

## **2007 Project Abstract**

For the Period Ending June 30, 2009

**PROJECT TITLE: Metro Conservation Corridors (MeCC) – Phase III – (Trout Unlimited)**

**PROJECT MANAGER: Jeff Hastings**

**AFFILIATION: Trout Unlimited**

**MAILING ADDRESS: E7740 Hastings Lane**

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**WEBSITE: [www.tu.org/driftless](http://www.tu.org/driftless)**

**FUNDING SOURCE: Environment and Natural Resources Trust Fund**

**LEGAL CITATION: ML 2007, Chap. 30, Sec.2, Subd. 4c (2.6).**

**APPROPRIATION AMOUNT: \$65,000**

### **Overall Project Outcome and Results**

Stream restoration projects that stabilize eroding banks and incorporate habitat for adult trout are common projects in the southeast part of Minnesota; however, few such projects have been undertaken in the Metro area. This project was initiated to ramp up the number of projects in the Metro area and build the capacity of various groups to do them. Funding from the Minnesota Environment and Natural Resources Trust Fund helped sponsor educational workshops, field days, symposiums, displays and eventually two major restoration projects organized by the Twin Cities TU on Hay Creek.

In terms of capacity building, there was significant progress made in working with the Twin Cities Trout Unlimited Chapter, with over 3000 members, which had never taken the lead on a major stream restoration project. Over the course of this grant several of their members attended workshops, symposiums, and other projects so that they too could do a project.

One of the goals of this project was to restore over 1.5 miles of stream corridor over a two year period. Unfortunately time ran out and two projects were not completed – permits, funding, weather, contractors and rock availability, and other factors all have to be timed perfectly to complete a project on time. However, over 1.25 miles were completed involving a number of federal, state, county and private groups and over 2000 hours of volunteer labor.

The project was successful in that: (1) a number of groups completed successful projects; (2) several groups obtained the skills to complete stream projects; (3) the public was better informed on what is involved in a stream restoration project; (4) and four projects totaling over 1.25 miles were completed in the Metro area.

### **Project Results Use and Dissemination**

Project results were disseminated both locally and nationally. Project updates were emailed quarterly to all the partners and anyone that requested to be informed of current happenings. To help facilitate an email newsletter Trout Unlimited created a signup sheet on their website allowing easy access to anyone interested in finding out more about projects. Local and state media were also used to raise awareness of the importance of stream resources and benefits of local restoration projects in the Metro Area. Partnership signs will be posted in the fall of 2010 on both the Hay Creek and Brown Creek projects. Project Manger gave numerous presentations to Trout Unlimited chapters, Great Waters Fly Fishing Expo, and County and

Federal Conservationists. Finally, each fall a display was developed and exhibited at the Great Waters Fly Fishing Expo in Minneapolis. For more detail see final report under "Promote Stream restoration in the Metro Area".

## Trust Fund 2007 Work Program Final Report

**Date of Report:** August 5, 2009  
**Trust Fund 2007 Work Program Final Report**  
**Date of Work program Approval:**  
**Project Completion Date:** June 30, 2009

**I. PROJECT TITLE:** Metro Conservation Corridors (MeCC)– Phase III – (Trout Unlimited)

**Project Manager:** Jeff Hastings  
**Affiliation:** Trout Unlimited  
**Mailing Address:** E7740 Hastings LN,  
**City / State / Zip :** Westby, WI 54667  
**Telephone Number:** 608-606-4158  
**E-mail Address:** [jhastings@tu.org](mailto:jhastings@tu.org)  
**FAX Number:** n/a  
**Web Page address:** [www.tu.org/driftless](http://www.tu.org/driftless)

**Location:** Within mapped Focus Area in the counties of Anoka, Carver, Chisago, Dakota, Goodhue, Hennepin, Isanti, LeSueur, Nicollet, Ramsey, Rice, Scott, Sherburne, Sibley, Washington and Wright.

