Environment and Natural Resources Trust Fund
M.L. 2011 Work Plan

Date of Status Update:
Date of Next Status Update: 1/1/2012
Date of Work Plan Approval: 6/23/2011
Project Completion Date: 6/30/2014 **Is this an amendment request?** _____

Project Title: Southeast Minnesota Stream Restoration

Project Manager: Jeff Hastings
Affiliation: Trout Unlimited Inc
Address: E7740 Hastings Ln
City: Westby **State:** WI **Zipcode:** 54667

Telephone Number: (608) 606-4158
Email Address: jhastings@tu.org
Web Address: http://www.tu.org/driftless

Location:

Counties Impacted: Dakota, Fillmore, Goodhue, Houston, Olmsted, Wabasha, Winona

Ecological Section Impacted: Paleozoic Plateau (222L)

Total ENRTF Project Budget:	**ENRTF Appropriation $:**	250,000
	Amount Spent $:	0
	Balance $:	250,000

Legal Citation: M.L. 2011, First Special Session, Chp. 2, Art.3, Sec. 2, Subd. 04p

Appropriation Language:
$125,000 the first year and $125,000 the second year are from the trust fund to the commissioner of natural resources for an agreement with Trout Unlimited to restore at least four miles of riparian corridor for trout and nongame species in southeast Minnesota and increase local capacities to implement stream restoration through training and technical assistance. This appropriation is available until June 30, 2014, by which time the project must be completed and final products delivered.

I. PROJECT TITLE: Southeast Minnesota Stream Restoration

II. PROJECT STATEMENT:

This project aims to increase the quality and quantity of trout and nongame species habitat in Southeast Minnesota by restoring 4.2 miles of habitat along 12 streams. In addition we plan to sustain these efforts by increasing professional conservation staff capacity for implementing integrated restoration projects.

Early European settlement and agricultural practices led to wide scale erosion, flooding, and altering of streams and valleys in Southeast Minnesota. Hundreds of miles of clean coldwater spring creeks were inundated with tons of fine sediment as a result. Although land-use practices have improved tremendously many of the streams today still have steep eroding banks, incised channels, and poor in-stream habitat. Annual sedimentation coming off streambank ranges from 250 to 1000 tons per mile and is responsible for as much as 85% of the total sediment load that enters the stream.

Nevertheless, future prospects for Minnesota's coldwater streams are potentially good. The rivers and fisheries have responded well to techniques to control erosion such as stabilizing streambanks, reconnecting streams to the floodplain, and improving instream habitat for wildlife.

Southeast Minnesota streams are also recognized by Minnesota's Comprehensive Wildlife Action Plan as a high priority area for **species in greatest conservation need** (animal species whose populations are rare, declining, or vulnerable) with habitat loss being the primary culprit of their decline. Many of the species are dependent on habitat in riparian areas and could benefit from additional restoration efforts tailored to their specific needs.

III.PROJECT STATUS UPDATES:
Project Status as of January 2012
Project Status as of September 2012
Project Status as of March 2013
Project Status as of September 2013
Project Status as of March 2014

IV. PROJECT ACTIVITIES AND OUTCOMES:

Activity 1: *Southeast Minnesota Showcase Stream Restoration Projects*

Budget: $202,500
Amount Spent: $0
Balance: $202,500

Working with private citizens and federal, county, and state agency employees, TU will collaborate to restore 4.2 miles of habitat along 12 streams with at least one project in each of the targeted counties (i.e. Dakota, Goodhue, Wabasha, Olmstead, Winona, Fillmore, and Houston). TU's Driftless proposal for NRCS' Cooperative Conservation Partnership Initiative, the Driftless Area Fish Habitat Partnership, and other non-state funding will provide an additional approximately $500,000 in funding to complete the 4.2 miles.

