Environment and Natural Resources Trust Fund

2023 Request for Proposal

General Information

Proposal ID: 2023-129

Proposal Title: Brightsdale Dam Channel Restoration

Project Manager Information

Name: Anne Koliha

Organization: Fillmore County Soil and Water Conservation District

Office Telephone: (507) 765-3878

Email: anne.koliha@fillmoreswcd.org

Project Basic Information

Project Summary: Restore the channel of the North Branch Root River at the site of a former hydro power dam that failed and was removed in 2003.

Funds Requested: $1,020,000

Proposed Project Completion: July 31, 2025

LCCMR Funding Category: Water Resources (B)

Project Location

What is the best scale for describing where your work will take place?

Region(s): SE

What is the best scale to describe the area impacted by your work?

Region(s): SE

When will the work impact occur?

During the Project and In the Future

Narrative

Describe the opportunity or problem your proposal seeks to address. Include any relevant background information.

The hydro power facility was constructed by the Root River Power and Light Company in 1913-14. Two dams were constructed at the site. The upper dam was 164 ft-wide and diverted flow into a side channel. A dam on the side channel was 40 ft-wide and 12 ft-high. This dam diverted water into a 1,750 ft-long tunnel cut through the bluff (Figure 1). The tunnel remains today serving as a bat sanctuary. The hydro power dam failed in the early 1990's and the dam was removed in 2003. However, the channel was not stabilized after dam removal and this has caused significant channel downcutting and bank erosion. A headcut has migrated 4,000 ft upstream and has caused sedimentation and habitat loss. An estimated 540 tons of sediment is being eroded annually from a 2,800 ft-long bank section downstream of the former dam. This erosion is occurring because the channel is forced into an extreme meander due to lasting effects of the dam. This reach of the North Branch Root River is listed as impaired for sediment and macroinvertebrates. This project will help address these impairments while improving aquatic habitat and recreational opportunities.

What is your proposed solution to the problem or opportunity discussed above? Introduce us to the work you are seeking funding to do. You will be asked to expand on this proposed solution in Activities & Milestones.

The river channel at the project location has been unstable since removal of the dam. We will excavate a new section of channel to restore the proper meander pattern. Existing eroded banks will be sloped and stabilized with toe-wood and sod mats. Two grade control riffles will be constructed to maintain the proper channel gradient through the project reach. A section of the current channel will no longer have flow and will be filled-in providing the opportunity to restore some of the native prairie that has been lost to erosion. Aquatic habitat will be improved by the addition of cover from toe wood and root wads as well as a reduction in sedimentation which will improve macroinvertebrate and fish spawning habitat.

What are the specific project outcomes as they relate to the public purpose of protection, conservation, preservation, and enhancement of the state's natural resources?

The channel will be placed in a stable form that has not occurred since dam construction in the early 1900's. Aquatic habitat for fish, macroinvertebrates, and freshwater mussels will be improved. Lake Sturgeon and the Ellipse mussel, both state listed species, will benefit from reduced sedimentation. The project would improve angling opportunities for Smallmouth Bass, Walleye, and Brown Trout as well as nongame species. The history of the hydropower facility presents an intriguing story about the long lasting effects of dams. The site will be used for educational purposes for the public and Eagle Bluff Environmental Center.

Activities and Milestones

Activity 1: Project administration, design, bid, and award

Activity Budget: $155,200

Activity Description:
Develop an RFP for hiring a consulting engineer to develop a construction plan set, identify permit requirements, and develop bidding materials. The bid packet will be advertised, a pre-bid meeting will be held, and the construction award will be granted to a contractor. Outcomes will be a project plan set and the hiring of an engineer and construction contractor.

Activity Milestones:

Description	Completion Date
Submit a RFP for hiring a consulting engineer	August 31, 2023
Hire a consultant	October 31, 2023
Develop an engineered plan set to be used for contractor bidding	December 31, 2023
Contractor hiring and onboarding	March 31, 2024
Permitting complicance completed	April 30, 2024

Activity 2: Project construction

Activity Budget: $864,800

Activity Description:
Construct the project according to design plans. The project will require tree clearing which will provide rootwads for bank stabilization. A new channel and floodplain will be excavated. The present channel will be disconnected from flow and filled. Eroding banks will be sloped and toewood will be installed for stabilization. Rip-rap will be used to create a boulder toe and placed in the middle of constructed riffles. Two riffles will be constructed using boulders to create cross vanes. The riffles will stabilize the channel slope and prevent headcutting. Extensive erosion control measures will be used including silt fence, straw logs and mulch, and erosion control blanket. The site will be seeded with a variety of mixes depending upon the location. Live stake willows will also be installed to further protect the river banks from erosion

Activity Milestones:

Description	Completion Date
Site preparation	May 31, 2024
Construction completion	December 31, 2024
Final grading and seeding	June 30, 2025
Complete project summary report and final submittal	June 30, 2025

Project Partners and Collaborators

Name	Organization	Role	Receiving Funds
Jeff Weiss	Minnesota Department of Natural Resources	Project coordination and technical advise	No
Colleen Foehrenbacher	Eagle Bluff Environmental Learning Center	Developing educational materials and programming	No
Brian Provost	Private landowner	Construction access and prairie restoration	No

Long-Term Implementation and Funding

Describe how the results will be implemented and how any ongoing effort will be funded. If not already addressed as part of the project, how will findings, results, and products developed be implemented after project completion? If additional work is needed, how will this work be funded?

