

**2003 Project Abstract**

For the Period Ending June 30, 2006

**FINAL REPORT**

8/10/06

**TITLE:** Metro Wildlife Corridors- Hardwood Creek Restoration: Project Number 2.6 (Focus Area of Hardwood Creek/Rice Creek)

**Project Manager:** Steve Hobbs  
**Affiliation:** Rice Creek Watershed District  
**Mailing Address:** 4325 Pheasant Ridge Drive, Suite 611  
**City / State / Zip :** Blaine, MN 55449  
**Telephone Number:** (763) 398-3071  
**E-mail Address:** [shobbs@ricecreek.org](mailto:shobbs@ricecreek.org)  
**FAX Number:** (763) 398-3088  
**Web Page address:** [www.ricecreek.org](http://www.ricecreek.org)

**APPROPRIATION AMOUNT: \$ 800,000**

Overall Project Outcome and Results

The Hardwood Creek riparian system in Washington and Anoka Counties is fraught with challenges. It must serve as a Wildlife Management Area (WMA) and a ditch at its headwaters, a ditch system and another WMA in its midsection, and then a natural stream that eventually empties into Peltier Lake, a lake listed as an impaired water while Hardwood Creek, itself, is also listed as an impaired stream. Balancing these interests while negotiating the politically charged atmosphere that envelopes every action along Hardwood Creek is difficult, but rewarding.

The original goal of the project was to restore 600 acres of wetland over an area of approximately 6 miles. Upon further study via the Total Maximum Daily Load (TMDL) project for Hardwood Creek, it was determined that the ecological goals that served as the basis for assuming the need for restoring such a large area could more effectively achieved by targeting specific areas of need. To that end, the RCWD restored habitat and stream hydrology over an area of 1.7 miles encompassing 81 acres. This effort will:

- Decrease the velocity in the stream during high flows;
- Restore and enhance the benthic habitat in the stream;
- Provide for enhanced filtering of pollutants;
- Increase vegetative diversity in the riparian corridor;
- Eliminate erosion of unstable stream banks.

The entire Hardwood Creek system will benefit from this focused restoration effort and the RCWD will use these sites as the foundation for conservation activities in the entire Hardwood Creek corridor. We feel confident that Hardwood Creek is now in a position to begin the delisting process from its impaired status as a result of our work with the LCMR grant.

Project Results Use and Dissemination

The results will be posted by the RCWD ([www.ricecreek.org](http://www.ricecreek.org)) and future RCWD seminars and outreach efforts will feature the Hardwood Creek project.

8/10/06

**LCMR Final Work Program Report  
Amendment Requested****Date of Report:** June 30, 2006**Date of Next Status Report:** June, 2006**Date of Work program Approval:****Project Completion Date:** June 30, 2006**I. PROJECT TITLE:** Metro Wildlife Corridors- Hardwood Creek Restoration:  
Project Number 2.6 (Focus Area of Hardwood Creek/Rice Creek)

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<b>Total Biennial LCMR Project Budget:</b>	<b>LCMR Appropriation:</b>	<b>\$ 800,000</b>
	<b>Minus Amount Spent:</b>	<b>\$ 518,629</b>
	<b>Balance:</b>	<b>\$ 281,371</b>

**Legal Citation:** ML 2003, [Chap. 128], Art. 1, Sec. [ 9 ], Subd. 5b.

**Appropriation Language:** (b) Metropolitan Area Wildlife Corridors \$2,425,000 the first year and \$2,425,000 the second year are from the trust fund to the commissioner of natural resources. \$3,550,000 of this appropriation is for acceleration of agency programs and cooperative agreements with the Trust for Public Land, Ducks Unlimited, Inc., Friends of the Mississippi River, Great River Greening, Minnesota Land Trust, and Minnesota Valley National Wildlife Refuge Trust, Inc., for the purposes of planning, improving, and protecting important natural areas in the metropolitan region, as defined by Minnesota Statutes, section 473.121, subdivision 2, through grants, contracted services, conservation easements, and fee acquisition. \$500,000 of this appropriation is for an agreement with the city of Ramsey for the Trott Brook Corridor acquisition. \$800,000 of this appropriation is for an agreement with the Rice Creek Watershed District for Hardwood Creek acquisition and restoration. Land acquired with this appropriation must be sufficiently improved to meet at least minimum management standards as determined by the commissioner of natural resources. As part of the required work program, criteria and priorities for planned acquisition and restoration activities must



