

Lessard-Sams Outdoor Heritage Council

Fiscal Year 2019 / ML 2018 Request for Funding



Date: May 31, 2017

Program or Project Title: DNR Trout Stream Conservation Easements

Funds Requested: \$3,030,000

Manager's Name: Martin Jennings

Title: Fisheries Habitat Program Manager

Organization: Minnesota Department of Natural Resources

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County Locations: Carlton, Fillmore, Goodhue, Houston, Lake, Olmsted, St. Louis, Wabasha, and Winona.

Regions in which work will take place:

- Northern Forest
- Southeast Forest

Activity types:

- Protect in Easement

Priority resources addressed by activity:

- Habitat

Abstract:

We propose a programmatic approach to achieve prioritized aquatic habitat protection for trout streams across Minnesota, but emphasizing Southeast and Northeast Minnesota. We propose to protect 25 miles of trout streams with permanent conservation easements on private land. Protected lands will be designated as Aquatic Management Areas (AMA's) administered by the Minnesota DNR Division of Fish and Wildlife.

Design and scope of work:

Trout fishing in Minnesota is enjoyed by thousands of anglers, with recent sales of trout stamps at record high levels. The MNDNR Section of Fisheries administers a conservation easement program that has strong stakeholder support, and protects the habitat that is the foundation of our successful trout management program. Over 90% of our conservation easements protect trout streams. In addition to protecting the riparian corridor of trout streams, easements provide access for the angling public, and also provide access for restoration and enhancement projects. We propose a programmatic approach to achieve prioritized aquatic habitat protection for trout streams across Minnesota, but emphasizing Southeast and Northeast Minnesota. We propose to protect 25 miles of trout streams with permanent conservation easements on private land. Protected lands will be designated as Aquatic Management Areas (AMA's) administered by the Minnesota DNR Division of Fish and Wildlife.

The dollar value of trout stream conservation easements is set by formula. Specifically, trout stream easement payments are calculated using a formula that relies on the length of stream being placed under easement and the area of the easement footprint. The length of the stream easement in feet (length is measured in GIS from a current aerial photo) is multiplied by \$5 per foot. The area of the easement footprint is also measured in GIS. The area in acres is multiplied by the average per acre estimated market value of Agricultural, Rural Vacant, and Managed Forest Land within the township where the easement lies. Estimated market value and total acres by land type for every township in the state are supplied by the Department of Revenue and revised annually. So, easement price is calculated as (feet of stream under easement x \$5) + (acres of easement footprint x \$ average market value/acre within that township).

Trout stream conservation easement acquisition is based on multiple criteria as described in the proposal attachment. Criteria include fishery quality, rare natural features and other ecological attributes, potential to link with existing easements to increase protected

corridors, and the need for access to conduct habitat restoration and enhancement projects. Scoring criteria to prioritize easements will also include the percentage of easement value that the landowner is willing to donate. Please refer to the attachments for details. Estimates of acres and miles protected are based on recent values for easements, and assume full price.

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

- H2 Protect critical shoreland of streams and lakes
- H3 Improve connectivity and access to recreation

Which other plans are addressed in this proposal:

- Minnesota DNR AMA Acquisition Plan
- Minnesota DNR Fish Habitat Strategic Plan

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

The fish habitat plan identifies continued threats to riparian habitat and water quality, and emphasizes strategic investment in protection. Protecting habitat that supports healthy fisheries, with willing partners and stakeholder support are key elements of the plan and this proposal. The AMA plan shares this framework, with additional emphasis on the need to provide access for angling opportunities. This proposal advances the concepts of protection of intact, high quality resources, and expansion of angling opportunity.

The Fish Habitat Plan also recognizes that although protection is often the best investment, many ecological systems in Minnesota that have been degraded still retain potential for improvement if properly restored or enhanced. The conservation easement program provides access for restoration and enhancement projects conducted by DNR and partners.