The project will be used for educational purposes for the public and for students attending Eagle Bluff ELC. Permanent channel monitoring cross-sections will be established and DNR staff will monitor changes to the channel over time. Established MPCA water quality and biological monitoring sites will be used to evaluate progress towards achieving water quality goals for the North Branch Root River. Monitoring results will be used to inform the implementation of future projects on larger rivers in southeast Minnesota. All monitoring work will be funded by DNR and MPCA appropriations and no additional funding is needed for monitoring.

Project Manager and Organization Qualifications

Project Manager Name: Anne Koliha

Job Title: District Administrator

Provide description of the project manager's qualifications to manage the proposed project.

Anne Koliha has worked for the Fillmore SWCD for 20 years and has experience in handling grants and working with partner agencies. She began her career with SWCD as an Engineer Technician and moved up to the District Administrator role. Over the years Koliha has worked with numerous grants with BWSR, MPCA, MDA, DNR, and NRCS and is very familiar with the grant report processes each agency requires. During the time Koliha was an Engineer Technician she worked with Engineers/Consulting Firms on project plans and then worked with contractors to get the work completed and this continues as necessary as the District Administrator in leading staff with projects that go through the SWCD. Koliha has experience working with partner agencies as necessary to get work completed and to get proper permits for work to be completed and manage project budgets.

Organization: Fillmore County Soil and Water Conservation District

Organization Description:

Fillmore SWCD is a local unit of government that manages and directs natural resources management programs at the local level. The District works both in urban and rural setting with landowners and other units of government to carry out a program for the conservation, use, and development of soil, water and related resources. Fillmore SWCD provides technical assistance and financial assistance for conservation that protect the water quality and soil health of Minnesota's natural resources.

Budget Summary

Category / Name	Subcategory or Type	Description	Purpose	Gen. Ineligible	% Benefits	# FTE	Classified Staff?	$ Amount
Personnel								
SWCD Administrator		Grant administration and fiscal management			30%	320		$17,600
							Sub Total	**$17,600**
Contracts and Services								
TBD	Professional or Technical Service Contract	The consulting engineering company will be responsible for developing engineered project plans and hiring a construction contractor. They will also be responsible for permit compliance and construction oversight.				-		$137,000
TBD	Professional or Technical Service Contract	The construction contractor will be responsible for constructing the project according to engineered plans and in accordance with permitting requirements. They will also be responsible for procurement of construction materials.				-		$677,975
							Sub Total	**$814,975**
Equipment, Tools, and Supplies								
	Tools and Supplies	Class V rip-rap	Riffle construction					$33,000
	Tools and Supplies	Boulders	Cross vanes in riffles					$72,000
	Tools and Supplies	Straw sediment control logs	Erosion control and prevention					$8,000
	Tools and Supplies	Seed, MN State Mixture 32-241 (Native Construction)	Soil stabilization					$725
	Tools and Supplies	Seed, MN State Mixture 34-261 (Riparian South and West) + cover crop	Soil stabilization					$12,960
	Tools and Supplies	Seed, MN State Mixture35-641 (Mesic prairie) + cover crop	Soil stabilization and prairie restoration					$8,640
	Tools and Supplies	Straw mulch and disc anchoring	Erosion control					$500

	Tools and Supplies	Erosion control blanket (Geocoir/DeKoWe 700)	Erosion control					$11,500
	Tools and Supplies	Straw erosion control blanket	Erosion control					$30,000
	Tools and Supplies	Bare root shrubs	Soil and bank stabilization					$8,000
	Tools and Supplies	Live stake willows	Soil and bank stabilization					$1,200
	Tools and Supplies	Silt fence, heavy duty	Erosion control					$900
							Sub Total	**$187,425**
Capital Expenditures								
							Sub Total	**-**
Acquisitions and Stewardship								
							Sub Total	**-**
Travel In Minnesota								
							Sub Total	**-**
Travel Outside Minnesota								
							Sub Total	**-**
Printing and Publication								
							Sub Total	**-**
Other Expenses								
							Sub Total	**-**
							Grand Total	**$1,020,000**

Classified Staff or Generally Ineligible Expenses

Category/Name	Subcategory or Type	Description	Justification Ineligible Expense or Classified Staff Request

Non ENRTF Funds

Category	Specific Source	Use	Status	Amount
State				
In-Kind	Clean Water Fund	MNDNR clean water program staff will provide in-kind technical services and permitting and compliance support. MNDNR staff will conduct long-term project monitoring.	Secured	$42,669
			State Sub Total	**$42,669**
Non-State				
			Non State Sub Total	**-**
			Funds Total	**$42,669**

Attachments

Required Attachments

Visual Component

File: 13656d05-104.pdf

Alternate Text for Visual Component

Image of the conceptual design of the remeandered river channel, constructed riffles, and bank stabilization locations. The portion of the existing channel that will be filled and restored to native prairie is also shown on the image....

