

**COLORADO**Colorado Water
Conservation Board

Department of Natural Resources

Colorado Water Conservation Board

Water Plan**Water Project Summary**

Name of Applicant	Denver Dept. of Public Health and Environment
Name of Water Project	Advancing the State of Graywater in Colorado
Grant Request Amount	\$715,809.39
Primary Category	\$715,809.39
<i>Conservation & Land Use Planning</i>	
Total Applicant Match	\$50,120.24
<i>Applicant Cash Match</i>	\$20,000.00
<i>Applicant In-Kind Match</i>	\$30,120.24
Total Other Sources of Funding	\$265,910.00
<i>4CORE</i>	\$1,600.00
<i>Kuel Water</i>	\$4,000.00
<i>Red Rocks Community College</i>	\$26,400.00
<i>Groundwork Denver</i>	\$10,575.00
<i>Red Rocks Community College</i>	\$203,335.00
<i>Denver Water</i>	\$20,000.00
Total Project Cost	\$1,031,839.63

Applicant & Grantee Information

Name of Grantee: Denver Dept. of Public Health and Environment	
Mailing Address: 101 West Colfax Avenue, Dept. 800 Denver CO 80202	
Organization Contact: Andrew Elmore	
Position/Title: Graywater Education & Outreach Coordinator	Email: andrew.elmore@denvergov.org
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Organization Contact - Alternate: Jon Novick	
Position/Title: Environmental Program Administrator	Email: jon.novick@denvergov.org
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Grant Management Contact: Andrew Elmore	
Position/Title: Graywater Education & Outreach Coordinator	Email: andrew.elmore@denvergov.org
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Grant Management Contact - Alternate: Norma Alarcon	
Position/Title: Contract Administrator	Email: norma.alarcon@denvergov.org
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Description of Grantee/Applicant

The Denver Department of Public Health and Environment is Denver's nationally accredited public health agency. We empower Denver's communities to live better, longer by providing people with opportunities that support their well-being and by improving services that enrich our community.

The Environmental Quality Division creates and sustains a healthy environment through science, service, and policy. EQ protects the environment by conducting scientific assessments, regulatory compliance, technical assistance and training, and environmental education for both private sector and city operations. EQ advocates for federal, state, and local environmental policies that protect the environment and public health.

Type of Eligible Entity

- ☐ Public (Government)
- ☐ Public (District)
- ☒ Public (Municipality)
- ☐ Ditch Company
- ☐ Private Incorporated
- ☐ Private Individual, Partnership, or Sole Proprietor
- ☐ Non-governmental Organization
- ☐ Covered Entity
- ☐ Other

Category of Water Project

- ☐ Agricultural Projects
Developing communications materials that specifically work with and educate the agricultural community on headwater restoration, identifying the state of the science of this type of work to assist agricultural users among others.
- ☒ Conservation & Land Use Planning
Activities and projects that implement long-term strategies for conservation, land use, and drought planning.
- ☐ Engagement & Innovation Activities
Activities and projects that support water education, outreach, and innovation efforts. Please fill out the Supplemental Application on the website.
- ☐ Watershed Restoration & Recreation
Projects that promote watershed health, environmental health, and recreation.
- ☐ Water Storage & Supply
Projects that facilitate the development of additional storage, artificial aquifer recharge, and dredging existing reservoirs to restore the reservoirs' full decreed capacity and Multi-beneficial projects and those projects identified in basin implementation plans to address the water supply and demand gap.

Location of Water Project

Latitude	39.739200
Longitude	104.990300
Lat Long Flag	Default/Proponent headquarters: If the location cannot be defined with flags above, use location of project proponent headquarters
Water Source	South Platte River, transbasin diversions from the Williams Fork Reservoir watershed, Roberts Tunnel Collection System, and the Moffat Collection System.
Basins	Metro; South Platte; Colorado; Arkansas
Counties	Denver

Districts	8-South Platte Cheesman to Denver Gage; 2-South Platte: Denver Gage to Greeley; 9-Bear Creek
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Water Project Overview

Major Water Use Type	Municipal
Type of Water Project	Education
Scheduled Start Date - Design	1/1/2026
Scheduled Start Date - Construction	

Description

This project aims to empower all Coloradans to become stewards of our vital water resources by building on the success of the current Denver Graywater Education and Outreach Grant. Denver is one of Colorado's leaders in the space of graywater reuse. The city was the first municipality in the state to allow the installation of graywater systems and created the first education programs to increase awareness amongst metro area residents and train certified graywater installers.

