



# Environment and Natural Resources Trust Fund

## 2024 Request for Proposal

### General Information

**Proposal ID:** 2024-077

**Proposal Title:** Improving Water Efficiency Programming with Measurable Outcomes

### Project Manager Information

**Name:** Heidi Quinn

**Organization:** City of Woodbury

**Office Telephone:** (651) 714-3592

**Email:** heidi.quinn@woodburymn.gov

### Project Basic Information

**Project Summary:** The project will accelerate the implementation of three water efficiency programs that are estimated to save 79 million gallons of water annually and serve as an example for other communities.

**Funds Requested:** \$200,000

**Proposed Project Completion:** December 31, 2026

**LCCMR Funding Category:** Small Projects (H)

**Secondary Category:** Water Resources (B)

### Project Location

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

Region(s): Metro

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

Region(s): Metro

**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 City of Woodbury recognizes the connection between surface water, groundwater, and drinking water and the importance of considering impacts to all water resources when making decisions, referred to as the One Water Vision. Resilience is a key component of the 2040 Comprehensive Plan and the 2040 Local Surface Water Management Plan to achieve water quantity and quality goals.

The city's goals around quantity and quality include providing abundant, safe drinking water for current and future generations of residents by protecting and managing groundwater. We recognize that this must also meet all state and federal standards and guidelines, including PFAS, chloride and lead. To achieve this goal, the city has adopted a policy to strive toward flat total annual water usage through 2030 and a policy to create and implement water efficiency programming.

Woodbury is a growing community and has committed to increasing efficiency of water use while adding residential and commercial properties to our borders. We have done this by piloting and formalizing numerous water efficiency programs including lawn watering restrictions, irrigation reuse and water efficiency rebates. After more than a decade of work, moving the needle on water conservation is becoming more difficult and requires additional resource commitment.

### **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 city has instituted several initiatives to help the community reach water stewardship goals and has shown great success through these programs. Efforts include: smart irrigation controller program, stormwater irrigation reuse, and low-flow toilet pilot programs for residential and commercial properties. The city has also established and updated policies to promote water efficiency.

Although the city has been successful with these programs, staff has completed a data-driven assessment and evaluation of past, current, and future water efficiency programming, and confirmed there is more progress to be made. While we have built momentum on tangible improvements, it has been identified that future programming will be more technical and robust to continue to improve city-wide efficiency.

The Environmental and Natural Resources Trust Fund Grant funding would allow the city to accelerate implementation and introduction of new and innovative water efficiency programs that will include a pilot residential water softener optimization/replacement program, re-envisioning of the commercial and homeowner association irrigation system optimization cost share program, formalize the pressure regulated sprinkler head replacement program, and conduct a targeted education campaign.

Data related to efficiency programming will be tracked, evaluated, and presented to interested parties and similar communities.

### **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?**

Through enhanced water efficiency programming implementation, the city estimates a decreased water consumption of 79 million gallons annually through irrigation improvements and water softener optimization. In addition to decreased water consumption, the water softener optimization program will reduce chloride loading to regional water systems.

The city's proposed programming will result in more closely obtaining regional goals for groundwater resource

protection. This efforts align with Department of Natural Resources northeast groundwater management area and guidance pertaining to the protection of the Valley Creek Trout Stream.

## Activities and Milestones

### Activity 1: Residential water softener optimization/replacement program to increase efficiency of existing units

**Activity Budget:** \$65,000

**Activity Description:**

The City’s water softener efficiency program is an innovative program that will reduce water use through optimization of existing softeners, or replacement of outdated softeners with new efficient models. The City will design the pilot program using the MPCA Guide to Developing a Local Water Softener Rebate Program (2019), and then carry out pilot-scale implementation for residential customers. Funds will be used to cover the costs for residential softener optimization, rebates for softener replacement, and for program design and implementation assistance. The first step in the pilot program will include an in-person inspection by a city-approved contractor free of charge to the homeowner, who can make optimization improvements on site, or determine if the homeowner is eligible for an upgrade. If an upgrade is recommended, based on system age, efficiency or condition, the second step would offer a rebate for new, high efficiency models. The City plans to pilot this program with up to 75 residential customers prior to full scale implementation. The City will conduct direct educational outreach with residential customers through water billing information and City communication channels. Data related to the optimization inspections and replacements will be tracked, and reductions in water consumption will be estimated.

