

# Lessard-Sams Outdoor Heritage Council Laws of Minnesota 2013 Accomplishment Plan

**Date: October 25, 2012**

**Program or Project Title:** Minnesota Trout Unlimited Coldwater Fish Habitat Enhancement & Restoration

**Funds Recommended: \$2,470,000**

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**Legislative Citation:** (to be completed when signed by Governor)

**County Locations:** Carlton , Cook, Dakota, Fillmore, Lake, Olmsted, Rice , St Louis, and Winona.

## **Ecological Planning Regions:**

- Northern Forest
- Southeast Forest
- Prairie
- Metro / Urban

## **Activity Type:**

- Enhance

## **Priority Resources Addressed by Activity:**

- Habitat

## **Abstract:**

Minnesota Trout Unlimited and our volunteers, chapters and partners will directly enhance habitat for fish and wildlife in and along eleven coldwater streams located in existing Aquatic Management Areas and on existing public lands around the state.

## **Activity Detail**

## **Design and Scope of Work:**

### **The problem being addressed.**

Minnesota's remaining coldwater streams represent just six percent of the State's total miles of streams and rivers. They are, however, disproportionately popular with anglers and valued by citizens because they represent the highest quality aquatic systems remaining. Degraded habitat in and along coldwater streams is, therefore, a conservation issue of statewide importance that requires accelerated investment in projects which enhance or restore this habitat.

Minnesota Trout Unlimited ("MNTU") proposes to improve degraded habitat on eleven streams located on existing AMAs and public land around the state. Our members have demonstrated the capacity to complete these projects with Fiscal Year 2014 funding from the Outdoor Heritage Fund ("OHF"). MNTU respectfully proposes to partner with the Lessard-Sams Outdoor Heritage Council and the citizens of Minnesota to enhance habitat in and along the following public waters (in these counties):

1. Junco Creek (Cook);
2. Split Rock River (Lake);
3. Keene Creek (St. Louis);
4. Garvin Brook (Winona);
5. Trout Brook (Dakota);
6. Rice Creek/Spring Brook (Rice);
7. Blackhoof River (Carlton);
8. Pine - Rush Creeks (Winona);
9. Mill Creek (Olmsted);
10. Newburg Creek (Fillmore);
11. Willow Creek (Fillmore).

### **Goals and scope of work.**

Each project aims to increase the carrying capacity and trout population of the stream, increase angling access and participation, improve water quality and provide other benefits to aquatic and terrestrial wildlife. FY 2014 funded projects will use methods similar to those used on successful projects recently completed by MNTU chapters. MNTU will leverage our experience to optimize project design and implementation.

In consultation with resource professionals within the Minnesota Department of

Natural Resources (“MNDNR”), MNTU will use the best available stream restoration and coldwater aquatic science to select specific habitat improvement methods for each stream that reflect the distinct characteristics of the watershed and ecological region, address the specific limiting factors (e.g. spawning substrate, adult or juvenile cover, invertebrate production), and account for the land use practices.

Objectives: Projects will accomplish one or more of these objectives: (a) increase adult trout abundance, (b) reduce stream bank erosion and associated sedimentation downstream, (c) reconnect streams to their floodplains to reduce negative impacts from severe flooding, (d) increase natural reproduction of trout and other aquatic organisms, (e) increase habitat for invertebrates and non-game species, (f) improve angler access and participation, and (g) protect productive trout waters from invasive species.

Methods: Habitat enhancement methods typically include: (1) sloping stream banks back to both remove streamside sediments that have previously been transported from uplands areas and better reconnect the stream to its floodplain, (2) removing shallow rooted woody vegetation (invasive box elder, buckthorn, etc.) to enable removal of accumulated sediments, reduce competition with desirable plant and grass species, and allow beneficial energy inputs (sunlight) to reach the streams, (3) stabilizing eroding stream banks using vegetation and/or rock, (4) installing overhead bank and other in-stream cover for trout, (5) installing soil erosion prevention measures (6) seeding exposed banks and taking steps to firmly establish vegetation (including using native prairie grasses where appropriate and feasible), (7) improving angling access, (8) fencing riparian corridors where appropriate to facilitate managed grazing and prevent damage from over-grazing, (9) restoring large cover logs to the channels of Northern forested streams to increase deep pool habitat, and (10) planting long lived trees along Northern forested streams to shade and cool the water, and eventually become large cover logs.

These actions directly enhance physical habitat, and typically increase overall trout abundance, the number of larger trout, and levels of successful natural reproduction. Additional benefits, that extend many miles downstream from the project, include reduced erosion and sedimentation, cooler water temperatures, and improved water quality.

Budget numbers, and the relative allocation between contracts, materials and professional services, are estimates only. Through construction efficiencies and leveraging substantial federal and private monies we expect to lengthen several projects and even work on additional streams.