Outcome	Completion Date	Budget
1 - Stabilize approximately 7,400' of streambank and incorporate habitat for fish (overhead cover & pools) and additional habitat for nongame species (frogs, turtles, snakes, birds) hibernacula's, basking logs, shallow scrapes, etc.	Oct. 2012	$98,500

2 - Stabilize approximately 7,400' of streambank and incorporate habitat for fish (overhead cover & pools) and additional habitat for nongame species (frogs, turtles, snakes, birds) hibernacula's, basking logs, shallow scrapes, etc.	Oct. 2013	$79,500
3 - Stabilize approximately 7,400' of streambank and incorporate habitat for fish (overhead cover & pools) and additional habitat for nongame species (frogs, turtles, snakes, birds) hibernacula's, basking logs, shallow scrapes, etc.	July. 2014	$24,500

Activity Status as of January 2012
Activity Status as of September 2012
Activity Status as of March 2013
Activity Status as of September 2013
Activity Status as of March 2014

Activity 2: *Promote locally-led, broad-based partnership restoration projects*.

Budget: $28,000
Amount Spent: $0
Balance: $28,000

TU will organize training sessions for professional conservation partners, especially county conservation and local NRCS staffs, which will increase the knowledge and skills necessary to effectively implement stream restoration projects. Restoration guides which include standard designs and instructions for stream bank stabilization and habitat for both game and nongame species will be distributed. Ultimately, this will greatly increase our ability to tap into the significant funding available in federal Farm Bill conservation programs and make significant strides in improving the fishery and wildlife health in southeast Minnesota.

Outcome	Completion Date	Budget
1- Minimum of one coldwater stream/riparian habitat restoration symposium with approximately 125 participants.	Jun-12	$ 3,000
2 - Minimum of one Stream Restoration Project Planning Workshop for approximately 80 volunteers	Jun-12	$ 4,000
3 - Outreach Development & Presentations to partnering organizations Twelve – presentations on the restoration of SE MN Coldwater streams.	Jun-14	$ 6,500
4 - Three in the field workshops for up to 60 contractors and conservationists demonstrating how to restore a coldwater stream	Jun-14	$ 6,000
5 – Five volunteer workdays - clearing, building structures, seeding, etc	Jun-14	$ 5,500
6 – Six Partnership signs placed at project sites	Jun-14	$ 1,500
7 - Write minimum of 8 new releases on completed projects	Jun-14	$ 1,500

Activity Status as of January 2012

Activity Status as of September 2012
Activity Status as of March 2013
Activity Status as of September 2013
Activity Status as of March 2014

Activity 3. *Survey, monitor & create educational. materials for nongame species*

Budget: $19,500
Amount Spent: $0
Balance: $19,500

Land use and water quality conditions have improved somewhat over the decades, but brook trout and other native nongame species occupy only a fraction of their original habitat range. "*Maintain and enhance riparian areas along priority stream reaches"* is one of the "Priority Conservation Actions" that has been identified in Minnesota's State Wildlife Action Plan. Southeast MN, the Driftless Area has also been identified as having one of the highest concentrations of "Species of Greatest Conservation Need". Past stream restoration projects have not incorporated nongame species habitat because of a lack of funding and lack of knowledge about those species' habitat needs. This is a missed opportunity, as developing habitat for other species at the same time that construction equipment is being used for stream projects is efficient and cost-effective. A number of activities have been planned to increase the awareness and develop additional habitat practices for these rare and declining species: (1) Contract with a Herpetologist to review and write new guidelines for practices for nongame species utilizing the riparian corridor in the Driftless Area. (2) Copies of the new guidelines will be sent to (at a minimum) all conservation field offices (Department of Natural Resources, Soil and Water Conservation Districts and Natural Resources Conservation Service) in Southeast Minnesota. (3) The Driftless Riparian Habitat Guide will also be available in a portable document format pdf. and available through the Driftless Area Restoration Effort website.