**Activity Milestones:**

Description	Approximate Completion Date
Design a pilot inspection, optimization, and rebate program for pilot softener replacement program	January 31, 2025
Identify and engage program partners: Local Watershed Districts (3), Water Quality Association, MPCA, MNDNR	March 31, 2025
Establish list of approved softener optimization contractors	March 31, 2025
Conduct outreach and education with residential customers	June 30, 2025
Complete water softener optimization and replacement pilot program	March 31, 2026
Evaluate pilot program and plan for full-scale implementation	December 31, 2026

### Activity 2: Commercial and Homeowner’s Association (HOA) irrigation system optimization cost share program.

**Activity Budget:** \$65,000

**Activity Description:**

From 2017 to 2021 the City offered a cost share program with commercial properties and homeowner associations that helped to fund efficient irrigation practices, which results in a 22% reduction in irrigation water use at 62 properties. The city funded up to 50% of the cost (a maximum of \$8,000 per customer account) to improve irrigation practices, which included irrigation system efficiency improvements. A study conducted by the City in 2022 documented over 20 million gallons of water per year saved because of the cost share program. The City will review past participation, water savings, feedback from past participants, and costs to inform modifications to this program. The City will use grant funds to recreate the commercial and HOA cost share program and provide funding for at least 8 irrigation efficiency improvement projects, toward the goal of funding improvements at 50 properties by 2030. The City plans to conduct direct educational outreach with HOA managers and board members, high water use commercial properties, and irrigation system service companies. Local water conservation volunteers will assist with outreach. Data related to the efficiency improvements will be recorded, and reductions in water use documented through water billing records.

**Activity Milestones:**

Description	Approximate Completion Date
Compile inventory of HOA managers and contacts	August 31, 2024
Identify and engage program partners: Woodbury Chamber of Commerce, MNDNR, HOAs	October 31, 2024
Targeted educational outreach with HOAs, targeted commercial properties, and irrigation contractors	April 30, 2025
Implementation and documentation of irrigation system improvements	September 30, 2026
Document water savings associated with cost share projects	October 31, 2026
Review progress and plan for continuation of cost-share program toward full implementation	December 31, 2026

### Activity 3: Pressure regulated sprinkler head replacement reimbursement program

**Activity Budget:** \$65,000

**Activity Description:**

The pressure regulated sprinkler head replacement reimbursement program is an innovative program that will cover the costs up to a specified maximum amount for residential water customers to upgrade existing irrigation systems with high-efficiency, water-saving components. In 2018 a study by the City and MnTAP at the University of Minnesota found that homeowners could save an average of 32,000 gallons per year by switching to pressure regulated sprinkler heads. Analysis conducted by the City in 2022 established a goal of 1,300 residential system replacements through 2030. The City will design the program, and then identify targeted customers through review of water billing and water system pressure data who will be solicited to participate. The City will provide a free irrigation system audit for applicants, and provide up to \$800 for equipment and installation by a qualified contractor. Funds will be used to cover reimbursement costs for approximately 50 participants, and for program design and implementation assistance. Direct educational outreach will include information on potential cost savings and payoff period for homeowners. Water savings will be tracked through water billing information. City will review and evaluate the program as part of planning for full-scale implementation.

