



# Environment and Natural Resources Trust Fund

2027 Request for Proposal

## General Information

**Proposal ID:** 2027-286

**Proposal Title:** Northfield Ames Mill Dam Removal

## Project Manager Information

**Name:** David Bennett

**Organization:** City of Northfield

**Office Telephone:** (507) 645-3006

**Email:** david.bennett@northfieldmn.gov

## Project Basic Information

**Project Summary:** Project includes pre-design/design for removal of the Ames Mill Dam and installation of rock rapids; restoring aquatic organism passage, recreation, and safety on the Cannon River in downtown Northfield.

**ENRTF Funds Requested:** \$800,000

**Proposed Project Completion:** July 31, 2030

**LCCMR Funding Category:** Water (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 existing Ames Mill Dam is a landmark in the community and a popular feature in the middle of historic downtown Northfield, located between Ames Park on the west bank and Bridge Square Park on the east bank. The original structure was built in 1855 by John North, founder of Northfield. The original dam was replaced with a timber dam in 1884 and, after a series of dam breaks, the Campbell Milling Company constructed the existing concrete dam in 1918.

The removal of the dam is now being considered for the following safety, recreational, and ecological benefits:

To improve public safety by removing the hydraulic roller ("drowning machine") created by flow over the existing low-head dam structure.

To allow for fish and aquatic organism passage between areas upstream and downstream of the dam, improving the ecology of the Cannon River.

To integrate the dam site with planned riverfront park improvements.

To allow for broad-based public recreation in, on, and along the river in downtown Northfield.

### **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.**

In 2023, the City of Northfield commissioned Barr Engineering to complete a dam replacement feasibility study to identify and evaluate viable solutions to the problems listed in the above section. The study identified 4 options: 1. maintaining the dam structure as is, 2. removing the dam and replacing it with a 250 ft long rock rapids installation, 3. removing the dam and replacing it with a 550 ft long rock rapids installation, or 4. replacing all but a portion of the dam with a 550 ft long rock rapids installation. In November 2023, after stakeholder and public input was received on the proposed options, Northfield City Council passed a resolution adopting option 3.

The removal of the dam and installation of the 550 ft long rock rapids will create new recreational opportunities for kayaking, canoeing, and swimming in downtown Northfield through this reach of the Cannon River that were not possible with the dam in place. It will also provide aquatic organism passage and restoration of natural stream processes that will benefit the entire Cannon River watershed. This application advances the key next steps in engineering, including pre-design geotechnical study, detailed surveying, vibration monitoring, and final construction plan design.

### **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 Ames Mill Dam Removal and Rock Rapids Installation Project will expand recreational activities by removing the safety risks associated with the existing low head dam and restore fish passage, reconnecting native species to vital habitats and enhancing aquatic organism health and biodiversity. Additionally, the project design will seek to maintain water surface elevation at the beginning of the rock rapids as close to the dam's existing crest elevation as possible. This will result in no rise for the 100-year water surface elevation, avoid groundwater drawdown and surrounding soil subsidence, and mitigate impacts to adjacent structures.

## Activities and Milestones

### Activity 1: Design Elements

**Activity Budget:** \$800,000

**Activity Description:**

The design phase will advance the project through final engineering, geotechnical analysis, and project approvals. Engineers will refine project plans, ensuring regulatory compliance, structural integrity, and environmental sustainability.

The geotechnical and hydrogeologic investigation from Activity 1 will be used to assess soil and foundation conditions and guide construction methods. Findings will support risk mitigation, cost management, and long-term stability of the dam removal and rock rapids construction.

By the end of this phase, the project will have completed construction-ready designs, final regulatory approvals, and a clear implementation strategy, setting the stage for the construction process.