Outcome	Completion Date	Budget
1 - Rewrite, Print & Distribute 100 3-ring binder "Driftless Riparian Habitat Guides"	Jun-12	$13,500
2 - Conduct pre & post surveys to determine species presence/absence prior to stream restoration work.	Jun-13	$ 6,000

Activity Status as of January 2012
Activity Status as of September 2012
Activity Status as of March 2013
Activity Status as of September 2013
Activity Status as of March 2014

V. DISSEMINATION:

Stream restoration projects are very visible land transformations and readily noticed by the public. Both partnerships signs on location and articles in the local newspaper will be utilized to inform the public what has transpired. A quarterly electronic newsletter will also be utilized to inform our partners of recent projects and details about the habitat practices that were installed. Several on-site workshops will also be organized and local soil conservationists, contractors and volunteer groups will be notified and have the opportunity to view installation of various game and nongame habitat practices. At least one symposium will be organized and information disseminated about stream restoration covering the various projects, research, monitoring, and habitat practices. Finally, several times each year the Project Manager will present information about stream restoration in Southeast

Minnesota to conservation organizations, volunteer groups, Natural Resources Conservation Service State Technical Committee, school groups, and environmental events.

Status as of January 2012
Status as of September 2012
Status as of March 2013
Status as of September 2013
Status as of March 2014

VI PROJECT BUDGET SUMMARY:

Budget Category	$ Amount	Overview Explanation
Personnel:	$ 49,000	**Personnel:** Jeff Hastings, Project Manager, Trout Unlimited (grant funded position) **-** Grant administration, outreach, technical assistance, education; .20 FTE Salary $39,000 (.20 FTE $13,000/yr) and Employee Fringe Benefits $10,000 ($3,333/yr)
Professional/Technical Contracts:	$105,000	**Contracts:** Professional Engineer Assistance **-** $21,000 to design federal Farm Bill projects; Herpetologist $2,000 (coordinate meetings, review and write habitat guide) (donate $1,000 in-kind) Winona State Professor, Biology coordinate student volunteers, design monitoring protocol $2,000, (in-kind contribution $2,000); Large Equipment Operators for earth moving and installation of habitat $80,000 4.2 miles of earth shaping; installation of in-stream and riparian habitat; (Estimates include bulldozer $150/hr 227 hrs; Track hoe $140/hr 300 hrs, mobilization $4,000, and related permitting costs to be determined)
Equipment/Tools/Supplies:	$ 82,000	Supplies for restoration projects $80,000; ($10,000 for lumber & re-rod, to build habitat for fish & nongame; $50,000 for rip-rap & flat rock to stabilize bank and structures; $20,000 for erosion control blanket, straw mulch and seed) Supplies for conducting surveys $2,000 (15 traps @ $24/trap; 9 hoop nets & 30 cover boards $1,640;)
Printing	$ 3,500	Riparian Habitat Guide - 100 (3 ring binder) copies for every SE MN county conservation field office, DNR fisheries, NRCS office and others. Includes layout, design, printing & mailing.
Travel Expenses In MN:	$ 4,000	**Travel:** Mileage for workshops, surveys, restoration projects, meetings.
Other:	$ 6,500	**Additional Budget Items:** Five Volunteer Workdays (65 volunteers clearing brush, seeding, mulching, building habitat structures) $1,500 (food/lunch for all-day work of volunteers & portable toilet); Stream Restoration Symposium $1,000 (meeting room rental & handout materials); Partnership signs on restoration projects $1,000 (6 signs); Stream Restoration Project Planning Workshop for volunteer conservation organizations $1,000 (handout materials, room rental); Three outdoor/on-site Contractor & Conservationist workshops (60 contractors & conservationists) $2,000 (food lunch, handout materials, portable toilet).

