

Project Abstract

Southeast Minnesota Stream Restoration
M.L. 2011, First Special Session, Chp. 2, Art.3, Sec. 2, Subd. 04p

PROJECT TITLE: Southeast Minnesota Stream Restoration

PROJECT MANAGER: Jeff Hastings

AFFILIATION: Trout Unlimited

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FUNDING SOURCE: Environmental and Natural Resources Trust Fund

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

APPROPRIATION AMOUNT: \$ 250,000

Overall Project Outcomes and Results

Early European settlement and agricultural practices from the 1850s to the 1930s led to wide scale erosion, flooding, and altering of streams and valleys in southeast Minnesota. Hundreds of miles of clean cold-water creeks and streams were inundated with fine sediment as a result. While land use practices have improved, many streams still suffer from the practices of the past. Trout Unlimited used funding from the LCCMR to work with private citizens, federal, state, and county agencies to conduct 15 showcase stream restorations on more than five miles of streams in southeastern Minnesota. These 15 showcase sites also helped to build local field office capacity to conduct future projects, and engaged SWCDs in at least one stream restoration project.

Stream Name	County	Length of Project ft.	Type of Project		ENRTE	NRCS	City & Township	Landowner	County	USFWS	MN DNR	TU & Volunteers
			Fish Habitat	Bank Stabilization								
Spring Creek	Goodhue	250	bank stabilization & fish habitat		\$ 1,256			\$ 74	\$ 1,650		\$ 220	
Spring Creek	Goodhue	220	bank stabilization & fish habitat		\$ 1,867			\$ 977	\$ 7,800		\$ 150	\$ 850
Hay Creek	Goodhue	380	bank stab, Fish and nongame		\$ 2,134				\$ 450			\$ 1,450
Hay Creek	Goodhue	1800	bank stab, Fish and nongame		\$ 4,569	\$ 17,555		\$ 1,170	\$14,500		\$ 650	
Trout Run	Fillmore	3605	Fish Habitat		\$ 9,500			\$ 1,173		\$ 8,000		\$ 4,577
Bullard Creek	Goodhue	3685	bank stabilization & fish habitat		\$ 3,345			\$ 450	\$ 850			
Bullard Creek	Goodhue	2685	bank stabilization & fish habitat		\$ 3,488			\$ 450	\$ 750			
Camp Creek	Fillmore	3165	Fish Habitat		\$ 51,223	\$ 39,486	\$ 10,000	\$ 300		\$ 8,000		
S. Frk Root River	Fillmore	1800	bank stabilization & fish habitat		\$ 28,667	\$ 45,782		\$ 450		\$ 8,000		\$ 350
Pine Creek	Winona	250	Bank stabilization		\$ 1,150				\$47,227			
Pine Creek	Winona	600	bank stabilization & fish habitat		\$ 9,464	\$ 58,326				\$ 8,000		\$ 850
Rush Creek	Winona	650	bank stabilization & fish habitat		\$ 34,929					\$ 10,000		
Rush Creek	Winona	210	Bank Stabilization		\$ 14,333	\$ 23,455				\$ 8,000		
Zumbro River	Goodhue	600	rootwads, bank stabilization, remove invasives, rock streambarbs, fish habitat		\$ 18,976		\$ 7,500		\$ 1,100			
Riceford Creek	Houston	6600	Cedar Tree Revetment, Bank Stabilization & Fish Habitat		\$ 2,061				\$ 850			
		26500			\$ 186,962	\$ 184,604	\$ 17,500	\$ 5,044	\$75,177	\$ 50,000	\$ 1,020	\$ 8,077

Although land use and water quality conditions have improved over the decades, brook trout and other native nongame species occupy only a fraction of their original habitat range. The Driftless Area of Southeast MN has 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. Trout Unlimited utilized funding from the LCCMR to increase the awareness and develop additional habitat practices for these

rare and declining species. Nongame habitat, where appropriate, was incorporated into the restoration projects. We also developed a *Nongame Wildlife Habitat Guide* with funding from the LCCMR. The guide provides wildlife histories, nongame habitat practices, monitoring techniques and a decision matrix to help conservationists determine where the installation of habitat practices were appropriate. This document has been widely accepted and will continue to be used long after this project/grant.

Project Results Use and Dissemination

Throughout the course of the project Trout Unlimited completed a number of tasks to create awareness about Southeast Minnesota cold-water streams, and both the game and nongame species that occupy the riparian corridor. For four years Trout Unlimited organized a Driftless Symposium. Over 600 conservationists... fish biologists, university professors, local conservation field offices, and students participated in the two day event. Two separate tracks were organized each year – one on Watershed Management, and one on Riparian Management of cold-water Driftless streams. The Driftless Symposium is an effort to share results of research, monitoring, lessons learned, and management work in streams, along riparian corridors and across watersheds. We also utilized the symposium to distribute free copies of the Nongame Wildlife Habitat Guide.

Over the course of the project we organized over 12 field days and workshops to demonstrate and illustrate what is involved in putting a restoration project together. Most of these demonstrations were in-the-field and we utilized an active project to demonstrate, but we also organized a two day Stream Restoration Project Planning workshop targeting our Trout Unlimited volunteers and partners.

Trout Unlimited spoke at over 24 events over the four year life of the grant. Most notable were: Minnesota annual SWCD all employees meeting, Great Waters Fly Fishing Expo, Upper Midwest Stream Restoration Symposium and Basin Alliance for the Lower Mississippi in Minnesota.

Finally, for the past four years we have involved organizations and volunteers in a one day (free) bus tour of recently completed stream restoration projects. The tour bus is full each year and we have seen great interaction between the four Driftless Area states.



Environment and Natural Resources Trust Fund M.L. 2011 Final Report

Date of Status Update: December 23, 2016

Date of Next Status Update: Final Report

Date of Work Plan Approval: 6/23/2011

Project Completion Date: 12/30/2016 (Extended to match availability of federal grants)

Project Title: Southeast Minnesota Stream Restoration

Project Manager: Jeff Hastings

Affiliation: Trout Unlimited Inc

Address: E7740 Hastings Ln

City: Westby **State:** WI **Zip code:** 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 \$:	250,000.00
	<u>Amount Spent \$:</u>	<u>228,934.30</u>
	Balance \$:	21,065.70

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.

M.L. 2011, 1st Special Session, Chp. 2, Art. 3, Sec. 2, Subd. 11.

Availability of Appropriations

Money appropriated in this section may not be spent on activities unless they are directly related to the specific appropriation and are specified in the approved work program. Money appropriated in this section must not be spent on indirect costs or other institutional overhead charges. Unless otherwise provided, the amounts in this section are available until June 30, 2014, when projects must be completed and final products delivered. For acquisition of real property, the amounts in this section are available until June 30, 2014, if a binding contract is entered into by June 30, 2013, and closed not later than June 30, 2014. If a project receives a federal grant, the time period of the appropriation is extended to equal the federal grant period.

*Extended to December 30, 2016 by availability of federal funds.

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: This past fall Project Manager, PM walked several potential stream restoration project sites with Fillmore Soil and Water Conservation District staff, Area Engineers from the Rochester Natural Resources Conservation Service and DNR Fisheries from Lanesboro and Lake City.

The Driftless Area Symposium has been scheduled for March 27th and 28th. Two separate tracks have been developed, one on "Watershed/Geomorphology" and one focusing on the "Riparian" area, and the "**Project Planning Stream Restoration Workshop**" for April 14th and 15th. Where volunteers will learn how to plan their own Stream Restoration project, from start to finish, and be briefed on emerging issues across the Upper Mississippi Basin.

The Driftless Winter electronic newsletter was sent out in November 2011, and presentations were made to: the Fisheries Graduate students on the St. Paul campus; participants at this year's Driftless Rendezvous, sponsored by Hiawatha Trout Unlimited; and the DNR roundtable discussion in Minneapolis.

Project Manager organized a two state tour of stream restoration projects in Minnesota and Wisconsin and presented three different presentations on stream restoration at this year's Midwest Fish and Wildlife conference.

Project Status as of September 2012: Habitat Guide has been rewritten, will be meeting with graphic artist to complete guide in next couple of months. Driftless Symposium was a huge success with over 150 professionals in attendance. Project Manager walked several streams for possible projects in 2013. Stream Restoration Project Planning Workshop attracted over 18 TU chapters and conservation organizations wanting to know more about planning a project. Gave Congressman Walz a tour of recently completed projects. Project Manager attended numerous watershed meetings on the Pine/Rush and the Bee and Duck Creek projects. Chief White of the Natural Resources Conservation Service has approved the Driftless Landscape Initiative, which will provide additional Farm Bill dollars for stream restoration in Minnesota that we hope to partner on with Environmental and Natural Resources Trust Fund.

Project Status as of March 2013: In October TU Project Manager gave a presentation on cold-water stream restoration and incorporating nongame habitat to the Hiawatha TU chapter of Rochester. Over 40 conservationists participated in a one day bus tour of recently completed stream restoration projects in Minnesota and Wisconsin. In December TU P. Manager gave a presentation at the Midwest National Fish Habitat Action Projects meeting in Minneapolis on cold-water resources of SE MN. Attended the Minnesota Natural Resources Conservation Service State Technical Comm. Meeting and the MN DNR Roundtable discussions. Sent out TUDARE electronic newsletter and secured a \$10,000 U.S. Fish and Wildlife Service Private Lands grant for the Rush Creek project. Driftless Symposium was a huge success with over 150 conservationists, professionals and volunteers participating.

