



Lessard-Sams Outdoor Heritage Council

Fisheries Habitat Protection on Strategic North Central Minnesota Lakes: Phase II
Laws of Minnesota 2016 Final Report

General Information

Date: 04/04/2026

Project Title: Fisheries Habitat Protection on Strategic North Central Minnesota Lakes: Phase II

Funds Recommended: \$1,425,000

Legislative Citation: ML 2016, Ch. 172, Art. 1, Sec. 2, Subd. 5(d)

Appropriation Language: \$1,425,000 the second year is to the commissioner of natural resources for agreements with the Leech Lake Area Watershed Foundation and Minnesota Land Trust to acquire land in fee and permanent conservation easements to sustain healthy fish habitat on cold water lakes in Aitkin, Cass, Crow Wing, and Hubbard Counties as follows: \$480,000 to Leech Lake Area Watershed Foundation; and \$945,000 to Minnesota Land Trust, of which up to \$180,000 to Minnesota Land Trust 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 land acquisitions must be provided as part of the required accomplishment plan.

Manager Information

Manager's Name: Annie Knight

Title: Grants Manager & Conservation Specialist

Organization: Northern Waters Land Trust

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Location Information

County Location(s): Hubbard and Cass.

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

Prairie

Wetlands

Narrative

Summary of Accomplishments

Project partners Northern Water Land Trust (NWLTL) and Minnesota Land Trust (MLT) successfully concluded this grant, protecting a combined total of 630 acres (105% of goal) and 25,278 feet of shoreline (188% of goal), while providing \$965,000 in leverage to the grant (170% of goal). NWLT purchased the 29-acre Woman Lake Aquatic Management Area in fee and conveyed to the Minnesota DNR. The parcel protects 1,140 feet of shoreline on Broadwater Bay. The Minnesota Land Trust completed four conservation easement projects under this appropriation, protecting a total of 601 acres and 24,854 feet of shoreline.

Process & Methods

A recent survey of the U.S. Fish and Wildlife Service reported 32 percent of Minnesotans participated in sport fishing, contributing \$2.4 billion to the state economy in 2011. Sport fishing is a powerful economic engine in Minnesota and important to its residents' quality of life. Sustaining a strong angling heritage revolves largely around protecting fisheries habitat necessary for healthy sport fish populations in the near- and long-term future with resurging shoreland development pressures and looming climate changes. This project focused on fisheries habitat protection on lakes that have the best biological integrity for a sustained sport fishery in light of these changes. These lakes are known collectively as "tullibee refuge lakes."

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 collective threats to Minnesota's sport fishery: shoreline development, watershed health, and climate warming. Deep, cold water tullibee 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 researchers studied tullibee lakes and designated 68 lakes in Minnesota as the primary "refuge lakes" for tullibee that need protection. Thirty-eight (38) of these refuge lakes—58 percent—are located in Hubbard, Crow Wing, Cass, and Aitkin counties. Many are also Minnesota's premier recreation lakes.

Scope of Project:

Minnesota DNR Fisheries research recommends that 75% of a lake's watershed be in permanent protection to ensure sustained water quality. Tullibee refuge lakes near this threshold were the highest priority for protection. In addition, the DNR's Sensitive Shoreland data were used to help identify priority lakes where conservation investments could be maximized. Landowner recruitment was focus on parcels in close proximity to protected land and which also had a high potential to expand upland and aquatic habitat complexes. Landowner applications

were evaluated based on criteria established by the project's technical team. To ensure the best conservation return on the state's investment, landowner willingness to donate a portion of the easement value was a key component of the parcel evaluation. Best available data (state and county) was used to prioritize projects and maximize outcomes. The 2013 Minnesota DNR Fish Habitat Plan provided strategic guidance.

Per the Fish Habitat Plan, nearshore fish habitat in lakes is largely affected by shoreline disturbance and the water quality habitat is determined by the water's oxygen level and nutrient content. Lakeshore development decreases a lake's ability to function as a healthy ecosystem for sport fish and their forage, not only by allowing increased runoff, but also through physical fish habitat alteration by lakeshore owners.

Fisheries research has shown that healthy watersheds with intact forests are fundamental to good fish habitat. If 75% or more of its watershed remains forested and permanently protected, a lake has a high probability of sustaining a healthy lake ecosystem. The 38 tullibee refuge lakes in North Central Minnesota all have less than 25% land disturbance in their watersheds and already have some degree of watershed protection.

