Lessard-Sams Outdoor Heritage Council
FY 2011 Recommendation
Accomplishment Plan

Date: **May 17, 2010**

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

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	Council Recommendation Funding	Out-Year Projections of Needs		
Funds Recommended ($000s)	**FY 2011**	FY 2012	FY 2013	FY 2014
Outdoor Heritage Fund	**1,269**	0	0	0

Appropriation Language

Laws of Minnesota 2010, Chapter 361, Article I, Section 2, Subd. 5(c): Cold Water River and Stream Restoration, Protection, and Enhancement. $1,269,000 in fiscal year 2011 is to the commissioner of natural resources for an agreement with Trout Unlimited to restore, enhance, and protect cold water river and stream habitats in Minnesota. A list of proposed acquisitions and a list of proposed projects, describing the types and locations of restorations and enhancements, must be provided as part of the required accomplishment plan. The commissioner of natural resources must agree in writing to each proposed acquisition, restoration, and enhancement. All restorations must comply with subdivision 9, paragraph (b).

Abstract

Our program will restore and/or enhance in-stream and riparian fish and wildlife habitat in six coldwater streams located in existing Aquatic Management Areas and one Minnesota State Park. The proposed projects will improve habitat for both game and non-game fish and wildlife species uniquely associated with coldwater trout streams and provide expanded recreational opportunities for Minnesota anglers.

Narrative

Seriously degraded coldwater habitat is an important statewide conservation issue requiring immediate investment through habitat restoration and enhancement projects. The Lessard-Sams Outdoor Heritage Council has declared the restoration and enhancement of coldwater fish habitat a priority action in the L-SOHC Sections in which these projects are located. As part of our ongoing program of trout and salmon habitat restoration and enhancement, Minnesota Trout Unlimited ("MNTU") has identified several priority projects for Fiscal Year 2011 funding. MNTU proposes to directly restore or enhance in-stream and riparian fish and wildlife habitat in and along the following Minnesota waters (counties) between July 2010 and June 2012:

1. Hay Creek (Goodhue);
2. Lost Creek (Fillmore);
3. North Branch of Whitewater River (Wabasha);
4. Pine Creek (Winona);
5. Vermillion River (Dakota);
6. West Indian Creek (Wabasha).

Five of the projects will restore or enhance habitat on existing state-owned Aquatic Management Areas. The sixth project will restore or enhance habitat on state-owned land within Carly State Park.

These projects will employ the same successful strategy used in the projects done by MNTU chapters and the MNDNR in the past several years. Each project involves the installation of in-stream fish habitat structures, in addition to measures which reduce stream bank erosion and associated sedimentation, and reconnect streams to their flood plains to reduce negative impacts from severe flooding. The specific fish habitat restoration or enhancement methods used on each stream will vary depending upon the distinct natural resource characteristics of each ecological region, as well as variations in the type and magnitude of poor land uses practices within each watersheds. Each project will be tailored to the site after close consultation with resource professionals within the Minnesota DNR. The projects to be undertaken by MNTU will be designed to accomplish a number of the following purposes: a) reduce stream bank erosion and associated sedimentation, b) reconnect streams to their flood plains to reduce negative impacts from severe flooding, c) increase natural reproduction of trout and other aquatic organisms, d) maintain or increase adult trout abundance, e) increase biodiversity for both in-stream and non-game species, f) be long lasting with minimal maintenance required, and g) improve angler access. Additional project descriptions can be found in MNTU's Request for Funding dated November 2, 2009.

Project partners include the MNDNR, Carly State park, Plainview Lions Club, Pheasants Forever, and Minnesota citizens. The MNDNR is a key partner on every project MNTU does, from identifying priority projects for MNTU to consider, to offering professional input on project design, providing permitting review and project support. Depending upon the project they may contribute materials, labor and/or some supervision.

The project proposed for the North Branch of the Whitewater River involves partnerships with both Carley State Park and the Plainview Lions Club. The Park will provide technical support and the Lions Club will provide volunteers and a cash contribution. On the Vermillion River, Pheasants Forever will partner on the upland portion of the parcel.

