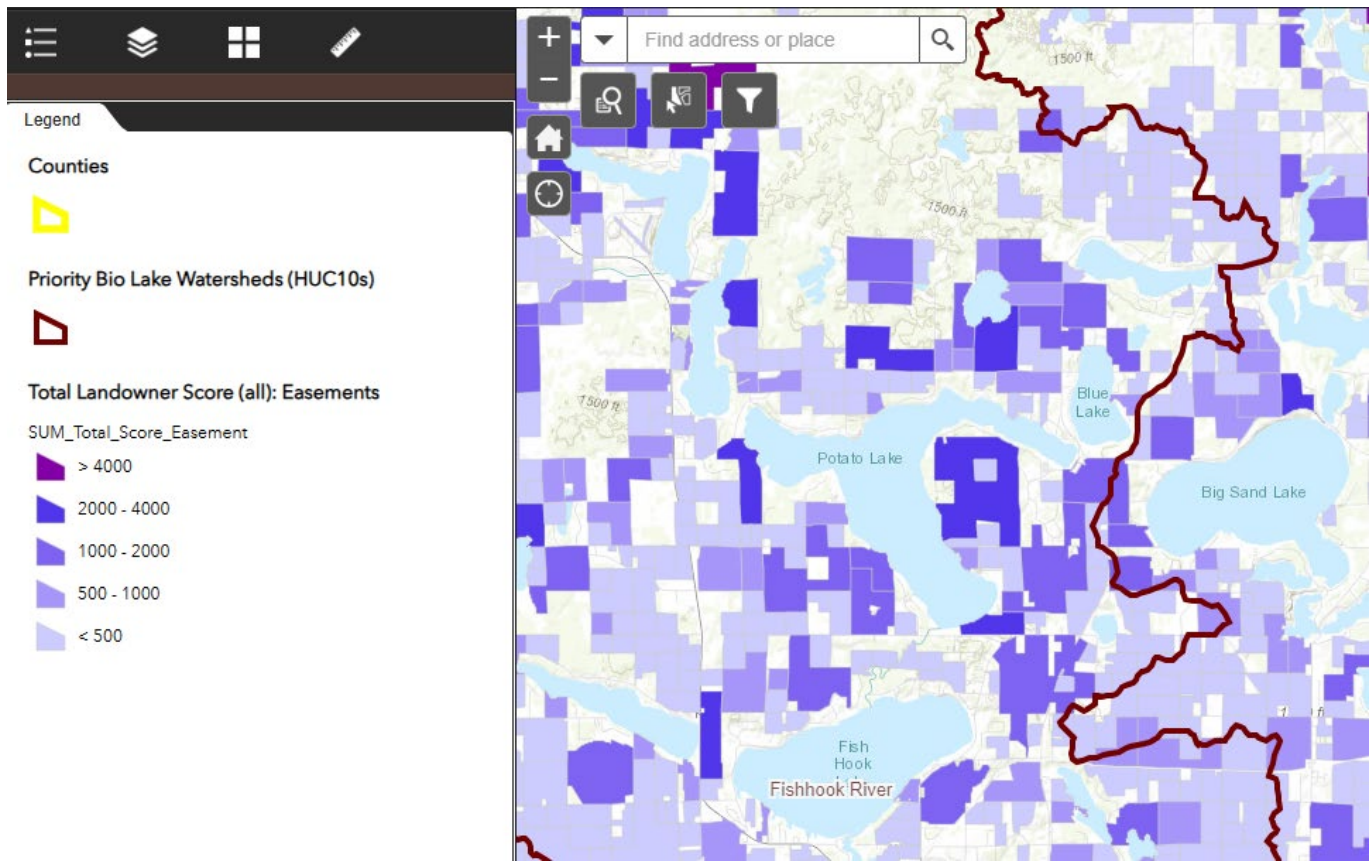


Figure C: Fee Title Acquisition Scoring

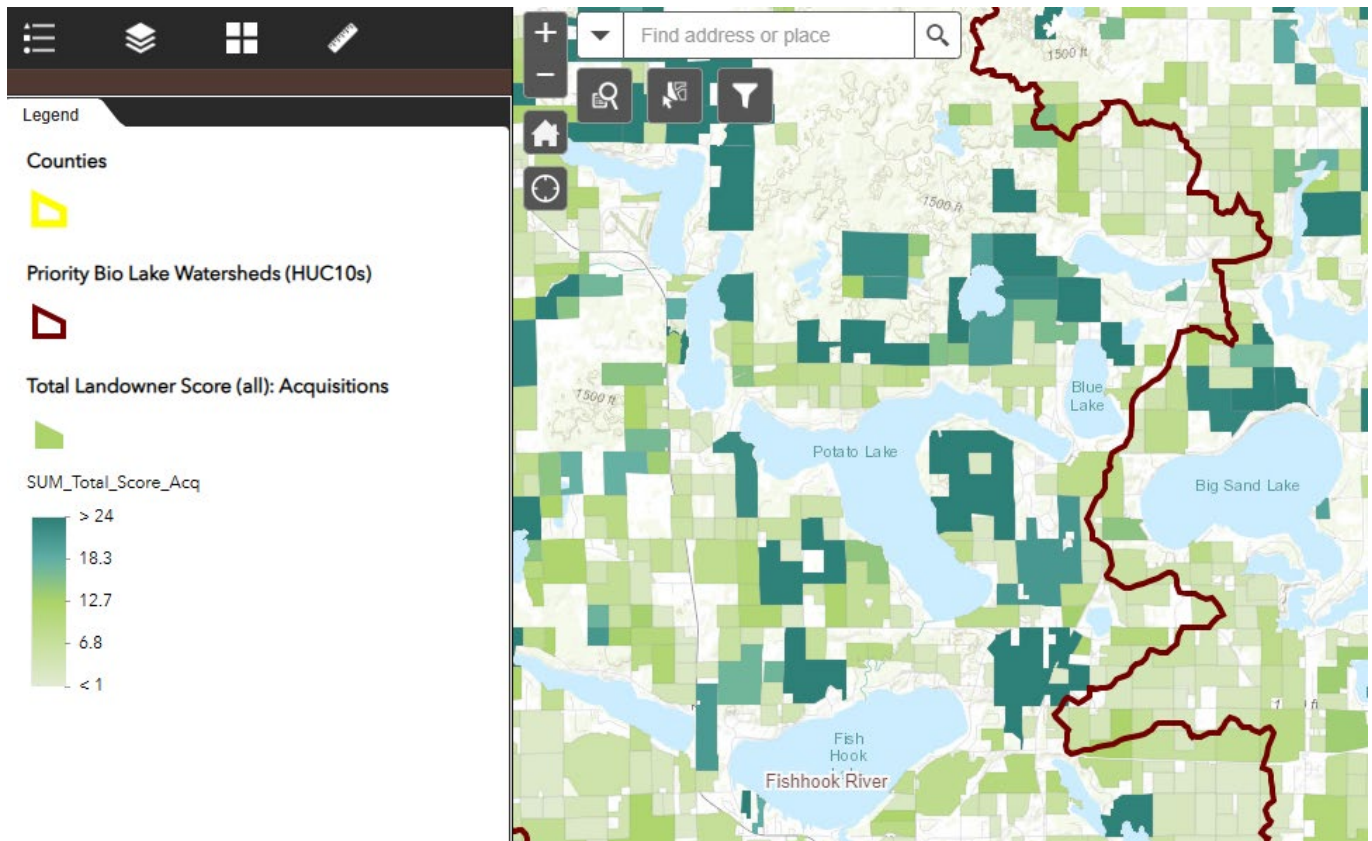


Table 1. Content considerations when prioritizing parcels for protection within watersheds of Lakes of Biological Significance.

