



Environment and Natural Resources Trust Fund

2023 Request for Proposal

General Information

Proposal ID: 2023-095

Proposal Title: Preventing AIS Spread Through Hay Creek Watershed

Project Manager Information

Name: Kristine Altrichter

Organization: Buffalo-Red River Watershed District

Office Telephone: (218) 789-3100

Email: kaltrichter@brrwd.org

Project Basic Information

Project Summary: The Buffalo-Red River Watershed District will contain AIS from spreading using civic engagement and lake outlet modifications that prevent the spread of zebra mussels downstream of Turtle and Long Lakes.

Funds Requested: \$1,987,000

Proposed Project Completion: June 30, 2025

LCCMR Funding Category: Aquatic and Terrestrial Invasive Species (D)

Project Location

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

Region(s): NW

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

Region(s): NW

When will the work impact occur?

In the Future

Narrative

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

In 1999, BRRWD installed a series of outlet siphons to address high water levels on Turtle Lake, a land-locked basin. Turtle Lake properties were experiencing severe flooding conditions. A siphon was installed on the south end of Turtle Lake and flows into Long Lake, a second siphon was installed on the west side of Long Lake and outlets into a wetland. Water then flows through a series of wetlands and outlets in Lake Fifteen and eventually reaches Hay Creek. Project has successfully managed flooding on Turtle Lake since construction. In July 2021, Turtle Lake was listed as infested with zebra mussels. Minnesota Department of Natural Resources (DNR) completed survey of downstream waterbodies and have not identified any evidence of the presence of zebra mussels downstream of Turtle Lake.

In February 2022, DNR notified BRRWD to cease operation of Turtle Lake outlet siphon to stop the spread of zebra mussels. In order to operate outlet, additional conditions need to be met. For long term, operation of system, BRRWD will need to install a filtration system or treat the water. The land-locked nature of the lakes involved make discharge of water from the lakes critical to prevent flooding and significant property loss.

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.

BRRWD is proposing to work with DNR and area landowners on education and outreach and install a filtration system to prevent the spread of AIS from Turtle to Long Lake and downstream in the Hay Creek watershed. To further reduce the spread of zebra mussels into the Hay Creek watershed, BRRWD is prepared to install a similar filtration system to the outlet of Long Lake.

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?

Our goal is to protect, conserve, and preserve downstream waterbodies by preventing the further spread of zebra mussels through the Hay Creek watershed. Installing an outlet that prevents the spread of zebra mussels will allow us to continue to protect the property along Turtle Lake from significant flooding while also protecting the larger watershed.

Activities and Milestones

Activity 1: Education and Outreach

Activity Budget: \$22,000

Activity Description:

The BRRWD will work with the Turtle Lake Improvement Association on civic engagement and AIS Prevention education efforts. This will involve producing educational materials and holding meetings with landowners to keep them abreast of the project progress throughout the life of the grant. The public will be surveyed before and after project on their understanding of AIS issues to obtain valuable information on the effectiveness of the education and outreach efforts and feedback will be published by the BRRWD for others to use statewide.

Activity Milestones:

Description	Completion Date
Develop Outreach Materials and disseminate to Landowners in the project area	December 31, 2023
Hold meetings with landowners	December 31, 2023
Survey area landowners	December 31, 2023

Activity 2: Filtration Design and Implementation

Activity Budget: \$1,965,000

Activity Description:

The BRRWD will evaluate a series of potential filtration solutions. This work will be coordinated with the BRRWD's Project Team to get concurrence on the alternative selected for installation/construction. The BRRWD will develop plans/specifications and bid documents, as necessary, to select a contractor to complete any work associated with implementation of the selected alternative.

Activity Milestones:

Description	Completion Date
Evaluate various filtration system	December 31, 2023
Implement/construct Selected Solution	December 31, 2024
Evaluate selected solution performance	December 31, 2024

Project Partners and Collaborators

Name	Organization	Role	Receiving Funds
Rodger Hemphill	Minnesota Department of Natural Resources	Regulatory - Public Waters Work Permit Amendment will be required.	No
Greg Anderson	Turtle Lake Improvement Association	Work with the TLIA on education and outreach to achieve AIS Spread prevention.	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 BRRWD has an assessment area already established to raise funds from local landowners for any required ongoing operation and maintenance. The assessment area has been used since 2000 to assess costs for operation of the existing system to landowners benefiting from the project.

Project Manager and Organization Qualifications

Project Manager Name: Kristine Altrichter

Job Title: Administrator

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

Kristine Altrichter has been the manager for several million dollars of various grant program funds. These programs have included Clean Water Funds from the MN Board of Water and Soil Resources, Outdoor Heritage Fund grants awarded by the Lessard-Sams Outdoor Heritage Council, and Section 319 funds awarded by the MN Pollution Control Agency. Kristine is familiar with the State's typical grant funding language and grant management and reporting requirements.