be submitted to the legislative commission on Minnesota resources for review and approval before expenditure. Expenditures are limited to the identified project areas as defined in the work program. This appropriation may not be used for the purchase of residential structures unless expressly approved in the work program. Any land acquired in fee title by the commissioner of natural resources with money from this appropriation must be designated: (1) as an outdoor recreation unit under Minnesota Statutes, section 86A.07; or (2) as provided in Minnesota Statutes, sections 89.018, subdivision 2, paragraph (a); 97A.101; 97A.125; 97C.001; and 97C.011. The commissioner may so designate any lands acquired in less than fee title. This appropriation is available until June 30, 2006, at which time the project must be completed and final products delivered, unless an earlier date is specified in the work program.

## **II. FINAL PROJECT SUMMARY:**

It is well known that this stream system is challenged in obtaining its ecological restoration goals. It must serve as a Wildlife Management Area (WMA) and a ditch at its headwaters, a ditch system and another WMA in its midsection, and then a natural stream that eventually empties into Peltier Lake, a lake listed as an impaired water while Hardwood Creek, itself, is also listed as an impaired stream. Balancing these interests while negotiating the politically charged atmosphere that envelopes every action along Hardwood Creek has not been easy.

However, the Hardwood Creek LCMR project has succeeded in protecting the most important sites targeting by the RCWD in our efforts to improve habitat and water quality. Subsequent to receiving LCMR funding, the RCWD received funding for Hardwood Creek from MPCA to establish the first Total Maximum Daily Load (TMDL) based upon biological impairment in the state. Through that process, the RCWD was able to more efficiently target those specific sites that were causing the impairment to the biological integrity of the riparian system. To that end, eight sites over a two-mile section of stream were chosen that would serve to:

- Decrease the velocity in the stream during high flows;
- Restore and enhance the benthic habitat in the stream;
- Provide for enhanced filtering of pollutants;
- Increase vegetative diversity in the riparian corridor;
- Eliminate erosion of unstable stream banks.

Each site had specific restoration needs and was designed to fulfill a specific purpose in the overall restoration of the Hardwood Creek system. Sites strategies included in-stream meandering and out-of-stream habitat restoration. These sites now serve to restore the hydrologic function of both the ditch and stream reaches of Hardwood Creek while also creating the foundation for future stream restoration activities by the RCWD.

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

##### **Result 1: Acquisition of necessary interests in real estate**

###### **Description:**

Rice Creek Watershed District personnel will negotiate the acquisition of fee interest or conservation easements in the land necessary to implement and sustain the restoration of Hardwood Creek over an area of approximately 650 acres and approximately 6 miles of riparian corridor.

<b>Summary Budget Information for Result 1:</b>	<b>LCMR Budget</b>	<b>\$200,000</b>
	<b>Balance</b>	<b>\$200,000</b>
	<b>RCWD Funds</b>	<b>\$208,000</b>
	<b>Balance</b>	<b>\$191,752</b>

**Completion Date:** June, 2006

###### **Final Report Summary:**

The RCWD was able to negotiate the acquisition of perpetual conservation easements over the necessary 51 acres of land without needing to pay the landowners. During the negotiations with the various parties, it was explained to them that our restoration activities would enhance the value of their land and they agreed to grant the RCWD easements over the areas where we needed them to ensure lasting protection of our restoration efforts.

The RCWD is pleased that we were able to obtain this level of permanent protection and we appreciate the willingness of the landowners to work as partners with the RCWD in this endeavor.