Project Status as of September 2013: Sponsored a landowners meeting for the Bee Creek/Duck Creek Watershed for over 30 landowners to discuss various conservation practices; presentations to Rushford H.S. students and Midwest Regional Trout Unlimited meeting; News release inviting landowners to a recently completed stream restoration project and personal invite to surrounding county and NRCS field staff; field day on installing cedar revetments; helped develop video on manage grazing riparian corridors; and presentation to the Midwest Regional Partners in Amphibian and Reptile Conservation at their annual meeting; collaborated with NRCS, MN Stewardship Project and others on a field day for managing riparian corridors. Completed a restoration project over a mile on Bullard Creek.

Project Status as of March 2014: Bus tour of recently completed stream restoration projects in WI and MN; presentation at BWSR Academy on stream restoration; Zumbro Watershed presentation on stream restoration in the Driftless; Participated in Root River Advisory meeting; *Nongame Wildlife Habitat Guide: Complementary Opportunities for Stream Restoration Projects* completed; walked several potential projects with landowners and county field offices; presented at Basin Alliance for the Lower Mississippi in Minnesota, BALMM; electronic newsletter sent out; Great Water Fly Fishing Expo Minneapolis; Interview with Contemporary Sportsman online magazine; Panelist for Upper Midwest Stream Restoration Symposium; presentation to Win-Cres Trout Unlimited, Hiawatha and Twin Cities TU; 7th Annual Driftless Symposium completed with over 165 participants.

Amended 03/07/2014 : The Driftless Area has recently received special appropriated funding through a USDA – NRCS Landscape Initiative (Driftless Area Landscape Conservation Initiative). Currently we

have a contract with NRCS for Mill Creek that extends to 12/30/2016, (our intention is to complete the project this summer). We have been working with Houston, Winona, Fillmore, Wabasha counties to sign-up other landowners for additional projects. Therefore, we are requesting an extension of the availability of funds beyond 6/30/2014 in order to complete additional stream restoration work. It is my understanding that under ML2008, Chapter 367, Section 2, Subd.8, the availability of funds can be extended to match the availability of any federal grants the projects are receiving. We are not requesting any shifting of dollars in our work program as part of this request.

Approved: 03/18/14

Project Status as of Sept. 2014: The extension of this grant made it possible to complete a 3,605 feet on Trout Run, 3,168 feet on Camp Creek and a nice project on Hay Creek for 385'. We also continued our monitoring of nongame species on Garvin Brook with Winona State and will be able to do a lot more outreach with contactors workshops, and a Driftless Symposium.

Project Status as of March 2015: In October Trout Unlimited worked with a variety of partners on a proposed \$20 million Regional Conservation Partnership Program grant. The proposal, if funded, would provide an additional \$20 million in conservation practices from the Natural Resources Conservation Service over the next five years. The proposal made it through the initial screening but did not receive final approval. A bus tour was sponsored by Trout Unlimited to tour recently completed stream restoration projects in NE Iowa, and SE Minnesota. Trout Unlimited was the lead on the 8th Driftless Symposium that drew conservationists from all over the Driftless Area to hear about the latest in conservation. Project Manager was recently appointed to the Root River "One Watershed – One Plan" advisory board.

Project Status as of Sept. 2015: The Camp Creek project on the Robert Maust property was highlighted in WHKS Engineering newsletter. WHKS was the designer and provided over-site for the project. Project Manager, PM is on the Minnesota State Technical Committee for the Natural Resources Conservation Service. The State Technical Committee advises the State Conservationist on a number of program management decisions. In April PM worked with Midwest Hunting and Fishing Magazine on an article about stream restoration in the Driftless Area for the online magazine. Trout Unlimited is in the development stage of putting together a group of practitioners and experts in Driftless stream restoration to evaluate current stream practices utilized in the Driftless. Several MN professionals have been invited to participate in the process. In September PM submitted a 4 million Regional Conservation Project Partnership proposal to the Natural Resources Conservation Service for the Driftless Area. If approved an additional 4 million dollars in Environmental Quality Incentive Program dollars would be available and designated for cold-water stream restoration and upland prairie work in SE MN. The preproposal was approved and a final proposal will be submitted in November of 2015. PM is an advisor to the Winona County Water Coalition with is in the process of updating their water management plan. In July PM participated in the Houston and Fillmore County Local Work group meetings. These meetings are held by the local conservation field offices each year to establish priorities for upcoming Farm Bill dollars assigned to each county. PM meet with several landowners this past summer on Trout Run, S. Fork of the Root, Pine Creek, Spring Creek and Cedar Valley to discuss possible projects for 2016. Trout Unlimited is part of Minnesota's new One Watershed, One Plan and is an advisor to the Root River Watershed and already participated in several meetings in the past three months. Basin Alliance for the Lower Mississippi River, made up of county, state and federal conservationist meet quarterly, PM meet with the group to discuss upcoming and ongoing projects. In August PM was part of a tour for Congressman Walz, the tour was held on Camp Creek (recently completed stream restoration project). Congressman Walz meets annually with sportsman groups and local conservation field offices over a potluck lunch. June 17th PM participated in the LCCMR tour, and hosted a tour stop on the recently completed project on Camp Creek. Camp Creek project received funding from the Environmental and Natural Resources Trust Fund, but PM also worked with the local township, US Fish and Wildlife Service and the Natural Resources Conservation Service to share project costs. PM handed out the Nongame Habitat Guide to each of

the LCCMR members. The nongame Habitat Guide was partially funded through the ENRTF. The manual contains lots of information about non-game animals (frogs, turtles, birds, etc.) that utilize the riparian corridor in the Driftless Area and corresponding designs that make them eligible for Farm Bill dollars. PM has developed an agreement with the US Fish and Wildlife Service to provide additional funding for ENRTF projects. The name of the program is Partners for Wildlife and requires the landowner to sign a cooperative agreement with the USFWS.

Project Status as of March 2016 – There was no stream restoration projects completed between Sept. 2015 and March 2016, MN DNR will not allow restoration to take place because of the possibility of silt washing/covering eggs laid from trout. However, there was a lot of educational and meetings that took place to line up projects for 2016.

- Three landowners were approached to sign cooperative agreements with the US Fish and Wildlife Service. The grants are small, \$8,000 each, but are used in conjunction with MN state funding on restoration projects. (time to pursue additional grant funding was made possible through a grant from the US Fish and Wildlife Service)
- For the last several years we/Trout Unlimited have organized a fall bus tour of stream restoration projects for county, state, federal conservationists, volunteers, fish biologists...and anyone else interested in stream restoration. We toured two recently completed stream restoration projects in Minnesota and two in Wisconsin. We filled up a tour bus with 55 participants with Trout Unlimited covering the costs for the bus and noon lunch.
- Jeff Hastings, Project Manager for Trout Unlimited spent several weeks over the winter developing a proposal for a USDA Farm Bill program called Regional Conservation Partnership Program. The proposal was for 3.6 Million, matched by our partners 13 Million over the next five years. Funding will be for cold-water stream restoration in the Driftless Areas of MN and WI. There was also funding, approximately \$360,000 for upland prairie restoration in SE MN. Trout Unlimited was awarded \$2.9 Million (instead of the proposed \$3.6M) for the next five years. The program is to start in Minnesota 2017. (time to pursue additional grant funding was made possible through a grant from the US Fish and Wildlife Service)
- Project Manager is active with the State Technical Committee for the Natural Resources Conservation Service in Minnesota. This committee provides a variety of functions for NRCS, but offering program direction to MN NRCS is its primary function.
- Project Manager spent a great deal of time in the fall and throughout the winter working with partner groups to develop a program for the Driftless Area Symposium. This is an annual event, which typically draws more than 160 participants from all over the Driftless region. Two separate tracks were developed: one to cover the “riparian area” with discussions on research, habitat management, science and more. The other track focused on watershed management issues. Registrations were accepted, presentation prepared and the program developed. However a spring storm dropped over 10 inches of snow the day the event was supposed to happen...and we had to cancel the symposium.
- Project Manager prepared and delivered a presentation for Barr Engineering of Minnesota. The presentation on “including nongame habitat into stream restoration projects” was streamed on Barr Engineering’s system to other satellite offices.
- Trout Unlimited is an advisor to the Root River - One Watershed One Plan committee, and attended several meeting during the winter to help develop a plan for the Root River Watershed.
- Trout Unlimited organized a three day “Great Rivers Fly Fishing Expo” in Minneapolis.
- Project Manager participated with a half hour webinar presentation on “including nongame habitat into stream restoration projects”. The webinar covered 28 states, with over 146 participants listening in.

Project Status as of September 2016 – Covering (April, May, June, July, Aug and Sept.)

We were able to complete one major stream restoration project this summer so far. Several projects had been started, but because of the wetter than normal summer have been delayed.