We anticipate strong support from local communities, local businesses, community clubs, sporting groups, anglers, the MNDNR and the general public. We do not anticipate any opposition to the projects or impediments to successfully achieving the intended habitat outcomes.

Relationship to *Minnesota Conservation and Preservation Plan* and other published resource management plans.

Minnesota Statewide Conservation and Preservation Plan – Land & Aquatic Preservation Plan.

Habitat 2. Protect critical shorelands of streams & lakes…pp. 67-74

- Target shallow wildlife lakes, natural environment lakes, shallow bays of deep lakes, cold-water/designated trout streams…

Habitat 3: Improve connectivity and access to outdoor recreation. pp. 74-77

- Also provide benefits to wildlife, SGCN, etc.

Habitat 6: Protect and restore critical in-water habitat of lakes and streams. pp 81-84

- Expand efforts to restore critical habitats for aquatic communities in near-shore areas of lakes, in-stream areas of rivers and streams, and deep-water lakes with exceptional water quality
- Reverse negative effects of stream channelization on in-stream habitats

Habitat 7**:** Keep water on the landscape – pp.84-87

- Habitat benefits include improved water quality, maintaining habitat for wildlife and game species, and enhancing biological diversity
- Increase riparian buffers along shorelines of rivers, lakes, and sinkholes
- Maintain and restore headwater wetlands, riparian areas, and floodplains
- Enhance and expand the use of perennial vegetation.

Minnesota's Nonpoint Source Management Program Plan 2008

Goal 1: Promote a Healthy Hydrological Regime for Minnesota's Streams and Rivers. – pp. 4.3 – 176

- Promote stream restoration projects that restore connectivity between rivers and their flood plains.
- Develop an interagency program to assess/control streambank erosion…

Tomorrow's Habitat for the Wild & Rare – an action plan for Minnesota Wildlife.

Goal I: Stabilize and increase Species in Greatest Conservation Need; 8. Stream habitats, actions include: – pp. 80

- Maintain good water quality, hydrology, geomorphology, and connectivity in priority stream reaches.
- Maintain and enhance riparian areas along priority stream reaches.

Strategic Plan for Coldwater Resources Management in Southeast Minnesota 2004-2015

- Theme 1: Provide for the protection, improvement, and restoration of coldwater aquatic habitat and fish communities so that this unique resource is available for future generations. pp 9.
- Theme 2: Provide diverse angling opportunities so that a broad range of experiences are available to anglers. pp 12.

Minnesota's 2008-2012 State Comprehensive Outdoor Recreational Plan

- Strategy 1**:** Acquire, protect and restore Minnesota's natural resource base on which outdoor recreation depends. pp12.
- Strategy 2**:** Develop and maintain a sustainable and resilient outdoor recreation infrastructure. pp 17.

DNR, Division of Fish and Wildlife Long Range Plan for Fisheries Management Covering Fiscal Years 2004-2010

- Core Function 2. Conserve, Improve, and Rehabilitate Fish Populations and Aquatic Habitat. pp8.
  - Shoreline habitat restoration program – rehabilitate riparian and aquatic vegetation to improve fish habitat, wildlife habitat and water quality;
  - Metro trout stream initiative – conserve and rehabilitate threatened trout stream resources in the Twin Cities metropolitan area;
- Core Function 4. Provide Opportunities for Partnerships, Public Information, and Aquatic Education. pp8.
  - Increased public involvement with fisheries projects.

Trout Unlimited Driftless Area Restoration Effort – Strategic plan

Goals: Through DARE, TU is partnering with local, state and federal agencies, nongovernmental organizations and private landowners to strategically link upland conservation and stream corridor restoration to achieve the following goals: - pp 15.

- Protect and restore habitat for fish and other species of interest to increase angling and other recreational opportunities. – pp 15.