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

Southeast Forest:

- Protect, enhance, and restore habitat for fish, game, and nongame wildlife in rivers, cold-water streams, and associated upland habitat

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:

Trout stream easements will leave a lasting legacy because they are permanent, and DNR will monitor the easements to insure compliance. The combination of habitat protection, access for restoration/enhancement work, and public access for angling represents a significant bargain to protect critical habitat for the health of streams and the fish and wildlife that live there. The LSOHC goals for both the southeast forest and northern forest explicitly list protecting streams and rivers.

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

The scoring criteria include linking with existing easements to expand protected riparian corridors. The scoring criteria also award points to parcels with rare natural features identified in the MBS GIS layer.

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

The focus of the protection work in this proposal is trout streams and the riparian corridor. Although benefits to fisheries are a primary consideration of the program, riparian areas are also important to game and nongame wildlife, including species of greatest conservation need. We will use a scoring system that takes into account multiple considerations including presence of species of greatest conservation need. Some criteria, such as the potential to expand corridors and protected areas benefit many species. The scoring system is described in more detail in the attachments.

The use of scoring criteria allow a programmatic approach that fairly evaluates candidate parcels without eliminating the potential for

protection in any geographic region. Because species distribution is not uniform across the state, species benefitting from conservation easements will vary across regions. SCGN's that depend on aquatic and riparian habitat include several turtle species, common mudpuppy, two frog species, and several species of waterfowl and shorebirds.

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

Trout numbers will vary among streams. In the Southeast, brook trout and brown trout are indicator species, with typical biomass of 100 lbs/acre for brook, and 130 lbs/acre for brown trout. In the northeast, the combined total of trout species is typically 40 lbs/acre.

Outcomes:

Programs in the northern forest region:

- Improved aquatic habitat indicators *Acquired easements will be monitored by DNR staff following standard protocols. Monitoring will document compliance with terms of easement agreement.*

Programs in southeast forest region:

- Rivers, streams, and surrounding vegetation provide corridors of habitat *Acquired easements will be monitored by DNR staff following standard protocols. Monitoring will document compliance with terms of easement agreement.*

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

The request includes funds to deposit in the Easement Stewardship Account, an interest-bearing account authorized in MS 84.69. Funds will support easement monitoring to be conducted following DNR Operational Order 128 and Division of Fish and Wildlife Easement Monitoring Guidance.

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

Not Listed

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

Strong public support helps facilitate successful conservation. Popularity of trout fishing is at an all-time high in Minnesota, and its important to be responsive to the current support for expanding protection of the resource.

Expanding protected riparian corridors on coldwater streams reduces risk of habitat fragmentation and degraded water quality, reducing the future costs of restoration and enhancement. Expanding opportunity for outdoor recreation also better connects Minnesotans with the outdoors, increasing awareness of, and support for conserving the water that sustains the state.

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

Scoring criteria to rank candidate parcels include points for landowner donation of partial value. Among parcels of similar ecological value, those with leverage from landowner donation will be favored.

Relationship to other funds:

- Not Listed

Describe the relationship of the funds:

Not Listed

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

Not Listed

Activity Details

Requirements:

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

Is the land you plan to acquire 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**

Will the eased land be open for public use - **Yes**

Trout stream conservation easements are open to anglers making their way along the streambank for the purpose of fishing.

Are there currently trails or roads on any of the acquisitions on the parcel list - **No**

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

Accomplishment Timeline

Activity	Approximate Date Completed
Identify parcels with willing sellers of easements on priority streams	Fall of 2019
Rank parcels based on DNR prioritization criteria	Fall of 2019
Complete purchase of easements	June, 2021
Baseline easement monitoring	June, 2021

Budget Spreadsheet

Total Amount of Request: \$3,030,000

Budget and Cash Leverage

Budget Name	LSOHC Request	Anticipated Leverage	Leverage Source	Total
Personnel	\$0	\$0		\$0
Contracts	\$0	\$0		\$0
Fee Acquisition w/ PILT	\$0	\$0		\$0
Fee Acquisition w/o PILT	\$0	\$0		\$0
Easement Acquisition	\$2,500,000	\$0		\$2,500,000
Easement Stewardship	\$250,000	\$0		\$250,000
Travel	\$0	\$0		\$0
Professional Services	\$250,000	\$0		\$250,000
Direct Support Services	\$5,000	\$0		\$5,000
DNR Land Acquisition Costs	\$0	\$0		\$0
Capital Equipment	\$0	\$0		\$0
Other Equipment/Tools	\$0	\$0		\$0
Supplies/Materials	\$25,000	\$0		\$25,000
DNR IDP	\$0	\$0		\$0
Total	\$3,030,000	\$0	-	\$3,030,000