- We were able to complete a great project on the S. Fork of the Root River. Project length was 1,800' with lots of bank stabilization and trout habitat.
- In June we held a field day for conservationists in SE Minnesota on the S. Fork of the Root River project. This was an opportunity for conservationists to come out and see first-hand a stream restoration project in progress. Representatives from the US Fish and Wildlife Service, MN DNR Fisheries, Natural Resources Conservation Service, Trout Unlimited, the contractor and designing engineer were all on-hand to answer questions about the project.
- In April Trout Unlimited help sponsor, plan and speak at a regional workshop for "Road and Stream Crossings", over 45 conservationists, county engineers and cooperating agencies attended the two day workshop.
- Trout Unlimited Project Manager participated in the Houston and Fillmore Counties "Local Work Group" meetings. These meetings are conducted to get input into how the county will prioritize the Farm Bill dollars they receive.
- TU Project Manager gave a presentation at the Midwest Regional US Fish and Wildlife Private Lands Management meeting. The presentation was highlighting the stream restoration work completed in SE MN working with the Environmental and Natural Resources Trust Fund, Lessard Sams Outdoor Heritage Program, US Fish and Wildlife Service dollars, TU Chapter dollars/volunteers and NRCS Farm Bill dollars.

Overall Project Outcomes and Results: Early European settlement and agricultural practices from the 1850s to the 1930s led to wide scale erosion, flooding, and altering of streams and valleys in southeast Minnesota. Hundreds of miles of clean cold-water creeks and streams were inundated with fine sediment as a result. While land use practices have improved, many streams still suffer from the practices of the past. Trout Unlimited used funding from the LCCMR to work with private citizens and federal, state, and county agencies to conduct 15 showcase stream restorations on more than five miles of southeastern Minnesota streams. These 15 showcases were employed to build local capacity to conduct future projects, and engaged SWCDs in at least one stream restoration project.

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IV. PROJECT ACTIVITIES AND OUTCOMES:

Activity 1: Southeast Minnesota Showcase Stream Restoration Projects

Budget: \$ 202,500
Amount Spent: \$ 186,962
Balance: \$ 15,538

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:

Project Manager walked several potential stream restoration project sites with Fillmore Soil and Water Conservation District staff, and Area Engineers from the Rochester Natural Resources Conservation Service. Project Manager is also developing several potential restoration projects with DNR fisheries staff from Lanesboro and Lake City. Bullard Creek in Goodhue County will likely be a combination of county (Goodhue SWCD), federal (farm bill dollars) and Environmental and Natural Resources Trust fund dollars. There is also interest on Ahrensfield Creek in Winona and Camp Creek in Fillmore.

Activity Status as of September 2012: We completed two projects this summer on Hay Creek and Rush that were part of Phase I. Project Manager walked several streams this summer and fall - Rush Creek, Camp and Blagsvedt for possible project in 2013. Project Manager collaborated with three other nonprofit organizations and the MN, IA, WI, and IL Natural Resources Conservation Service to develop a proposal ***Driftless Area Landscape Conservation Initiative*** for the entire Driftless Area. The proposal requested 6 million per year for 5 years for additional dollars managing and improving prairies; increasing the amount of perennial vegetation through manage grazing; managing woodlands for increased diversity and restoring cold water trout streams and adjacent riparian areas. The proposal was approved and we should see additional federal Farm Bill dollars available in 2013 for coldwater streams in Minnesota.

Activity Status as of March 2013: Utilizing part of phase I (remaining dollars) & II round funding from ENRTF, and partnering with LSOHC, plus grants from the US Fish and Wildlife Service and the Natural Resources Conservation Service we completed a 2,300 foot stretch on Rush Creek. Vortex weirs were installed creating large pools and root wads provided additional habitat. Prior to the start of this project TU Project Manager noticed 70 to 80 Belted Kingfisher and swallow nesting cavities in one of the vertical eroding banks that was to be stabilized. In the spring before the project started he came back to cover the nesting site with netting to prevent the birds from creating nests, however the bank had again collapsed and no nests were exposed. This provided the opportunity to create a first of its kind, an artificial nesting structure for Belted Kingfishers and swallows. The structure was created from compacted soil gathered from sloping back the eroding banks. Once the 125' long 12' high structure was completed the face of the structure was cut vertical to immolate an eroding river bank. However, this structure is away from the river and should remain stable. The structure will be monitored in 2013 to see if it is utilized by the birds and a design has been developed for future projects.

The first round of funding was released for the Driftless Area Landscape Conservation Initiative, DALCI, \$2.25 million, with Minnesota's share around ½ million. Jason Weller, Acting Chief for NRCS will be in the Driftless Area June 6th to announce the DALCI. Project Manager has been working with conservationists from Goodhue Co. and the Lake City DNR Coldwater fisheries to complete a design for Bullard Creek. Two landowners will be involved with the project, one stretch is 2,685' the other is 3,685'. A design has also been completed for Camp Creek utilizing a private consultant. The project will be funded through MN DNR habitat crew doing the work, and NRCS and ENRTF paying for materials. The Camp Creek project is on a perpetual DNR easement and will be a 3,200' project. Hiawatha Trout Unlimited has been busy improving a reach on Blagsvedt Creek and we have been providing lunch for the volunteers. Two more projects in Fillmore and Houston are also being pursued.

TU Proj. Manager signed a Cooperative Agreement with the U.S. Fish and Wildlife Service for additional cost-sharing for stream restoration projects in MN. The Rush Creek project was the first project to receive funds through this agreement (\$10,000).

- Completed project on Rush Creek 650'

Activity Status as of September 2013: Completed two reaches on Bullard Creek in Goodhue County working with Goodhue SWCD. Worked with two landowners on Bullard Creek to implement a Brook Trout project. Riester site was 3,685 feet and Flueger site was 2,685 feet. We had a field day for conservationists to see first-hand how to install cedar revetments and other habitat practices. Camp Creek project will be completed next spring and we have secured additional funding from MN DNR fisheries, US Fish and Wildlife and Natural Resources Conservation Service; Area Engineer for

Dept. of Ag is working with Wabasha Technician for several projects for next spring; another project has been designed for lower Pine in Winona Co. with additional funding from NRCS

- Completed Bullard Creek 3,685
- Completed Bullard Creek 2,685

Activity Status as of March 2014: No stream work can be worked on in cold-water streams from October 15th to May 1st. Met with conservationists in Houston, Wabasha, Goodhue, Fillmore and Winona County on 2014 potential projects. Projects lined up for Hay Creek in Goodhue; several project in Wabasha; several in Winona; and one in Houston.

- Completed work on Rush Creek 210'

Activity Status as of September 2014: We just completed three projects in the last month and will have more to report in our next report in March. On Trout Run we collaborated with a landowner, and the U.S. Fish and Wildlife Service to improve a 3,605' stretch. Trout Run has a VERY productive fishery and this project will help improve the carrying capacity of the stream and stabilize several eroding banks. We also completed a large project on Camp Creek, 3,165 which holds a DNR easement. We partnered with the landowner, township, US Fish and Wildlife, and the Natural Resources Conservation Service. Finally, we partnered with a landowner and the Goodhue Soil and Water Conservation District on a 380' Stretch on Hay Creek.

- Completed project on Camp Creek 3,165'
- Completed project on Trout Run 3,605'
- Completed project on Hay Creek 380'

Activity Status as of March 2015: No restoration work to report between Sept. 14 and March, of 2015.

Activity Status as of September 2015: Several projects were completed and a number of new one initiated. We partnered with Goodhue Soil and Water Conservation District on two projects on Spring Creek. Winona Soil and Water Conservation District on the Pine Creek in Winona and purchased some streambank revetment supplies for the Houston County SWCD for a number of smaller projects.

- Project completed on Spring Creek – Baartman 220', project involved bank stabilization and the installation of plunge pools that provide protection for fish. Total cost of the projects was \$7740. Goodhue County SWCD contributed \$5,636 and donated technical assistance in design and over-site of the project, \$1,127 from the ENRTF and \$977 from the landowners.
- Project completed on Spring Creek – Lawrence 250', this was another project on Spring Creek but did not involve as much earth moving and rock. Bank stabilization and additional plunge pools were also incorporated into this project. Total cost was only \$1,479, with Goodhue SWCD providing \$1,109 plus technical assistance in design and over-site, \$296 from the ENRTF and \$74 from the landowner.
- Project completed on Pine Creek – 250' This was a major project on Pine Creek in Winona County near New Hartford. Gabian structures (rock placed in webbed baskets) were utilized to stabilize the banks, additional habitat was installed utilizing root wads, cross channel logs and random boulder placement. The project was designed by Pete Fryer Dept. of Ag. Engineer and most of the costs reimbursed through Winona SWCD (\$47,227), ENRTF share was \$582.

Two major projects lined up for next summer on Trout Run and S. Fork of the Root.

Activity Status as of March 2016: No projects were completed between September 2015 and the end of March 2016. We are not allowed to work in cold water streams during this time because of the possibility of silt from projects covering trout eggs. We have several projects lined up in Goodhue, Houston, Fillmore and Winona County for this summer.