While fisheries habitat protection was the primary focus of this project, creating strategic conservation complexes was an added benefit of permanent protection of forested, non-riparian lands within a tullibee refuge lake's watershed. A conservation easement or fee title acquisition added adjacent to other protected land will increase the overall conservation impact by creating larger permanently protected complexes of diverse habitat that benefit many species.

Fee acquisition and conservation easements were used to achieve permanent conservation of fisheries habitat on strategic parcels primarily in the watersheds of the 38 tullibee refuge lakes in Hubbard, Cass, Crow Wing, and Aitkin counties. Protection was targeted to shoreland parcels and key private forested parcels within these lake watersheds.

NWLT's role in the program was focused on targeted landowner recruitment, facilitating the technical team, grant administration, and acquisition of fee projects. MLT provided technical support and worked with landowners to secure conservation easements.

Five properties were protected through this grant - one in fee (via NWLT) and four through conservation easements (via MLT). The five completed projects listed below are:

NWLT: Woman Lake Aquatic Management Area, Tract 11 – Cass County. The 28.9 acre Lockman Family property was purchased by NWLT and conveyed to the State of Minnesota as part of the Woman Lake Aquatic Management Area. Woman Lake is within the Girl Lake watershed, which is categorized as a cold water tullibee refuge lake. The property has wetlands and sensitive lakeshore with diverse aquatic plants, birds, and other species.

MLT: Sucker Brook (Roerick Trust) – Hubbard County. This 76-acre conservation easement is dominated by white cedar swamp and lies adjacent to the 321-acre Lester Lake SNA, Lester Lake AMA and the 100,000+ acre Paul Bunyan State Forest. The centerpiece of the property is the nearly one-mile riparian corridor of Sucker Brook, an important tributary to Kabekona Lake, a designated Tullibee Refuge Lake.

MLT: Kabakona River (Hunke) – Hubbard County. The conservation easement protects >7,000 feet of the shoreline along the Kabakona River, a state-designated trout stream, and jack pine woodland communities on the uplands. The river is an important cold-water tributary to Kabekona Lake, an Outstanding Water Resource and a designated Tullibee Refuge Lake.

MLT: Eleventh Crow Wing Lake (Olander) – Hubbard County. This 400-acre property is part of a large landscape of protected natural lands, lying adjacent to the Paul Bunyan State Forest. The property's rolling terrain supports mixed hardwood-conifer forest, restored grasslands, wetlands, and ponds. Six SGCN have been observed here.

MLT: Thunder Lake (Steiner) – Cass County. The 49-acre conservation easement contains over one-half mile of shoreline on Thunder Lake, a designated Tullibee Refuge Lake, Lake of Outstanding Biological Significance, and a wild rice lake.

How did the program address habitats of significant value for wildlife species of greatest conservation need, threatened or endangered species, and/or 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 coal mine" for three significant threats to Minnesota's sport fisheries: shoreland development, watershed health and climate warming. Deep, cold water lakes with high quality, well-oxygenated waters and natural, undisturbed land cover along the shorelines and within their watersheds will have the best chance to sustain tullibee populations in the face of these threats and will serve as a "refuge" for the tullibee if annual temperatures increase.

Minnesota DNR Fisheries Research scientists studied tullibee lakes and designated 68 lakes in Minnesota as primary "refuge lakes" for tullibee that need protection. Forty-eight of these lakes and their minor watersheds are located in Crow Wing, Aitkin, Cass and Hubbard counties. These lakes are premier recreational and sport fishery lakes. Fisheries research has shown that healthy watersheds with intact forest are fundamental to good fish habitat. The 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 tullibeas as determined by the water's oxygen level and nutrient content. Lakeshore development decreases a lakes ability to function as a healthy ecosystem for sport fish and their forage, due to increased runoff, but also through physical alternation by lakeshore owners.

How did the program use science-based targeting that leveraged or expanded corridors and complexes, reduced fragmentation, or protected areas in the MN County Biological Survey.

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

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

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

Explain Partners, Supporters, & Opposition

The Program was benefitted by active involvement of number of government agencies and non-governmental organizations such as: local lake associations, Minnesota DNR, local Soil and Water Conservation Districts, and local county staff.

The Clean Water Critical Habitat Technical Committee was crucial in prioritizing lakes for the program, and evaluating/prioritizing parcels for protection. This committee included experts from the counties, local SWCDs, the MN DNR, and a GIS specialist. Their evaluation was based on ecological value, percent of watershed protected, parcel size, anticipated involvement of local organizational involvement, and investment by other agencies to protect the lands.