<b>Total Trust Fund Project Budget:</b>	<b>Trust Fund Appropriation:</b>	<b>\$65,000</b>
	<b>Minus Amount Spent:</b>	<b><u>\$52,681</u></b>
	<b>Equal Balance:</b>	<b>\$12,319</b>

**Legal Citation:** ML 2007, Chap. 30, Sec. 2, Subd. 4c (2.6).

**Appropriation Language:** (c) Metro Conservation Corridors- Phase III \$2,500,000 is from the trust fund to the commissioner of natural resources for acceleration of agency programs and cooperative agreements with The Trust for Public Land; Friends of the Mississippi River; Great River Greening; Minnesota Land Trust; Minnesota Valley National Wildlife Refuge Trust, Inc.; Trout Unlimited; and Friends of the Minnesota Valley for the purposes of planning, restoring, and protecting important natural areas in the metropolitan region, as defined by Minnesota Statutes, section 473.121, subdivision 2, and portions of the surrounding counties, through grants, contracted services, conservation easements, and fee acquisition. Land acquired with this appropriation must be sufficiently improved to meet at least minimum management standards as determined by the commissioner. Expenditures are limited to the identified project corridor areas as defined in the work program. This appropriation may not be used for the purchase of residential structures, unless expressly approved in the work program. All conservation easements must be perpetual and have a natural resource management plan. Any land acquired in fee title by the commissioner of natural resources with money from this appropriation

must be designated: (1) as an outdoor recreation unit under Minnesota Statutes, section 86A.07; or (2) as provided in Minnesota Statutes, sections 89.018, subdivision 2, paragraph (a); 97A.101; 97A.125; 97C.001; and 97C.011. The commissioner may similarly designate any lands acquired in less than fee title.

**II & III. FINAL PROJECT SUMMARY:** Although stream restoration projects that stabilize eroding banks and incorporate habitat for adult trout are common projects in the southeast part of the state few projects have been undertaken in the Metro area; this project was initiated to ramp up the number of projects in the Metro area and build the capacity of various groups to do them. One successful example was the Twin Cities Trout Unlimited Chapter, with over 3000 members, had never taken the lead on a major stream restoration project. Over the course of this grant several of their members attended workshops, symposiums and other projects so that they too could do a project. Funding from the Minnesota Environment and Natural Resources Trust Fund helped sponsor educational workshops, field days, symposiums, displays and eventually two major projects organized by the Twin Cities TU on Hay Creek.

The goal of this project was to restore over 1.5 miles of stream corridor over a two year period, unfortunately time ran out and two projects were not completed; permits, funding, weather, contractor and rock availability, and other factors all have to been timed perfectly to complete a project on time. However, over 1.25 miles were completed involving a number of federal, state, county and private groups and over 2000 hours of volunteer labor.

The project was successful in that: (1) a number of groups completed successful projects; (2) several groups obtained the skills to complete a stream project; (3) the public was better informed on what is involved in a stream restoration project; (4) and four projects totaling over 1.25 miles were completed in the Metro area.

#### **IV. OUTLINE OF PROJECT RESULTS:**

- Restore over 1.5 miles of stream corridor
- Display stream restoration display at Great Waters Fly Fishing Expo in Minneapolis.
- Meet with conservation field offices in Metro area to develop skills for implementing stream restoration projects.
- Develop various Media (radio, newspaper & web) on Metro area stream restoration projects.
- Develop display on stream restoration projects completed in Metro Area
- Contact partners (Trout Unlimited Chapters, Minnesota Soil and Water Conservation Districts, Natural Resources Conservation Service and MN Department of Natural Resources) to develop joint projects.

**Final Result 1:** 1.26 miles of stream restoration (on several different sections of stream)

**Description:** Improved 1.26 miles of streams in the Metro area by stabilizing streambanks and incorporating habitat for trout. First, the banks of the incised channels were reshaped to reconnect the stream to their floodplains, usually to a 3:1 slope or better. Future streambank erosion is prevented by using a combination of rock riprap and vegetation. In some areas the steep gradient and the highly erosive glacial loess soils require us of riprap at the stream toe to maintain bank stability. Structures are installed to provide overhead bank cover, help restore pool depth or recreate the natural meander patterns. Deflectors were also used to redirect flow along stable stream banks or to protect steep banks from erosion.

**Summary Budget Information for Result 1:** Trust Fund Budget: **\$61,000**  
Amount Spent: **\$48,710**  
Balance: **\$12,290**

<b>Deliverable</b>	<b>Completion Date</b>	<b>Budget</b>	<b>Status</b>
1. 1.26 miles restored	June 30, 2009	\$61,000	\$48,710
		<b>Matching Contributions</b>	<b>\$76,058</b>

**Final Completion Date: 6/30/2009**

**Progress Summary: 6650 of streams restored (1.26 miles)**

- **Hay Creek, Goodhue County –**

Twin Cities Trout Unlimited, TU completed two projects on Hay Creek, one in 2008 and one in 2009.