Lessard-Sams Council Funding Outcomes and Priorities, Substate Regions Targets and Priority Actions

Priority Actions for the Southeast Forest Section Recommendations to the 2010 Legislative Session:

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

Priority Actions for the Metropolitan Urbanizing Area Section Recommendations to the 2010 Legislative Session:

- 3. Enhance and restore coldwater fisheries systems.

Project Design and Evaluation

Project Scope	Wetlands and Wetland Systems	Prairies and Prairie Systems	Forests and Forest Systems	Habitats for Fish, Game and Wildlife (Include Description in Footnote)
Restore		15 acres		Restore/enhance habitat along 4.4 miles of trout stream (approximately 70.4 acres in riparian corridor)* **
Protect				
Enhance				**

* Leveraging additional funding may enable us to restore/enhance additional trout habitat (more miles).
** Restoration and enhancement are used interchangeably throughout this document as the precise dividing line between them is not always clear.
Acreage calculations are based upon work within the 132' wide MNDNR easement corridor. Based upon conversations with the MNDNR, we used the following mathematical formulas to estimate acreage within one mile of trout stream corridor: 1 acre = 43, 560 sq ft; 1 mile = 5280 ft; easement corridor 5280 ft long by 132 ft wide = 696,960 sq ft = 16 acres per mile.

Counties in which activities will take place	Wetlands and Wetland Systems	Prairies and Prairie Systems	Forests and Forest Systems	Habitats for Fish, Game and Wildlife
Restore		Dakota		Dakota Fillmore Goodhue Wabasha Winona
Protect				
Enhance				

Acres Within Each Ecological Section	Metropolitan-Urbanizing Area	Forest-Prairie Transition	Southeast Forest	Prairie Region	Northern Forest
Restore	15 acres in upland area; and approximately 6 acres in riparian corridor (0.4 miles long)		64 acres of habitat (4.0 miles long)		
Protect					
Enhance					

Acreage calculations are based upon work within the 132' wide MNDNR easement corridor. Based upon conversations with the MNDNR, we used the following mathematical formulas to estimate acreage within one mile of trout stream corridor: 1 acre = 43, 560 sq ft; 1 mile = 5280 ft; easement corridor 5280 ft long by 132 ft wide = 696,960 sq ft = 16 acres per mile.

Funding Per Ecological Section	Metropolitan-Urbanizing Area	Forest-Prairie Transition	Southeast Forest	Prairie Region	Northern Forest
Restore	$84,240		$1,184,760		
Protect					
Enhance					

Funding Resource Type	Wetlands	Prairies	Forests	Habitats for Fish, Game and Wildlife
Restore		$24,000		$1,245,000
Protect				
Enhance				

Acquisition and Tax Data	Wetlands	Prairies	Forests	Habitats for Fish, Game and Wildlife
Acquired in Fee with State PILT Liability				
Acquired in Fee without State PILT Liability				
Permanent Easement				

Budget

Budget Item	Fiscal Year 11	Fiscal Year 12	Fiscal Year 13
Personnel	$ 25,500	$ 25,500	
Contracts	$162,600	$108,400	
Equipment/Tools	$267,345	$178,230	
Materials/Supplies	$300,855	$200,570	
Fee Acquisition	0	0	
Easement Acquisition	0	0	
Easement Stewardship	0	0	
Travel	0	0	
Additional Budget Items	0	0	
TOTAL	$756,300	$512,700	

Relationship to Current Budget

Funds appropriated for this program will supplement the cash and in-kind resources typically raised by Minnesota TU and its chapters to support similar projects. This program represents a significant increase in the amount of local effort to be invested in similar habitat projects, but it is within the range of habitat restoration and enhancement projects managed by Trout Unlimited as an organization.

Personnel

Position	Name	Amount
Program Manager (.425 FTE)		
Program Coordinator (.125 FTE)		
Comptroller (.125 FTE)		
		$51,000 combined

* These figures capture only a portion of the time staff will expend on these projects.

