

Lessard-Sams Outdoor Heritage Council

Fiscal Year 2019 / ML 2018 Request for Funding



Date: May 25, 2017

Program or Project Title: Fisheries Habitat Protection on Strategic North Central Minnesota Lakes - Phase III

Funds Requested: \$7,099,700

Manager's Name: Lindsey Ketchel

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

Regions in which work will take place:

- Northern Forest

Activity types:

- Protect in Easement
- Protect in Fee

Priority resources addressed by activity:

- Habitat

Abstract:

The Leech Lake Area Watershed Foundation in partnership with the Minnesota Land Trust will protect high priority critical fish habitat and the surrounding watersheds on 30 tullibee "refuge" lakes by securing conservation easements and fee title acquisitions. We will permanently protect approximately 1,445 acres and 4 miles of shoreland in total. If a lake's watershed has less than 25% land disturbance, the lake has a high probability to maintain clean water and healthy lake ecosystem. State reports indicate this region could experience significant water quality and fisheries degradation in the coming decades without direct conservation action.

Design and scope of work:

Sustaining a strong angling heritage revolves largely around protecting fisheries habitat. Resurging shoreland development pressures and looming climate change are direct threats to Minnesota lakes' ecology. This project will focus on fisheries habitat protection on lakes that have the best biological integrity for a sustained sport fishery. Our protection efforts are focused on tullibee (aka cisco) a preferred forage fish of walleye, northern pike, muskellunge and lake trout. They require cold, well oxygenated waters, a condition most common in lakes with deep water and healthy watersheds. Minnesota DNR Fisheries researchers studied tullibee lakes and designated 68 lakes in Minnesota as the primary "refuge lakes" for tullibee that need protection. We are targeting thirty (30) of these lakes located in Hubbard, Crow Wing, Cass, and Aitkin counties. Many are Minnesota's premier recreational lakes. Fisheries research has shown that healthy watersheds with intact forests are fundamental to good fish habitat.

Due to the high level of interest in the program and its great success to date, we are applying for a Phase IV of this effort. In this phase we will protect strategically important lands with both conservation easements and fee title acquisitions. We will protect approximately 1,300 acres with conservation easements. The conservation easement partners will include County Soil & Water Districts, MNDNR Fisheries, Minnesota Land Trust and LLAWF, with the Minnesota Land Trust holding the easements. This team will conduct outreach to potential landowners and help evaluate the projects to assure we are prioritizing those projects with the greatest conservation outcomes. In addition, to ensure the best conservation return on the state's investment, landowner willingness to donate a portion of the easement value will be a key component of the parcel's evaluation.

We also propose to secure two fee-title acquisitions totaling 145 acres. The first acquisition is on Leech Lake known as Agency Bay. In 2016 MNDNR finalized their Fisheries Management Plan for Leech Lake. Using nearshore habitat inventory and muskellunge spawning

habitat assessment, area fisheries biologists have identified Agency Bay (oligotrophic) as a key acquisition to protect spawning areas for walleye and muskellunge. We seek funds to strategically acquire 19.50 acres on Agency Bay to protect this high quality aquatic habitat and spawning area, that includes 3,200 feet of shoreland on the third largest lake in Minnesota. MNDNR internal score on the proposed AMA is high at 34. The project is supported by the Turtle Lake Township and Cass County. The second acquisition on Cedar Lake is in Aitkin County. The Cedar Lake 126 acre proposed fee tile acquisition includes 3,500 ft of sensitive shoreland, including an intact bulrush bed and heavily vegetated wild rice. MN DNR internal score for this WMA expansion effort was 41, the highest score with this prioritization system. This parcel is surrounded by two MNDNR parcels (Cedar Lake WMA). The acquisition would result in an expand (180 acre) of the Cedar Lake WMA that includes a public landing.

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

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

Which other plans are addressed in this proposal:

- Long Range Plan for Fisheries Management
- Long Range Plan for Muskellunge and Large Northern Pike Management Through 2020

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

Protection of critical near shore parcels, riparian areas and key forested parcels will be tracked by analyzing the land surface of the watershed. If the tullibee "refuge" lake is less than 25% disturbed by development or intensive land use and 75% of the land area of the watershed is permanently protected, these lakes can generally be assured to maintain high water quality that will support tullibee and resiliency against climate change. Our fee title acquisition on Leech Lake will help implement the long range plan for muskellunge which states native waters or stocked waters with documented natural reproduction will receive the highest priority for protection. The goal is to maintain critical habitat so that natural or introduced muskellunge populations are preserved and this acquisition meets those goals. Additionally the MN DNR AMA Plan identifies north central lakes as the priority focus for AMA's.

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:

Our Fisheries Habitat Protection Program is focused on protecting some of the most important recreational and sport fisheries lakes in Minnesota and helps preserve this State's proud angler heritage. When many residents endorsed the Legacy act they indicated a strong interest in seeing lakes protected. With over 5,400 recreational fishing lakes it is extremely difficult to prioritize which lakes to protect. By focusing on Tullibee "refuge" lakes, our efforts are targeted and achievable. Over the next fifteen years our program will move 30 targeted cold water lakes into a protective class by protecting 75% of the watershed from development. These efforts will protect some of the most important recreational lakes in Minnesota from degradation. Additionally many of our targeted lakes are also classified as Biologically Significant lakes (high and outstanding). Additionally, during our landowner enrollment in the conservation easement program it became very apparent that many landowners are willing to donate easements, bequest their land to MNDNR or take modest compensation to protect this region. Our program is cultivating a high conservation ethic and developing effective tools for landowners to protect their land and waters. It is also creating a great shared responsibility essential to maximizing our investment to achieve our targeted protection goals.

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:

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

Peter Jacobson and Mike Duval, "Protecting Watershed of Minnesota Lakes with Private Forest Conservation Easements: A Suggested

Strategy", stated that protecting the forests in these watersheds from development is critical for maintaining water quality in these lakes. While large areas of land in forested portions are under public ownership, a considerable amount is also owned by private individuals in some of our most critical lake watersheds. These parcels are increasingly being "split up" and sold. Working forest easements allow sustainable timber harvest, but protect the land from further development. Modeling by MN DNR Fisheries research unit suggests that total phosphorus concentrations remain near natural background levels when less than 25% of the lakes watershed is disturbed. The tullibee "refuge" lakes have watersheds with less than 25% disturbed land uses and are good candidates for protection. The report referenced high priority lakes could include very deep lakes with exceptional water quality and support coldwater fish populations like tullibee.