Landowner outreach was conducted with the support of local lake associations, county staff, DNR staff, and community members at large. Outreach was conducted via in-person conversations, referrals from partner organizations, a direct mailing, and social media promotion.

No opposition to the program was encountered, but rather a growing level of interest among landowners.

Exceptional challenges, expectations, failures, opportunities, or unique aspects of program

MLT and NWLT continued the success of this grant program by collaboratively exceeding both the conservation goals (acres protected in fee and via conservation easement) and leverage (easement value donated by participating landowners) proposed for the grant. Five high-quality projects were protected through this grant – four via conservation easement and one in fee – protecting a diversity of shoreland habitats and associated uplands.

NWLT faced a challenge with the initial fee title acquisition project, originally proposed in this grant. Due to unresolvable legal challenges, the NWLT Board of Directors terminated the project. NWLT quickly pivoted to the next priority, a 29 acre property on Woman Lake within the Girl Lake watershed. With the reduction in parcel size and land value, the leverage for this project was also reduced. Although the Woman Lake AMA project protected less acres than originally proposed, these 29 acres were invaluable to the MN DNR.

What is the plan to sustain and/or maintain this work after the Outdoor Heritage Funds are expended?

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

The fee title acquisition on Woman Lake was transferred to the MN DNR for ownership and management. It is now an Aquatic Management Area.

Land protected through conservation easements will be sustained through state-of-the-art standards and practices for conservation easement stewardship. 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. Funding for these easement stewardship activities was provided through this OHF grant.

In addition, MLT assisted landowners in the development of comprehensive habitat management plans to help ensure that the land will be managed for its wildlife and water quality benefits. Depending upon the property, opportunities for restoration and enhancement in the future will be explored on a case-by-case basis. The Land Trust will assist landowners in procuring funding for these activities or otherwise connecting with appropriate agencies as such needs and opportunities arise.

Actions to Maintain Project Outcomes

Year	Source of Funds	Step 1	Step 2	Step 3
2021 and in perpetuity	MLT Stewardship and Enforcement Fund	Annual monitoring of conservation easements.	Enforcement as necessary.	-

Budget

Grand Totals Across All Partnerships

Item	Requested	AP Amount	Spent	Leverage	Received Leverage	Leverage Source	Original Total	Final Total
Personnel	\$145,000	\$159,000	\$152,500	-	-	-	\$145,000	\$152,500
Contracts	\$20,000	\$16,000	\$15,900	-	-	-	\$20,000	\$15,900
Fee Acquisition w/ PILT	\$380,000	\$369,000	\$223,900	\$38,000	\$5,000	Landowner Donation and local fundraising	\$418,000	\$228,900
Fee Acquisition w/o PILT	-	-	-	-	-	-	-	-
Easement Acquisition	\$530,000	\$634,600	\$634,600	\$530,000	\$960,000	-, Landowner Donation and Local Fundrasing	\$1,060,000	\$1,594,600
Easement Stewardship	\$180,000	\$60,000	\$60,000	-	-	-	\$180,000	\$60,000
Travel	\$9,000	\$9,100	\$9,200	-	-	-	\$9,000	\$9,200
Professional Services	\$123,000	\$122,000	\$115,700	-	-	-	\$123,000	\$115,700
Direct Support Services	\$29,000	\$41,100	\$39,700	-	-	-	\$29,000	\$39,700
DNR Land Acquisition Costs	\$7,000	\$7,000	\$7,000	-	-	-	\$7,000	\$7,000
Capital Equipment	-	-	-	-	-	-	-	-
Other Equipment/Tools	-	-	-	-	-	-	-	-
Supplies/Materials	\$2,000	\$4,200	\$1,200	-	-	-	\$2,000	\$1,200
DNR IDP	-	\$3,000	\$600	-	-	-	-	\$600
Grand Total	\$1,425,000	\$1,425,000	\$1,260,300	\$568,000	\$965,000	-	\$1,993,000	\$2,225,300