We know graywater reuse is part of a broader solution to increase water conservation. This project will expand current outreach and trainings to aid in residential irrigation conservation. It will also focus on promotion and education of developers to get large indoor reuse systems in the development pipeline. Most importantly this project will help other municipalities overcome barriers to establish their own graywater programs and increase adoption statewide.

By continuing to learn what works, identifying areas for improvement, and gathering useful data, this project will contribute significantly to advancing water conservation and the culture of water stewardship across Colorado.

Measurable Results

New Storage Created (acre-feet)
 New Annual Water Supplies Developed or Conserved (acre-feet), Consumptive or Nonconsumptive
 Existing Storage Preserved or Enhanced (acre-feet)
 New Storage Created (acre-feet)
 Length of Stream Restored or Protected (linear feet)
 Length of Pipe, Canal Built or Improved (linear feet)
 Efficiency Savings (dollars/year)
 Efficiency Savings (acre-feet/year)
 Area of Restored or Preserved Habitat (acres)
 Quantity of Water Shared through Alternative Transfer Mechanisms or water sharing agreement (acre-feet)

3,000,000 Number of Coloradans Impacted by Incorporating Water-Saving Actions into Land Use Planning

3,000,000 Number of Coloradans Impacted by Engagement Activity

Other

Exact metrics and measures are difficult to determine at this stage, however they will be monitored as a part of the evaluation of the project.

Water Project Justification

This project directly supports the foundational goals of the Colorado Water Plan (CWP) and the South Platte Basin Implementation Plan (BIP) by empowering all Coloradans to become stewards of our vital water resources. Our approach addresses critical, identified needs for water supply resilience, conservation, and environmental health contributing to a secure and sustainable water future for Colorado.

Alignment with Colorado's Water Plan (2023 Update)

The 2023 Colorado Water Plan is built on four interconnected action areas. The Advancing the State of Graywater in Colorado project provides direct support for the following CWCB actions:

- **Vibrant Communities:** Our project aligns with the goal to "balance water supply and demand needs to create a sustainable urban landscape." (CWP, pg. 176).
 - o We directly address Action 1.5: Strategically expand water reuse (CWP, pg. 186) by installing new laundry to landscape graywater systems as part of our educational programming. Our training programs will equip individuals and professionals to grow a commercial sector of graywater system installers. Our outreach and education efforts to promote graywater, onsite water reuse and efficient landscaping will help folks understand their responsibilities and opportunities to conserve water (CWP, pg. 181)
 - o This project is a model for water-wise development and land use planning. Reducing outdoor water usage is key to reducing overall water consumption. Our Irrigation Auditing certification course is geared towards training irrigation professionals to install and maintain water efficient irrigation systems. Maintaining an urban green canopy is important to combat heat islands. Creating sustainable urban landscapes will help improve quality of life (CWP, pg. 178).
 - o Denver's long-term plan to move graywater from an option to a requirement under Denver's Green Building Code will result in new development and qualified redevelopment projects incorporating water saving systems into their plans by integrating water conservation into the City's land use and building codes. This supports the CWP's emphasis on integrating water and land use planning to create more resilient communities (CWP, pg. 180) and Action 1.6: Promote outdoor One Water strategies for integrated land use and planning (CWP, pg. 187).
 - o The expanded education and outreach program will help to strengthen the partnership between the City and County of Denver, Denver Water, non-profits working in the water conservation arena, home builders and developers, and the green industry and result in the incorporation of water-saving actions into land-use planning.
- **Robust Agriculture:** Our project supports the goal of maintaining a "productive and resilient agricultural economy" (CWP, pg. 192).
 - o While the efforts of the project aren't directly related to ag, irrigation efficiency and graywater reuse will achieve municipal water savings. This can help reduce the increasing water needs of municipalities and industries that compete with agriculture for water supplies.
- **Thriving Watersheds:** Our project contributes to the vision to "enhance the health, of our watersheds" (CWP, pg. 204).
 - o By reducing municipal water demand this project will help to improve the ecological function and resilience of the South Platte Basin watershed. This work aligns with the CWP's focus on implementing multi-benefit projects that enhance environmental and recreational values (CWP, pg. 204). As our project expands statewide all eight basins could see improved stream flows and watershed health if more water is left in our streams (CWP, pg. 181).
- **Resilient Planning:** The project supports proactive planning for a more secure water future.
 - o A core component of our project is increasing the level of public awareness and engagement of techniques to conserve and reuse water. The project's partnership with Groundwork Denver will allow the plan to reach most homeowners in Denver (estimated to be more than 750,000 people). The project's reach will expand across the state of Colorado as more municipalities adopt graywater reuse regulations and incorporate our training programs. This directly addresses the CWP's call to provide "accessible water conservation programs" and help improve Coloradan's relationship with our precious water resource. (CWP, pg. 218).
 - o The project's marketing strategy will consist of several communication vehicles, intended to offer opportunities for participation by different target audiences including homeowners, developers and builders, students, installers, and elected officials. Care will be taken to provide inclusive language and programming.