- Three landowners were approached to sign cooperative agreements with the US Fish and Wildlife Service. The grants are small, \$8,000 each, but are used in conjunction with MN state funding on restoration projects. (time to pursue additional grant funding was made possible through a grant from the US Fish and Wildlife Service)

Activity Status as of September 2016: We completed a great section of cold-water stream on the S. Fork of the Root River. Bank stabilization, stream crossing, and trout habitat were the major practices installed. Three other projects are planned to be completed yet this fall and will be added for the final report. We also supplied materials to the Root River watershed on a Cedar Tree Revetment project on Riceford Creek working with several landowners covering over 2,250'

- Completed project on the S. Fork of the Root River 1,800'.

Final Report Summary: In the fall of 2016 Houston County SWCD working with three landowners and the Minnesota Conservation Corp improved 6,600 feet of Riceford Creek utilizing Cedar Tree Revetment. Additional support came from the Environmental and Natural Resources Trust Fund for the cost of anchor to stabilize the Cedar trees, and a stability report from the University of Winona. Goodhue County SWCD developed a great project with the City of Zumbrota installing trout habitat, bank stabilization and invasive plant removal.

Over five miles were completed on 15 different projects. The balance of \$15,538 was reflective of a couple of projects that did not get completed in the final year because of poor weather, and as a result of finding additional dollars to cover project costs from other organizations. Our goal was to partner with other county, federal, state and private groups to contribute an additional \$500,000 to projects; we were successful in obtaining over \$525,000 in engineering assistance, materials and contracted equipment.

- Riceford Creek Cedar Tree Revetment Project 6600'
- Zumbro River project 600'

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

Budget: \$ 28,000
Amount Spent: \$ 24,535
Balance: \$ 3,465

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:

- Project Manager has organized a consortium of partners – Driftless Area Initiative, Natural Resources Conservation Service, U.S. Fish and Wildlife, U.S. Forest Service, Southwest RC&D; and Department of Natural Resources staff from Minnesota, Wisconsin, and Iowa to develop the program for the **Driftless Area Symposium**, March 27th and 28th. Two separate tracks have been developed, one on “Watershed/Geomorphology” and one focusing on the “Riparian” area. The committee is conference calling bi-monthly and the program is almost complete. Registration and a draft agenda are online at www.darestoration.com/Symposium.
- Project Manager has organized a volunteer steering group to develop a “**Project Planning Stream Restoration Workshop**” for April 14th and 15th. Where volunteers will learn how to plan their own Stream Restoration project, from start to finish, and be briefed on emerging issues across the Upper Mississippi Basin. Program will focus on basic project planning and a separate project fund-raising track. Experienced speakers will cover the major project topics (stream selection, easements, building partnerships, safe projects and liability issues, outreach, managing project finances, pre- and post-project monitoring) and provide a pile of useful tools from TU chapters and National staff to help make their project a success. We'll also bring them up to date on the upcoming Farm Bill discussions in Washington, and on Sunday morning help them plan their own project, start to finish, with a team of 3 or 4 people.
- The Driftless Winter electronic newsletter was sent out in November 2011, another is planned for February 2012.
- A presentation was made to the fisheries graduate students on the St. Paul campus on in-stream habitat practices for game and nongame species. A number of these graduates will be presenting at our Driftless Symposium in March.
- PM also made a presentation to participants at this year's Driftless Rendezvous, sponsored by Hiawatha Trout Unlimited; and at the DNR roundtable discussion in Minneapolis.
- Project Manager organized a two state tour of stream restoration projects in Minnesota and Wisconsin. Five completed projects were looked at by the group. At each stop the conservationist that designed and over saw the project spoke to the group about the project.
- Project Manager presented three different presentations on stream restoration at this year's Midwest Fish and Wildlife conference.
 - Restoring Driftless Coldwater Streams to Reduce the Effects of Climate Change: Working Climate Considerations into Planning and Management Activities.

- Unitizing Invasive Trees in the Riparian Corridor for Biofuels Preceding a Restoration Project.
- Restoring Driftless Area Streams to Undo the Damage of the Past.

Activity Status as of September 2012:

Workdays - We had several workdays engaging volunteers to improve three stream reaches:

- Blagsvedt Creek, Feb. 25 12 volunteers clearing brush and removing old barbwire.
 - Ikes Creek, June 2, Boy Scouts, MN DNR, Twin Cities TU and the U.S. Fish and Wildlife Service.
 - South Branch of the Root, Work day clearing 1 mile of stream of brush and old barbwire.
- Presentations:
- Helped develop a presentation on stream restoration for the DNR Roundtable discussions.
 - Several presentations at the Great Waters Fly Fishing Expo in Blaine, MN.
 - Pictures to LCCMR for advertising
 - Toured Congressman Walz on several recently completed stream restoration projects.
 - American Fisheries Society in Minneapolis.
 - PowerPoint for Minnesota DNR Fisheries training.
 - Traveled to St. Louis for Natural Resources Conservation Service to discuss Farm Bill dollars for the Driftless Area, met with NRCS State Conservationist from Minnesota – Don Baloun and discussed engineering needs.
 - Held a Partners meeting in March of all the various agencies, nonprofits, and organizations interested in conservation in the Driftless Area.

Driftless Symposium: The Driftless Symposium was a huge success and drew in more than 150 professionals from the conservation field. Besides having our regular two day discussions on managing the riparian area we also had an additional two day discussion on various watershed management issues.

Stream Restoration Project Planning Workshop: Was held in March and attracted over 18 different Trout Unlimited Chapters and conservation organizations. Participants heard presentations on – Planning your Restoration Project – Starting from Scratch; Working with Landowners; Organizing and Conducting Safe, Productive, and Fun Workdays; Liability Concerns for Projects; Monitoring your Project Site; and a separate concurrent workshop on Grant Writing.

Activity Status as of March 2013:

- Fall newsletter completed and sent out.
- Chartered a 56 passenger executive coach bus and toured MN and WI recently completed stream restoration projects. Over 45 conservationists, fisheries biologists, county and federal conservation staff and volunteers participated in this one day tour.
- Presentation to Hiawatha Trout Unlimited chapter (Rochester based) on coldwater fisheries and nongame habitat projects in SE MN.
- The Driftless Area is part of the National Fish Habitat Action Plan. TU Project Manger co-manages the project with a U.S. Fish and Wildlife Service Biologist. In December TU Proj. Manager made a presentation in front of the other Midwest partnerships about the Driftless.
- TU Proj. Manager attended the Minnesota State Technical Comm. of the MN Natural Resources Conservation Service.
- TU Proj. Manager attended the MN DNR Roundtable discussion in Minneapolis.
- Sponsored a landowners meeting for the Bee/Duck Creek watershed in SE MN. Presentations on cold-water projects and other conservation practices available.

- Driftless Symposium was chaired by TU Proj. Manager, but the Natural Resources Conservation Service, Univ. Minnesota, Winona State, MN DNR, etc. helped organize the event. Over 150 county and federal conservationists, volunteers, university staff and students, fish biologists, and partnering agencies attended the two day event. Topics included: Climate change; Targeting and Managing Landscape Sedimentation; Non game Species Management; Frac Sand Mining; Riparian Management; Invasive Species Management; Coldwater Research and Engaging Landowners- Resident-led watershed management.

Activity Status as of September 2013:

- Presentation to the Basin Alliance for the Lower Mississippi in Minnesota (BALMM) on stream restoration projects in SE MN. BALMM is made up of 17 counties, 12 major watersheds in SE MN and holds quarterly meetings with conservation groups in the 17 county area.
- Trout Unlimited had its first Midwest Regional meeting in April. TU Project Manager gave two presentations on stream restoration; 1) how to engage private landowners in stream restoration projects; and 2) how to manage and obtain Farm Bill dollars for your stream restoration project.
- Met with Rushford senior Envirothon members on stream restoration project to discuss bank stabilization, trout habitat, nongame habitat and manage grazing.
- Prepared news release for local papers and invited landowners to view first hand a recently completed stream restoration project and ask questions.
- Invited SE MN field office (SWCD & NRCS) conservation staff for an afternoon field day of a recently completed project. Engineers were on hand to answer questions. TU presented information on how to develop a project.
- Collaborated with MN Stewardship Project, NRCS State Grazing Specialist, Thousand Hills Cattle Company Grass Fed Beef and owners of Prigge farm for a field day on how to manage graze a riparian corridor.
- Held a field day for SE MN Conservationists on how to install cedar revetments on Bullard Creek, Wabasha County.
- Attended Winona Watershed Planning meeting, looking at long term water quality needs for Winona County...planning a stream restoration tour for next summer.
- Worked with MN Dept of Ag, MN NRCS on a video of manage grazing riparian corridor.
- Another Driftless Symposium is being planned for Feb. 2014
- Another Project Planning for Stream Restoration Projects is being planned for spring 2014.

