Lessard-Sams Outdoor Heritage Council

2012 Accomplishment Plan

June 16, 2011 Draft

Program Title: Minnesota Trout Unlimited Coldwater Fish Habitat Enhancement Program (H- 02)

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Funds Recommended: \$ 1,533,000

Legislative Citation: ML 2011, Ch. X, Art. X, Sec. X, Subd. X (x):

(b) Coldwater Fish Habitat Enhancement Program - Phase III

\$1,533,000 the first year is to the commissioner of natural resources for an agreement with Minnesota Trout Unlimited to restore, enhance, and protect coldwater river and stream habitats in Minnesota. A list of proposed projects, describing types and locations of restorations and enhancements, must be provided as part of the required accomplishment plan.

Abstract:

Our program will enhance in-stream and riparian fish and wildlife habitat in coldwater streams located in existing Aquatic Management Areas, and other existing public lands.

Program Narrative

Design and Scope of Work

The specific fish habitat enhancement methods used by Minnesota Trout Unlimited ("MNTU") on each stream will vary depending upon the distinct natural resource characteristics of each watershed and ecological region, the limiting factors identified for each stream, variations in the type and magnitude of poor land uses practices within each watershed, consultation with Minnesota Department of Natural Resources ("MNDNR"), and MNTU members' first-hand knowledge of the watersheds and habitat enhancement techniques.

<u>Purposes</u>: Each project will be designed and completed using techniques selected to accomplish one or more of the following purposes: (a) reduce stream bank erosion and

associated sedimentation downstream, (b) reconnect streams to their floodplains 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 habitat and biodiversity for both invertebrates and other non-game species, (f) be long lasting with minimal maintenance required, and (g) improve angler access and participation.

Habitat enhancement methods used may include one or more of the following techniques: (1) sloping back stream banks to both remove accumulated sediments eroded from uplands areas and better reconnect the stream to its floodplain, (2) removing undesirable woody vegetation (invasive box elder, buckthorn, etc.) from riparian corridors 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 stream banks using vegetation and/or rock, (4) selectively installing overhead and other in-stream cover for trout, (5) installing soil erosion blankets (6) mulching and seeding exposed stream banks (including with native prairie plant species where feasible and appropriate), (7) improving or maintaining stream access roads and stream crossings, (8) fencing grassy riparian corridors to prevent damage from over grazing, and (9) in Northern forested watersheds with little cold groundwater, planting desirable trees in riparian areas to provide shade for the stream channel and help cool the water.

<u>Agricultural area example</u>: Many streams in the agricultural areas of southern and central Minnesota have been negatively impacted by many decades of poor land management practices. How and why the various habitat enhancement actions are typically taken here is best illustrated by the following example:

Erosion has led to wider, shallower and warmer streams, as well as excessive streamside sediments which regularly erode, covering food production and trout reproduction areas. In many cases shallow rooted invasive trees have taken over the riparian corridors, out competing native vegetation which better secures soils, and reducing energy inputs to the stream ecosystem. To remedy this, a typical enhancement project will involve several steps. First, invasive trees are removed from the riparian zone and steep, eroding banks are graded by machinery to remove excess sediments deposited here from upland areas. Importantly, this reconnects the stream to its floodplain. Since many of these agricultural watersheds still experience periodic severe flooding, select portions of the stream banks are then reinforced with indigenous rock. In lower gradient watersheds, or watersheds where flows are more stable, little or no rock is used. After enhancement work is completed the streams flow faster and become deeper, keeping them cooler and providing natural overhead cover through depth and the scouring of sediments deposited by decades of erosion.

Second, overhead cover habitat is created. Bank degradation and the removal of native prairie have dramatically decreased protective overhead cover in the riparian zone. Two methods are used to remedy this situation: increasing the stream's depth, which alone provides natural cover to trout, and installing overhead cover structures in select

stream banks. Wooden structures are often installed into banks in hydraulically suitable locations and reinforced with rock as a way to restore or recreate the undercut banks which had existed before settlement and agricultural land use altered the more stable flows which had gradually created and maintained them.