Partner: Leech Lake Area Watershed Foundation

Totals

Item	Requested	AP Amount	Spent	Leverage	Received Leverage	Leverage Source	Original Total	Final Total
Personnel	\$40,000	\$44,000	\$42,400	-	-	-	\$40,000	\$42,400
Contracts	\$20,000	\$16,000	\$15,900	-	-	-	\$20,000	\$15,900
Fee Acquisition w/ PILT	\$380,000	\$369,000	\$223,900	\$38,000	\$5,000	Landowner Donation and local fundraising	\$418,000	\$228,900
Fee Acquisition w/o PILT	-	-	-	-	-	-	-	-
Easement Acquisition	-	-	-	-	-	-	-	-
Easement Stewardship	-	-	-	-	-	-	-	-
Travel	\$3,000	\$3,000	\$2,200	-	-	-	\$3,000	\$2,200
Professional Services	\$19,000	\$24,000	\$19,900	-	-	-	\$19,000	\$19,900
Direct Support Services	\$10,000	\$10,000	\$10,000	-	-	-	\$10,000	\$10,000
DNR Land Acquisition Costs	\$7,000	\$7,000	\$7,000	-	-	-	\$7,000	\$7,000
Capital Equipment	-	-	-	-	-	-	-	-
Other Equipment/Tools	-	-	-	-	-	-	-	-
Supplies/Materials	\$1,000	\$4,000	\$1,000	-	-	-	\$1,000	\$1,000
DNR IDP	-	\$3,000	\$600	-	-	-	-	\$600
Grand Total	\$480,000	\$480,000	\$322,900	\$38,000	\$5,000	-	\$518,000	\$327,900

Personnel

Position	Annual FTE	Years Working	Amount Spent	Leverage	Leverage Source	Total
LLAWF - CE Outreach - Adm	0.15	3.0	\$35,400	-	-	\$35,400
LLAWF - Fee Title	0.0	0.0	\$7,000	-	-	\$7,000

Partner: Minnesota Land Trust

Totals

Item	Requested	AP Amount	Spent	Leverage	Received Leverage	Leverage Source	Original Total	Final Total
Personnel	\$105,000	\$115,000	\$110,100	-	-	-	\$105,000	\$110,100
Contracts	-	-	-	-	-	-	-	-
Fee Acquisition w/ PILT	-	-	-	-	-	-	-	-
Fee Acquisition w/o PILT	-	-	-	-	-	-	-	-
Easement Acquisition	\$530,000	\$634,600	\$634,600	\$530,000	\$960,000	Landowner Donation and Local Fundraising	\$1,060,000	\$1,594,600
Easement Stewardship	\$180,000	\$60,000	\$60,000	-	-	-	\$180,000	\$60,000
Travel	\$6,000	\$6,100	\$7,000	-	-	-	\$6,000	\$7,000
Professional Services	\$104,000	\$98,000	\$95,800	-	-	-	\$104,000	\$95,800
Direct Support Services	\$19,000	\$31,100	\$29,700	-	-	-	\$19,000	\$29,700
DNR Land Acquisition Costs	-	-	-	-	-	-	-	-
Capital Equipment	-	-	-	-	-	-	-	-
Other Equipment/Tools	-	-	-	-	-	-	-	-
Supplies/Materials	\$1,000	\$200	\$200	-	-	-	\$1,000	\$200
DNR IDP	-	-	-	-	-	-	-	-
Grand Total	\$945,000	\$945,000	\$937,400	\$530,000	\$960,000	-	\$1,475,000	\$1,897,400

Personnel

Position	Annual FTE	Years Working	Amount Spent	Leverage	Leverage Source	Total
MLT Legal and Conservation Personnel	0.38	3.0	\$110,100	-	-	\$110,100

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 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 applied 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, Northern Waters Land Trust used a simplified allocation methodology that was approved by the MNDNR. This approved rate was applied to personnel, contracts, professional services, travel, and supplies expenses.

Explain any budget challenges or successes:

The Minnesota Land Trust received \$960,000 in donated easement value from landowners over the course of this grant, leveraging 181% of the proposed goal. That also enabled MLT to protect 601 acres of critical land in conservation easements, protecting 150% of the proposed goal.

Due to unresolvable legal challenges, NWLT discontinued an initial fee title acquisition project. The next priority parcel was smaller in size and land value, so the Fee Acquisition w/ PILT budget was not fully spent.