Activity Status as of March 2014:

- Organized a free bus tour for conservationists, fish biologist, partners, volunteers etc.. Over 55 participated on the tour of recently completed stream restoration projects in MN and WI. At each stop design was reviewed with technician.
- Presentation to 93 county conservation staff from all over Minnesota on stream restoration at their annual BWSR Academy training in Brainerd MN.
- Evening presentation for the Zumbro Watershed Partnership, 28 participants attended the 1 hr. presentation on restoring Driftless Cold-water streams at the Cascade Meadow Wetlands and Environmental Science Center in Rochester.
- Participated in the quarterly Root River Technical Advisory Meeting in Preston, MN.
- Walked Pine creek with landowner and local field staff.
- Participated in the quarterly meeting of the Basin Alliance for the Lower Mississippi in Minnesota, BALMM (made up of SE MN Counties and partner organizations).
- Organized and chaired the 7th Annual Driftless Symposium. 165 conservationists, fish biologists, university professors and students participated. This year we organized two separate tracks – one on Hydrology/Geology/Karst Resource Investigations and one on Riparian Management of cold-water Driftless streams. The Driftless Symposium is an effort to

share results of research, monitoring, lessons learned, and management work in streams, along riparian corridors and across watersheds.

- Interviewed for online magazine Contemporary Sportsman on Driftless Streams.
- Attended/participated in Farmer Led Council for Whitewater Watershed.
- Panelist for Upper Midwest Stream Restoration Symposium on “What makes Driftless Streams so Unique”.
- Presentations to Win-Cres, Hiawatha and Twin Cities Trout Unlimited Chapters.
- Display at the Great Waters Fly Fishing Expo at Blaine, MN.

Activity Status as of September 2014:

- We had one of our most success “Stream Restoration Project Planning Workshops” this year with over 18 chapters/65 volunteers participating. Participants attended sessions on: “how to utilize Farm Bill dollars your projects”, “Where the Grants are for Restoring Cold-water Streams”, to “How to Work with Private Landowners”. We also focused on capacity building of local chapters.
- Started the development of a “*manage grazing riparian corridor*” hand book for landowners.
- Held a teen summit for young adults from all over United States. Teens toured numerous projects and spent part of the day volunteering on a project.
- Attended the NRCS “local workgroup” meeting in Lewiston MN for Winona County to help set priorities on where fiscal 2015 EQIP funds should be spent...put in a big pitch for stream restoration.
- Attended the Fillmore County Local Workgroup meeting in August.
- Collaborated with Driftless partners on a \$20 million proposal for the Driftless Area for stream restoration and a host of upland conservation practices...we should know by late Nov. if approved.

Activity Status as of March 2015:

- 8th Annual Driftless Symposium was held in February. Over 180 conservationists attended from all over the Driftless Area. Two tracks were developed for this years symposium – 1) a Riparian Management track, covering research, habitat management and project review. 2) the second track was Watershed Management reviewing several successful watershed projects.
- Fall Driftless Area bus tour – Trout Unlimited again sponsored a coach bus and lunch for over 85 conservationist to review recently completed stream restoration projects in Minnesota and Iowa.
- Project Manager developed several news articles and completed several newsletters that went out to project partners in the Driftless Area.
- To stay better informed of recent Farm Bill activities Project Manager attends Minnesota State Technical Committee meetings.
- Trout Unlimited has been asked and will now be a member of the Root River “One Plan – One Watershed” advisory board.
- A partnership sign was recently installed on the Camp Creek project.

Activity Status as of September 2015:

- Project Manager, PM is on the Minnesota State Technical Committee for the Natural Resources Conservation Service. The State Technical Committee advises the State Conservationist on a number of program management decisions.
- Trout Unlimited is in the development stage of putting together a group of practitioners and experts in Driftless stream restoration to evaluate current stream practices utilized in the Driftless. Several MN professionals have been invited to participate in the process.
- PM is an advisor to the Winona County Water Coalition with is in the process of updating their water management plan.

- In July PM participated in the Houston and Fillmore County Local Work group meetings. These meetings are held by the local conservation field offices each year to establish priorities for upcoming Farm Bill dollars assigned to each county.
- PM meet with several landowners this past summer on Trout Run, S. Fork of the Root, Pine Creek, Spring Creek and Cedar Valley to discuss possible projects for 2016.
- Trout Unlimited is part of Minnesota's new One Watershed, One Plan and is an advisor to the Root River Watershed and already participated in several meetings in the past three months.

Activity Status as of March 2016:

- For the last several years we/Trout Unlimited have organized a fall bus tour of stream restoration projects for county, state, federal conservationists, volunteers, fish biologists...and anyone else interested in stream restoration. We toured two recently completed stream restoration projects in Minnesota and two in Wisconsin. We filled up a tour bus with 55 participants with Trout Unlimited covering the costs for the bus and noon lunch.
- Jeff Hastings, Project Manager for Trout Unlimited spent several weeks over the winter developing a proposal for a USDA Farm Bill program called Regional Conservation Partnership Program. The proposal was for 3.6 Million, matched by our partners 13 Million over the next five years. Funding would be for cold-water stream restoration in the Driftless Areas of MN and WI. There was also funding, approximately \$360,000 for upland prairie restoration in SE MN. Trout Unlimited was awarded \$2.9 Million for the next five years (instead of the proposed \$3.6M). The program is to start in Minnesota 2017. Trout Unlimited will likely hire a technician to work with landowners and Trout Unlimited chapters on projects. (time to pursue additional grant funding was made possible through a grant from the US Fish and Wildlife Service)
- Project Manager attended and is active with the State Technical Committee for the Natural Resources Conservation Service in Minnesota. This committee provides a variety of functions for NRCS, but offering program direction to MN NRCS is its primary function.
- Project Manager spent a great deal of time in the fall and throughout the winter working with partner groups to develop the program for the Driftless Symposium. This is an annual event, which typically draws more than 160 participants from all over the Driftless region. Two separate tracks were developed: one to cover the "riparian area" with discussions on research, habitat management, science and more. The other track focused on watershed management issues. Registrations were accepted, presentation prepared and the program developed. However a spring storm dropped over 10 inches of snow the day the event was supposed to happen...and we had to cancel the symposium.

Activity Status as of September 2016:

- In June we held a field day for conservationists in SE Minnesota on the S. Fork of the Root River project. This was an opportunity for conservationists to come out and see first-hand a stream restoration project in progress. Representatives from the US Fish and Wildlife Service, MN DNR Fisheries, Natural Resources Conservation Service, Trout Unlimited, the contractor and designing engineer were all on-hand to answer questions about the project. The project was over half completed and made for a great location to talk about cold-water restoration.
- In April Trout Unlimited Project Manager helped sponsor, plan and speak at a regional workshop for "Road and Stream Crossings", over 45 conservationists from around the region, county engineers, local conservation staff and cooperating agencies attended the two day workshop.
- Trout Unlimited Project Manager participated in the Houston and Fillmore Counties "Local Work Group" meetings. These meetings are conducted to get input into how the county will prioritize the Farm Bill dollars they receive for next fiscal year.
- TU Project Manager gave a presentation at the Midwest Regional US Fish and Wildlife Private Lands Management meeting. The presentation was highlighting the stream restoration work completed in SE MN working with the Environmental and Natural Resources Trust Fund,

Lessard Sams Outdoor Heritage Program, US Fish and Wildlife Service dollars, TU Chapter dollars/volunteers and NRCS Farm Bill dollars.

Final Report Summary: Over the course of four years we were able to exceed all of our proposed outcomes under this activity: Four Driftless Area symposiums with over 600 participants; three Stream Restoration Project Planning Workshops training over 180 volunteers; over 25 outreach development and presentations to partnering organizations on SE MN cold-water streams; four in-the-field workshops involving over 60 contractors and local conservationists; eight volunteer workdays building structures, clearing brush and preparation of seedbed; 10 partnership signs and 10 news releases. We also organized and participated in eight tours related to stream restoration projects. The remaining balance of \$3,465 was because we were successful in obtaining funding for our listed activities from other organizations and foundations.

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

Budget: \$ 19,500
Amount Spent: \$ 17,437
Balance: \$ 2,063

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:

- Project Manager has contracted with a professional herpetologist to rewrite with him a second edition to the *Driftless Riparian Habitat Guide*. In December three meetings were held throughout the Driftless Area to gather input from cooperating agencies (NRCS, DNR, County, US Fish and Wildlife, University staff, private citizens, etc.) Over 50 interested individual came and gave presentations and discussed the rewriting of this important document, other

professionals sent correspondence. The second edition is planned to be completed in time for the upcoming field season.

- Project Manager met with Winona State University staff to plan pre-inventory work for nongame species on Garvin Brook. University students will start gathering information this spring in anticipation of the Garvin Brook stream restoration project scheduled for summer of 2013.

Activity Status as of September 2012:

- The writing has been completed for the Driftless Riparian Habitat Guide and Project Manager has met with a graphic artist to complete the project. Photos of various projects will be compiled in the next month and we hope to have a completed manual by early next year.
- Over a mile of stream restoration will occur on Garvin Brook next summer. Starting in early spring students from Winona State University monitored the sites for birds, amphibians and reptiles. The students are compiling a report for use to evaluate what additional nongame practices we will include in the project.

Activity Status as of March 2013:

- Final edits have been made to the nongame habitat guide and it now sits with the graphic artist for final layout. We hope to have a finished product sometime in June.