Finally, vegetation is reestablished in the re-graded riparian corridor to further stabilize banks and act as buffer strips to improve water quality. Depending upon the specific site conditions, landowner cooperation, and agricultural use, native prairie grasses are planted along the stream corridors, although often mixed with fast sprouting annual grains to anchor soils the first year.

<u>Individual Project Descriptions</u>: The following project summaries outline the types of actions for each individual project.

1. Garvin Brook (Winona).

The habitat enhancement project along approximately 6,100 feet of stream will begin in July 2011 with a geomorphic survey of this unstable stream bed and installation of a monitor which will determine a discharge – stage relationship necessary to guide proper design of the habitat enhancement work. Woody debris and other flood damage will be removed, an engineered stream crossing will be installed and several flood-created riffles will be lowered by the MNDNR using heavy construction equipment, and the entire system will be allowed to stabilize for a year. Following analysis of the updated discharge –stage data and a re-survey, final design and implementation of the habitat enhancement project will take place in consultation with our partners, MNDNR Fisheries and the Water Resources Center at Winona State University. The enhancement project will narrow the stream channel, remove accumulated sediment as needed, re-slope and stabilize stream banks, install overhead cover for trout in selected locations, and re-establish native vegetation.

This project will also enhance approximately 14 acres of riparian forest and wildlife habitat, and additional non-riparian areas, through an intensive, systematic, multi-year effort to remove and eradicate invasive plant species, primarily garlic mustard, threatening this heavily disturbed area. Volunteers from the Win-Cres Chapter of Trout Unlimited, and elsewhere, will work closely with MNDNR Forestry personnel, the local Conservation Corps Minnesota crew, and WSU interns and begin removal in July 2011. The partnership with researchers at the Water Resources Center will provide an opportunity to assess the effectiveness of stream habitat improvement efforts, as well as broader watershed improvement measures in the Driftless area. MNDNR Fisheries is a major partner on this project, and will perform some design and construction work on the project. The Water Resources Center at Winona State University will perform survey, monitoring, and data analysis work on the project.

2. Hay Creek (Goodhue).

The project will enhance habitat along approximately 6,000 feet of stream. The scope of this habitat enhancement work will be very similar to recent projects by the Twin Cities Chapter of TU in the upper Hay Creek watershed and will use many of the

methods described in the "Agricultural area example" above. Work will include sloping and stabilizing stream banks, installing overhead cover for trout, and creating depth cover for wild brown trout. Survey, project design and permitting work will begin in July 2011. Fieldwork will begin in 2012.

3. Seven Mile Creek (Nicollet).

The project site is approximately 2,500 feet in length and located within a Nicollet County park. Stream banks will be stabilized and overhead cover added to provide deep wintering cover. This collaborative project with the MNDNR will complete the remaining habitat enhancement work which the MNDNR designed for this stream, but has been unable to fund through traditional budget sources. The MNDNR will make substantial contributions to the project, which may include handling administration of some construction subcontracts, and/or performing some design and construction work.

4. Little Isabella River (Lake).

The proposed habitat enhancement project will revitalize and replace habitat improvement structures originally installed nearly 60 years ago. The project will use significant volunteer labor provided by MNTU members, as well as members of other local angling and conservation groups. A total of 17 failing habitat improvement structures along 1,500 feet of the river will be repaired or replaced. At least three of these structures will be entirely reconfigured to more appropriately provide deep water cover for brook trout. Rock located on and near the site will be added to structures to direct both high and low stream flows appropriately. Site planning and in-stream volunteer work will begin during the summer of 2011. The project involves collaboration between MNTU, the MNDNR, and the US Forest Service-Superior National Forest.

5. Manitou River (Lake).

The project will address failing banks, stream channel segments and old habitat improvement areas. This 1,500 foot long river segment currently contains eight failing habitat improvement structures that are nearly 60 years old. The structures are failing, or have failed completely, causing portions of the stream channel to erode and be in overall poor condition. A portion of the stream channel in this segment is also braided. Using habitat improvement techniques tailored to the site conditions, this project will repair failing banks and braided channel segments and replace and revitalize poorly or improperly functioning structures. Project planning and initial survey work will begin in 2011. In-stream habitat enhancements will begin in summer 2012. Disturbed riparian areas will be seeded with native vegetation. Project partners include MNTU, the MNDNR, the US Forest Service, and others.