Board Resolution or Letter

Title	File
SWCD Board Authorization	e0ba9f82-37e.pdf

Optional Attachments

Support Letter or Other

Title	File
MNDNR Letter of Support	c50004eb-d2b.pdf
Project Proposal	e3169fe4-f1f.pdf
Friends of the Root River-Letter of Support	5f38cc1a-30a.pdf
TNC Letter of Support	af71a995-a76.pdf

Administrative Use

Does your project include restoration or acquisition of land rights?

No

Does your project have potential for royalties, copyrights, patents, or sale of products and assets?

No

Do you understand and acknowledge IP and revenue-return and sharing requirements in 116P.10?

N/A

Do you wish to request reinvestment of any revenues into your project instead of returning revenue to the ENRTF?

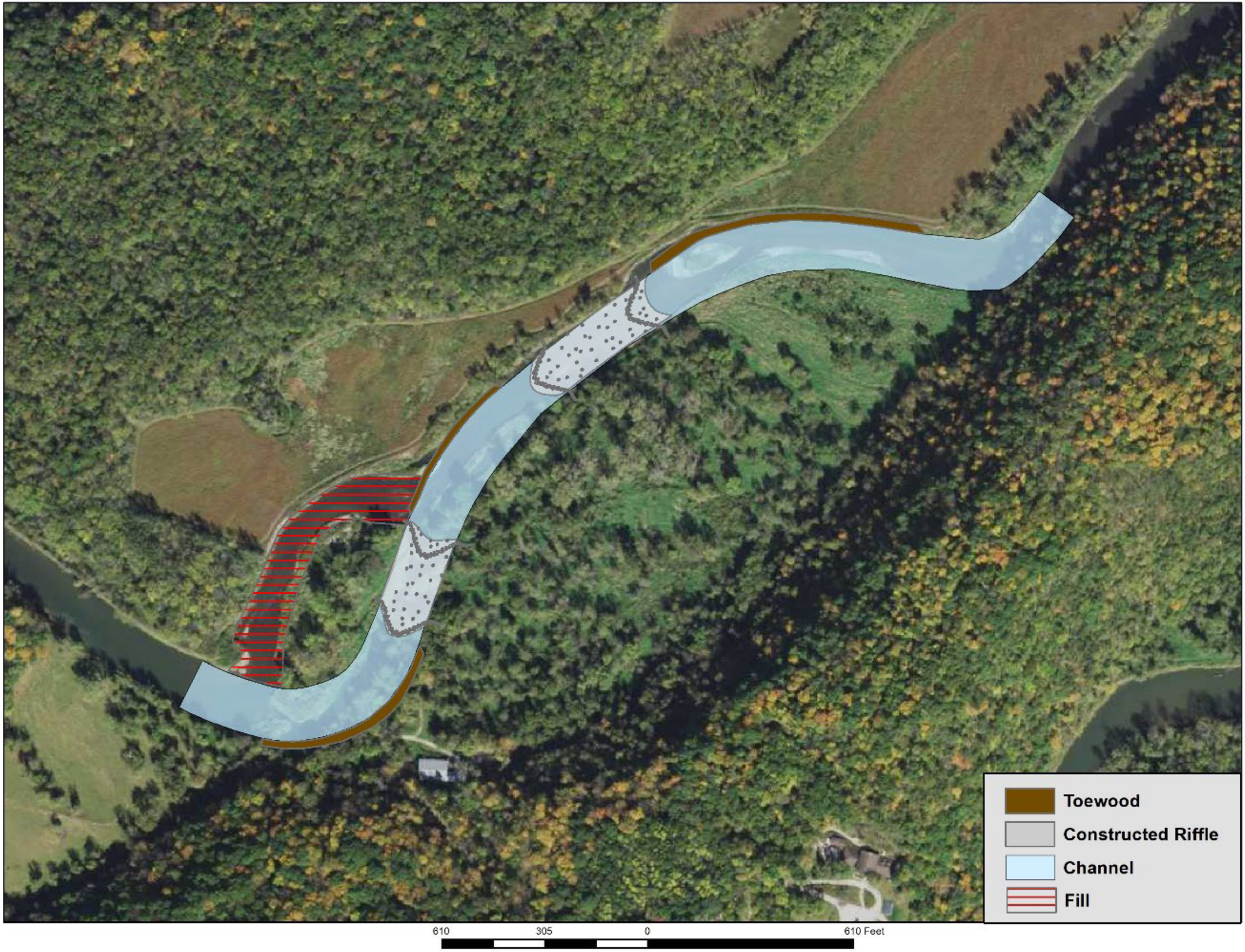
N/A

Does your project include original, hypothesis-driven research?

No

Does the organization have a fiscal agent for this project?

No


Toewood
Constructed Riffle
Channel
Fill
610
305
0
610 Feet