## Planning

### **MN State-wide Conservation Plan Priorities:**

- H2 Protect critical shoreland of streams and lakes
- H3 Improve connectivity and access to recreation
- H6 Protect and restore critical in-water habitat of lakes and streams
- H7 Keep water on the landscape

## **Plans Addressed:**

- Driftless Area Restoration Effort
- Long Range Plan for Fisheries Management
- National Fish Habitat Action Plan
- Outdoor Heritage Fund: A 25 Year Framework
- State Comprehensive Outdoor Recreation Plan
- Strategic Plan for Coldwater Resources Management in Southeastern Minnesota
- Tomorrow's Habitat for the Wild and Rare
- Asian Carp Action Plan

## **LSOHC Statewide Priorities:**

- Are ongoing, successful, transparent and accountable programs addressing actions and targets of one or more of the ecological sections
- Produce multiple enduring conservation benefits
- Are able to leverage effort and/or other funds to supplement any OHF appropriation
- Allow public access. This comes into play when all other things about the request are approximately equal
- Address conservation opportunities that will be lost if not immediately acted on
- Restore or enhance habitat on state-owned WMAs, AMAs, SNAs, and state forests
- Use a science-based strategic planning and evaluation model to guide protection, restoration and enhancement, similar to the United States Fish and Wildlife Service's Strategic Habitat Conservation model
- Address wildlife species of greatest conservation need, Minnesota County Biological Survey data, and rare, threatened and endangered species inventories in land and water decisions, as well as permanent solutions to aquatic invasive species
- Provide Minnesotans with greater public access to outdoor environments with hunting, fishing and other outdoor recreation opportunities
- Ensures activities for "protecting, restoring and enhancing" are coordinated among agencies, non profits and others while doing this important work
- Target unique Minnesota landscapes that have historical value to fish and wildlife

## **LSOHC Prairie Section Priorities:**

- Restore or enhance habitat on public lands

## **LSOHC Northern Forest Section Priorities:**

- Protect shoreland and restore or enhance critical habitat on wild rice lakes, shallow lakes, cold water lakes, streams and rivers, and spawning areas

## **LSOHC Metro Urban Section Priorities:**

- Enhance and restore coldwater fisheries systems

## **LSOHC Southeast Forest Section Priorities:**

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

## **Relationship to Other Constitutional Funds:**

- No Relationships Listed

## **Accelerates or Supplements Current Efforts:**

Each discrete project is an additional “stand alone” project which supplements the amount of habitat work which MNTU chapters have traditionally been able to complete. While our members and chapters have been planning, fundraising for and executing quality fish habitat restoration and enhancement projects around Minnesota for four decades, our partnership with the L-SOHC has dramatically increased the amount of degraded habitat we are restoring and enhancing.

While members play vital roles in planning, designing, overseeing, directing and providing manual labor on what are essentially construction projects, we must hire excavation contractors and purchase rock, lumber and other materials put into the project sites. The availability of funds to hire heavy equipment operators and purchase materials remains the limiting factor in the amount of habitat work we can complete. The knowledge, passion and commitment of our volunteers continue to increase, as does their successful acceleration of the pace of habitat restoration. To ensure we finish what we start, we have developed, and continue expanding, a pool of qualified external contractors to assist with critical tasks. In less than three fieldwork seasons, MNTU and our partners have improved over twenty miles of stream habitat using OHF and leveraged funding.

## **Sustainability and Maintenance:**

MNTU’s coldwater aquatic habitat restoration and enhancement projects are designed for long-term ecological and hydrologic stability. Once in-stream work is completed and riparian vegetation well established (which may take several years), no significant maintenance is usually required in order to sustain the habitat outcomes for several decades. The sloped streambanks allow floodwaters to quickly spread out into the re-connected floodplain and dissipate energy, reducing the destructive impact of a flood. Flood waters typically flatten grasses temporarily and do not damage the in-stream structures and undercut banks. A tenfold increase in trout populations and three fold increase in large trout are typical following completion of a Southeast Minnesota project, and are sustainable through natural reproduction.

We anticipate that long-term monitoring of the integrity of the improvements will be

done in conjunction with routine inspections and biological monitoring conducted by local MNDNR staff, MNTU members, or landowners as appropriate. This monitoring will not require separate OHF or other constitutional funding. In the unlikely event that there are other maintenance costs, potential sources of funding and volunteer labor include MNTU, MNDNR AMA maintenance funding, and other grant funds and organizations. MNTU volunteers will provide long-term monitoring and periodic labor as needed.