**Activity Milestones:**

Description	Approximate Completion Date
Design a pressure regulated sprinkler head replacement reimbursement program for pilot implementation	November 30, 2024
Identify and engage program partners: Local Watershed Districts (3), Washington County Conservation District, MnDNR	January 31, 2025
Establish list of qualified contractors	February 28, 2025
Perform targeted educational outreach to eligible residential customers	March 31, 2025
Complete audits and installation of pressure regulated sprinkler heads in 50 residential systems	October 31, 2025
Track water use through customer billing data to document water savings	October 31, 2026
Evaluate program and plan for full-scale implementation	December 31, 2026

### Activity 4: Create water efficiency education materials

**Activity Budget:** \$5,000

**Activity Description:**

The city recently surveyed residents to learn how to increase participation in water efficiency programming. The survey results identified a need to increase allocated resources to expand education, outreach, and engagement. The city will create educational materials to support the water efficiency and conservation programs. This will include education about the city’s overall water efficiency programming and goals, and tailor educational materials for programming. The materials will include potential water and cost savings associated with efficiency practices. Targeted educational outreach will be conducted with participants identified under each program activity. All materials will be distributed to

customers through the city’s existing communication channels including but not limited to, social media, city newsletter distributed to over 31,000 mailboxes, and showcased at local community events. Distribution of the educational materials is funded in-kind by the city and not funded by ENRT grant.

**Activity Milestones:**

Description	Approximate Completion Date
Design education materials for water efficiency programming	December 31, 2024
Targeted education and outreach (ongoing throughout program lifecycle)	June 30, 2025

## Project Partners and Collaborators

Name	Organization	Role	Receiving Funds
South Washington Watershed District	Watershed District	Partner	Yes

## 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?**

Woodbury City Council has committed to funding water efficiency programming from the Water and Sewer Utility Fund. The city has been operationalizing these programs, as they are developed, and continues to provide funding to incentivize water efficiency by users. While decreased water sales results in decreased revenue, the city clearly sees the environmental and utility-system management benefits far outweigh the decreased capital.

City staff is actively engaged in the PFAS Priority 2 Government and 3M Work Group and the city continues to be committed to allocate funding to provide abundant, safe drinking water for current and future generations of residents.

## Project Manager and Organization Qualifications

**Project Manager Name:** Heidi Quinn

**Job Title:** Environmental Resources Technician

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

As environmental technician for the City of Woodbury, Heidi is responsible for planning, coordinating, and implementing the city’s policies, programs and projects related to environmental goals and standards. Specifically, Heidi manages the city’s water efficiency programs including the irrigation controller program for residential properties and the pilot toilet replacement program for residential properties. She is currently managing a comprehensive water efficiency study for the city, providing direction to consultants and staff to evaluate potential water efficiency programming. The study will result in recommendations for programs with measurable outcomes to reduce water use within the community as well as an implementation plan timeline. Heidi has successfully secured grants related to water efficiency from the Metropolitan Council and watershed districts to help fund these programs. Heidi has extensive experience in grant management and leading the development and implementation of programs for residents and businesses in the city. In addition to Heidi, the city’s environmental division has staff with over 30 years of experience managing projects and grants related to a number of environmental initiatives. Before working for Woodbury, Heidi worked for the Minnehaha Creek Watershed District.

**Organization:** City of Woodbury

**Organization Description:**

The City of Woodbury relies wholly on groundwater for its municipal water supply. The municipality provides service to more than 78,000 residents, is 36 square miles in size, and lies within three watershed districts. The City of Woodbury’s Mission Statement is "A leading community in which to live, work, and thrive". This is accomplished through a unified vision of a sustainable, well-planned community driven by innovative approaches, ethical practices, and responsible resource management. The city has adopted a 2040 Comprehensive Plan and a 2040 Local Surface Water Management Plan that serve as guiding documents for the city in conserving, protecting and managing its water resources.