Activity Status as of September 2013: The second edition, “Nongame Wildlife Habitat Guide: Complimentary Opportunities for Stream Restoration Projects” is now completed. New practices have been added, a matrix on when and where it is appropriate to incorporate nongame habitat practices into your project and a Nongame Wildlife Life History section. Printing of the guide will happen soon (Nov/Dec).

TU Project Manager presented the guide to the Midwest Regional Partners in Amphibian and Reptile Conservation at their annual meeting. The participants enjoyed the habitat practices and have agreed to develop a subcommittee to work with TU on the third edition when it develops.

Activity Status as of March 2014: Over the past three month the new Nongame Wildlife Habitat Guide has been widely distributed to county field offices, local and state fishery offices, partner organizations, watershed groups, universities, consultants and more. A pdf. has been created and is accessible from the Driftless Area Restoration Area website. The acceptance of this habitat guide and the implementation of nongame practices to stream restoration projects have been over whelming. Consultants, state dnr fish habitat crews, local field offices and others have made a conscious effort to include additional habitat for nongame species into their projects. I have met with the Win –Cres chapter and they plan on working with the MN DNR on their project to include recommendations from the pre inventory work Winona State University did on nongame species.

Activity Status as of September 2014: I presented at the Wild Trout Symposium (held once every three years in Yellowstone) about the nongame habitat guide (that the ENRTF help produce). I continue to receive requests both in the Driftless and outside of the Driftless for the guide. I am also working with a university and a private herpetologist on developing protocol to utilize sonic meter (electronic listening devices) to determine “presence” or “absence” of the Northern Cricket Frog. The development of this protocol and use of the sonic meters will help reduce landowner’s costs by not having to contract with a private consultant.

Activity Status as of March 2015: Winona students have been conducting pre and post monitoring of nongame habitat practices. Last year they did a pre monitoring exercise on Garvin Creek and recommended a number of nongame habitat practices to be installed. Two snake hibernacula’s (over

wintering habitat) were installed for milk snakes, garter snakes and bull snakes. Two motion cameras were purchased and will be in place this spring to see if the hibernacula's were utilized. They will also be conducting a number of other surveys on recently completed scrapes/wetlands.

Activity Status as of September 2015: Winona students captured 100's of pictures with the new trail cams on the snake hibernacula's but did not capture any pictures of snakes. Most of the pictures involved raccoons, coyotes, etc.. Monitoring snake hibernacula's have never been done before by anyone that we know of, so we are experimenting around with various techniques. There have been several snakes found in the area and they hope to capture some pictures of the snakes entering the hibernacula's this fall. Surveys from the students on some of the scrapes that were made during the project are showing good use from frogs.

Activity Status as of March 2016:

- Project Manager prepared and delivered a presentation for Barr Engineering of Minnesota. The presentation on "including nongame habitat into stream restoration projects" was streamed on Barr Engineering's system to other satellite offices. Engineering firms have been utilizing the "Nongame Wildlife Habitat Guide" to add additional habitat features into their stream restoration projects. The Nongame Wildlife Habitat Guide was revised and partially funded through our last grant with the Environmental and Natural Resources Fund. The guide has been widely accepted by county, state and federal employees and Trout Unlimited Chapters doing stream restoration projects. In fact, it was probably the primary reason that Trout Unlimited received the recent \$2.9 M Regional Conservation Partnership Program, RCPP grant from NRCS. Trout Unlimited applied for the RCPP national pool of funding that address the critical needs of nongame species...having the guide already developed made for a great proposal for these federal dollars. (time to pursue additional grant funding was made possible through a grant from the US Fish and Wildlife Service)
- Trout Unlimited is an advisor to the Root River One Watershed One Plan committee, and attended several meeting during the winter to help develop a plan for the Root River Watershed. The plan is almost completed and the committee will be looking at opportunities to fund parts of the plan.
- Trout Unlimited organized a three day "Great Rivers Fly Fishing Expo" in Minneapolis. Over 3000 attendees participated in the three day event.
- Project Manager participated with a half hour webinar presentation on "including nongame habitat into stream restoration projects". The webinar covered 28 states, with over 146 participants listening in. The Nongame Habitat Guide has been distributed not only throughout the Driftless Area, but nationally as well.

Activity Status as of September 2016: The Midwest Regional US Fish and Wildlife Service meeting, the field day on the S. Fork of the Root River and the Road and Stream Crossing Workshop were all great events to talk about the nongame habitat work we are incorporating into our stream restoration projects and to distribute additional copies of the "nongame habitat guide" to attendees.

Final Report Summary: Over the past four years we have developed a great relationship with Winona State students and their professors to monitor several of our project sights. With funding from this grant we were able to implement monitoring strategies for our nongame habitat practices and develop some new monitoring strategies. Winona State also did pre monitoring of several of our projects.

Probably the most noteworthy activity was the development of our *Nongame Wildlife Habitat Guide: Complimentary Opportunities for Stream Restoration Projects* handbook. Several LCCMR members were very excited to see this happen as part of this award. The handbook was completed and distributed throughout the Driftless Area (funding from LCCMR and private foundations). The

practices identified in the handbook have been used on federal, state and county projects throughout the entire Driftless Area. The creation of the handbook has led to new collaborative partners on projects and additional funding. Trout Unlimited, TU Project Manager this past year submitted a \$2.9 Million dollar Regional Conservation Partnership Program proposal based on developing partnerships and implementing stream restoration projects that incorporated nongame habitat. Having completed the handbook and implemented a number of projects was cited as the number one reason TU was awarded the \$2.9 M award. The handbook has been recognized nationally and TU Project Manager has given numerous presentations: several national presentations (Wild Trout Symposium, Montana and national Partners in Amphibian and Reptile Convention, Kansas); webinars (Wisconsin Land and Water Conservation Association, Barr Engineering, NOAA, USFWS Restoration Webinar Series) and Midwest Partners in Amphibian and Reptile annual meeting. A Portable Document Format, pdf was completed so that the document can be easily sent upon request.

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:

- Project Manager took the lead and organized a **Driftless Area Symposium**, March 27th and 28th. Two separate tracks have developed, one on “Watershed/Geomorphology” and one focusing on the “Riparian” area.
- Project Manager has organized a volunteer steering group to develop a “**Project Planning Stream Restoration Workshop**” for April 14th and 15th. Where volunteers will learn how to plan their own Stream Restoration project, from start to finish, and be briefed on emerging issues across the Upper Mississippi Basin
- The Driftless Winter electronic newsletter was sent out in November 2011, another is planned for February 2012.
- Presentations were made to: the Fisheries Graduate students on the St. Paul campus; participants at this year’s Driftless Rendezvous, sponsored by Hiawatha Trout Unlimited; and the DNR roundtable discussion in Minneapolis.
- Project Manager organized a two state tour of stream restoration projects in Minnesota and Wisconsin. A chartered bus was contracted so that all of the participants could ride together and hear about various projects completed in both Wisconsin and Minnesota.
- Finally, Project Manager presented three different presentations on stream restoration at this year’s Midwest Fish and Wildlife conference.

Status as of September 2012:

- The Driftless Symposium was an excellent opportunity for professionals and graduate students to present the latest information on fish genetics, riparian management and more.
- Two electronic newsletters were sent out over the past nine months, a PowerPoint on stream restoration presented to the MN Fish Biologist at their retreat; two presentations at the Great Waters Fly Fishing Expo; booth at the Great Waters Fly Fishing Expo; worked with LCCMR staff on promoting stream restoration.

Status as of March 2013:

- Another successful Driftless Symposium was held. Great opportunity for university graduates, fish biologist and conservationists to discuss their findings.
- Fall newsletter completed and sent out.
- Fall bus tour provided a great deal of sharing between fish biologists and conservationists on management of cold-water streams.
- Presentation like the one to Hiawatha Trout Unlimited chapter (Rochester based) is a great way to disseminate information on cold-water fisheries and nongame habitat projects in SE MN.
- Regional meetings like the Midwest National Fish Habitat Partnerships were a good way to discuss cold-water management in SE MN.
- Sponsored a landowners meeting for the Bee/Duck Creek watershed in SE MN. Presentations on cold-water projects and other conservation practices available.

Status as of September 2013:

- TUDARE newsletter sent out to over 550 cooperating agencies and field staff.
- Met with landowner on Pine creek to sign up for USFW and NRCS dollars for spring 2014 project.
- We had a field day for conservationists on Bullard Creek to see first-hand how to install cedar revetments and other habitat practices.
- Presentation to the Basin Alliance for the Lower Mississippi in Minnesota (BALMM) on stream restoration projects in SE MN. BALMM is made up of 17 counties, 12 major watersheds in SE MN and holds quarterly meetings with conservation groups in the 17 county area.
- Trout Unlimited had its first Midwest Regional meeting in April. TU Project Manager gave two presentations on stream restoration; 1) how to engage private landowners in stream restoration projects; and 2) how to manage and obtain Farm Bill dollars for your stream restoration project.
- Met with Rushford senior Envirothon members on stream restoration project to discuss bank stabilization, trout habitat, nongame habitat and manage grazing.
- Prepared news release for local papers and invited landowners to view first hand a recently completed stream restoration project and ask questions.
- Invited SE MN field office (SWCD & NRCS) conservation staff for an afternoon field day of a recently completed project (over 20 participants). Engineers were on hand to answer questions. TU presented information on how to develop a project.
- Collaborated with MN Stewardship Project, NRCS State Grazing Specialist, Thousand Hills Cattle Company Grass Fed Beef and owners of Prigge farm for a field day on how to manage graze a riparian corridor.
- Attended Winona Watershed Planning meeting, looking at long term water quality needs for Winona County...planning a stream restoration tour for next summer.
- Worked with MN Dept of Ag, MN NRCS on a video of manage grazing riparian corridor.