- The project in 2009 was Twin Cities TU Chapters first major project. Hiawatha TU and MN DNR also assisted with the project to restore 3,000 feet on Hay Creek. Over 945 hours of volunteer work for seeding, mulching, constructing and installing 22 habitat structures for trout. Volunteers were from the following Trout Unlimited Chapters – Hiawatha, Twin Cities, Wisconsin Clear Waters, and Kiap-TU-Wish. We also had volunteers from the surrounding area. Stabilizing streambanks and incorporating deep pools and overhead cover has been shown to increase the carrying capacity of the stream for trout by as much as 900 percent. (LCCMR cost \$8,428 – Match \$32,010 from a grant from the National Fish Habitat Action Plan \$15,000 and volunteer labor)
- In 2009 Twin Cities TU completed another 2200 feet with the assistance of the Hiawatha chapter and MN DNR. All banks were stabilized, 32 habitat structures for adult trout were installed and 1 vortex weir (create permanent deep pool). The chapter and its members worked four days building structures, seeding, mulching and installing structures; over the course of four days they volunteered over 680 hours. (LCCMR cost \$22,651 – Match \$30,263)

- **Vermillion River, Dakota County –** This was a great collaborative effort between Twin Cities TU, MN DNR, Dakota Soil & Water Conservation District & the City of Farmington. Project was to stabilize approx. 40 of eroding bank

and at the same time installed overhead cover for trout. Over 100 hours in volunteer time to build the trout habitat structures, seed and mulch exposed areas, and donated equipment time – (LCCMR costs \$1,745 match/contribution approx. \$4,200)

- **Brown's Creek, Washington County** – This was another joint project between the City of Stillwater, DNR Fisheries, Trout Unlimited, Brown's Creek Watershed District & Resident Volunteers, Washington Conservation District and Critical Connections Ecological Services, Inc. Brown Creek has been listed as impaired for biota. The main stressors have been identified as high total suspended solids, high temperatures and high copper concentrations. To projects were conducted to address both the total suspended solids loading and high temperatures. Fisheries Biologist Brian Nerbonne developed a course of action with the Brown's Creek Watershed District:
  - The first project was to remove the invasive Reed Canary Grasses from 3.5 acres of adjacent land. This non-native grass has a shallow root system and allows the banks to erode easily causing erosion into Brown's Creek. The native vegetation that was seeded with its deep roots will stabilize the banks, reduce the potential for reintroduction of the Reed Canary Grass and the tall native grasses adjacent to the stream will provide additional overhead cover.
  - The second part of the project was the addition of 55 native floodplain trees to the south side of Brown's Creek to increase shading and additional bank stabilization. (LCCMR dollars spent \$5,551 – Match \$11,585)

## **Final Report Summary: 6/30/2009**

**Result 2:** Promote Stream restoration in the Metro Area.

**Description:** The streams and riparian areas of the Metro Area suffer from a history of erosion as a result of agricultural land use and runoff off of urban areas. Across the region, hundreds of miles of spring creeks have been inundated with soils and fine sediment, which has degraded water quality, increased stream temperatures, damaged aquatic habitat, and altered watershed hydrology. Trout Unlimited's initiative with this proposal was to address these impacts and restore the waters and riparian habitat of this area by developing partnerships. By educating our partners and providing technical assistance we were successful in stabilizing eroding streambanks, decreasing stream temperatures and overall improving the fisheries and wildlife. Our trained project manager, with over 25 years experience in watershed and stream restoration worked one-on-one with a host of partners to restore over 1.26 miles in the Metro area, creating showcase projects to demonstrate integrated conservation projects, focus resources for maximum conservation benefit, and raise public awareness and support.