*Is the activity on permanently protected land and/or public waters per MS 103G.005, Subd. 15? - **Yes (WMA, AMA, County/Municipal, State Forests)***

### Accomplishment Timeline

Activity	Approximate Date Completed
Begin project planning, design, and permitting work following a July 2013 appropriation	July 2013
Begin habitat enhancements during 2014 fieldwork season, following completion of design, permits and contracting.	2014 fieldwork season
Complete riparian and in-stream habitat enhancements.	October 2015
Cutting, burning and/or spot spraying vegetation to ensure grasses become well established.	Summers 2016 & 2017
Tree painting in riparian corridors of northern project sites in May-June following in-stream work	By June 2016

### Outcomes

#### Programs in the northern forest region:

- Improved aquatic habitat indicators

#### Programs in metropolitan urbanizing region:

- Improved aquatic habitat indicators

#### Programs in southeast forest region:

- Improved aquatic habitat indicators

#### Programs in prairie region:

- Improved condition of habitat on public lands

## Budget Spreadsheet

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

Total Amount of Request: \$2,470,000

### Budget and Cash Leverage

<b>Budget Name</b>	<b>LSOHC Request</b>	<b>Anticipated Cash Leverage</b>	<b>Cash Leverage Source</b>	<b>Total</b>
Personnel	\$100,000	\$0		\$100,000
Contracts	\$998,000	\$0		\$998,000
Fee Acquisition w/ PILT	\$0	\$0		\$0
Fee Acquisition w/o PILT	\$0	\$0		\$0
Easement Acquisition	\$0	\$0		\$0
Easement Stewardship	\$0	\$0		\$0
Travel (in-state)	\$20,000	\$0		\$20,000
Professional Services	\$675,000	\$0		\$675,000
Direct Support Services	\$0	\$0		\$0
DNR Land Acquisition Costs	\$0	\$0		\$0
Capital Equipment	\$0	\$0		\$0
Other Equipment/Tools	\$2,000	\$0		\$2,000
Supplies/Materials	\$675,000	\$0		\$675,000
DNR IDP	\$0	\$0		\$0
<b>Total</b>	<b>\$2,470,000</b>	<b>\$0</b>	<b>-</b>	<b>\$2,470,000</b>

Personnel

<b>Position</b>	<b>FTE</b>	<b>Over # of years</b>	<b>LSOHC Request</b>	<b>Anticipated Cash Leverage</b>	<b>Cash Leverage Source</b>	<b>Total</b>
program administrator	0.40	2.00	\$60,000	\$0		\$60,000
waterhsed director	0.10	2.00	\$10,000	\$0		\$10,000
program assistant	0.25	2.00	\$30,000	\$0		\$30,000
<b>Total</b>	<b>0.75</b>	<b>6.00</b>	<b>\$100,000</b>	<b>\$0</b>	<b>-</b>	<b>\$100,000</b>



## Output Tables

Table 1. 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	0	0
Enhance	0	0	0	78	78
Total	0	0	0	78	78

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	\$0	\$0
Enhance	\$0	\$0	\$0	\$2,470,000	\$2,470,000
Total	\$0	\$0	\$0	\$2,470,000	\$2,470,000

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	0	0	0	0
Enhance	7	0	44	11	16	78
Total	7	0	44	11	16	78

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	\$0	\$0	\$0	\$0
Enhance	\$255,000	\$0	\$1,640,000	\$285,000	\$290,000	\$2,470,000
<b>Total</b>	<b>\$255,000</b>	<b>\$0</b>	<b>\$1,640,000</b>	<b>\$285,000</b>	<b>\$290,000</b>	<b>\$2,470,000</b>

Table 5. Target Lake/Stream/River Miles

7 miles

## Parcel List

*For restoration and enhancement programs ONLY: Managers may add, delete, and substitute projects on this parcel list based upon need, readiness, cost, opportunity, and/or urgency so long as the substitute parcel/project forwards the constitutional objectives of this program in the Project Scope table of this accomplishment plan. The final accomplishment plan report will include the final parcel list.*

### Section 1 - Restore / Enhance Parcel List

#### Carlton

Name	TRDS	Acres	Est Cost	Existing Protection?
Blackhoof River	04717227	6	\$130,000	yes

#### Cook

Name	TRDS	Acres	Est Cost	Existing Protection?
Junco Creek	06201214	3	\$30,000	yes

#### Dakota

Name	TRDS	Acres	Est Cost	Existing Protection?
Trout Brook	11317235	7	\$255,000	yes

#### Fillmore

Name	TRDS	Acres	Est Cost	Existing Protection?
Newburg Creek	10108205	7	\$260,000	yes
Willow Creek	10211201	7	\$260,000	yes

#### Lake

Name	TRDS	Acres	Est Cost	Existing Protection?
Split Rock River	05509216	3	\$40,000	yes

#### Olmsted

Name	TRDS	Acres	Est Cost	Existing Protection?
Mill Creek	10512225	12	\$405,000	yes

#### Rice

Name	TRDS	Acres	Est Cost	Existing Protection?
Rice Creek (Spring Brook)	11120203	11	\$285,000	yes

## St Louis

<b>Name</b>	<b>TRDS</b>	<b>Acres</b>	<b>Est Cost</b>	<b>Existing Protection?</b>
Keene Creek	05015236	3	\$90,000	yes

## Winona

<b>Name</b>	<b>TRDS</b>	<b>Acres</b>	<b>Est Cost</b>	<b>Existing Protection?</b>
Garvin Brook	10608207	6	\$200,000	yes
Pine - Rush Creeks	10508233	12	\$410,000	yes

### **Section 2 - Protect Parcel List**

No parcels with an activity type protect.

### **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.