##### **Result 2: Restoration of Hardwood Creek ecological function**

**Description:** The ultimate goal of this project is to restore what was once Hardwood Creek to its original ecological and hydrologic capacity. To accomplish this, it is our intention to restore the floodplain wetlands adjacent to the Creek by reconnecting them to the main channel of the Creek and by restoring the native vegetation. This will include activities such as reconfiguring the Creek in the areas that have been historically ditched, eliminating invasive plant species, planting native grasses and trees and restoring the buffer areas. Contract funds will be used to hire consultants and vendors to both design and implement the restoration activities. It is anticipated that Emmons & Olivier Resources will be the primary contractor for this project. Through the use of the most modern biore restoration techniques available, we

intend to restore the currently degraded ecological function of the wetland and riparian habitat. It is estimated that 600 acres of wetland will be restored. The RCWD will only use funds for ecological restorative work that is separate and apart from the repair of the ditch in its original configuration.

Amendment request: The RCWD request an amendment to its' budget. Contractors were used to stabilize the stream bed and stream banks in all of the lower Hardwood Creek restoration areas. The contractors supplied any necessary equipment for the work. Since the contractors supplied all necessary tools and equipment for completing the projects, the RCWD is requesting a budget amendment. The District is asking the budget item "Contracts Professional/technical" be increased by \$32,336.82; budget item "Tools and equipment" be reduced to zero; and budget item "Other Land improvement" be reduced by \$2,336.82.

<b>Summary Budget Information for Result 2:</b>	<b>LCMR Budget</b>	<b>\$600,000</b>
	<b>Balance</b>	<b>\$ 81,371</b>
	<b>Partner Funds</b>	<b>\$272,000</b>
	<b>Balance</b>	<b>\$ 70,000</b>

**Completion Date:** June, 2006

### **Final Report Summary:**

The TMDL study was an important facet in the evolution and ultimate success of this program goal. The assumption at the beginning was that large areas of wetland would need to be restored to improve the water quality and habitat. Upon further investigation, we found that many of the wetland complexes were relatively healthy and that the real issue to be addressed was very localized areas of degraded streambed habitat along with erosion and stream velocity issues. This led us to focus on creating some ponding areas outside the main channel in the upstream areas while then focusing on in-channel restoration on select sites in the downstream reaches. This strategy allowed us to concentrate our resources in the areas of most need thereby affecting the greatest amount of stream area for a given amount of effort. Our in-stream restoration over nearly two-miles serves the entire stream system as well as improving the water quality entering Peltier Lake.

At the time of the LCMR application, there was no TMDL program. We were eager to incorporate the TMDL study into our LCMR efforts as soon as possible knowing that it would refine our goals. We were happy to accomplish both daunting tasks within the required timeframe. It is our intention to now petition Hardwood Creek for removal from its impaired status in what may constitute the first delisting of impaired



water in the state. This would not have been possible without the support (and patience) of the LCMR.

**V. TOTAL LCMR PROJECT BUDGET:** *For the 2003 LCMR project (just LCMR dollars), provide a budget breakdown as follows for the project period only July 2003 - June 2005 or as specified:*

**All Results: Personnel: \$ 40,000**  
**All Results: Equipment: \$ 0**  
**All Results: Restoration: \$ 560,000**  
**All Results: Acquisition: \$ 200,000**  
**All Results: Other: \$** *(List general categories such as travel expenses. Provide detail in Attachment A)*

**TOTAL LCMR PROJECT BUDGET: \$ 800,000**

**Explanation of Capital Expenditures Greater Than \$3,500:** None needed

**VI. PAST, PRESENT AND FUTURE SPENDING:**

**A. Past Spending:**

Rice Creek Watershed District:	\$200,000 (2003 research)
Hugo, Forest Lake and Washington County	\$530,000 (2003 culvert repair)

**B. Con-Current Spending:**

Rice Creek Watershed District	\$202,000 (2003-2005 with MPCA grant of \$202,000)
	\$48,000 (in-kind Personnel, Rice Creek Administrator)
	\$160,000 (Land rights acquisition)
	\$70,000 (land improvement, plants)
	\$726,000(2003-2004) by RCWD on ditch design and restoration issues