Summary Budget Information for Result 2: Trust Fund Budget: \$4,000  
Amount Spent: \$3,971  
Balance: \$ 29

Deliverable	Completion Date	Budget	Status
1. 100 hrs. Technical assistance	6/30/09	\$2,700	\$2,700
2. Stream Restoration Display	1/30/08	\$800	\$ 771
3. 3 news releases on showcase projects	6/30/09	\$0	
4. Display at Great Waters Expo	4/30/08	\$0	
5. Meet with 1 NGO, 3 County, State DNR	6/30/08	\$500 (mi.)	\$ 500

Final Completion Date: 6/30/2009

### Progress Summary

- **Contacts:** Since the beginning of the project in the summer of 2007 I have made numerous contacts to promote stream restoration in the Metro Area,
  - I have been in contact with Area Resource Conservationist, staff from Chisago, Dakota, Goodhue, Rice, Scott, and Washington;
  - NRCS Area Engineers, Regional Fish Biologists,
  - Hiawatha and the Twin Cities Trout Unlimited Chapters.
  - Washington and Brown Creek Watershed project managers.
  - Parks & Recreation Director Farmington
  
- **Newsletters:** 4 newsletters were electronically sent out to our partners in the Metro Area.
  
- **Presentations:**
  - Two stream restoration presentations at the Great Waters Fly Fishing Expo at the Renaissance Schaumburg Hotel and Convention Center, Minneapolis.
  - Presentation to the Southeastern District Conservationists (includes Goodhue and Dakota Counties), and another presentation to the County Administrators.
  - Presentations to both the Twin Cities and Hiawatha T.U. Chapters.
  - Presentation to Basin Alliance for the Lower Mississippi in Minnesota and the Blufflands Alliance (includes Minnesota Land Trust).
  - Finally, I lead the third Partnership for River Restoration and Science in the Upper Midwest (PRRSUM) monthly forum, at the St. Anthony Falls Laboratory, University of Minnesota, Minneapolis, MN. The April forum topic was Stream restoration of incised channels in the Driftless Area. I presented a historical overview of the long record of restoration in the Driftless area, beginning with 1930s era Civilian Conservation Corps efforts. I also covered the impacts of agricultural land-use on both the geomorphology and riparian vegetation of the incised channels. Viewers online were able to view photographs and diagrams.

- **Displays:** Displays were created (with partial funding from the LCCMR) and displayed at the Great River Fly-Fishing Expos and the Healthy Waters & Heritage Fair at the William O’Brian state park in Washington Co.
  
- **Workshops:**
  - At the 2008 stream restoration project on Hay Creek I organized a “hands-on” stream restoration training. Close to 40 participants attended one or both days of this workshop. The workshop was developed to attract conservationists that have not done stream restoration in the past and create additional interest for local citizens and future Trout Unlimited members. All participants received a 3-ring binder packed with standard designs, graphs, pictures and tables of materials I have gathered over the past 15 years of working with streams.
  - I also organized a Stream Restoration Project Planning Workshop in 2008 & 2009 that was attended by members of both Hiawatha and Twin Cities TU.
  
- **Handouts:**
  - Trout Unlimited Driftless Area Restoration Effort – tri-fold with information about the project & contact information.
  - Trout Unlimited completed “The Economic Impact of Recreational Trout Angling in the Driftless Area”, and there was a press conference and news releases sent out. The publication had broad coverage and several newspapers, TV and radio aired the results in Minnesota.
  - The Driftless Area – map/fold out with information on who to contact to help manage your land.
  - Driftless Riparian Habitat Guide – information on both game and non-game species, plus standard designs on 12 habitat practices.
  
- **Symposium:** Driftless Area Restoration Effort Symposium. *A forum for sharing results of management and research experiments related to stream habitat and fishery restoration in the Driftless region.* Organized and coordinated Driftless Symposium near Lanesboro Minnesota. Approximately 20 presentations were delivered by Professors, Fish Biologists and conservationists to participants from throughout the Driftless Area. The two day event attracted university staff, biologists, conservationist, nonprofit groups, and private restoration specialists from the Metro area. (No funding from the Metro Conservation Corridors (MeCC)– Phase III was used to fund this symposium; however there was partial funding utilized from the “Southeast Minnesota Showcase Stream Restoration Projects” grant)
  
- **News Releases:**
  - News Release on the 2008 Hay Creek project.



- The Red Wing Republican Eagle
  - News Release on the 2009 Hay Creek project
    - Hmong Times, KSTP-TV 6 p.m. newscast.
- **Signage:** Signs will be constructed by the end of the summer on both the Hay Creek and Browns Creek project, acknowledging the Minnesota Environment and Natural Resources Trust Fund contributions.