**Activity Milestones:**

Description	Approximate Completion Date
Completion of Final Design	July 31, 2028
Permitting and Other Agency Review	July 31, 2029
Advertisement for Bids	August 31, 2029

## Project Partners and Collaborators

Name	Organization	Role	Receiving Funds
Joe J. Waln	Barr Engineering Co.	Engineering consultant for the Ames Mill Dam Removal Feasibility Study and future project design. Barr has completed the feasibility study for the dam replacement and provided engineer's opinion of probable costs.	No
MOM Brands Company	Post Consumer Brands, LLC	Current owner of the Ames Mill Dam.	No
Jason Boyle	Minnesota DNR	Jason is a Dam Safety Engineer with the MN DNR and has provided regulatory guidance as the city moves forward with this project.	No
Bruce Jacobson	Landscape Architect LLC	Consultant contracted with the City of Northfield to organize work group meetings between project partners, develop project timelines, provide guidance on ownership/title negotiations, regulatory reviews and approval criteria, collaboration with SHPO, HPC, Wild and Scenic River designation, etc.	No
Jennifer Tonko	Clean River Partners	Clean River Partners is a local nonprofit group dedicated to protecting and enhancing the lands and waters of the Cannon River Watershed. Their role in this project is to connect the city with other potential project partners in the Cannon River Watershed.	No
Chris Hommerding	106 Group	106 Group's role in this project is to provide consultant services for compliance with Section 106 of the National Historic Preservation Act of 1966, as well as any applicable state mandates governing archaeological and architectural history resources, including the Minnesota Historic Sites Act.	No

## Dissemination

**Describe your plans for dissemination, presentation, documentation, or sharing of data, results, samples, physical collections, and other products and how they will follow ENRTF Acknowledgement Requirements and Guidelines.**

The City of Northfield will share results from the pre-design phase, including geotechnical investigations, sediment analysis, and vibration monitoring analysis, with project partners and the Minnesota DNR. General project process will be shared with the public via the City of Northfield website, press releases, social media platforms, and city council updates.

## 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 Ames Mill Dam Replacement Feasibility Study determined a total cost range of \$4,800,000 to \$9,600,000 for dam removal and 500 ft rock rapids installation. The pre-design and design phase of the project will be funded in part by a \$500,000 donation from Post Consumer Brands as part of the ownership transfer agreement of the dam. The City of Northfield plans to pursue additional state and federal funding. Any local matches for awarded funds will be provided through the city storm water fund.

## Project Manager and Organization Qualifications

**Project Manager Name:** David Bennett

**Job Title:** Public Works Director/City Engineer

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

The project manager brings 23 years of municipal infrastructure project oversight and design to this project. As Public

Works Director and City Engineer, David has facilitated project design and implementation, collaborated with agencies and City partners, and organized public communication on a wide range of infrastructure projects. Among those projects are the following surface water and storm water infrastructure improvement projects:

Surface water projects: The City of Northfield Surface Water Management Plan Hydraulic Modelling and Report, The City of Northfield Downtown Flood Study, The City of Northfield Stormwater Pond Assessment Study, and The Ames Mill Dam Replacement Feasibility Study.

Storm water infrastructure: Drainage system improvement modifications, storm water storage expansion projects, storm structure modifications, storm water BMP design.

**Organization:** City of Northfield

**Organization Description:**

The City of Northfield, a Minnesota municipal corporation, is an open, safe, and welcoming community, recognized for its world-class colleges and historic riverfront downtown, and is dedicated to sustainably enhancing and preserving its vibrant culture, celebrated arts, strong economy, and an excellent quality of life where all can thrive.

This project will be overseen by the Engineering Division within the City of Northfield Public Works Department. The engineering division provides support services to guide the design, management, maintenance and construction of the City's infrastructure including engineering design, construction supervision and project management for the various street, sidewalk, water main, sanitary sewer and storm sewer infrastructure projects that the City undertakes each year. The Public Services Department is responsible for the city's infrastructure which includes reconstructing and maintaining streets, treating the city's water supply, and maintaining the sewer system.