**C. Required Match (if applicable):** Not applicable

**D. Future Spending:**

Rice Creek Watershed District

\$20,000/year in maintenance costs

## **VII. Project Partners:**

**A. Partners Receiving LCMR Funds:** Minnesota Pollution Control Agency and the Rice Creek Watershed District anticipates using Emmons and Olivier Resources as the primary engineering firm for this restoration

### **B. Project Cooperators:**

Board of Water and Soil Resources  
City of Forest Lake  
City of Hugo  
Department of Natural Resources  
Friends of the Mississippi  
U.S. Army Corps of Engineers  
Washington County

**VIII. DISSEMINATION:** Numerous workshops and public meetings took place over the course of this project. Results of this project have and will be posted on the Rice Creek Watershed District website as well as periodical articles in the local Hugo newspaper.

**IX. LOCATION:** Project will take place within the cities of Hugo and Forest Lake with the majority of the work in the City of Hugo. It is an integral part of the Hardwood Creek/Rice Creek Focus Area (Area #3).

**X. REPORTING REQUIREMENTS:** Periodic work program progress reports will be submitted not later than, February 2004, November 2004, February 2005, and June 2005. A final work program report and associated products will be submitted by August 15, 2006.

**XI. RESEARCH PROJECTS:** None funded

Attachment A: Budget Detail for 2003 LCMR Proposal Budget - LCMR Grant Funds (revised 6-30-06) Proposed BUDGET AMENDMENT

Proposal Title: *Hardwood Creek Restoration (5b)*

Date: *February 17, 2006*

Project Manager Name: *Steve Hobbs, Rice Creek Watershed District*

LCMR Requested Dollars: \$ 800,000

Budget Item	Result 1: Acquisition of necessary real estate interests LCMR Budget	Previous LCMR Amount Spent	Current expensed LCMR amount	LCMR Balance	Result 2: Restoration of Hardwood Creek ecological function LCMR Budget	Proposed Budget	Previous LCMR Amount Spent	Current expensed LCMR amount	LCMR Balance	Revised Proposed Budget LCMR Balance	TOTAL SPENT FOR BUDGET ITEM	TOTAL REMAINING
PERSONNEL: Staff Expenses, Wages; salaries & benefits – New Staff District Technician					40000.00	40000.00	4185.00	5467.50	30347.50	30347.50	9652.50	30347.50
Contracts Professional/technical					460000.00	492336.82	117578.25	374758.57	-32336.82	0.00	492336.82	0.00
Tools and equipment (Rental of earthmoving equipment)					30000.00	0.00	0.00		30000.00	0.00	0.00	0.00
Land acquisition	170000.00	0.00		170000.00					0.00	0.00	0.00	170000.00
Legal Fees (for acquisition)	30000.00	0.00		30000.00					0.00	0.00	0.00	30000.00
Other land improvement (plants)					70000.00	67663.18	3040.00	13599.77	53360.23	51023.41	16639.77	51023.41
COLUMN TOTAL	200000.00	0.00	0.00	200000.00	600000.00	600000.00	124803.25	393825.84	81370.91	81370.91	518629.09	281370.91