TOTAL ENRTF BUDGET	$250,000	

B. Other Funds:

Source of Funds "Cash " Non-state	$ Amount Proposed	$ Amount Spent	Use of Other Funds
National Fish & Wildlife Foundation	$ 25,000		Funding for both game and nongame habitat
Federal NRCS Cooperative Conservation Partnership Initiative (Farm Bill)	$ 300,000		Funding for equipment to shape banks, rock and lumber/trees to stabilize streambank, seeding, stream crossings, habitat practices, etc.
U.S. Fish & Wildlife Service	$ 10,000		Funding for equipment to shape banks, rock and lumber/trees to stabilize streambank, seeding, stream crossings, habitat practices, etc.
Federal NRCS Environmental Quality Incentives Program (Farm Bill)	$ 125,000		Funding for equipment to shape banks, rock and lumber/trees to stabilize streambank, seeding, stream crossings, habitat practices, etc.
Landowner Contribution	$ 25,000		Funding for equipment to shape banks, rock and lumber/trees to stabilize streambank, seeding, stream crossings, habitat practices, etc.
Outdoor Heritage Fund	$ 250,000		Collaboration on projects to extend miles of work completed.
Subtotal of Cash Funds	$ 735,000		
"in-kind" support			
Donated Professional Services	$ 1,000		Review of nongame habitat guide
Donated Professional Services	$ 4,500		Students volunteering to conduct pre and post surveys of stream restoration projects
Donated Professional Services	$ 6,075		Professionals donating time to present at workshops, field days, symposium etc.
Donated Professional Services	$ 2,000		Winona State professor, donated time to over see surveys and students

Donated Professional Services	$ 3,000		Licensed and professional staff with "job approval" for designing and overseeing stream restoration projects
Donated - Volunteers	$ 4,500		Volunteers building habitat structures, seeding projects, etc.
Donated Professional Services	$ 1,000		U.S. Fish and Wildlife Service help with workshops, symposium, and field days.
Donated Professional Services	$ 5,000		Natural Resources Conservation Service donated time to projects, designs, surveys, meetings, workshops.
State			
Donated Professional Services	$ 2,700		MN DNR Fisheries and Non-game Biologists donated time to projects, meetings, workshops, etc.
County Conservation Staff	$ 8,500		Time to projects, meetings, workshops, etc.
Subtotal of in-kind support	$ 38,275		
TOTAL OTHER FUNDS	$ 773,275		

VII. PROJECT STRATEGY:

A. Project Partners:

Project Team/Partners - Names and agency/entity affiliation	Trust Fund $
Jeff Hastings, Trout Unlimited - administration, outreach, training & technical assistance. Over a three year period ($13,200/yr.)	$ 39,600
Neal Mundahl, Dept. of Biology, Winona State - survey pre- & post- nongame	$ 1,600
Winona State Students - pre & post surveys of nongame restoration	$ -
Robert Hay, Professional Herpetologists	$ 2,000
MN DNR Nongame specialists, technical review of guide & assistance	$ -
MN DNR Fisheries biologists, technical assistance	$ -
County Field Office Staff	$ -
Twin Cities, Hiawatha & Win-Cres Trout Unlimited Chapters - volunteers	$ -
U.S. Fish & Wildlife Service staff - technical assistance & funding	$ -
NRCS technical assistance & federal Farm Bill dollars for restoration	$ -
Landowner labor and contributions	$ -
Total	$ 43,200

B. Project Impact and Long-term Strategy: Early European settlement and agricultural practices took a heavy toll on the Driftless Area (which includes southeast Minnesota); resulting in devastating erosion, frequent flooding, and serous damage to rivers and local communities. Improved land use practices and conservation efforts have helped heal the land, but the legacy of past damage is still visible in the sediment – filled valleys and steep, eroding stream banks. Annual sedimentation coming

off streambank ranges from 250 to 1000 tons per mile and is responsible for as much as 85% of the total sediment load that enters the stream.

In other parts of the Driftless Area (notably Wisconsin and Iowa) local Soil and Water Conservation Districts and Natural Resources Conservation Staff utilize state and federal conservation dollars to work with private landowners on stream restoration projects that are straightforward techniques to control erosion, reconnect the floodplain, and improve in-stream habitat. Additional benefits for the fisheries and the other nongame species that utilize the corridor can also benefit from the addition of habitat when streambanks are being stabilized. In the seven counties that make up the Driftless Area of Minnesota not one of the local county Soil and Water Conservation District employees or federal Natural Resources Conservation Service staff have "job approval" to work with landowners to stabilize their streambanks and add habitat for wildlife. Only the Area Engineer and a licensed engineer working for the Minnesota Board of Water and Soil Resource have authorization to design practices that utilize federal Farm Bill dollars and stabilize stream banks.