Status as of March 2014:

- Fall bus tour with over 55 conservationists, fish biologist, partners, volunteers etc.. At each stop the project design was reviewed with technician.
- Presentation to 93 county conservation staff from all over Minnesota on stream restoration at their annual BWSR Academy training in Brainerd MN.
- Evening presentation for the Zumbro Watershed Partnership, 28 participants attended the 1 hr. presentation on restoring Driftless Cold-water streams at the Cascade Meadow Wetlands and Environmental Science Center in Rochester.
- Participated in the quarterly meeting of the Basin Alliance for the Lower Mississippi in Minnesota, BALMM (made up of SE MN Counties and partner organizations).
- Organized and chaired the 7th Annual Driftless Symposium. 165 conservationists, fish biologists, university professors and students participated. This year we organized two separate tracks – one on Hydrology/Geology/Karst Resource Investigations and one on Riparian Management of cold-water Driftless streams. The Driftless Symposium is an effort to share results of research, monitoring, lessons learned, and management work in streams, along riparian corridors and across watersheds. Nongame habitat guide was provided to each participant per office or organization.
- Interviewed for online magazine Contemporary Sportsman on Driftless Streams.
- Panelist for Upper Midwest Stream Restoration Symposium on “What makes Driftless Streams so Unique”.
- Presentations to Win-Cres, Hiawatha and Twin Cities Trout Unlimited Chapters.
- Display at the Great Waters Fly Fishing Expo at Blaine, MN.

Status as of September 2014:

- Presentation at the Wild Trout Symposium on the development of the 2nd Edition Nongame Habitat Guide, and practices utilized in increasing the carrying capacity of a number of nongame species.
- Driftless Area Restoration Effort...our project received a national award at the Wild Trout Symposium last month from Trout Unlimited and the Fly Fishing Federation.
- Presentation to the Annual Rivers and Streams Technical Committee (Midwest group of restoration specialist) on stream restoration and nongame habitat practices.
- Participated with the Winona – La Crescent Trout Unlimited Chapter on “An Evening with Trout”...this was for landowners to come out and see first hand what a stream restoration project was and to fish one-on-one with a TU Chapter member...great event!

Status as of March 2015: Both the fall bus tour and the Driftless Symposiums were excellent opportunities to distribute information, showcase, and talk about recently completed restoration projects. Project Manager has also done several presentations, newsletters and articles about restoration efforts in the Driftless Area.

Status as of September 2015:

- The Camp Creek project on the Robert Maust property was highlighted in WHKS Engineering newsletter. WHKS was the designer and provided over-site for the project.
- In April PM worked with Midwest Hunting and Fishing Magazine on an article about stream restoration in the Driftless Area for the online magazine.
- Basin Alliance for the Lower Mississippi River, made up of county, state and federal conservationist meet quarterly, PM meet with the group to discuss upcoming and ongoing projects.
- In August PM was part of a tour for Congressman Walz, the tour was held on Camp Creek (recently completed stream restoration project). Congressman Walz meets annually with sportsman groups and local conservation field offices over a potluck lunch.

- June 17th PM participated in the LCCMR tour, and hosted a tour stop on the recently completed project on Camp Creek. Camp Creek project received funding from the Environmental and Natural Resources Trust Fund, but PM also worked with the local township, US Fish and Wildlife Service and the Natural Resources Conservation Service to share project costs. PM handed out the Nongame Habitat Guide to each of the LCCMR members. The nongame Habitat Guide was partially funded through the ENRTF. The manual contains lots of information about non-game animals (frogs, turtles, birds, etc.) that utilize the riparian corridor in the Driftless Area and corresponding designs that make them eligible for Farm Bill dollars.
- The nongame habitat guide books for professionals doing stream restoration have been a huge success. All four Driftless States have projects with nongame habitat incorporated into their project. Utilizing funding from the ENRTF we printed an additional 50 hard copies to hand out to organizations in Minnesota. TU Project Manager had his expenses paid to travel and speak at the national Society for the Study of Amphibians in Kansas City (SSAR) and talk about the nongame habitat guide and its success. Copies of the nongame habitat guide were distributed to all of the LCCMR tour members on the June 17th LCCMR tour stop on Camp Creek.

Status as of March 2016:

- Project Manager prepared and delivered a presentation for Barr Engineering of Minnesota. The presentation on “including nongame habitat into stream restoration projects” was streamed on Barr Engineering’s system to other satellite offices. Engineering firms have been utilizing the “Nongame Wildlife Habitat Guide” to add additional habitat features into their stream restoration projects. The Nongame Wildlife Habitat Guide was revised and partially funded through our last grant with the Environmental and Natural Resources Fund. The guide has been widely accepted by county, state and federal employees and Trout Unlimited Chapters doing stream restoration projects. In fact, it was probably the primary reason that Trout Unlimited received the recent \$2.9 M Regional Conservation Partnership Program, RCPP grant from NRCS. Trout Unlimited applied for the RCPP national pool of funding that address the critical needs of nongame species...having the guide already developed made for a great proposal for these federal dollars. . (time to pursue additional grant funding was made possible through a grant from the US Fish and Wildlife Service)
- Trout Unlimited is an advisor to the Root River One Watershed One Plan committee, and attended several meeting during the winter to help develop a plan for the Root River Watershed. The plan is almost completed and the committee will be looking at opportunities to fund parts of the plan.
- Trout Unlimited organized a three day “Great Rivers Fly Fishing Expo” in Minneapolis. Over 3000 attendees participated in the three day event.
- Project Manager participated with a half hour webinar presentation on “including nongame habitat into stream restoration projects”. The webinar covered 28 states, with over 146 participants listening in. The Nongame Habitat Guide has been distributed not only throughout the Driftless Area, but nationally as well.

Status as of September 2016:

- In June we held a field day for conservationists in SE Minnesota on the S. Fork of the Root River project. This was an opportunity for conservationists to come out and see first-hand a stream restoration project in progress. Representatives from the US Fish and Wildlife Service, MN DNR Fisheries, Natural Resources Conservation Service, Trout Unlimited, the contractor and designing engineer were all on-hand to answer questions about the project.
- In April Trout Unlimited help sponsor, plan and speak at a regional workshop for “Road and Stream Crossings”, over 45 conservationists, county engineers and cooperating agencies attended the two day workshop.

- TU Project Manager gave a presentation at the Midwest Regional US Fish and Wildlife Private Lands Management meeting. The presentation was highlighting the stream restoration work completed in SE MN working with the Environmental and Natural Resources Trust Fund, Lessard Sams Outdoor Heritage Program, US Fish and Wildlife Service dollars, TU Chapter dollars/volunteers and NRCS Farm Bill dollars.

Final Report Summary: Over the course of four years we were able to exceed all of our proposed outcomes under this activity: Four Driftless Area symposiums with over 600 participants; three Stream Restoration Project Planning Workshops training over 180 volunteers; four in-the-field workshops involving over 60 contractors and local conservationists; 10 news releases; four bus tours of recently completed projects (over 200 participants); stream restoration project tour for LCCMR and another for Congressman Walz; presentations to Win-Cres, Twin Cities and Hiawatha Trout Unlimited Chapters; presentation on cold-water streams at Great Waters Fly Fishing Expo, Zumbro Watershed Partnership, Upper Midwest Stream Restoration symposium, BWSR Academy Training, DNR Roundtable discussions, and Midwest Regional USFWS Private Lands meeting. Project Manager also spoke to the Fisheries Graduates at St. Paul and Rushford students training for Minnesota Envirothon. Finally, TU organized five on-site workshops of active stream restoration projects for landowners, contractors and local conservation staff.

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	\$ Amount Proposed	\$ Amount Spent	Use of Other Funds
"Cash " Non-state			
National Fish & Wildlife Foundation	\$ 25,000	\$65,000	Funding for both game and nongame habitat
Federal NRCS Cooperative Conservation Partnership Initiative (Farm Bill)	\$ 300,000	\$150,812	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	\$42,000	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	\$57,000	Funding for equipment to shape banks, rock and lumber/trees to stabilize streambank, seeding, stream crossings, habitat practices, etc.
Landowner Contribution	\$ 25,000	\$36,555	Funding for equipment to shape banks, rock and lumber/trees to stabilize streambank, seeding, stream crossings, habitat practices, etc.