o We anticipate that our graywater and irrigation auditor certification will be able to certify more than 500 Coloradans over the next three years. These certified professionals will play a critical role in shaping a water-efficient future, delivering tangible environmental benefits while also expanding equitable access to careers in the growing green economy. This is a key partner action outlined in the CWP (CWP, pg. 219).

Alignment with South Platte Basin Implementation Plan (2022)

The Advancing the State of Graywater in Colorado project addresses specific goals outlined in the South Platte BIP.

- Goal 2, Maximize development of native South Platte supplies (BIP, pgs. 26-27) – By promoting activities that will reduce the use of South Platte Water for domestic / potable supplies.
- Goal 3, Maintain and promote municipal and industrial conservation and efficiency (BIP, pgs. 27-28) - By expanding our education and outreach program focused on increasing adoption of graywater to include irrigation efficiency. We will promote adoption of activities that maximize the use of every drop of water.
- Goal 4 ,Maintain and promote reuse (BIP, pgs. 29-30) – by encouraging the City and County of Denver’s participation in the National Blue Ribbon Commission for Onsite Non-Potable Water Systems, and incorporating solutions into the Green Building Code.
- Goal 8, Protect and enhance recreation attributes (BIP, pgs. 37-38) - By maximizing opportunities which allow water to remain in waterways to support habitat.
- Goal 11, Broaden South Platte communications, outreach and education programs (BIP, pg. 39) – We will complement the state’s overall program through a robust public engagement process intended to improve public understanding of the potential for conservation available from indoor graywater use and irrigation efficiency.
- Goal 12, Improve efficiency and effectiveness of water project permitting (BIP, pg. 40) – Graywater permitting needs to be updated. Creating a regulatory framework that is practical and easy to navigate will help ensure these systems are safe for people and the environment.
- Alignment with the South Platte and Metro Basin Roundtable Education Action Plan (EAP): A key deliverable of this project is the education and outreach program will enhance statewide education that will support higher levels of indoor conservation and will provide a model that is replicable and scalable for future water savings in communities throughout Colorado.

The Advancing the State of Graywater in Colorado project is a multi-benefit project that provides a direct, measurable, and timely contribution to the goals of the Colorado Water Plan and the South Platte Basin Implementation Plan. By building on previous CWCB-funded work to promote and expand the use of graywater in the City and County of Denver and beyond, we are not only addressing local water challenges but also advancing the state and basin’s shared vision for a resilient and sustainable water future. We believe this project represents a strategic investment that will deliver lasting benefits to the community, the environment, and the economy of the state of Colorado.

Related Studies

The Denver Graywater Education and Outreach Grant funded by CWCB in 2021. - This project is a significant expansion of the previous grant.

Denver One Water Plan (2021) – Advancing the State of Graywater in Colorado project described in this application is an implementation the City of Denver is taking for the Denver One Water Plan. Development of the One Water Plan was funded by a CWCB grant to The Greenway Foundation in 2018.

Water Efficiency Plan (2017) – Denver Water

Colorado Water Plan (2015) (assists in implementation)

City and County of Denver Climate Adaptation Plan (2014) – Department of Environmental Health (assists in implementation)

Metro Vision– Denver Regional Council of Governments

Taxpayer Bill of Rights

There are no known TABOR issues that would affect this application.