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

One "Long Range Plan for Muskellunge 2020" objective is to maintain critical habitat so that natural and introduced muskellunge populations are preserved. Protecting muskellunge spawning and nursery habitats by purchasing aquatic management areas on native waters or stocked waters with documented natural reproduction would receive the highest priority.

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:

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

Minnesota DNR Fisheries research studied tullibee lakes and designated 68 lakes in Minnesota as primary "refuge lakes" for tullibee that need protection. Thirty (30) of these lakes representing 58% of the designated "refuge" lakes are located in Crow Wing, Aitkin, Cass and Hubbard counties. These lakes are premier recreational and sport fishery lakes. Fisheries research has shown that healthy watersheds with intact forest are fundamental to good fish habitat. MN DNR Fisheries Habitat Plan, states near shore fish habitat affected by shoreland disturbance can impact fisheries. Maintaining good water quality is critical to sustaining tullibees as determined by the water oxygen level and nutrient content. Lakeshore development decreases a lake's ability to function as a healthy ecosystem for sport fish and their forage, due to increased runoff, but also through physical alteration by lakeshore owners.

Fisheries Management Plan for Leech Lake, 2016-2020 indicates protection of key spawning areas from development is important to supporting self-sustaining walleye and muskie populations. With the recent challenges at Mille Lacs Lake, Leech Lake has a diversity of shoreland and substrate, as well as its extensive littoral zone that, if protected, provides excellent spawning and nursery habitats for a number of species. Using limited near shore habitat inventory and muskellunge spawning habitat assessments, area fisheries staff has identified key spawning areas to protect.

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

The information below provides general averages for tullibee in Minnesota. These averages are generated from available data and published sources, and do not capture the variability inherent in populations of fish. Natural populations, including healthy populations with good habitat, vary among locations, and also rise and fall within lakes and rivers. Most fish surveys conducted by DNR produce an index of abundance (catch per unit effort) rather than a population estimate. MNDNR provided the following detailed information - Aquatic system: Tullibee lakes: Indicator: Tullibee: Ave number or biomass NA; Other criteria: Sampling does not provide a reliable number of individuals, but assessment netting provides an indicator of tullibee presence, and the presence of multiple year classes provides evidence that tullibee are continuing to reproduce.

Outcomes:

Programs in the northern forest region:

- Private shoreline habitat and forested parcels totaling 1445 acres will be permanently protected from development and fragmentation through conservation easements. 145 acres will protect sensitive shoreland and spawn area for muskellunge and walleye on Leech Lake and Cedar Lake that will maintain high biological integrity. Riparian forest lands under easement will maintain healthy habitat complexes for upland and aquatic species; forest cover will enhance water quality habitat for tullibee lakes. Greater public access for wildlife and outdoors-related recreation will be attained through Fee-Title acquisition open to public for hunting and fishing. Conservation easement properties will protect fish habitat to insure high quality fishing opportunities.

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

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

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

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

Year	Source of Funds	Step 1	Step 2	Step 3
2018 and beyond	Outdoor Heritage Fund and LLAWF / MLT funds	secure easement and associated documents, including habitat management plans where appropriate	establish individual monitoring plans, annually monitor easement	Enforce easements through stewardship programs as necessary

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 next ten years are a critical window of opportunity to protect some of the "best of the best" sport fishery lakes in Minnesota. While recent economic slowed shoreland development, realtors now report a resurgence of shoreland property sales. Growth will be driven by baby boomers and technology that allows landowners to live, work and play from the same location. With land values rising in the region, now is the time to protect these tullibee "refugee" lakes and maximize the effectiveness of this fisheries habitat protection project. We are building considerable momentum and with our partnership with organizations like The Nature Conservancy and North Central Roundtable participants we believe these synergistic efforts will increase leveraging and maximize results.

How does this proposal include leverage in funds or other effort to supplement any OHF appropriation:

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

- Environmental and Natural Resources Trust Fund: LLAWF received an ENRTF grant of \$30,000 to pilot a program to undertake and evaluate the effectiveness of RIM Conservation Easements in a watershed protection context in the Mississippi Headwaters area.
- Landowner donation in the amount of \$1,350,000 in easement value is proposed based on results obtained in previous and current OHF-funded grants.
- Landowner donation in the amount of \$375,000 is proposed for fee acquisitions.
- In 2014 LLAWF and Roosevelt Lake Association conducted a community fundraiser for our Woods Bay fee title acquisition. We will continue this model of fundraising support with Ponto and Leech lakes.

Relationship to other funds:

- Environmental and Natural Resource Trust Fund
- Contract with Cass County partnership with MPCA Leech Lake River WRAP

Describe the relationship of the funds:

Our LCCMR grant "Multi-benefit Watershed Scale Conservation on North Central Lakes" is a pilot program to evaluate the effectiveness of RIM Conservation Easements in a watershed protection context. RIM easements, which are formula-based and targeted toward bare land, complement the easements pursued in our proposal to LSOHC, which are based on appraisal over entire parcels and focused on natural habitat. Lakes selected in the pilot overlap with our targeted lakes. These easements - both RIM and those funded through LSOHC complement each other and should result in an increase of protected lands on our targeted lakes and help move these lakes to a 75% protection level. Landowner outreach overlaps with the tullibee "refuge" lakes. This allows us to increase the level of landowner engagement including developing targeted lake maps, mailings, workshops and lake association presentations. To date our landowner

outreach efforts resulted in landowner donations in the amount of \$ 260,000 in easement value; a donative value of \$1,350,000 is proposed for this phase of the program. Landowner donation in the amount of \$375,000 is proposed for fee acquisitions and will model successful fundraising partnerships after our Woods Bay Fee Title Acquisition with Roosevelt Lake Association (RALALA).

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

Appropriation Year	Source	Amount
ML2015	ENRTF	30,000
ML2010	ENRTF	76,200

Activity Details

Requirements:

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

Will local government approval be sought prior to acquisition - **No**

Both LLAWF and MLT take great pride in keeping local governments aware of and supportive of our conservation efforts. Both of our proposed fee title acquisitions have local government support. We do not seek local government approval for our Conservation Easements. We keep counties and townships informed of our efforts.

Is the land you plan to acquire free of any other permanent protection - **Yes**

Is the land you plan to acquire free of any other permanent protection - **Yes**

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

Land Use:

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

Is this land currently open for hunting and fishing - **No**

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

We do not anticipate any variations.

Will the eased land be open for public use - **No**

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

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

Most conservation easements are established on private lands, many of which have driveways, field roads and trails located on them. Often, 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 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:

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 not allowed.