Leverage

SOURCE	FY 11		FY 12		FY 13	
	In hand	Anticipated	In hand	Anticipated	In hand	Anticipated
State						
In-kind/Volunteer	$58,300					
Non state						

National Fish Habitat Action Plan		$120,000*				
Embrace-A-Stream TU National Funding		$ 15,000*				
National Fish & Wildlife Foundation		$ 10,000*				
Farm Bill Program		$100,000*				
Lions Club		$ 5,000*				
U.S. Fish & Wildlife Service		$ 20,000*				
TOTAL	$58,300	$270,000*				

*****All leverage amounts are estimates only and identify likely sources of funding. They may be realized in either FY 11 or FY12. Volunteer labor will be contributed in both fiscal years, approximately apportioned 60/40.

Leverage	**State**				**Non-State**			
	Wetlands and Wetland Systems	**Prairies and Prairie Systems**	**Forests and Forest Systems**	**Habitats for Fish, Game and Wildlife**	**Wetlands and Wetland Systems**	**Prairies and Prairie Systems**	**Forests and Forest Systems**	**Habitats for Fish, Game and Wildlife**
Restore						unknown		$58,300
Protect								
Enhance								

Accomplishment Timeline

Milestones	**FY 2011**	**FY 2012**	**FY 2013**	**Budgetary Expenditure**
Hay Creek (see below)				$176,100 by completion in FY2012
Lost Creek ; N. Branch; Pine Creek; W. Indian (see below)				$1,008,660 by completion in FY 2012
Vermillion River (see below)				$84,240 by completion in FY 2012

Milestone **Date** **Measure**

1. Hay Creek (Goodhue):

Milestone	**Date**	**Measure**
Begin project design, permitting and preparation	July 2010	
Begin in -stream habitat restoration	June 2011	
Complete in-stream restoration	Oct 2012	5,500 feet

2. Lost Creek(Fillmore);
3. North Branch of Whitewater (Wabasha);
4. Pine Creek (Winona);

5. West Indian Creek (Wabasha):

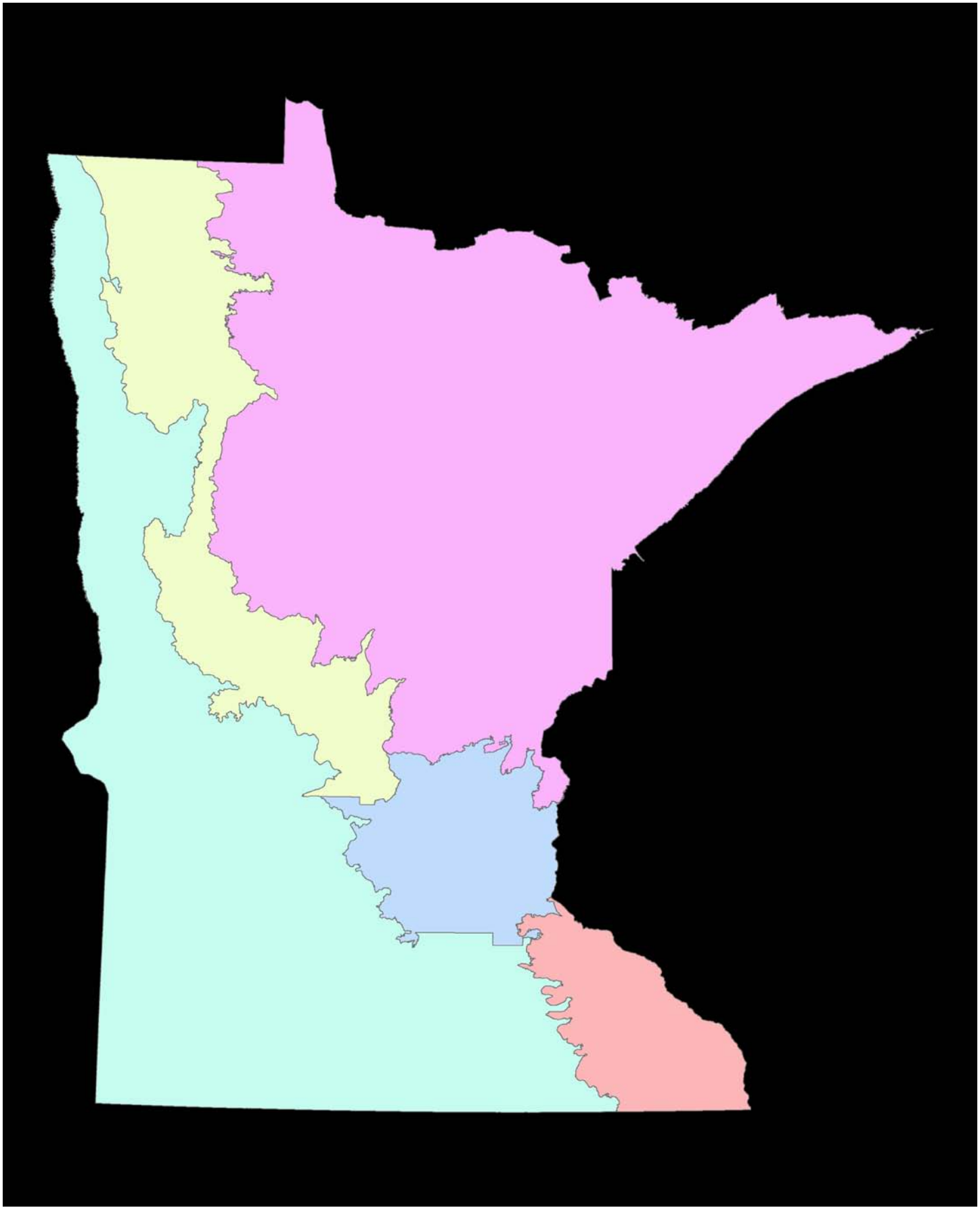
Milestone	Date	Measure
Begin project design, permitting and preparation	July 2010	
Begin in -stream habitat restoration	July 2011	
Complete in-stream restoration	Oct 2012	3.0 miles