Total Revenue: \$0

Revenue Spent: \$0

Revenue Balance: \$0

Of the money disclosed above, what are the appropriate uses of the money:

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

N/A

Output Tables

Acres by Resource Type (Table 1)

Type	Wetland (AP)	Wetland (Final)	Prairie (AP)	Prairie (Final)	Forest (AP)	Forest (Final)	Habitat (AP)	Habitat (Final)	Total Acres (AP)	Total Acres (Final)
Restore	0	0	0	0	0	0	0	0	0	0
Protect in Fee with State PILT Liability	0	0	0	0	0	0	200	29	200	29
Protect in Fee w/o State PILT Liability	0	0	0	0	0	0	0	0	0	0
Protect in Easement	0	132	0	0	0	378	400	91	400	601
Enhance	0	0	0	0	0	0	0	0	0	0
Total	0	132	0	0	0	378	600	120	600	630

Total Requested Funding by Resource Type (Table 2)

Type	Wetland (AP)	Wetland (Final)	Prairie (AP)	Prairie (Final)	Forest (AP)	Forest (Final)	Habitat (AP)	Habitat (Final)	Total Funding (AP)	Total Funding (Final)
Restore	-	-	-	-	-	-	-	-	-	-
Protect in Fee with State PILT Liability	-	-	-	-	-	-	\$410,000	\$252,900	\$410,000	\$252,900
Protect in Fee w/o State PILT Liability	-	-	-	-	-	-	-	-	-	-
Protect in Easement	-	-	-	-	-	-	\$1,015,000	\$1,007,400	\$1,015,000	\$1,007,400
Enhance	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	\$1,425,000	\$1,260,300	\$1,425,000	\$1,260,300

Acres within each Ecological Section (Table 3)

Type	Metro / Urban (AP)	Metro / Urban (Final)	Forest / Prairie (AP)	Forest / Prairie (Final)	SE Forest (AP)	SE Forest (Final)	Prairie (AP)	Prairie (Final)	N. Forest (AP)	N. Forest (Final)	Total (AP)	Total (Final)
Restore	0	0	0	0	0	0	0	0	0	0	0	0
Protect in Fee with State PILT Liability	0	0	0	0	0	0	0	0	200	29	200	29
Protect in Fee w/o State PILT Liability	0	0	0	0	0	0	0	0	0	0	0	0
Protect in Easement	0	0	0	0	0	0	0	0	400	601	400	601
Enhance	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	600	630	600	630

Total Requested Funding within each Ecological Section (Table 4)

Type	Metro / Urban (AP)	Metro / Urban (Final)	Forest / Prairie (AP)	Forest / Prairie (Final)	SE Forest (AP)	SE Forest (Final)	Prairie (AP)	Prairie (Final)	N. Forest (AP)	N. Forest (Final)	Total (AP)	Total (Final)
Restore	-	-	-	-	-	-	-	-	-	-	-	-
Protect in Fee with State PILT Liability	-	-	-	-	-	-	-	-	\$410,000	\$252,900	\$410,000	\$252,900
Protect in Fee w/o State PILT Liability	-	-	-	-	-	-	-	-	-	-	-	-
Protect in Easement	-	-	-	-	-	-	-	-	\$1,015,000	\$1,007,400	\$1,015,000	\$1,007,400
Enhance	-	-	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	\$1,425,000	\$1,260,300	\$1,425,000	\$1,260,300

Target Lake/Stream/River Feet or Miles

4.92 miles

Explain the success/shortage of acre goals

As a whole, NWLT and MLT protected 105% of the acreage goal set for land protection through this grant.

The Minnesota Land Trust received \$960,000 in donated easement value from landowners over the course of this grant, leveraging 181% of the proposed goal. That enabled MLT to protect 601 acres of critical land in conservation easements, 150% of the proposed goal.

NWLT faced a challenges with the initial proposed fee title acquisition project. NWLT had to pivot to the next priority, a 29 acre parcel on Woman Lake, now an AMA. The MN DNR values this biologically diverse land.

Outcomes

Programs in the northern forest region:

Other ~ Private shoreline habitat and forested parcels totaling 630 acres was permanently protected from development and fragmentation through conservation easements and fee title acquisitions. Riparian forest lands under easement will maintain healthy habitat complexes for upland and aquatic species; forest cover will enhance water quality habitat for tullibee lakes. Conservation easement properties will protect fish habitat to ensure high quality fishing opportunities. Greater public access for wildlife and outdoors-related recreation was attained through the Woman Lake AMA Tract 11, a fee title acquisition project completed in this grant.

Parcels

Sign-up Criteria?