6. Sucker River (St. Louis).

The project area extends from Ryan Road upstream approximately 1,700 feet. The project will increase the amount and quality of year-round adult trout cover and habitat.

The river channel has exhibited instability, and has become over-widened due to a channel change in the upper portion of the project area. Bank erosion is significant problem in this reach, as is the lack of seasonally stable large woody debris. Habitat enhancements will involve the placement of woody cover and rock veining along 1,700 feet of the Sucker River, revegetation of disturbed areas with native riparian plant species (including trees), and exclusion fencing in the riparian corridor.

An in-stream and riparian habitat plan will allow for monitoring of the success of the habitat improvement features of the project. Initial survey work and site planning will begin in the summer of 2011. Installation of woody cover, rock veining, and other fish habitat enhancement work will begin in 2012. Tree planting, fencing, and project wrapup will take place in 2013. This is a collaborative effort between MNTU and the MNDNR; volunteer labor will be provided by MNTU members and others.

Hiawatha Chapter Projects:

- 7. Cold Spring Brook (Wabasha)
- 8. Mill Creek (Olmsted)
- 9. Pine Creek (Winona)

Habitat will be enhanced along a one mile reach (approximately) of each of three southeast Minnesota streams. The scope of this habitat enhancement work will be very similar to recent projects by the Hiawatha Chapter of TU in the area and will use many of the methods described in the "Agricultural area example" above. In total, approximately 3 miles of in-stream habitat and stream banks will be enhanced on Cold Spring Brook (Wabasha), Mill Creek (Olmsted) and Pine Creek (Winona). Work will include sloping and stabilizing stream banks, installing overhead cover for trout, and mulching and seeding of exposed stream banks. Survey, design and project permitting work will begin in 2011. Field work will begin in 2012 and be completed by October 2013. Work will be undertaken by MNTU chapters, and the MNDNR will be a key partner. If we successfully leverage substantial additional funds and/or manage to complete the 3 miles of work for substantially less than our original budget the work will be extended to enhance habitat along more feet (miles) of stream. This may require moving to a fourth high priority stream in the area. We will notify the L-SOHC in advance if this appears likely.

Planning

A. Relationship to the *Minnesota Conservation and Preservation Plan* and Other Published Resource Management Plans

1. 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 nearshore 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.
- 2. 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 stream bank erosion...
- 3. 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.
- 4. 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.
- 5. 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.

- 6. 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.
- 7. 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.

B. The projects are the result of science based strategic planning and evaluation similar to the USFWS Strategic Habitat Conservation model.

The U.S. Fish and Wildlife Services' Strategic Habitat Conservation Model uses the following methodology and steps: identify priority species; select a subset of priority species; formulate population objectives; assess the current state of priority species; identify limiting factors; and compile and apply models of population-habitat relationships. USFWS encourages a watershed based approach, especially during consideration of the key threats of development pressures and climate change.

As described in the request for funding, MNTU uses a similar approach. Projects included in this proposal were selected in consultation with MNDNR Fisheries personnel, who used a science based approach to determine these high priority streams and project sites. This includes the use of the MNDNR's annual stream monitoring and assessments, which assess limiting factors (including habitat ones) and others factors bearing on macroinvertebrate and fish populations. Ongoing monitoring of the projects and post-project fish populations will assess our success, and can be used to help MNTU and the MNDNR improve future habitat conservation and enhancement strategies.

C. Lessard-Sams Outdoor Heritage Council Section Priorities addressed.

All projects in this program address one of the following priority actions:

Priority Actions for the Northern Forest Section

1. Protect shoreline and restore or enhance critical habitat on wild rice lakes, shallow lakes, cold water lakes, streams and rivers, and spawning areas.

Priority Actions for the Southeast Forest Section

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 Prairie Section

4. Restore or enhance habitat on public lands.

Relationship to Other Constitutional Funds

At this time we do not anticipate the use of other constitutionally dedicated state funding on projects included in this proposal. We are not applying for project funding from the other constitutionally dedicated funds. However, we may find more partnerships and opportunities to add components such as native prairie restoration, non-game habitat enhancement, improvements to forested lands and improved watershed practices. In the event a partner proposes to apply other constitutional funds to a project we will promptly notify the L-SOHC to coordinate reporting.