Amount of Request: \$3,030,000
 Amount of Leverage: \$0
 Leverage as a percent of the Request: 0.00%
 DSS + Personnel: \$5,000
 As a % of the total request: 0.17%
 Easement Stewardship: \$250,000
 As a % of the Easement Acquisition: 10.00%

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

Departmental formula.

Describe and explain leverage source and confirmation of funds:

Although we do not list any leverage for this proposal, one of our acquisition criteria adds bonus points to a parcel's prioritization score based on landowner donation of value. This may encourage a landowner to donate some portion of the value in order to increase their ranking.

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 request is programmatic; with reduced funding we would acquire fewer easements. Professional services, easement stewardship, and supplies would be reduced proportionally along with easement acquisition.

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	0	0
Protect in Fee W/O State PILT Liability	0	0	0	0	0
Protect in Easement	0	0	0	300	300
Enhance	0	0	0	0	0
Total	0	0	0	300	300

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	\$0	\$0
Protect in Fee W/O State PILT Liability	\$0	\$0	\$0	\$0	\$0
Protect in Easement	\$0	\$0	\$0	\$3,030,000	\$3,030,000
Enhance	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$0	\$0	\$3,030,000	\$3,030,000

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	0	0
Protect in Fee W/O State PILT Liability	0	0	0	0	0	0
Protect in Easement	0	0	175	0	125	300
Enhance	0	0	0	0	0	0
Total	0	0	175	0	125	300

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	\$0	\$0
Protect in Fee W/O State PILT Liability	\$0	\$0	\$0	\$0	\$0	\$0
Protect in Easement	\$0	\$0	\$1,739,600	\$0	\$1,290,400	\$3,030,000
Enhance	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$0	\$1,739,600	\$0	\$1,290,400	\$3,030,000

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	\$0
Protect in Fee W/O State PILT Liability	\$0	\$0	\$0	\$0
Protect in Easement	\$0	\$0	\$0	\$10,100
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	\$0
Protect in Fee W/O State PILT Liability	\$0	\$0	\$0	\$0	\$0
Protect in Easement	\$0	\$0	\$9,941	\$0	\$10,323
Enhance	\$0	\$0	\$0	\$0	\$0

Target Lake/Stream/River Feet or Miles

25 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:

The DNR uses a set of criteria to prioritize parcels based on factors such as the quality of the stream reach, presence of rare species, proximity to adjoining protected stream reaches, and potential for restoration. The full list of priorities and the respective scoring is included in this proposal as an attachment.

Section 1 - Restore / Enhance Parcel List

No parcels with an activity type restore or enhance.

Section 2 - Protect Parcel List

Carlton

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
Blackho of River	04717210	12	\$40,000	No	No	Full
Blackho of River	04717210	0	\$125,000	No	No	Full

Fillmore

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
Middle Branch Root River	10412226	14	\$100,000	No	No	Full
Rice Creek	10411233	0	\$250,000	No	No	Full
South Branch Root River	10310228	10	\$90,000	No	No	Full
Spring Valley Creek	10312217	45	\$250,000	No	No	Full
Spring Valley Creek	10313226	0	\$300,000	No	No	Full
Vesta Creek	10208210	3	\$15,300	No	No	Full
Vesta Creek	10208210	7	\$30,000	No	No	Full
Watson Creek	10310220	4	\$20,000	No	No	Full
Wisel Creek	10108206	4	\$20,000	No	No	Full

Goodhue

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
Bullard Creek	11214202	8	\$50,000	No	No	Full
Hay Creek	11215224	22	\$150,000	No	No	Full

Houston

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
Silver Creek	10406211	9	\$55,000	No	No	Full
West Beaver Creek	10206219	18	\$130,000	No	No	Full
Winnebago Creek	10105217	10	\$50,000	No	No	Full