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

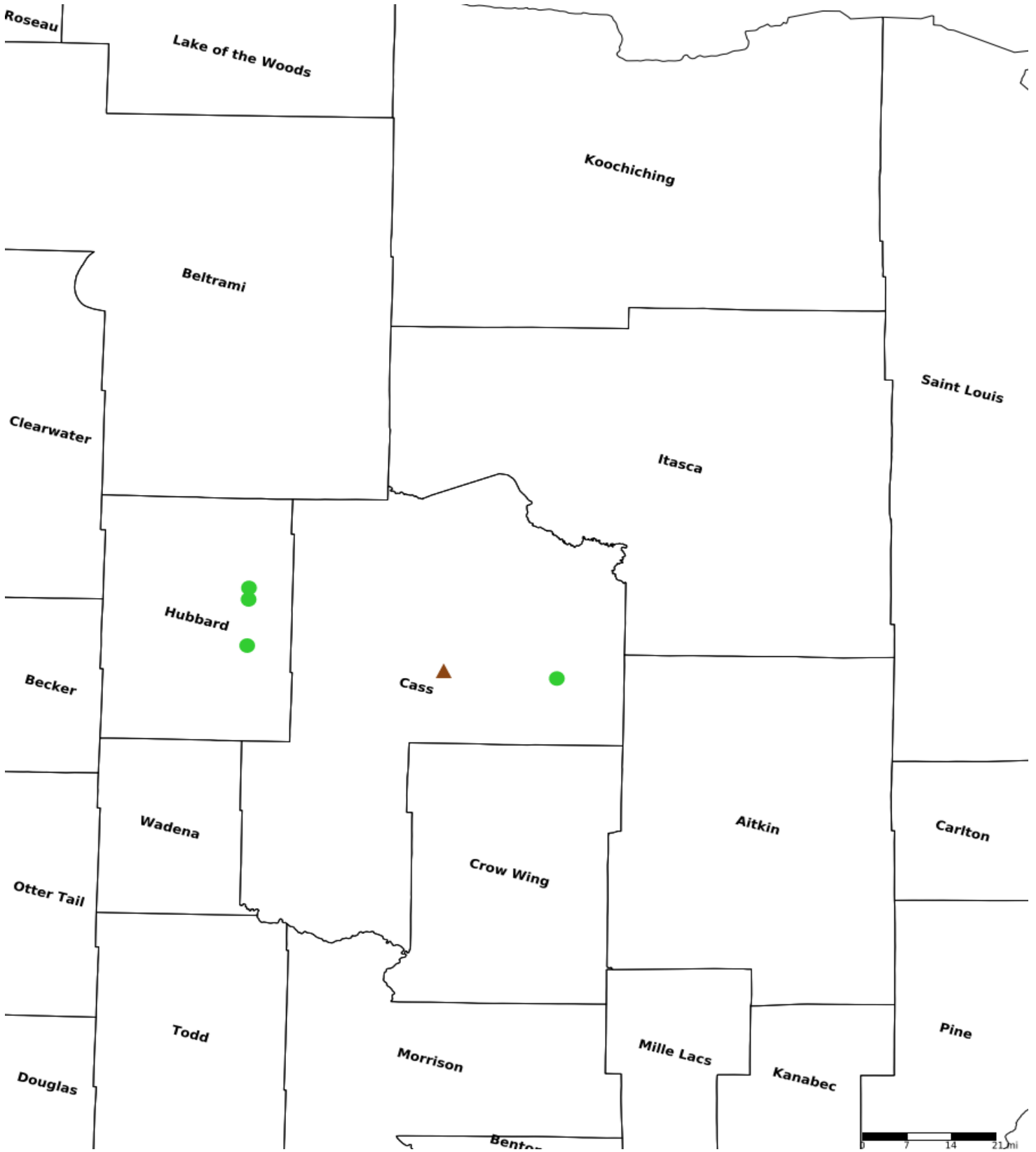
Fee Parcels

Name	County	TRDS	Acres	Est Cost	Existing Protection
Woman Lake	Cass	14128232	29	\$250,000	No

Easement Parcels

Name	County	TRDS	Acres	Est Cost	Existing Protection
Thunder Lake (Steiner)	Cass	14026203	25	\$0	No
Eleventh Crow Wing Lake (Olander)	Hubbard	14132207	400	\$416,000	No
Kabakona River (Hunke)	Hubbard	14332219	100	\$122,600	No
Sucker Brook (Roerick Trust)	Hubbard	14332231	76	\$96,000	No

Parcel Map



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