Main Factors	Description
<p>Size of Parcel Value = acres</p>	<p>The larger a natural area is, the more likely it will sustain diverse populations of plants and animals. Value = acres</p>
<p>Adjacency to Protected Lands Values from 1 to 4 for acquisition Values from 0 to 1 for easement</p>	<p>Adjacent ownership determines whether the parcel of land is isolated or associated with other protected lands. 0 = not adjacent; 1 = more than 1 parcel back; 2 = 1 parcel back; 3 = 1 side or corner touching; 4 = 2+ sides touching This factor is scaled from 0 to 1 scale for Priority Factor 2 used for easements.</p>
PRIORITY FACTORS	
<p>LOBS Shoreline Value of 0 or 1</p>	<p>Shorelines are often heterogeneous with critical habitat clustered. 0 = no LOBS shoreline for parcel; 1 = abuts LOBS shoreline</p>
<p>Proximity to Water Value of 0, 0.5, 1</p>	<p>Riparian to stream and lake (non-LOBS). 0 = not riparian for parcel; 0.5 = non riparian, but within shoreland zone; 1 = abuts stream or non-LOBS lake</p>
<p>Sensitive Shoreland Value of 0, 0.5, or 1</p>	<p>Lakeshore areas that provide unique or critical ecological habitat are more valuable. 0 = not in sensitive shoreland; 0.5 = within sensitive shoreland, but not riparian; 1 = riparian sensitive lakeshore</p>
<p>Hydrologic connectivity Value of 0, 0.25, 0.5, 0.75, or 1</p>	<p>The degree to which a <u>riparian parcel</u> is hydrologically connected to the lake. 0 = 0-1.5% slope; 0.25 = 1.5-3%; 0.5 = 3-6% slope; 0.75 = 6-12% slope; 1 = >12% slope</p>
<p>Land Connectivity Value of 0, 0.25, 0.5, 0.75, or 1</p>	<p>Lake quality is dependent on maintaining vegetated riparian zones and shorelines and connectivity to upland vegetation. 0 = 0 or 1 land cover type; 0.25 = 2 types; 0.5 = 3 types, 0.75 = 4; 1 = 5 or more land cover types</p>
<p>Rare features Value of 0 or 1</p>	<p>Presence of Endangered, Threatened, and Special Concern plant and animal species as well as animal aggregation sites are valuable. 0 = no rare feature documented; 1 = rare feature documented</p>
<p>MBS Sites of Terrestrial Biodiversity Significance Value of 0, 0.33, 0.66, or 1</p>	<p>Protect areas with varying levels of native biodiversity that may contain high quality native plant communities, rare plants, rare animals, and/or animal aggregations. 0 = parcel not within a MBS site; 0.33 = within Moderate MBS site; MBS site; 0.66 = within High MBS site; 1 = parcel within an Outstanding MBS site</p>
<p>Risk of Conversion to Urban Land Use Value of 0 or 1</p>	<p>Land cover type predicted to convert to urban land use. 0 = low risk for conversion; 1 = high risk for conversion (>25 E911 pts per sq. mile)</p>
<p>Risk of Conversion to Ag Land Use Value of 0, 0.25, 0.5, 0.75, or 1</p>	<p>Land cover type predicted to be converted to cultivated crops (areas used to produce annual crops or actively tilled areas). Applied to private forested lands > 20 acres with soil survey land capability class of 1-4 (suitable for farming). 0 = <10%; 0.25 = 10-20%; 0.5 = 20-30%; 0.75 = 30-40%; 1 = >40% forest Conversion Risk</p>

The equations used:

For Initial Conservation Easement Ranking (for outreach)

Weight Parcel Size by three factors

Benefit Index = Parcel Size x Priority Factor1 x Priority Factor2 x Priority Factor3

- A. Parcel Size = number of acres for the parcel
- B. Priority Factor1 = $1 + (\text{LOBS shoreline}[0-1] + \text{proximate to other riparian}[0-1] + \text{sensitive lakeshore}[0-1] + \text{hydrologic connectivity}[0-1]) \times 3$
 - a. [min is 1, max is 13]
- C. Priority Factor2 = $1 + ((\text{adjacent to protected lands}[0-1] + \text{land connectivity}[0-1] + \text{rare feature}[0-1] + \text{MBS site}[0-1])/4)$
 - a. [min is 1, max is 2]
- D. Priority Factor3 = $1 + ((\text{conversion risk to urban}[0-1] + \text{conversion risk to ag}[0-1])/2)$
 - a. [min is 1, max is 2]
- E. For multiple parcels with same ownership, the parcel indices are summed.

For Final Conservation Easement Ranking (for help in decision-making)

$\text{BCR} = 1000 \times \text{Benefit Index} / \text{Cost}$

Cost = \$ for easement

For Initial Acquisition -- 'adjacent to protected lands'

Weight Parcel Adjacency by three factors

Benefit Index = Parcel Adjacency[1-4] x Priority Factor1 x Priority Factor2 x Priority Factor3

- A. Priority Factor1 = $1 + (\text{LOBS shoreline}[0-1] + \text{proximate to other riparian}[0-1] + \text{sensitive lakeshore}[0-1] + \text{hydrologic connectivity}[0-1])$
 - a. [min is 1, max is 5]
- B. Priority Factor2 = $1 + ((\text{land connectivity}[0-1] + \text{rare feature}[0-1] + \text{MBS site}[0-1])/3)$
 - a. [min is 1, max is 2]
- C. Priority Factor3 = $1 + ((\text{conversion risk to urban}[0-1] + \text{conversion risk to ag}[0-1])/2)$
 - a. [min is 1, max is 2]

For Final Acquisition Ranking (for help in decision-making)

$\text{BCR} = 1000 \times \text{Benefit Index} / \text{Cost}$

Cost = \$/acre for acquisition