Lake

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
Stewart River	05311214	0	\$250,000	No	No	Full

Olmsted

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
Middle Branch Whitewater	10611202	0	\$250,000	No	No	Full

St. Louis

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
Chester Creek	05014216	5	\$20,000	No	No	Full

Wabasha

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
East Indian Creek	10610226	5	\$25,000	No	No	Full
East Indian Creek	10910227	0	\$250,000	No	No	Full
Gilbert Creek	11113201	15	\$75,000	No	No	Full
Mazeppa Creek	11014230	15	\$75,000	No	No	Full
Mazeppa Creek	11014232	0	\$250,000	No	No	Full
North Forrk Zumbro River	10914210	10	\$60,000	No	No	Full
Spring Creek	11215206	3	\$15,000	No	No	Full

Winona

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
Garvin Brook	10708234	5	\$30,000	No	No	Full
Little Pickwick	10605219	10	\$68,000	No	No	Full
Little Pickwick	10605232	6	\$30,000	No	No	Full
Pine New Hartford	10505232	16	\$90,000	No	No	Full
Rollingstone Creek	10708213	2	\$10,000	No	No	Full

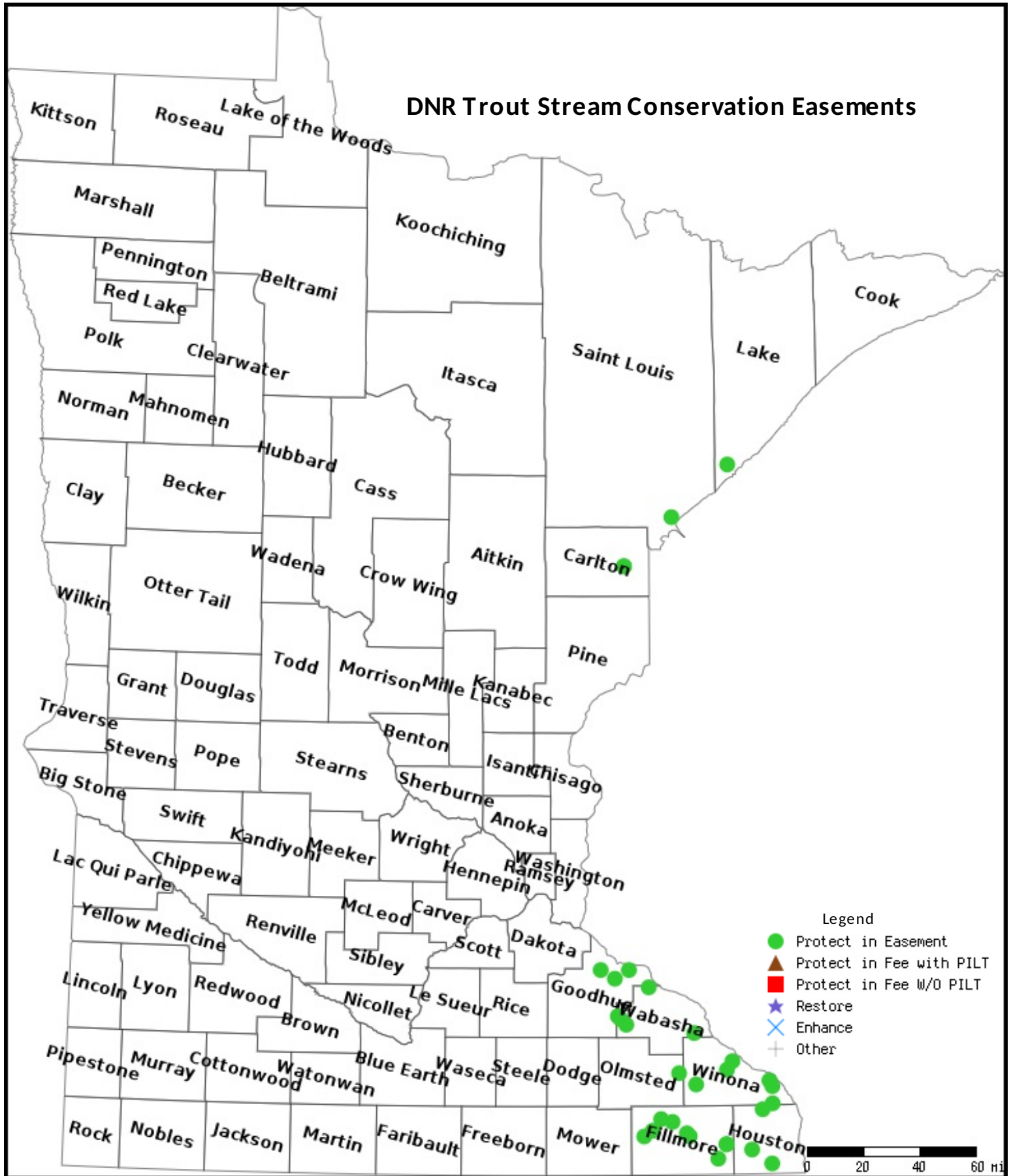