The Fee Title Acquisitions will be owned and managed by MNDNR (WMA & AMA). MNDNR WMA and AMA standards will determine trail and road use.

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

Accomplishment Timeline

Activity	Approximate Date Completed
Fee Title Acquisition of 19 acres on Leech Lake and 126 acres on Cedar Lake convey to MNDNR	3/1/2021
Protection of 1300 acres via conservation easements	6/30/2021
Landowner outreach, consultation, technical assistance and easement preparation	ongoing through June 2021

Budget Spreadsheet

Total Amount of Request: \$7,099,700

Budget and Cash Leverage

BudgetName	LSOHC Request	Anticipated Leverage	Leverage Source	Total
Personnel	\$279,000	\$0		\$279,000
Contracts	\$131,000	\$0		\$131,000
Fee Acquisition w/ PILT	\$1,620,000	\$400,000	Landowner & Lake Associations	\$2,020,000
Fee Acquisition w/o PILT	\$0	\$0		\$0
Easement Acquisition	\$4,500,000	\$1,350,000	Landowners	\$5,850,000
Easement Stewardship	\$216,000	\$0		\$216,000
Travel	\$21,000	\$0		\$21,000
Professional Services	\$233,000	\$0		\$233,000
Direct Support Services	\$73,700	\$0		\$73,700
DNR Land Acquisition Costs	\$15,000	\$0		\$15,000
Capital Equipment	\$0	\$0		\$0
Other Equipment/Tools	\$4,000	\$0		\$4,000
Supplies/Materials	\$7,000	\$0		\$7,000
DNR IDP	\$0	\$0		\$0
Total	\$7,099,700	\$1,750,000		\$8,849,700

Personnel

Position	FTE	Over # of years	LSOHC Request	Anticipated Leverage	Leverage Source	Total
MLT Staff	0.00	3.00	\$162,000	\$0		\$162,000
LLAWF Admin / Program Support	0.05	3.00	\$18,000	\$0		\$18,000
LLAWF Conservation - Fee Title	0.20	3.00	\$19,000	\$0		\$19,000
LLAWF Conservation - CE	0.40	3.00	\$80,000	\$0		\$80,000
Total	0.65	12.00	\$279,000	\$0		\$279,000

Budget and Cash Leverage by Partnership

BudgetName	Partnership	LSOHC Request	Anticipated Leverage	Leverage Source	Total
Personnel	Minnesota Land Trust	\$162,000	\$0		\$162,000
Contracts	Minnesota Land Trust	\$66,000	\$0		\$66,000
Fee Acquisition w/ PILT	Minnesota Land Trust	\$0	\$0		\$0
Fee Acquisition w/o PILT	Minnesota Land Trust	\$0	\$0		\$0
Easement Acquisition	Minnesota Land Trust	\$4,500,000	\$1,350,000	Landowners	\$5,850,000
Easement Stewardship	Minnesota Land Trust	\$216,000	\$0		\$216,000
Travel	Minnesota Land Trust	\$12,000	\$0		\$12,000
Professional Services	Minnesota Land Trust	\$185,000	\$0		\$185,000
Direct Support Services	Minnesota Land Trust	\$43,700	\$0		\$43,700
DNR Land Acquisition Costs	Minnesota Land Trust	\$0	\$0		\$0
Capital Equipment	Minnesota Land Trust	\$0	\$0		\$0
Other Equipment/Tools	Minnesota Land Trust	\$4,000	\$0		\$4,000
Supplies/Materials	Minnesota Land Trust	\$0	\$0		\$0
DNR IDP	Minnesota Land Trust	\$0	\$0		\$0
Total		\$5,188,700	\$1,350,000		\$6,538,700

Personnel - Minnesota Land Trust

Position	FTE	Over # of years	LSOHC Request	Anticipated Leverage	Leverage Source	Total
MLT Staff	0.00	3.00	\$162,000	\$0		\$162,000
Total	0.00	3.00	\$162,000	\$0		\$162,000

BudgetName	Partnership	LSOHC Request	Anticipated Leverage	Leverage Source	Total
Personnel	Leech Lake Area Watershed Foundation	\$117,000	\$0		\$117,000
Contracts	Leech Lake Area Watershed Foundation	\$65,000	\$0		\$65,000
Fee Acquisition w/ PILT	Leech Lake Area Watershed Foundation	\$1,620,000	\$400,000	Landowner & Lake Associations	\$2,020,000

Fee Acquisition w/o PILT	Leech Lake Area Watershed Foundation	\$0	\$0	\$0
Easement Acquisition	Leech Lake Area Watershed Foundation	\$0	\$0	\$0
Easement Stewardship	Leech Lake Area Watershed Foundation	\$0	\$0	\$0
Travel	Leech Lake Area Watershed Foundation	\$9,000	\$0	\$9,000
Professional Services	Leech Lake Area Watershed Foundation	\$48,000	\$0	\$48,000
Direct Support Services	Leech Lake Area Watershed Foundation	\$30,000	\$0	\$30,000
DNR Land Acquisition Costs	Leech Lake Area Watershed Foundation	\$15,000	\$0	\$15,000
Capital Equipment	Leech Lake Area Watershed Foundation	\$0	\$0	\$0
Other Equipment/Tools	Leech Lake Area Watershed Foundation	\$0	\$0	\$0
Supplies/Materials	Leech Lake Area Watershed Foundation	\$7,000	\$0	\$7,000
DNR IDP	Leech Lake Area Watershed Foundation	\$0	\$0	\$0
Total		\$1,911,000	\$400,000	\$2,311,000

Personnel - Leech Lake Area Watershed Foundation

Position	FTE	Over # of years	LSOHC Request	Anticipated Leverage	Leverage Source	Total
LLAWF Admin / Program Support	0.05	3.00	\$18,000	\$0		\$18,000
LLAWF Conservation - Fee Title	0.20	3.00	\$19,000	\$0		\$19,000
LLAWF Conservation - CE	0.40	3.00	\$80,000	\$0		\$80,000
Total	0.65	9.00	\$117,000	\$0		\$117,000

Amount of Request: \$7,099,700
Amount of Leverage: \$1,750,000
Leverage as a percent of the Request: 24.65%
DSS + Personnel: \$352,700
As a % of the total request: 4.97%
Easement Stewardship: \$216,000
As a % of the Easement Acquisition: 4.80%

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 MNDNR 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.