Organization: Buffalo-Red River Watershed District

Organization Description:

The Buffalo-Red River Watershed District is a Watershed District operating under MN Statutes 103D Watershed Law headquartered out of Barnesville, MN. The District is actively involved through the implementation of several projects in managing water resources within the 1,785 square miles that make up the District. The mission of the Buffalo-Red River Watershed District (BRRWD) is to alleviate flooding and to manage the water resources of the District in a manner that best protects this valuable resource.

Budget Summary

Category / Name	Subcategory or Type	Description	Purpose	Gen. Ineligible	% Benefits	# FTE	Classified Staff?	\$ Amount
Personnel								
Personnel		Civil Engagement/AIS Education and Outreach			0%	0.2		\$20,000
							Sub Total	\$20,000
Contracts and Services								
TBD	Professional or Technical Service Contract	Construction Contract to Implement Selected Alternative				0		\$1,500,000
Houston Engineering Inc.	Professional or Technical Service Contract	Alternative Review and design and oversight for implementation of the selected alternative				-		\$465,000
							Sub Total	\$1,965,000
Equipment, Tools, and Supplies								
							Sub Total	-
Capital Expenditures								
							Sub Total	-
Acquisitions and Stewardship								
							Sub Total	-
Travel In Minnesota								
	Miles/ Meals/ Lodging	This budget item will cover personnel and contracted staffs' mileage from Fargo to Barnesville (70 miles per trip), from Fargo to project site (80 miles per trip), and Barnesville to project site (40 miles per trip). BRRWD will pay personnel the IRS standard mileage	Mileage for contracted staff to attend meetings and perform project coordination.					\$1,000

		rate and will pay contracted staff mileage detailed on invoices.						
							Sub Total	\$1,000
Travel Outside Minnesota								
							Sub Total	-
Printing and Publication								
	Printing	Printing costs for mailing, handouts, and information for public meetings.	AIS education and outreach and mailing notices					\$700
	Publication	Publications for Public Meetings.	Education and Outreach for AIS and Project Development.					\$300
							Sub Total	\$1,000
Other Expenses								
							Sub Total	-
							Grand Total	\$1,987,000

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
State				
			State Sub Total	-
Non-State				
Cash	BRRWD Local Landowner Assessments	Previously expended costs for design, development, and maintenance of current outlets for Turtle Lake and Long Lake. Assessments have been collected since 2005.	Secured	\$440,670
			Non State Sub Total	\$440,670
			Funds Total	\$440,670

Attachments

Required Attachments

Visual Component

File: [98db5dd9-8b0.pdf](#)

Alternate Text for Visual Component

Document provides a map with the locations of the siphon outlets for Turtle Lake and Long Lake. There are a images of significant flooding that occurred around the lake prior to original project implementation to show flooding risk if AIS prevents operation of outlet....

Board Resolution or Letter

Title	File
Board Resolution	13e0b259-5b7.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?

Yes, Buffalo-Red River Watershed District

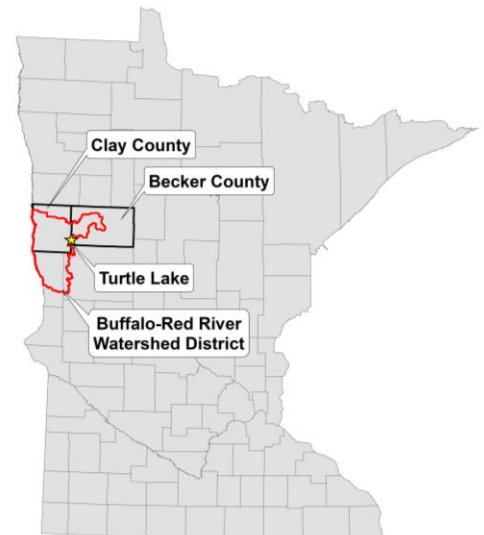
Turtle and Long Lake Highwater Outlet Project AIS Modifications

Proposer: Buffalo-Red River Watershed District



Description/Location:

In the summer of 1999, the Buffalo-Red River Watershed District constructed a series of siphons to address highwater on Turtle Lake. As shown above in red, the Turtle Lake Outlet siphon discharges highwater from Turtle Lake south into Long Lake and the Long Lake siphon discharges highwater in that lake west to a series of wetlands and streams. The project has been a success to date but recent discovery of zebra mussels (an Aquatic Invasive Species - AIS) in Turtle Lake eliminates the use the existing system without modifications to address the AIS found in the lake. Based on a MN DNR letter dated February 17, 2022, the Turtle Lake siphon has been ordered to cease operation and a similar order is expected in the future on the Long Lake portion of the siphon system. Both lakes are landlocked and without the operation of the outlets are subject to flooding as seen in photos from 1999.



Photos Below: Example of Potential Highwater House Flooding