One of the primary goals of this project is to increase "job approval" for the number of conservation staff to do stream restoration/bank stabilization projects, and at the same time show them how to incorporate habitat for both game and nongame species. So that in the future, a portion of Farm Bill dollars that are obligated to each conservation office in SE Minnesota will go for stream restoration. Through this proposal we hope to foster local capacity for long-term advocacy and stream restoration efforts.

Increasing the amount of streambank restoration, that stabilizes streambanks and incorporates habitat for both game and nongame species will not only help the water quality of the coldwater streams in SE Minnesota, but will have major economic benefits as well. Trout Unlimited conducted an economic survey in the spring of 2008 and were pleasantly surprised to find out that coldwater angling in the entire Driftless Area generates an impressive $1.1 billion annual economic benefit to the local economy. What many may not realize is that the Driftless Area is home to one of the country's most remarkable freshwater resources – with over 600 coldwater limestone spring-fed creeks supporting a world-class trout fishery. These visitors spend their days exploring the valleys fishing for native and wild fish, but spend their money here as well, in hotels, restaurants and local businesses.

The Driftless Area is also a high priority area for Southeast Minnesota in the implementation of their State Wildlife Action Plan because of the concentration of "Species of Greatest Conservation Need" in the region. Habitat loss is listed as the primary culprit of their decline. "Restoration and protection of spring-fed cold water streams" is one of the "Management Opportunities" that has been identified in the action plan. Many of the species identified in the plan are dependent on habitat in riparian areas and could benefit from additional restoration efforts tailored to their specific needs. This proposal not only provides some additional funding for that habitat, but will fund the rewrite of the guide. We also plan to add additional sections to a nongame habitat guide and distribute to every Department of Natural Resources, Soil and Water Conservation District and Natural Resources Conservation Service field office in Southeast Minnesota.

C. Spending History: Funding spent on stream restoration with one distinction – all OHF dollars were spent on streams were there was an easement. ENRTF funding was utilized on both private and public lands to develop/encourage local conservation staff to design and implement more stream restoration projects.

Funding Source	M.L. 2006 or FY 2007	M.L 2007 or FY 2008	M. L. 2008 or FY 2009	M.L. 2009 or FY 2010	M.L. 2010 or FY 2011
Federal Farm Bill				$ 85,000	$300,000
ENRTF		$22,400 Subd.4(g)	$18,000 Subd.4(g)	$29,000 Subd.4(g)	$103,510 Subd.4(g)
Outdoor Heritage Fund				$ 187,000	$850,000
US Fish and Wildlife				$ 40,000	$ 20,000
Trout Unlimited Chapters		$ 5,000	$ 7,000	$ 10,000	$ 12,000
National Fish & Wildlife Foundations			$ 2,000	$ 4,000	$ 6,000
National Fish Habitat Action Plan	$ 15,000	$ 15,000	$ 15,000		
Trout Unlimited Embrace-A-Stream	$ 10,000	$ 4,000	$ 3,000	$ 3,000	$ 4,000

VIII. ACQUISITION/RESTORATION LIST: It is our intent to develop at least one stream restoration project in each the following counties: Dakota, Goodhue, Wabasha, Olmstead, Winona, Fillmore, and Houston…location to be determined. Location, shoreline miles improved, and habitat installed to be reported twice each year.
Only the highest quality projects will be selected. In order for a project to be selected it must meet the following criteria - increase natural reproduction of trout and other aquatic organisms; maintain or increase adult trout abundance; increase biodiversity for both in-stream and non-game species; be long lasting with minimal maintenance required; improve angler access; reduce stream bank erosion and associated sedimentation; and reconnect streams to their flood plains to reduce negative impacts from severe flooding.