6. Vermillion River (Dakota):

Milestone	Date	Measure
Begin project design, permitting and preparation	July 2010	
Begin in -stream habitat restoration	July 2011	
Complete in-stream restoration	Oct 2012	2,000 feet
Spot spraying of reed canary grass (if needed)	Fall 2012 & 2013	

Maintenance and Sustainability

MNTU habitat restoration and enhancement projects are designed for long-term ecological and hydraulic stability. Once the projects are completed we do not anticipate that there will be any significant maintenance required in order to sustain the habitat improvements for at least several decades. We do anticipated that long-term monitoring of the integrity of the improvements will be done in conjunction with routine inspections and biological monitoring conducted by local DNR 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 Minnesota Trout Unlimited, MNDNR AMA maintenance funding, and other grant funds and organizations. While the Vermillion River project uses some additional methods on this unique prairie trout stream, because they are intended to mimic natural habitat forming processes human intervention should be minimal.



Program Title

Parcel Name	County	Township	Range	Direction	Section	TRDS	# of acres	Estimated Cost	Description
1. Hay Creek	Goodhue	112	15	2	26	11215226	16	$176,100	5,500 feet of stream corridor
2. Lost Creek	Fillmore	104	11	2	18	10411218			
		104	12	2	13	10412213			
3. N. Branch of Whitewater River	Wabasha	108	11	2	32	10811232			
4. Pine Creek	Winona	105	8	2	30	10508230			
		105	8	2	30	10508230			
5. West Indian Creek	Wabasha	109	11	2	5	10911205			
		109	11	2	6	10911206			
		109	11	2	8	10911208	48, combined for #2 - #5	$1,008,660, combined for # 2- #5	3.0 miles, combined, of stream corridors
6. Vermillion	Dakota	114	18	2	20	11418220	6 and 15 acres upland restoration	$84,240	2,000 feet of stream corridor

Activity
R/E
R/E
R/E
R/E
R/E
R/E