In a process approved by MNDNR on May 24, 2017, Leech Lake Area Watershed Foundation used a simplified allocation methodology that resulted in MNDNR approving a 20% indirect rate of allowable expenses. We anticipate a similar rate for this proposal.

Does the amount in the contract line include R/E work?

No. All funding in this line item is for subcontracting to qualified vendors the writing of habitat management plans for easement properties.

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:

MLT routinely rents cars for travel to easement properties

Describe and explain leverage source and confirmation of funds:

- 1.) Donated Conservation Easements - \$ 1,350,000 (projected)
- 2.) Donation Fee Title Seller \$ 375,000
- 3.) Donations from the Leech Lake Association and Cedar Lake Association \$25,000 (projected)

Does this proposal have the ability to be scalable? - Yes

Tell us how this project would be scaled and how administrative costs are affected, describe the “economy of scale” and how outputs would change with reduced funding, if applicable:

The Conservation Easement portion of the proposal could be reduced and the budget modified to reflect changes to adjusted outputs. There is a certain level of fixed cost associated with landowner outreach, technical review of applications and site visits of landowner finalist making it challenging to scale below 50% reduction.

Output Tables

Table 1a. Acres by Resource Type

Type	Wetlands	Prairies	Forest	Habitats	Total
Restore	0	0	0	0	0
Protect in Fee with State PILT Liability	0	0	0	145	145
Protect in Fee W/O State PILT Liability	0	0	0	0	0
Protect in Easement	0	0	0	1,300	1,300
Enhance	0	0	0	0	0
Total	0	0	0	1,445	1,445

Table 2. Total Requested Funding by Resource Type

Type	Wetlands	Prairies	Forest	Habitats	Total
Restore	\$0	\$0	\$0	\$0	\$0
Protect in Fee with State PILT Liability	\$0	\$0	\$0	\$1,686,000	\$1,686,000
Protect in Fee W/O State PILT Liability	\$0	\$0	\$0	\$0	\$0
Protect in Easement	\$0	\$0	\$0	\$5,413,700	\$5,413,700
Enhance	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$0	\$0	\$7,099,700	\$7,099,700

Table 3. Acres within each Ecological Section

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	Northern Forest	Total
Restore	0	0	0	0	0	0
Protect in Fee with State PILT Liability	0	0	0	0	145	145
Protect in Fee W/O State PILT Liability	0	0	0	0	0	0
Protect in Easement	0	0	0	0	1,300	1,300
Enhance	0	0	0	0	0	0
Total	0	0	0	0	1,445	1,445

Table 4. Total Requested Funding within each Ecological Section

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	Northern Forest	Total
Restore	\$0	\$0	\$0	\$0	\$0	\$0
Protect in Fee with State PILT Liability	\$0	\$0	\$0	\$0	\$1,686,000	\$1,686,000
Protect in Fee W/O State PILT Liability	\$0	\$0	\$0	\$0	\$0	\$0
Protect in Easement	\$0	\$0	\$0	\$0	\$5,413,700	\$5,413,700
Enhance	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$0	\$0	\$0	\$7,099,700	\$7,099,700

Table 5. Average Cost per Acre by Resource Type

Type	Wetlands	Prairies	Forest	Habitats
Restore	\$0	\$0	\$0	\$0
Protect in Fee with State PILT Liability	\$0	\$0	\$0	\$11,628
Protect in Fee W/O State PILT Liability	\$0	\$0	\$0	\$0
Protect in Easement	\$0	\$0	\$0	\$4,164
Enhance	\$0	\$0	\$0	\$0

Table 6. Average Cost per Acre by Ecological Section

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	Northern Forest
Restore	\$0	\$0	\$0	\$0	\$0
Protect in Fee with State PILT Liability	\$0	\$0	\$0	\$0	\$11,628
Protect in Fee W/O State PILT Liability	\$0	\$0	\$0	\$0	\$0
Protect in Easement	\$0	\$0	\$0	\$0	\$4,164
Enhance	\$0	\$0	\$0	\$0	\$0

Target Lake/Stream/River Feet or Miles

4 miles

I have read and understand Section 15 of the Constitution of the State of Minnesota, Minnesota Statute 97A.056, and the Call for Funding Request. I certify I am authorized to submit this proposal and to the best of my knowledge the information provided is true and accurate.

Parcel List

Explain the process used to select, rank and prioritize the parcels:

Not Listed

Section 1 - Restore / Enhance Parcel List

No parcels with an activity type restore or enhance.

Section 2 - Protect Parcel List

Aitkin

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
Cedar Lake	04727231	126	\$730,000	no	no	No
Long Lake	04625210	0	\$0	no	no	no
Round Lake	04923225	0	\$0	no	no	No

Cass

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
Bass Lake	14026227	0	\$0	no	no	No
Cooper	14028211	0	\$0	No	No	No
Deep Portage	13929207	0	\$0	no	no	No
Girl Lake	14128233	0	\$0	no	no	No
Leech Lake - Agency Bay	14230219	19	\$950,000	No	Full	Full
Long Lake	14128223	0	\$0	no	no	No
Long Lake	14231233	0	\$0	no	no	No
Thunder Lake	14026209	0	\$0	no	no	No
Washburn Lake	13926209	0	\$0	no	no	No
Women Lake	14028206	0	\$0	no	no	No

Crow Wing

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
Big Trout	13728223	0	\$0	no	no	No
Borden Lake	04428215	0	\$0	no	no	No
Crooked Lake	04528216	0	\$0	no	no	No
Kenny Lake	04428202	0	\$0	no	no	No
Lower Hay Lake	13729225	0	\$0	no	no	No
Ossawinamakee Lake	13628204	0	\$0	no	no	No
Pelican Lake	13628227	0	\$0	no	no	No
Roosevelt Lake	13826208	0	\$0	no	no	No
Star Lake	13728225	0	\$0	no	no	No
Whitefish Lake	13728207	0	\$0	no	no	No

Hubbard

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
Big Mantrap Lake	14233232	1,500	\$1,000,000	no	no	No
Big Sand Lake	14138228	0	\$0	no	no	No
Eleventh Crow Wing Lake	14132215	0	\$0	no	no	No
Kabekona Lake	14332230	0	\$0	no	no	No
Ninth Crow Wing Lake	14032206	0	\$0	no	no	No
Spearhead Lake	15434223	0	\$0	no	no	No