The city has been proactive in implementing water efficiency programs to support its objective of providing its residents and businesses with an affordable and sustainable water supply. In 2014, Woodbury City Council established the “Sustainable Water Future” as the number one strategic priority for the city. City Council has prioritized water quality and conservation in the last four rounds of Council Strategic Initiatives (2015-2023). The city has track record of creating and implementing innovative water efficiency programs, such as the residential irrigation controller program, which has been replicated by several communities across the metro.



## 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>								
TBD Contractor	Professional or Technical Service Contract	Pilot-scale implementation of residential water softener optimization/replacement program to increase efficiency of existing units.  Contracted services for water softener inspections and optimization : 75 customers @ \$200 per visit				0		\$15,000
TBD Contractor	Professional or Technical Service Contract	Implementation of pressure regulated sprinkler head replacement reimbursement program.  Contracted services for Irrigation system inspections, and prioritized pressure regulated sprinkler head replacement (as recommended).  50 customers @ up to \$1,000 per customer				0		\$50,000
TBD	Professional or Technical Service Contract	Create water efficiency education materials. Design educational communication materials to inform the community on the city water efficiency goals, water conservation education, and new water efficiency opportunities for the community.				0		\$5,000
TBD	Professional or Technical Service Contract	Program evaluation, design, and implementation services (all three water efficiency programs)				0		\$28,500
							<b>Sub Total</b>	<b>\$98,500</b>
<b>Equipment, Tools, and Supplies</b>								
							<b>Sub Total</b>	-
<b>Capital Expenditures</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>								
		Rebate Incentive	Pilot-scale implementation of residential water softener optimization/replacement program to increase efficiency of existing units. Rebate for new, high efficiency water softener model installed by a city approved contractor: 75 customers @ \$500 per rebate					\$37,500
		Cost-Share Incentive	Commercial and Homeowner's Association (HOA) water efficiency measure cost share program. Commercial and HOA Cost-share program: 8 properties @ \$8,000 per property					\$64,000
							<b>Sub Total</b>	<b>\$101,500</b>
							<b>Grand Total</b>	<b>\$200,000</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>				
In-Kind	City of Woodbury Water Efficiency Programming Budget	July 2024- December 2026 city budget dedicated to water efficiency programming	Secured	\$250,000
			<b>Non State Sub Total</b>	<b>\$250,000</b>
			<b>Funds Total</b>	<b>\$250,000</b>

## Attachments

### Required Attachments

#### *Visual Component*

File: [dc6918fd-d0f.pdf](#)

#### *Alternate Text for Visual Component*

Proposed City of Woodbury Water Efficiency Programming Implementation Schedule without ENRT Grant funding...

#### *Board Resolution or Letter*

Title	File
Resolution 23-46 Authorizing Application to the Legislative-Citizen Commission on Minnesota Resources 2024 Environmental and Natural Resources Trust Fund Grant	<a href="#">f9975e30-e9e.pdf</a>

### Optional Attachments

#### *Support Letter, Photos, Media, Other*

Title	File
Metropolitan Council Letter of Support	<a href="#">8225e3f0-ef4.pdf</a>
Valley Branch Watershed District Letter of Support	<a href="#">a444dca8-c22.pdf</a>
Woodbury Chamber of Commerce Letter of Support	<a href="#">647b59ec-985.pdf</a>
Washington Conservation District Letter of Support	<a href="#">ea1945c0-27b.pdf</a>
South Washington Watershed District Letter of Support	<a href="#">4bb414da-86b.pdf</a>
Ramsey-Washington Metro Watershed District Letter of Support	<a href="#">eb7afda5-9a2.pdf</a>
U of M MnTAP Letter of Support	<a href="#">1ca58cb0-d2e.pdf</a>
Washington County Letter of Support	<a href="#">4aac49c9-491.pdf</a>
EPA WaterSense Letter of Support	<a href="#">cadb9018-ecb.pdf</a>

## 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

**Does your project include the design, construction, or renovation of a building, trail, campground, or other capital asset costing \$10,000 or more?**

No

**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?**

No