Section 2a - Protect Parcel with Bldgs

No parcels with an activity type protect and has buildings.

Section 3 - Other Parcel Activity

No parcels with an other activity type.

Parcel Map



Data Generated From Parcel List

DNR Trout Stream Conservation Easements

Total Request: \$3,025,000 to protect 25 miles of trout streams

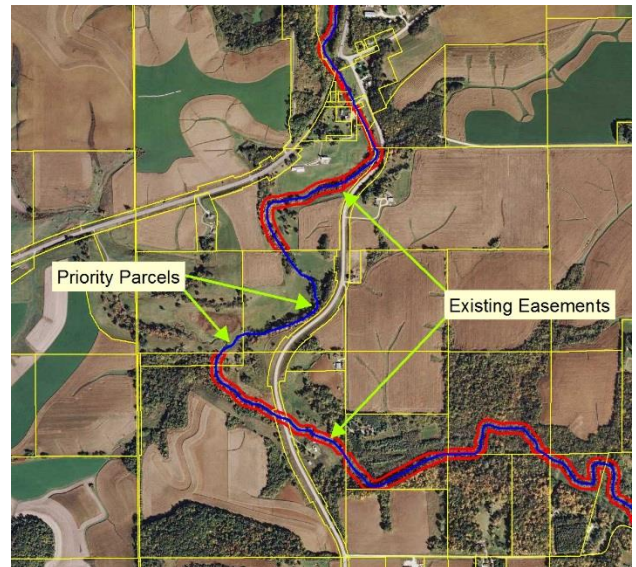
Protecting prime habitat

Priority is placed on protecting critical habitat such as springs that maintain cold temperatures required by trout



Connecting corridors

Parcels that would connect existing easements are a priority. Long corridors of habitat benefit the stream and wildlife.



Access for Anglers

All easements are open to public angling.



Access for restoration

DNR and partners such as Trout Unlimited can restore or enhance habitat on protected easements.



Creating a legacy

Angling easements are permanent, benefitting wildlife and anglers in perpetuity.



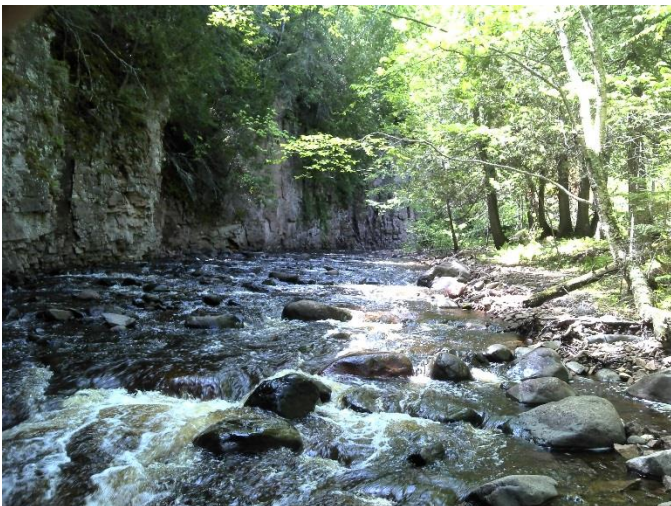
Ongoing stewardship

DNR's monitoring program will insure that conservation provisions are maintained.