Section 2a - Protect Parcel with Bldgs

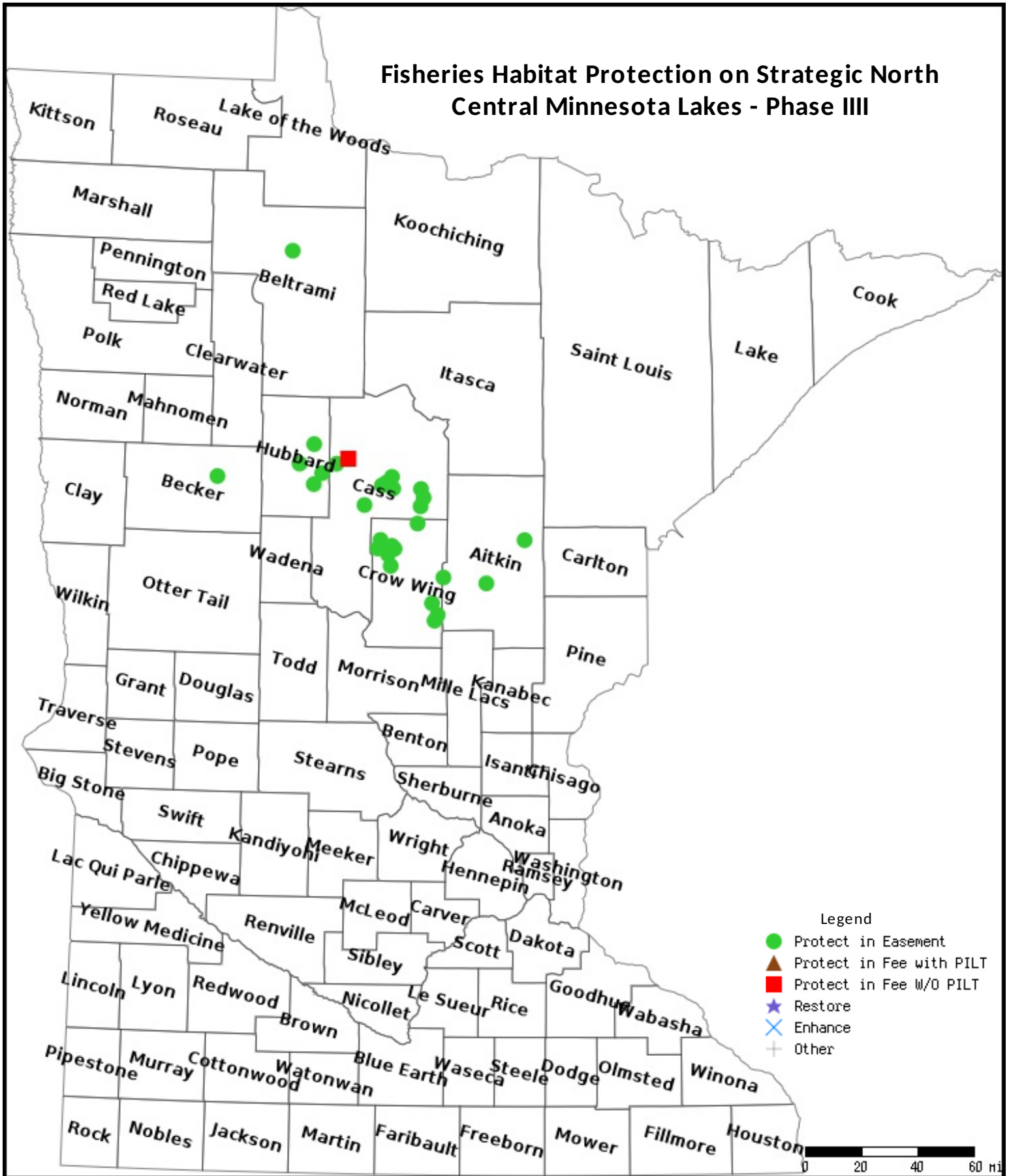
No parcels with an activity type protect and has buildings.

Section 3 - Other Parcel Activity

No parcels with an other activity type.

Parcel Map

Fisheries Habitat Protection on Strategic North Central Minnesota Lakes - Phase III



Data Generated From Parcel List

leech lake area WATERSHED FOUNDATION

Protecting Waters, Woods, and Wildlife for Future Generations to Enjoy

CLEAN WATER & CRITICAL HABITAT PROTECTION PROGRAM

WHAT IS THE CWCH PROGRAM?

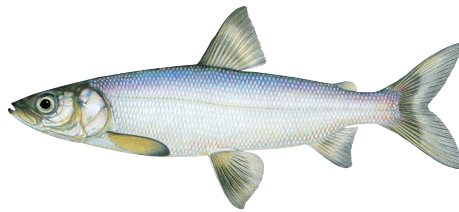
The Clean Water and Critical Habitat Protection Program is focused on protecting high priority critical fish habitat and the surrounding watersheds in Minnesota's North Central Lakes region by securing permanent conservation easements and fee title acquisitions. We will work with landowners to permanently protect approximately 400 acres through a ranking system that guides our selection process for purchasing conservation easements. Funding for this program is provided by a grant from the Outdoor Heritage Fund.



Fisheries research has shown that healthy watersheds with intact forests are fundamental to good fish habitat. If a lake's watershed has less than 25% land disturbance and 75% or more of its landscape remains forested and permanently protected, the lake has a high probability of sustaining clean water and healthy lake ecosystem to support fish. Projects that can simultaneously reduce shoreline development and watershed disturbances can yield the greatest conservation return.

We will focus our protection strategy on 31 of the Tullibee Refuge Lakes and their watersheds (see list on the last page) in Cass, Hubbard, Crow Wing, and Aitkin Counties. Tullibee are the proverbial "canary in the coal mine" fish species due to their sensitivity to even slight changes in water temperature and oxygen levels. A decrease in tullibee population can signal deterioration of the lake's water quality. Protecting lakes from

excess nutrients such as phosphorus is critical to maintaining sufficient oxygen levels. Forest land plays a key role in ensuring quality habitat, acting like a sponge to absorb and hold rainfall and reduce runoff to the surface waters of lakes and streams. Tullibee is an important food source for lake trout, northern pike, muskie and walleye. This program will also benefit habitat for many wildlife and water fowl species.



The conservation easement program will focus on critical shoreland and forested parcels. Many of the 38 Tullibee Refuge Lakes in North Central Minnesota have more than 25% land disturbance in their watersheds and need watershed protection. With strategic effort, it is feasible to reach permanent 75% watershed protection for many of these lakes. Additionally, we will attempt to develop adjacent "complexes" of conserved properties that can act as corridors, connecting existing protected land and expanding their impact.