Relationship to Current Organizational Budget

Funds appropriated for this program will supplement the cash and in-kind resources typically raised by MNTU and its chapters to support similar projects. This additional habitat enhancement work represents an increase in the amount of local projects over several years ago, but our local members have increased their efforts.

Sustainability and Maintenance

MNTU's coldwater aquatic habitat restoration and enhancement projects are designed for long-term ecological and hydraulic stability. Once the in-stream projects are completed and riparian vegetation reestablished, we do not anticipate that there will be any significant maintenance required in order to sustain the habitat outcomes for at least several decades. 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. The Garvin Brook project includes invasive species removal measures, but native vegetation should be well established before the end of the funding period, and require minimal human intervention thereafter. Win-Cres Chapter volunteers will provide long-term monitoring and periodic labor as needed.

Accomplishment Timeline

1. Garvin Brook (Winona):

Activity	Milestone	Date completed
Begin planning, surveying,		Begin July 2011
design, and permitting work.		
Geomorphic survey and	Survey an approximately	Begin Summer 2011
installation of stream monitor	6,100 foot reach of stream	
Phase 1: Install crossing(s)	Begin initial habitat	Summer 2011
and lower riffles	enhancements	
Begin removal of invasive	Begin removal of invasive	Begin Summer 2011
plants	plants	
Re-survey (geomorphic) and	Re-survey approximately	Summer 2012
analysis of stream monitoring	6,100 reach of stream	
data; final project design		
Begin Phase 2 fieldwork	Begin habitat enhancements	Begin Summer 2012
Complete riparian and in-	Approximately 6,100 feet	October 2013
stream habitat enhancements		
Complete removal of invasive	Approximately 14 acres within	October 2014
plants in riparian corridor	the 6,100 foot long corridor	

2. Hay Creek (Goodhue):

Activity	Milestone	Date completed
Begin planning, surveying,		Begin July 2011
design, and permitting work.		
Begin fieldwork	Begin habitat enhancements	Begin Summer 2012
Complete riparian and instream habitat enhancements	Approximately 6,000 feet	October 2013

3. Seven Mile Creek (Nicollet):

Activity	Milestone	Date completed
Begin planning, surveying, design, and permitting work.		Begin July 2011
Begin fieldwork	Begin habitat enhancements	Begin October 2012
Complete riparian and instream habitat enhancements	Approximately 2,500 feet	October 2013

4. Little Isabella River (Lake):

Activity	Milestone	Date completed
Begin planning, surveying, design, and permitting work.		Begin July 2011
Begin fieldwork	Begin habitat enhancements	Begin Summer 2011
Complete riparian and instream habitat enhancements	Approximately 1,500 feet	Summer 2012

5. Manitou River (Lake):

Activity	Milestone	Date completed
Begin planning, surveying, design, and permitting work.		Begin July 2011
Begin fieldwork	Begin habitat enhancements	Begin Summer 2012
Complete riparian and instream habitat enhancements	Approximately 1,500 feet	Summer 2013

6. Sucker River (St. Louis):

Activity	Milestone	Date completed
Begin planning, surveying, design, and permitting work.		Begin July 2011
Begin fieldwork	Begin habitat enhancements	Begin Summer 2012
Complete riparian and instream habitat enhancements	Approximately 1,700 feet	Summer 2013

- 7. Cold Spring Brook (Wabasha),
- 8. Mill Creek (Olmsted), and
- 9. Pine Creek (Winona):

Activity	Milestone	Date completed
Begin planning, surveying, design, and permitting work.		Begin July 2011
Begin fieldwork on one stream	Begin habitat enhancements	Begin Summer 2012
Complete riparian and instream habitat enhancements on all three streams	Approximately 3.0 miles total	October 2013

Attachments (on spreadsheet workbook – 3 separate tabs):

A. Budget

*The budget estimates for each category are very rough estimates only. The relative amount of excavation equipment work (contracts) versus rock costs (supplies/materials) varies by project site conditions and is very hard to estimate before final design. The projects will be completed within the overall budget estimates, despite the various budget categories being higher or lower than estimated at this time. Some in-state travel expenses (mileage) currently anticipated to be paid under the contract category to consultants could be reimbursed to employees if the tasks requiring this travel are performed by employees versus consultants.