## Budget Summary

Category / Name	Subcategory or Type	Description	Purpose	Gen. Ineligible	% Benefits	# FTE	Classified Staff?	\$ Amount
<b>Personnel</b>								
							<b>Sub Total</b>	-
<b>Contracts and Services</b>								
Barr Engineering	Service Contract	Engineering and contractor fees for Design activity. Based on the results of the pre-design report, project design elements will be completed under a single or multiple contracts.				10		\$800,000
							<b>Sub Total</b>	\$800,000
<b>Equipment, Tools, and Supplies</b>								
							<b>Sub Total</b>	-
<b>Capital Equipment</b>								
							<b>Sub Total</b>	-
<b>Acquisitions and Stewardship</b>								
							<b>Sub Total</b>	-
<b>Travel In Minnesota</b>								
							<b>Sub Total</b>	-
<b>Travel Outside Minnesota</b>								
							<b>Sub Total</b>	-
<b>Printing and Publication</b>								

							<b>Sub Total</b>	-
<b>Other Expenses</b>								
							<b>Sub Total</b>	-
							<b>Grand Total</b>	<b>\$800,000</b>

Classified Staff or Generally Ineligible Expenses

Category/Name	Subcategory or Type	Description	Justification Ineligible Expense or Classified Staff Request
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## Non ENRTF Funds

Category	Specific Source	Use	Status	Amount
<b>State</b>				
			<b>State Sub Total</b>	-
<b>Non-State</b>				
Cash	City of Northfield Storm Water Fund.	Consultant contracts fees paid to Barr Engineering for the Ames Mill Dam Feasibility study.	Secured	\$98,000
Cash	City of Northfield Storm Water Fund	Consultant contract fees paid to Bruce Jacobson Landscape Architect LLC for Ames Mill Dam Removal and Long Rang Plan project organization and conceptual design.	Secured	\$42,500
Cash	City of Northfield Storm Water Fund	Consultant contract fees paid to 106 Group for Reconnaissance Architectural History Survey and Assessment report.	Secured	\$18,929
Cash	City of Northfield Stormwater Fund	Consultant contracts fees paid to Barr Engineering for Phase 1 - Ames Mill Dam Pre-Design activities. The pre-design phase of the Ames Mill Dam Removal and Replacement Project will focus on meeting regulatory requirements and preliminary design development. Included in the pre-design phase will be Phase I and II Environmental Site Assessments, geotechnical and hydrogeologic investigations, a vibration study, EAW permitting preparation, and development of preliminary designs.	Pending	\$108,000
			<b>Non State Sub Total</b>	<b>\$267,429</b>
			<b>Funds Total</b>	<b>\$267,429</b>

**Total Project Cost: \$1,067,429**

**This amount accurately reflects total project cost?**

Yes

## Acquisition and Restoration

### Parcel List

Name	County	Site Significance	Activity	Acres	Miles	Estimated Cost	Type of Landowner	Easement or Title Holder	Status of Work
Ames Mill Dam Parcel	Rice	This the site of the Ames Mill Dam.	Fee Title	0.08	-	-	Private	City of Northfield	Negotiations In Progress
<b>Totals</b>				<b>0.08</b>	<b>0</b>	-			

## Fee Acquisition

**1. Describe the selection process for identifying and including proposed parcels on the parcel list, including an explanation of the criteria and decision-making process used to rank and prioritize parcels.**

The proposed parcel for acquisition is the site of the Ames Mill Dam. Because it is the only parcel acquisition required for this project there was no decision-making process required to rank and prioritize parcels.

**2. List all adopted state, regional, or local natural resource plans in which the lands included in the parcel list are identified for the acquisition purposes you propose. Include the URL to the plan if one is available.**

City of Northfield Riverfront Enhancement Action Plan:

<https://www.northfieldmn.gov/DocumentCenter/View/16303/Riverfront-Enhancement-Action-Plan---Final---Res-2020-125>

City of Northfield 2045 Comprehensive Plan:

<https://www.northfieldmn.gov/DocumentCenter/View/25297/Comprehensive-Plan-for-2045?bidId=>