PROJECT PARTNERS



Cass, Crow-Wing, Hubbard and Aitkin Soil and Water Conservation Districts

PROGRAM
FUNDED BY



HOW WILL PROJECTS BE CHOSEN FOR THIS PROGRAM?

The Leech Lake Area Watershed Foundation and the Minnesota Land Trust are opening a competitive application process to select conservation easements and acquisitions for funding on private lands within Minnesota's North Central lake region. Using a multi-faceted approach to prioritizing easements, a technical committee comprised of County and State agencies and project partners will weigh the overall habitat benefits of a prospective project against the costs of acquiring the easement.



Funding will be focused on lands within the 31 Tullibee Refuge Lake watersheds although special project applications outside the focus area will also be accepted and evaluated for their potential to protect critical fish habitat. A complete list of current lakes is at the end of this application. A second round of applications will be considered in 2018 using a similar application process.

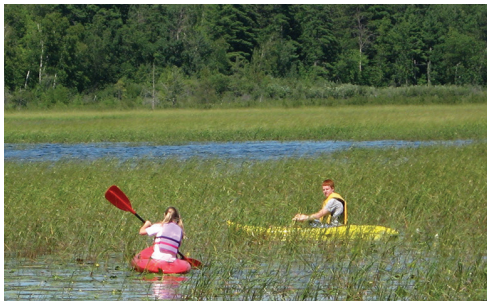
Initial applications are non-binding. Landowners and project partners are not legally bound to a conservation easement until both parties agree to and sign final conservation easement documents.

AN OVERVIEW OF THE APPLICATION PROCESS

Each landowner will have their land scored based on a set of established habitat value factors. This habitat value score takes into account the size of the parcel, ecological features, amount of shoreline, protection of water quality, location in relation to other protected lands, etc.



To ensure we maximize our ecological impact, we are asking landowners to consider taking less than full compensation. This will allow us to increase the total number of acres protected and help create a competitive process. A landowner's willingness to take less than full appraised value of the easement will be taken into consideration when applications are reviewed, but will not be the sole determining factor. You may choose to be fully compensated, partially compensated, or to donate the easement.



The applications will then be ranked based on the tract's habitat value. Examples of criteria include; feet of sensitive shoreland, percentage of wetland, percentage in forest, and proximity to public or other protected lands. Existence of forest management plans and the number of additional homesites the applicant would like to retain will also be factored and rated. After all the applications have been received, a compilation of scores with rankings will be assembled and used to guide the selection process.

Easements will be funded in order of highest project value rating to lowest. After the highest rated project is selected, the application with the next highest rating will be selected in order until all available funds have been assigned to selected projects. If for any reason a conservation easement does not move forward or the application is withdrawn, the next highest rated project may be selected.



WHAT IS A CONSERVATION EASEMENT?

Conservation easements are individually tailored agreements by which landowners limit the use and development of their property to permanently preserve its natural or scenic features. These features – called conservation values – might include significant wildlife and plant habitat, lake or river shoreline, wetlands or important scenic or cultural lands which benefit the public. Conservation easements targeted at sensitive shoreland and private forest within Tullibee Refuge Lake watersheds are an effective approach to protecting water quality.

In order to protect these conservation values, certain restrictions regarding use of the property and the reserved rights of the landowner are detailed in a conservation easement, which is conveyed to a non-profit conservation organization or government agency qualified to hold and enforce easements. In this program the Minnesota Land Trust will be holding our conservation easements. Once the easement is signed by the landowner and the easement holder, the document is filed with the local county land records.



Most conservation easements, including all of those by the Minnesota Land Trust, are perpetual. They apply to the current and all future landowners, permanently protecting the property. Each conservation easement is unique and is individually crafted to reflect the special characteristics of the land and the particular situation of the landowner.

CWCH-ELIGIBLE TULLIBEE REFUGE LAKES:

Cass County

Bass Lake • Cooper Lake
Deep Portage • Girl Lake
Long Lake • Ten Mile Lake
Thunder Lake • Washburn Lake
Woman Lake

Hubbard County

Big Sand Lake • Eleventh Crow-wing Lake
Kabekona Lake • Ninth Crow-wing Lake
Spearhead Lake • LaSalle Lake

Crow Wing County

Big Trout • Borden Lake
Clear Lake • Crooked Lake
Kenny Lake • Lower Hay Lake
Ossawinamakee Lake • Pelican Lake
Roosevelt Lake • Star Lake
Whitefish Lake