**Attachment A: Budget Detail for 2003 LCMR Proposal Budget - Partner Funds (revised 6-30-06)**

**Partners include: Rice Creek Watershed District and Minnesota Pollution Control Agency**

**Proposal Title: *Hardwood Creek Restoration (5b)***

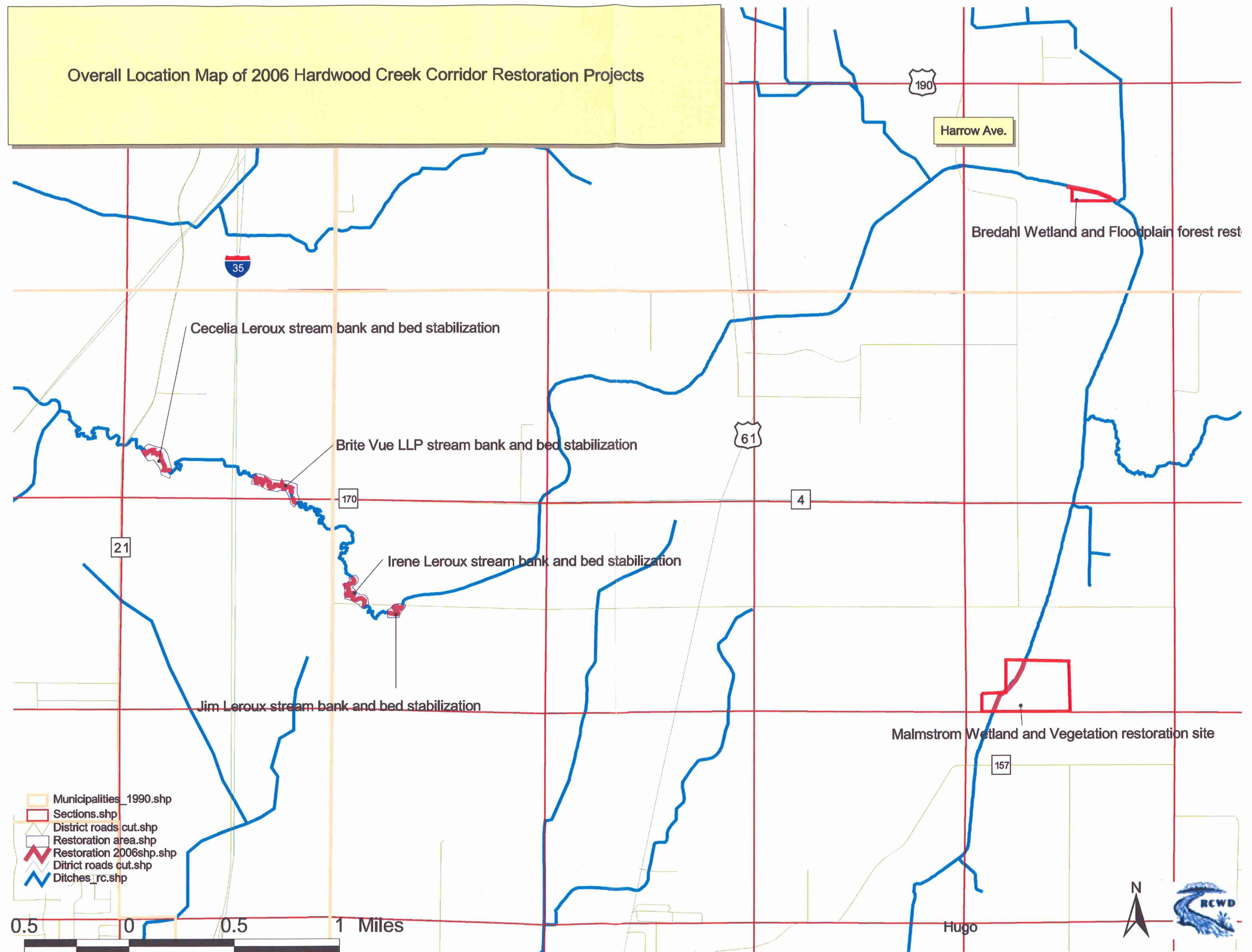
**Date: February 7, 2006**

**Project Manager Name: *Steve Hobbs, Rice Creek Watershed District***

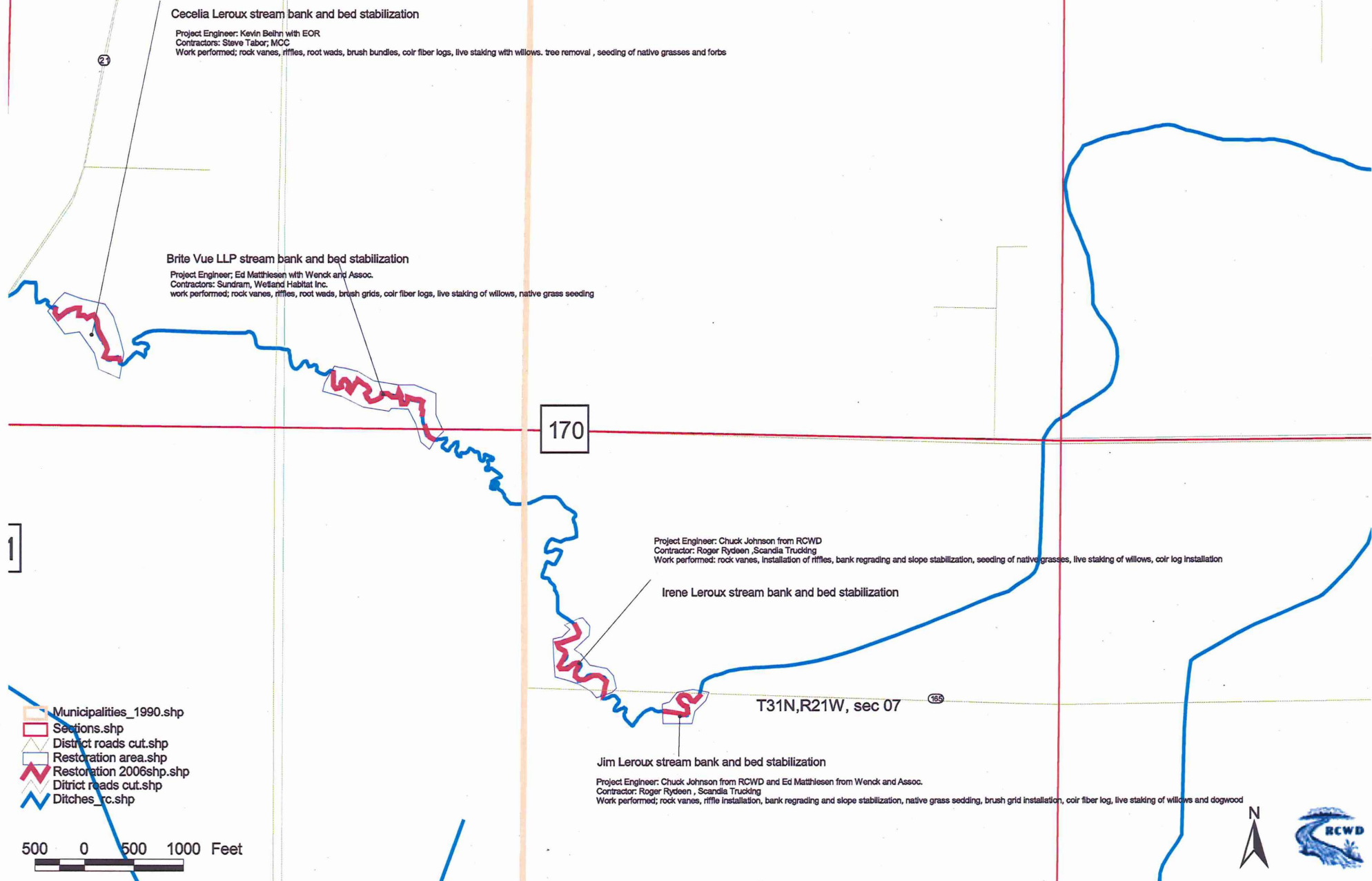
**LCMR Requested Dollars: \$ 800,000**

Budget Item	Result 1: Acquisition of necessary real estate interests	Partner Funds Spent	Partner Balance	Result 2: Restoration of Hardwood Creek ecological function	Partner Funds Spent	Partner Balance	TOTAL SPENT FOR BUDGET ITEM	TOTAL REMAINING
	Partner Budget			Partner Budget				
PERSONNEL: Staff Expenses, Wages, salaries & benefits – Rice Creek Administrator	48,000	16,248	31,752				16,248	31,752
TMDL development with grant from MPCA				202,000	202,000	0	202,000	0
Land rights acquisition (less than fee)	160,000	0	160,000				0	160,000
Other land improvement (plants)				70,000	0	70,000	0	70,000
COLUMN TOTAL	\$208,000	\$16,248	191,752	\$272,000	\$202,000	70,000	\$218,248	\$261,752

# Overall Location Map of 2006 Hardwood Creek Corridor Restoration Projects



# Location and Description map of work performed on Hardwood Creek in spring of 2006





# Location and Description map of work performed on Hardwood Creek in spring of 2006