***Final Report Summary:***

**V. TOTAL TRUST FUND PROJECT BUDGET:**

**Staff or Contract Services: \$3,200**

**Equipment: n/a**

**Development: \$ n/a**

**Restoration: \$61,000**

**Other: \$800**

**Acquisition, including easements: \$ n/a**

**TOTAL TRUST FUND PROJECT BUDGET: \$65,000**

**Explanation of Capital Expenditures Greater Than \$3,500: n/a**

**VI. OTHER FUNDS & PARTNERS:**

**A. Project Partners:** Minnesota Department of Natural Resources, Hiawatha, Twin Cities, Wisconsin Clear Waters, Kiap-tu-Wish Trout Unlimited Chapters, Greater Metro Area Soil and Water Conservation Districts and Natural Resources Conservation Service Offices. Washington Conservation District and Brown Creek Watershed Districts, staff University of Minnesota, National Fish and Wildlife Foundation, U.S. Fish and Wildlife Service, City of Farmington, Tom Helgeson – Great Waters Fly fishing Expo, St. Anthony’s Lab, Critical Connections Ecological Services, Inc., Volunteers,

**B. Other Funds Proposed to be Spent during the Project Period:** Trout Unlimited Chapter Dollars, U.S. Fish and Wildlife Service, Volunteer hours, Conservation Districts, Watershed Districts,

**C. Past Spending:** This was a new initiative for the Metro Conservation Corridor. However, similar restoration projects have been completed throughout the Driftless area.

**D. Time:** 2 years

**VII. DISSEMINATION:** Project results were disseminated both locally and nationally. Project updates were emailed quarterly to all the partners and anyone that has requested to be informed of current happenings. To help facilitate an email

newsletter Trout Unlimited created a signup sheet on their website allowing easy access to anyone interested in finding out more about projects. Local and state media were also used to raise awareness of the importance of stream resources and benefits of local restoration projects in the Metro Area. Signs will be posted later this summer at both the Hay Creek and Brown Creek projects. Finally, each fall a display was developed and exhibited at the Great Waters Fly Fishing Expo in Minneapolis.

**VIII. REPORTING REQUIREMENTS:**

**Periodic work program progress reports were submitted not later than February 1<sup>st</sup> and August 1<sup>st</sup> each year starting with February 1, 2008. A final work program report and associated products was submitted August 17th, 2009 as requested by the LCCMR**

**IX. RESEARCH PROJECTS: *n/a***

<b>Attachment A: Budget Detail for 2009 Projects</b>									
<b>Project Title: Metro Conservation Corridors - Phase III - (Trout Unlimited)</b>									
<b>Project Manager Name: Jeff Hastings</b>									
<b>Trust Fund Appropriation: \$ 65,000</b>									
<b>1) See list of non-eligible expenses, do not include any of these items in your budget sheet</b>									
<b>2) Remove any budget item lines not applicable</b>									
	<u>Result 1 Budget:</u>	<b>Amount Spent June 30, 09</b>	<b>Unspent Allocation</b>	<u>Result 2 Budget:</u>	<b>Amount Spent June 30, 09</b>	<b>Unspent Allocation</b>	<b>TOTAL BUDGET</b>	<b>TOTAL BALANCE</b>	
<b>2007 Trust Fund Budget</b>									
	<i>Restore &amp; Enhance 1.5 miles of stream</i>			<i>Promote Stream Restoration in the Metro Area</i>					
<b>PERSONNEL: wages and benefits</b>				2,700	2,700	0	2,700	0	
<b>Equipment / Tools Hourly rate for bulldozers, excavators and dump trucks</b>	35,000	31,079	3,921			0	35,000	3,921	
<b>Other Supplies limestone rock for stabilizing banks</b>	26,000	17,631	8,369			0	26,000	8,369	
<b>Travel expenses in Minnesota</b>				500	500	0	500	0	
<b>Other Display to promote stream restoration projects</b>				800	771	29	800	29	
<b>COLUMN TOTAL</b>	<b>\$61,000</b>	<b>\$48,710</b>	<b>\$12,290</b>	<b>\$4,000</b>	<b>\$3,971</b>	<b>\$29</b>	<b>\$65,000</b>	<b>\$12,319</b>	