**3. For any parcels acquired in fee title, a restoration and management plan must be prepared. Summarize the components and expected outcomes of restoration and management plans for parcels acquired by your organization, how these plans are kept on file by your organization, and overall strategies for long-term plan implementation, including how long-term maintenance and management needs of the parcel will be financed into the future.**

The components and expected outcomes of the restoration management plan for the Ames Mill Dam parcel would include demolition of the existing dam and installation of rock rapids in the Cannon River reach between the 5th St and Water St bridges. These plans and the overall strategies for long-term implementation of this project are kept on file as part of the City of Northfield's Comprehensive Plan and Riverfront Enhancement Action Plan. Long-term maintenance and management needs of the project area will be limited, as rock rapids have significantly less management needs than a dam structure. Any future maintenance projects for the proposed rock rapids would be financed through the City of Northfield Storm Water Fund.

**4. For each parcel to be conveyed to a State of Minnesota entity (e.g., DNR) after purchase, provide a statement confirming that county board approval will be obtained.**

N/A

**5. If applicable (see M.S. 116P.17), provide a statement confirming that written approval from the DNR Commissioner will be obtained 10 business days prior to any final acquisition transaction.**

N/A

## Attachments

### Required Attachments

#### Map

File: [f56c89a0-bcd.pdf](#)

#### Alternate Text for Map

The map shows an aerial image of the Cannon River from the 5th St bridge to the Water St bridge in downtown Northfield. The dam location is shown along with relevant elevations. Proposed project footprints, rock rapids locations, and flow paths are shown for each of the proposed options....

#### Financial Capacity

Title	File
City of Northfield 2024 Annual Comprehensive Financial Report	<a href="#">066b2bff-9fe.pdf</a>

### Supplemental Attachments

#### Capital Project Questionnaire, Budget Supplements, Support Letter, Photos, Media, Other

Title	File
Capital Construction Project Budget Addendum	<a href="#">37411aea-5b9.pdf</a>
Capital Construction Project Questionnaire	<a href="#">26d13552-b27.pdf</a>
City of Northfield Riverfront Enhancement Action Plan	<a href="#">80b95fe9-ac8.pdf</a>
Northfield City Council Resolution 2023-109 Approving Ames Mill Dam Feasibility Study Recommendations Option 3	<a href="#">a59841ea-1bd.pdf</a>
Ames Mill Dam Replacement Presentation to Northfield City Council 11-21-23	<a href="#">90ff1a3c-52b.pdf</a>
106 Group Reconnaissance Architectural History Survey and Assessment	<a href="#">a835b231-367.pdf</a>
Ames Mill Dam Replacement Feasibility Study	<a href="#">b03daabf-04a.pdf</a>

### Administrative Use

**Does your project include restoration or acquisition of land rights?**

Yes: Fee Acquisition,

**Do you understand that travel expenses are only approved if they follow the "Commissioner's Plan" promulgated by the Commissioner of Management of Budget or, for University of Minnesota projects, the University of Minnesota plan?**

N/A

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

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

**Does your project include the pre-design, design, construction, or renovation of a building, trail, campground, or other fixed capital asset costing \$10,000 or more or large-scale stream or wetland restoration?**

Yes

**Is the purpose of the acquisition for construction of a building(s), trail, campground, or other fixed capital asset costing \$10,000 or more or large-scale stream or wetland restoration, either now or in the future?**

Yes

**Do you propose using an appropriation from the Environment and Natural Resources Trust Fund to conduct a project that provides children's services (as defined in Minnesota Statutes section 299C.61 Subd.7 as "the provision of care, treatment, education, training, instruction, or recreation to children")?**

No

**Provide the name(s) and organization(s) of additional individuals assisting in the completion of this proposal:**

James McDermott - City of Northfield

**Do you understand that a named service contract does not constitute a funder-designated subrecipient or approval of a sole-source contract? In other words, a service contract entity is only approved if it has been selected according to the contracting rules identified in state law and policy for organizations that receive ENRTF funds through direct appropriations, or in the DNR's reimbursement manual for non-state organizations. These rules may include competitive bidding and prevailing wage requirements**

Yes, I understand