**"Anticipated cash leverage" figures in the budget spreadsheet are estimates only of funding which MNTU will pursue. These figures do not include volunteer labor.

- B. Proposed Outcome Tables
- C. Parcel List

Attachment A. Budget Spreadsheet

Name of Proposal:

Minnesota Trout Unlimited Coldwater Fish Habitat Enhancement Program - FY2012

Date:

16-Jun-11

Legal Citation / Proposal Number:

H-02

Link Here to definitions of the budget items below.

Total Amount of Request \$ 1,533,000 From page 1 on the funding form.

Personnel

		Over # of		Anticipated Cash		
	FTE	years	LSOHC Request	Leverage	Cash Leverage Source	Total
Position breakdown here						
Program manager	0.43	3	\$ 50,000			\$ 50,000
Program coordinator	0.13	3	\$ 20,000			\$ 20,000
Program assistant	0.13	3	\$ 20,000			\$ 20,000
position 4						\$ -
position 5						\$ -
position 6						\$ -
position 7						\$ -
Total	0.69		\$ 90,000	\$ -	\$ -	\$ 90,000

Budget and Cash Leverage (All your LSOHC Request Funds must be direct to and necessary for program outcomes.)

Please describe how you intend to spend the requested funds.

Budget Item

Personnel - auto entered from above

Contracts

Fee Acquisition w/ PILT (breakout in table 6 & 7)

Fee Acquisition w/o PILT (breakout in table 6 & 7)

Easement Acquisition

Easement Stewardship

Travel (in-state)

Professional Services

DNR Land Acquisition Costs

Other

Capital Equipment (auto entered from below)

Other Equipment/Tools

Supplies/Materials

	Anticipated Cash			
LSOHC Request	Leverage	Cash Leverage Source	e	Total
\$ 90,000	\$ -	\$ -	\$	90,000
\$ 820,000	\$ 85,000	various federal	\$	905,000
			\$	-
			\$	-
			\$	-
			\$	-
			\$	-
			\$	-
			\$	-
			\$	718,000
\$ -	\$ -		\$	-
\$ 20,000	\$ 20,000	TU and NFWF	\$	40,000
\$ 603,000	\$ 75,000	various federal	\$	678,000
\$ 1,533,000	\$ 180,000	\$ -	\$	1,713,000

Capital Equipment (single items over \$10,000 - auto entered into table above)

Item Name	LSOHC Request	Leverage
Item 1 enter here		
Item 2 enter here		
Item 3 enter here		
Item 4 enter here		
Item 5 enter here		
Item 6 enter here		
Item 7 enter here		
Item 8 enter here		
Total	0	0

Attachment B. Outcome Tables

Name of Proposal: Minnesota Trout Unlimited Coldwater Fish Habitat Enhancement Program - FY2012 Date: 16-Jun-11 H-02

Legal Citation / Proposal Number:

Table 1 and Table 3 column totals should be the same AND Table 2 and Table 4 column totals should be the same

If your project has lakes or shoreline miles instead of land acres, convert miles to acres for Tables 1 and 3 using the following conversion:

Lakeshore = 6 acres per lakeshore mile / Stream & River Shore = 12 acres per linear mile, if both sides

Table 1. Acres by Resource Type

Describe the scope of the project in acres (use conversion above if needed)

	Wetlands	Prairies	Forest	Habitats	Total
Restore					0
Protect					0
Enhance				81	81
Total		0	0	0 83	

Total Acres (sum of Total column) Total Acres (sum of Total row)

81 These two cells should 81 be the same figure.

Table 2. Total Requested Funding by Resource Type

	Wetlands		Prairies		Forest		Habi	tats	Total	
Restore									\$	-
Protect									\$	-
Enhance							\$	1,533,000	\$	1,533,000
Total	\$	-	\$	-	\$	-	\$	1,533,000		

Total Dollars (sum of Total column) Total Dollars (sum of Total row)

1,533,000 These two cells should be the same figure. 1,533,000

\$

Check to make sure this amount is the same

as the Funding Request Amount on page 1 of Main Funding Form.