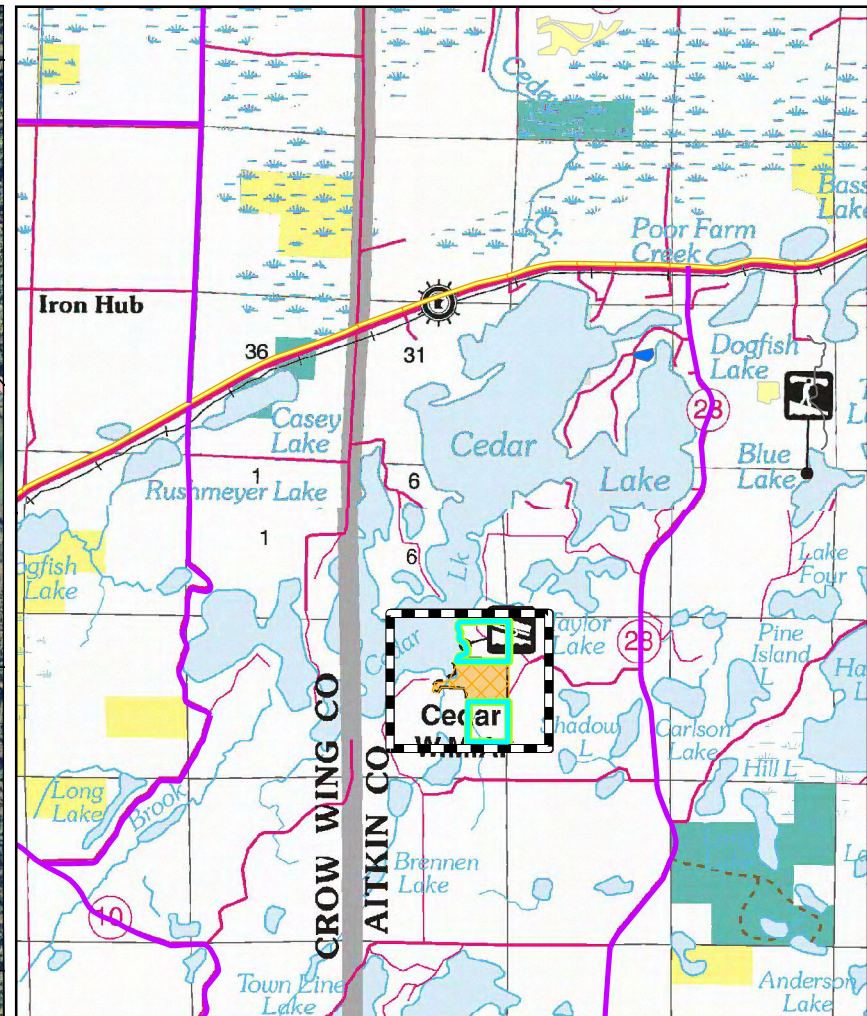
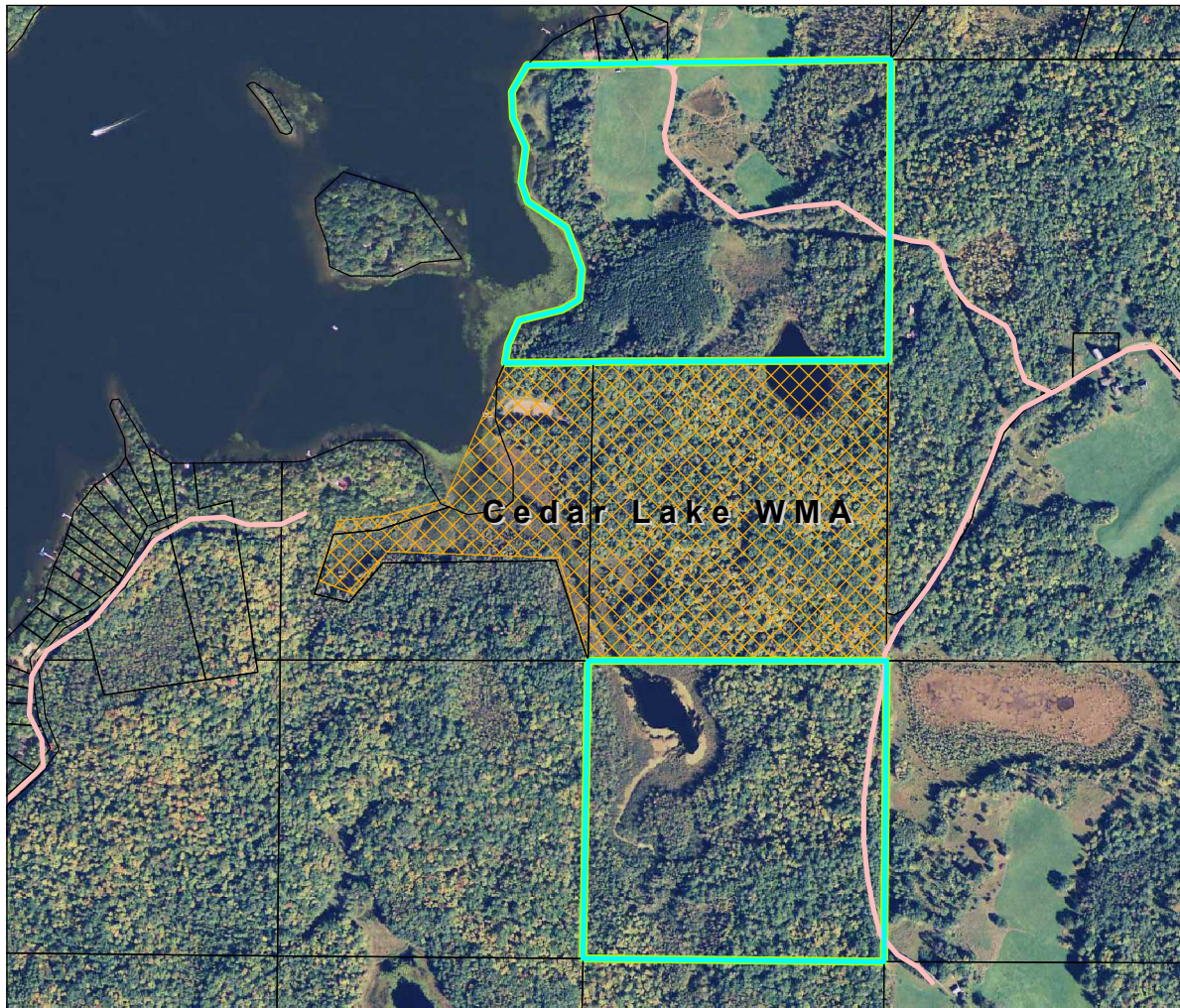
Aitkin County

Cedar Lake • Long Lake • Round Lake

For More Information Contact:

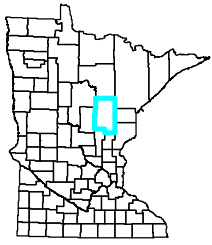
Leech Lake Area Watershed
218-675-5773
info@leechlakewatershed.org

Potential WMA addition on Cedar Lake, Aitkin County



0 1,000 Feet

0 0.55 1.1 Miles



- State Aquatic Management Areas
- State Wildlife Management Area Boundaries
- Potential WMA acquisitions
- Subject Property