Cost/benefit is high

Conservation easements on critical stream reaches provides a huge habitat benefit with a relatively low cost.



Benefits beyond fish

Riparian habitat is critical to numerous rare species such as wood turtle and Louisiana water thrush (pictured).



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Criteria to score and rank parcels as candidates for trout stream conservation easement acquisition

These criteria were developed with input from MNDNR Fisheries staff who manage trout water, and Fish and Wildlife Division Acquisition Unit staff. This tool is new, and some criteria and scoring thresholds may be adjusted in the future.

Adjacent to existing state ownership/easement Points are awarded by GIS tool. 0 = no existing easement on stream, 1 = easements on stream, but not touching, 3 = touches existing easement, 6 = touches existing easement on both side.

Easement Size GIS calculated. 0 points if proposed easement is 0 to 999 feet, 1 points if proposed easement is 1000 to 1999 feet, 2 points if proposed easement is 2000-2999 feet. 3 points if proposed easement 3000 feet or greater.

Instream habitat Condition Points based on site-specific conditions determined during site visit. Up to 6 points for the following features: stable bank, confined channel, substrate not dominated by fines, pool/riffle complex, in-stream cover or woody debris, overhead bank cover.

Riparian Condition Points are awarded by GIS tool using the watershed health assessment framework layers. Scoring- 1 point for 60-74% riparian area in natural cover, 2 points 75-90%, 3 points for >90.

Fish population abundance Award 1, 2, or 4 points based on the stretch's trout density. Scoring would use current fish assessment data with different scales for NE and SE. Draft thresholds: SE 0 pts <50 lbs/acre, 1 point 50-99 lbs/acre, 2 points 100-200 lbs/acre, 4 points >200 lbs/acre. NE- 0 points <5 trout/1000 ft., 1 point 5-14 trout/1000 ft, 2 points 14-36 trout/1000 ft, 4 points >36 trout/1000 ft.

Rare Natural Features As identified by Minnesota Biological Survey (MBS) existing GIS layer. Points are awarded by GIS tool. 1 point if proposed easement (buffered by 20m) touches a polygon on the rare natural features GIS layer.

MBS Sites of Biodiversity Significance Points are awarded by GIS tool. 2 points if proposed easement (buffered by 20m) touches a polygon on the MBS site of biodiversity significance GIS layer.

Recreation Potential Points are awarded by GIS tool querying census data for total population within 50 miles. 0 = <10,000, 1 = 10,001 to 20,000, 3 = 20,001 to 50,000, 4 = >50,000.

Natural Reproduction Points are based on professional judgement or existing data regarding the quality of the stretch as trout spawning habitat. Scores would be 0 for populations originating mostly from stocking, 2 for streams with mixed natural recruitment and stocking, or 4 points if self-sustaining without stocking.

Springs Award 3 points awarded if the site has a spring. This would be based on info gather during site visit.

Temperature Resiliency Award 0 - 6 points based on the stretch's temperature profile/stability. For 0 points-temp exceeds 68 F > 5% of summer days, 3 points temp exceeds 68 F on <5% summer days, 6

points if temperatures do not exceed 68 F. If the site exceeds 68 F > 5% of summer days but has a nearby thermal refuge where temperature exceeds 68 F <5% of summer days, award 2 points.

Longitudinal connectivity Deduct 1 point if impassible barrier downstream of parcel.

Restoration potential Award 3 points if habitat is limiting and survey data indicate quality trout populations in reaches of same stream with better habitat.

Identified anadromous importance If the stream stretch is known to support anadromous spawning runs, 1 point is awarded.

Existing/potential angler use Award up to 3 points based on professional judgement of factors including the stretch's current angler use and demand for additional access.

Accessible Award 1 point if the proposed easement is crossed by a road or trail that would provide angler access other than from adjoining easement.

Heritage Brook Trout or Coaster Brook trout Award 3 points awarded if the stretch has a known population of heritage brook trout or coaster run brook trout.

Landowner Donation Award 1 point per 10% of landowner donation of easement value (e.g., 3 points awarded where landowner donates 30 of value)