Table 3. Acres within each Ecological Section

	Metro/Urban	Forest/Prairie	SE Forest	Prairie	Northern Forest	Total
Restore						0
Protect						0
Enhance			64.6	5.7	10.7	81
Total	0	0	64.6	5.7	10.7	

Total Acres (sum of Total column) Total Acres (sum of Total row) Total Acres from Table 1.

81 These three cells 81 should be the same figure.

Attachment B. Outcome Tables

Table 4. Total Requested Funding within each Ecological Section

	Metro/Urban	Forest/Prairie	SE Fo	orest	Prairie	9	No	orthern Forest	Total	
Restore									\$	-
Protect									\$	-
Enhance			\$	1,354,000	\$	80,000	\$	99,000	\$	1,533,000
Total	\$ -	\$ -	\$	1,354,000	\$	80,000	\$	99,000		

Total Dollars (sum of Total column)

1,533,000 These two cells should be the same figure.

Total Dollars (sum of Total row)

Check to make sure these amounts are the same as the Funding Request Amount on page 1 of Main Funding Form.

Table 5. Target Lake/Stream/River Miles

6.75 # miles of Lakes / Streams / Rivers Shoreline

Table 6. Acquisition by PILT Status (enter information in acres)

Acquired in Fee with State PILT Liability
Acquired in Fee w/o State PILT Liability
Permanent Easement
NO State PILT Liability

	Wetlands	Prairies	Forests	Habitats	Total
					0
L					0
L					0
	0	0	0	0	

Table 7. Estimated Value of Acquisition by PILT Status (enter information in dollars)

Acquired in Fee with State PILT Liability
Acquired in Fee w/o State PILT Liability
Permanent Easement
NO State PILT Liability

Wetlands	Prairies	Forests	Habitats	Total
				ς .
				Ÿ
				\$ -
				\$ -
\$ -	\$ -	\$ -	\$ -	

Attachment C. Parcel List

Name of Proposal: Minnesota Trout Unlimited Coldwater Fish Habitat Enhancement Program - FY2012

Date: June 16, 2011

Legal Citation / Proposal Number: H-02

	County	Township	Range	Direction	Section		of Budgetary res Estimate (includes administrative, restoration or other related costs and do not include matching money contributed or earned by the transaction)	Description	Activity R=Restore P=Protect E=Enhance	Any existing protection? (yes/no)	Open to hunting and fishing? (yes/no)
Parcel Name											
Garvin Brook	Winona	106 106 106	8 8 8	2	4 5 8	1068204 na 1068205 na 1068208 na	\$201,000 Re	epair flood damaged 6,100' rea	E E E	yes yes yes	yes* yes* yes*
Hay Creek	Goodhue	112	15	2	13	11215213 na		· mile near campground and tr		yes	yes*
Seven Mile Creek	Nicollet	109	27	2	12	10927212 na	80,000 2,	500' on unique prairie stream	E	yes	yes*
Little Isabella River	Lake	60	9	2	25	609225 na	4,000 1,	500' in Superior NF Campgrou	Е	yes	yes*
Manitou River	Lake	59	7	2	27	597227 na	20,000 1,	500' on premier brook trout st	Е	yes	yes*
Sucker River	St. Louis	52	12	2	30	5212230 na			E	yes	yes*
		52	12	2	31	5212231 na	75,000 1,	700' for migratory and residen	E	yes	yes*
Cold Spring Brook	Wabasha	110	14	2	25	11014225 na			E	yes	yes*
		110	14	2	36	11014236 na			E	yes	yes*
		110	13	2	30	11013230 na			E	yes	yes*
		110	13	2	31	11013231 na	334,000 1	mile+ on larger brook trout str	E	yes	yes*
Mill Creek	Olmsted	105	12	2	23	10512223 na			E	yes	yes*
		105	12		25	10512225 na			E	yes	yes*
		105	12	2	26	10512226 na	263,000 1	mile with high eroding banks	E	yes	yes*
Pine Creek	Winona	105	8	2	30	1058230 na			E	yes	yes*
		105	8	2	31	1058231 na			E	yes	yes*
		105	8	2	32	1058232 na	256,000 1	mile reach in watershed initiat	E	yes	yes*

^{*}open to fishing; unknown whether open to hunting