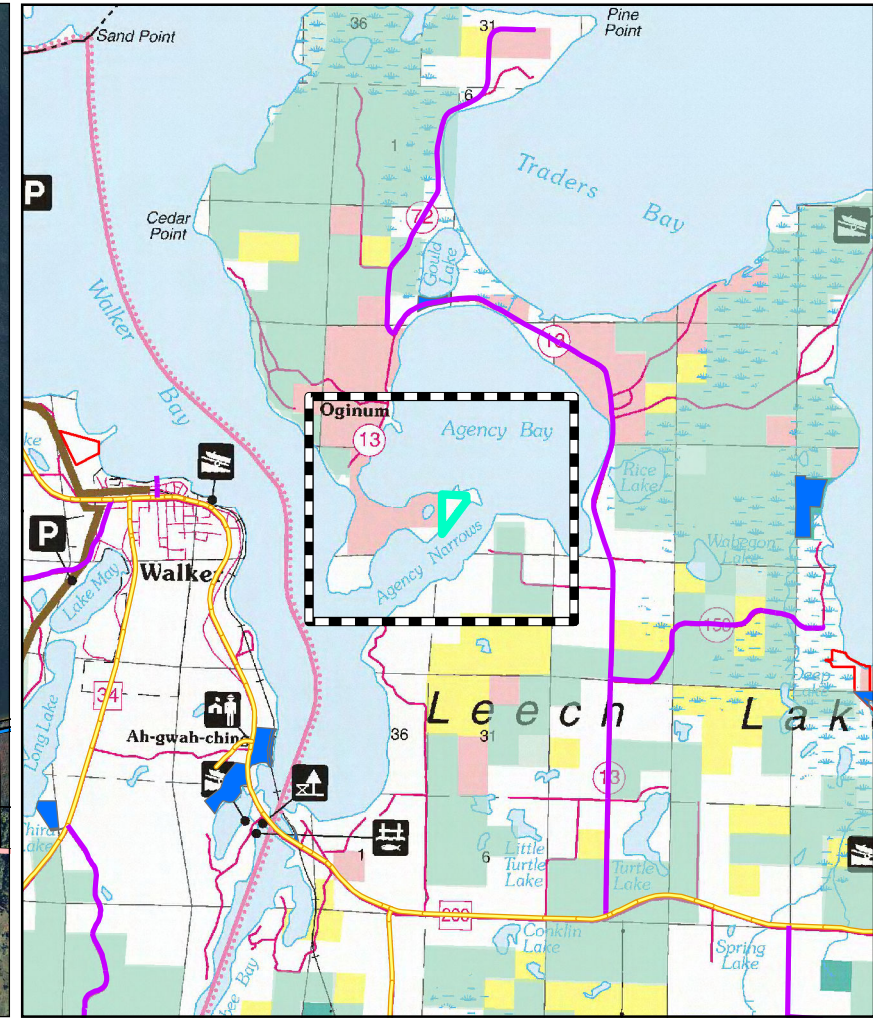
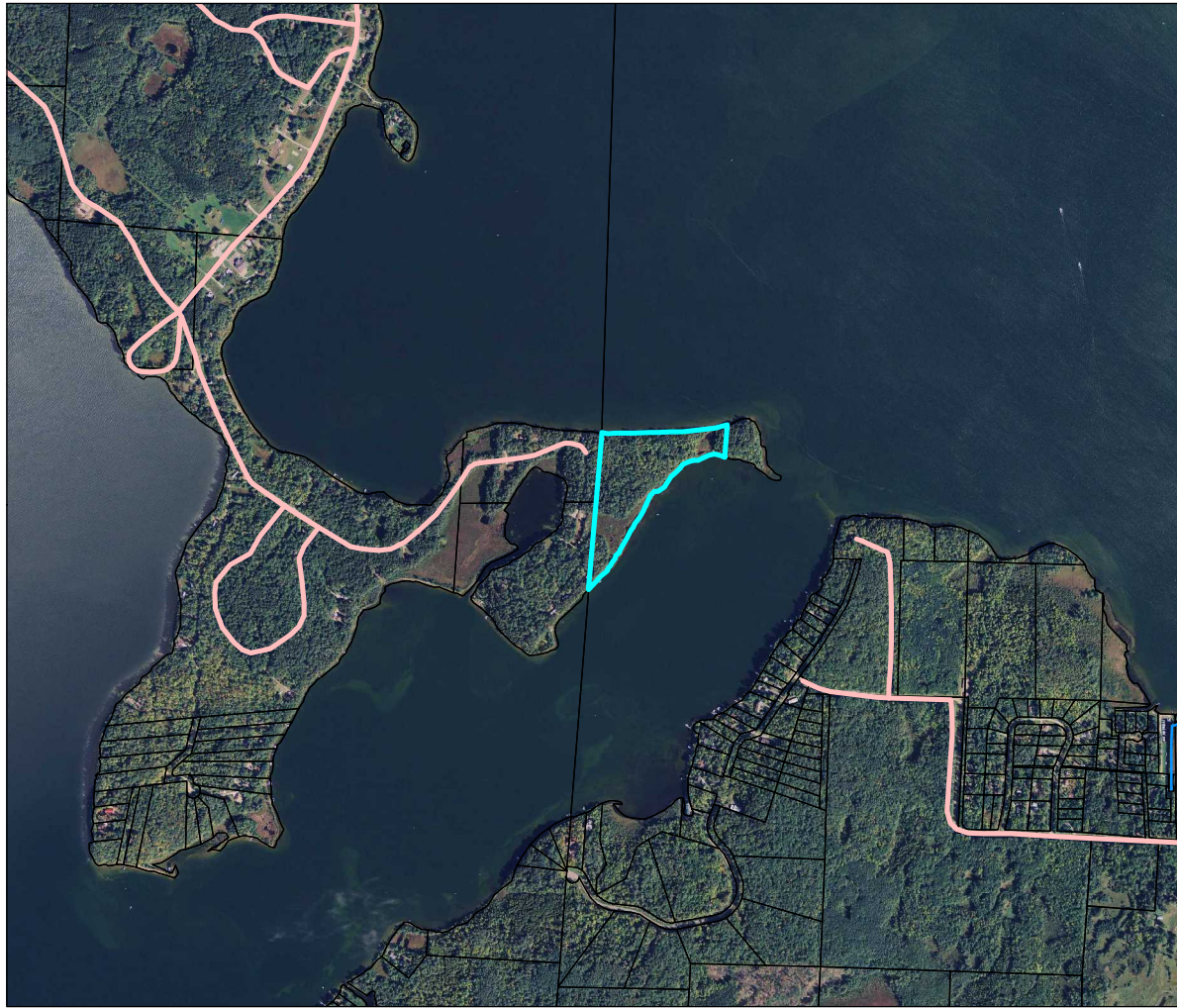
- Minnesota Snowmobile Trails
- Interstate Trunk Highway
- U.S. Trunk Highway
- MN Trunk Highway
- County Highway
- Municipal Road
- Township or Other Road
- Parcels



Note: This map shows the approximate relative location of property boundaries and other features but was not prepared by a professional land surveyor. This map is provided for informational purposes only and may not be sufficient or appropriate for legal, engineering, or surveying purposes.

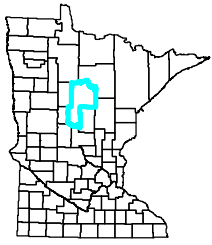
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Potential AMA on Agency Bay of Leech Lake, Cass County



0 1,000 Feet

0 0.75 1.5 Miles



- State Aquatic Management Areas
- Potential AMA acquisitions
- State Wildlife Management Area Boundaries
- Subject Property

- Minnesota Snowmobile Trails
- Interstate Trunk Highway
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