IX. MAP: Southeast Minnesota coldwater streams. (Attached)

X. RESEARCH: N/A

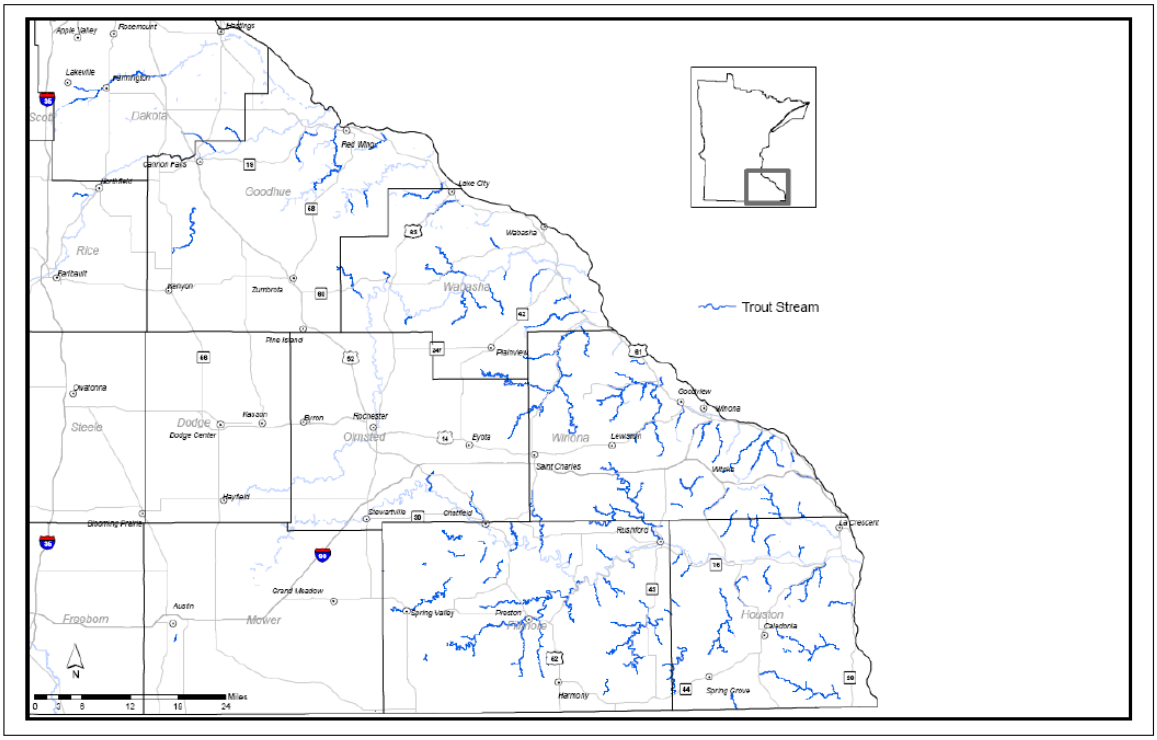
XI. REPORTING REQUIREMENTS: Periodic work plan status update reports will be submitted not later than January 2012, September 2012, March 2013, September 2013, and March 2014. A final report and associated products will be submitted between June 30th, 2014 and August 1st 2014.

Attachment A: Budget Detail for M.L. 2011 (FY 2012-13) Environment and Natural Resources Trust Fund Projects

Project Title: Southeast Minnesota Stream Restoration
Legal Citation:
Project Manager: Jeff Hastings
M.L. 2011 (FY 2012-14) ENRTF $250,000
Project Length and Completion Date: June 30, 2014
Date of Update: May 11, 2011