Outdoor Heritage Fund	\$ 250,000	\$230,000	Collaboration on projects to extend miles of work completed.
MN State Ag	\$0	\$46,700	Dept. of Agriculture for streambank Stabilization
Township	\$0	\$10,000	To stabilize streambanks.
Private Foundations	\$0	\$86,000	Staff and program support
Subtotal of Cash Funds	\$ 735,000	\$724,067	
"in-kind" support			
Donated Professional Services	\$ 1,000	\$1,800	Review of nongame habitat guide
Donated Professional Services	\$ 4,500	\$4,000	Students volunteering to conduct pre and post surveys of stream restoration projects
Donated Professional Services	\$ 6,075	\$16,000	Professionals donating time to present at workshops, field days, symposium etc.
Donated Professional Services	\$ 2,000	\$2,500	Winona State professor, donated time to over see surveys and students
Donated Professional Services	\$ 3,000	\$2,500	Licensed and professional staff with "job approval" for designing and overseeing stream restoration projects
Donated - Volunteers	\$ 4,500	\$5,500	Volunteers building habitat structures, seeding projects, etc.
Donated Professional Services	\$ 1,000	\$1,200	U.S. Fish and Wildlife Service help with workshops, symposium, and field days.
Donated Professional Services	\$ 5,000	\$6,500	Natural Resources Conservation Service donated time to projects, designs, surveys, meetings, workshops.
State			
Donated Professional Services	\$ 2,700	\$430	MN DNR Fisheries and Non-game Biologists donated time to projects, meetings, workshops, etc.
County Conservation Staff	\$ 8,500	\$9,500	Time to projects, meetings, workshops, etc.
Subtotal of in-kind support	\$ 38,275	\$49,930	

VII. PROJECT STRATEGY:

A. Project Partners:

Project Team/Partners - Names and agency/entity affiliation	Trust Fund
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	\$
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 serious 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 where 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 of 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, March 2014, September 2014, March 2015, September 2015, March 2016, September 2016. A final report and associated products will be submitted between September 2016 and December, 2016.

FINAL - 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: December 2016											
Date of Update: September, 2016											
PO 3-8100											
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	<i>Southeast Minnesota Showcase Projects</i>			<i>Promote locally-led broad-based partnership restoration projects</i>			<i>Survey, monitor & create educational materials for nongame species (frogs, turtles, snakes and birds).</i>				
Personnel (Wages and Benefits) Project Manager \$39,000 (.20 FTE \$13,000/yr); Employee Fringe Benefits \$10,000 (\$3,333/yr); responsible 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	\$ -
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	\$ 89,432.48	\$ 11,567.52		\$ -	\$ -	\$ 4,000.00	\$ 4,000.00	\$ -	\$ 105,000.00	\$ 11,567.52
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	\$ 76,070.09	\$ 3,929.91		\$ -	\$ -	\$ 2,000.00	\$ 874.00	\$ 1,126.00	\$ 82,000.00	\$ 5,055.91
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	\$ 3,396.96	\$ 103.04	\$ 3,500.00	\$ 103.04
Travel expenses in Minnesota Mileage in Minnosota to conduct trainings, outreach, education, project management of stream restoration projects. \$4,000	\$ 1,500.00	\$ 1,459.84	\$ 40.16	\$ 1,500.00	\$ 982.02	\$ 517.98	\$ 1,000.00	\$ 165.90	\$ 834.10	\$ 4,000.00	\$ 1,392.24
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	\$ 3,553.01	\$ 2,946.99	\$ -	\$ -	\$ -	\$ 6,500.00	\$ 2,946.99
COLUMN TOTAL	\$ 202,500.00	\$ 186,962.41	\$ 15,537.59	\$ 28,000.00	\$ 24,535.03	\$ 3,464.97	\$ 19,500.00	\$ 17,436.86	\$ 2,063.14	\$ 250,000.00	\$ 21,065.70

Bullard Creek 6,370'
Spring Creek 470'
Hay Creek 2,180'

Zumbro River 600'

Pine Creek 600
Rush Creek 860'
Trout Run 3,605'

Pine Creek 250'

Camp Creek 3,165'
S. Fork Root 1,800'
6,600'

© 2016 Google
Image Landsat / Copernicus

Google Earth

44°08'22.24" N - 92°02'45.15" W elev 1131 ft eye alt 125.60 mi



Rootwads placed in with bank stabilization on Spring Creek, Goodhue County. Rootwads provide additional habitat for invertebrates and trout.



Spring Creek – before removal of obstruction and stabilization of banks



Spring Creek after construction



Weir and Rootwad



Bankful Bench



Stream barb w/woody debris and cover rock in pool area



'Bear' the dog and downstream rootwads



Total Project.... Protecting infrastructure while improving in-stream habitat with rock and woody debris

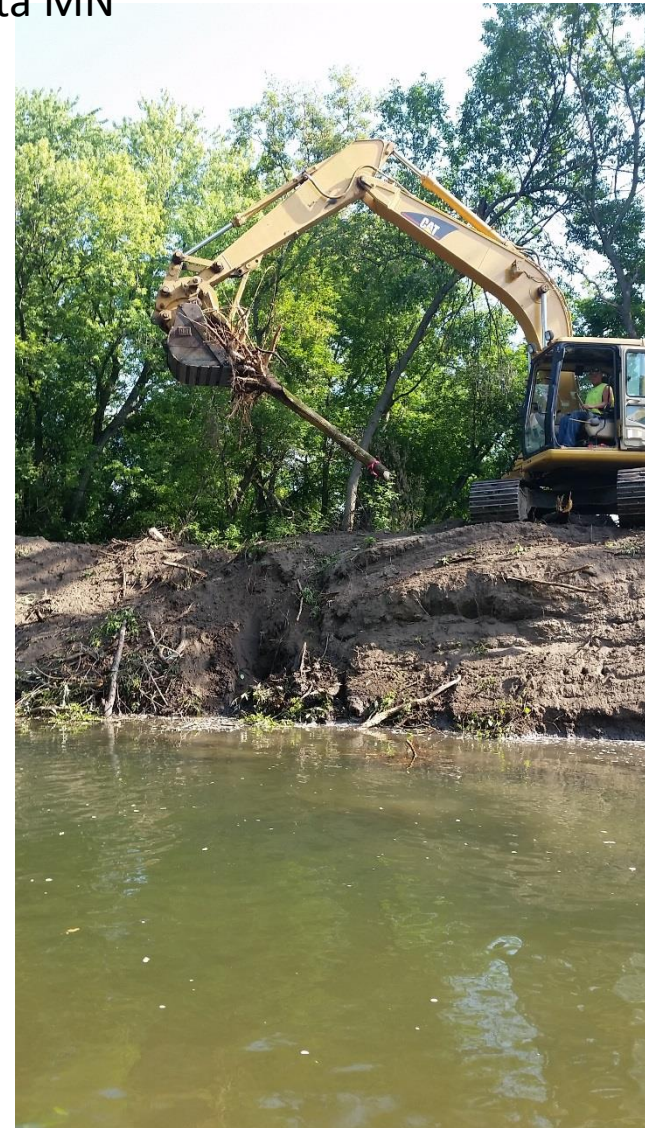
TU Summary 2016 Covered Bridge Park – Zumbrota MN



Understory and smaller trees removed by City Staff prior to contractor arriving. Note the flagged trees that were saved during the construction process or used as root balls.



Contractor arrived with 2 excavators to finish tree and debris removal. A large pile of trees and stumps are currently on site. The City is awaiting the Dakota Wood Grinding Company to arrive and haul the woodchips to St. Paul for energy generation.



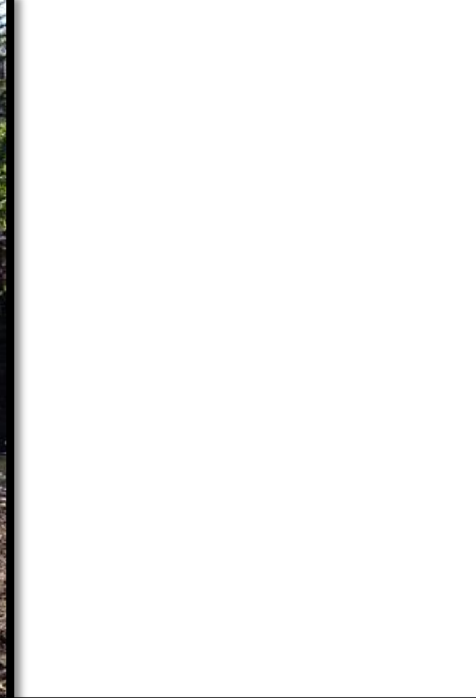
Installation of root ball near the historic dam abutment.



August 2016 Installation of rock riprap around historic dam abutment and begin to shape bankful bench (looking downstream)



September 22nd 2016. Watershed receives 6"+ of rain on top of already saturated soils. N.Fork Zumbro Floods from Kenyon to Mazeppa. Record levels in Wanamingo.



Seedbed Prep in Riparian Area





Goodhue SWCD crimper used to anchor straw mulch following cover crop seeding.
October 2016

2016 Summary

- Installed 3 rock streambarbs
- graded 600 ln/ft bankful bench
- installed 22 rootwads
- removed ~1.0 acre of boxelders & invasives adjacent to stream