ENVIRONMENT AND NATURAL RESOURCES TRUST FUND BUDGET	Activity 1 Budget	Amount Spent	Balance	Activity 2 Budget	Amount Spent	Balance	Activity 3 Budget	Amount Spent	Balance	TOTAL BUDGET	TOTAL BALANCE
BUDGET ITEM	***Southeast Minnesota Showcase Projects***			***Promote locally-led broad-based partnership restoration proejcts***			***Survey, monitor & create educational materials for nongame species (frogs, turtles, snakes and birds.***				
Personnel (Wages and Benefits) Project Manager $39,000 (.20 FTE $13,000/yr); Employee Fringe Benefits $10,000 ($3,333/yr); reponsible for grant administration, outreach, technical assistance, education.	$ 20,000.00	$ -	$ 20,000.00	$ 20,000.00	$ -	$ 20,000.00	$ 9,000.00	$ -	$ 9,000.00	$ 49,000.00	$ 49,000.00
Professional/Technical Contracts Professional Engineer Assistance - $21,000 to design federal Farm Bill projects; Herpetologist $2,000 coordinate meetings, review and write habitat guide Winona State Professor, Biology coordinate student volunteers, design monitoring protocol $2,000 Large Equipment Operators for earth moving and installation of habitat $80,000 4.2 miles of earth shaping; installation of in-stream and riparian habitat; (Estimates include bulldozer $150/hr 227 hrs; Track hoe $140/hr 300 hrs, mobilization $4,000, and related permitting costs to be determined);	$ 101,000.00	$ -	$ 101,000.00		$ -	$ -	$ 4,000.00	$ -	$ 4,000.00	$ 105,000.00	$ 105,000.00
Equipment/Tools/Supplies Supplies for restoration projects $80,000; ($10,000 for lumber & re-rod, to build habitat for fish & nongame; $50,000 for rip-rap & flat rock to stabilize bank and structures; $20,000 for erosion control blanket, straw mulch and seed) Supplies for conducting surveys $2,000 (15 traps @ $24/trap; 9 hoop nets & 30 cover boards $1,640;)	$ 80,000.00	$ -	$ 80,000.00		$ -	$ -	$ 2,000.00	$ -	$ 2,000.00	$ 82,000.00	$ 82,000.00
Printing 100 of Riparian Habitat Guide (3 ring binder) copies for every SE MN conservation field office, includes cost of design, layout & printing		$ -	$ -	$ -	$ -	$ -	$ 3,500.00	$ -	$ 3,500.00	$ 3,500.00	$ 3,500.00
Travel expenses in Minnesota Mileage in Minnosota to conduct trainings, outreach, education, project management of stream restoration projects. $4,000	$ 1,500.00	$ -	$ 1,500.00	$ 1,500.00	$ -	$ 1,500.00	$ 1,000.00	$ -	$ 1,000.00	$ 4,000.00	$ 4,000.00
Other Five Volunteer Workdays (65 volunteers - clearing brush, seeding & mulching, building habitat structures) $1,500 (food/lunch for all-day work of volunteers, portable toilet); Stream Restoration Symposium $1,000 (meeting room rental & handout materials for participants); Partnership signs on stream restoratoin projects $1,000 (6 signs); Stream Restoration Project Planning Workshop for volunteers $1,000 (handout materials, room rental); Three at project site Contractor & Conservationist workshops (60 contractors & conservationists) $2,000 (food lunch, handout materials, portable toilet).	$ -	$ -	$ -	$ 6,500.00	$ -	$ 6,500.00	$ -	$ -	$ -	$ 6,500.00	$ 6,500.00
COLUMN TOTAL	**$ 202,500.00**	**$ -**	$ 202,500.00	**$ 28,000.00**	**$ -**	$ 28,000.00	**$ 19,500.00**	**$ -**	$ 19,500.00	**$ 250,000.00**	**$ 250,000.00**

Southeast Minnesota Trout Streams



Only the highest quality projects will be selected. In order for a project to be selected it must meet the following criteria - increase natural reproduction of trout and other aquatic organisms; maintain or increase adult trout abundance; increase biodiversity for both in-stream and non-game species; be long lasting with minimal maintenance required; improve angler access; reduce stream bank erosion and associated sedimentation; and reconnect streams to their flood plains to reduce negative impacts from severe flooding.