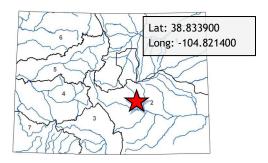


Understanding Water Use in Mobile Homes Alliance for Water Efficiency

March 2023 Board Meeting

Water Plan Grant Application



LOCATION

Counties: El Paso, Adams, Statewide

Drainage Basins: Arkansas; South

Platte; Metro

DETAILS	
Total Project Cost:	\$313,750
Water Plan Grant Req	<i>uest:</i> \$225,188
Recommended amoun	t: \$225,188
Other CWCB Funding:	\$0
Other Funding Amoun	<i>t:</i> \$0
Applicant Match:	\$88,562
Project Type(s):	Study
Project Category:	Conservation & Land Use
Measurable Result: 46 AF/YR in efficiency savings, 525 Coloradans impacted by water-saving actions and 2,000 Coloradans impacted by engagement activity.	

Project Overview: The Alliance for Water Efficiency's proposed project is aimed at understanding water use in mobile home parks, identifying barriers to, and opportunities for, improving water conservation in these communities, and conducting in-home repairs and retrofits of aging or damaged fixtures. These efforts will be coupled with research on the potential for water savings in mobile home parks across Colorado, gathering perspectives from stakeholders, researching options and costs for submetering systems, and identifying opportunities to address equity issues in current metering and billing practices. Together, these project tasks have the opportunity to improve local conditions in mobile home communities in Colorado Springs, Thornton and Fountain, while also developing data that could inform state-wide policies and practices.

The applicant is providing an appropriate match to accomplish this planning grant request. This project request was developed in partnership with Colorado Springs Utilities, the City of Thornton and the City of Fountain; all of whom have provided a commitment for cash match towards the completion of this proposed project.

The goals of this project are supported by numerous state, basin and local plans. This proposed project works to address the municipal water demand gap identified in the 2015 Colorado Water Plan, while furthering a similar Water Plan goal to plan and implement long-term water efficiency strategies that meet local and statewide water needs. Further, this project speaks to the goals of community empowerment, inclusivity, education and engagement as outlined in the 2023 Water Plan. This project works to address the municipal and industrial gaps identified in the Arkansas, Metro and South Platte Basin Implementation Plans, while also working towards achieving water savings as outlined in Colorado Springs', Thornton's and Fountain's individual Water Efficiency Plans.

Funding Recommendation: This project is recommended for full funding of the \$225,188 requested.



Colorado Water Conservation Board

Water Plan

	Water Project Summary	
Name of Applicant Name of Water Project	Alliance for Water Efficiency Understanding Water Use in Mobile Homes	
Grant Request Amount Primary Category Conservation & Land Use Planning		\$225,188.00 \$225,188.00
Total Applicant Match Applicant Cash Match Applicant In-Kind Match		\$88,562.00 \$56,000.00 \$32,562.00
Total Other Sources of Funding Total Project Cost		\$0.00 \$313,750.00

Applicant & Grantee Information

Name of Grantee: Alliance for Water Efficiency

Mailing Address: 33 North La Salle Street Chicago IL 60602

FEIN: 300,416,781

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Organization Contact - Alternate: Jeffrey Hughes

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Grant Management Contact: Liesel Hans

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Grant Management Contact - Alternate: Jeffrey Hughes

Position/Title: Email: jeffrey@a4we.org

Phone:

Description of Grantee/Applicant

The Alliance for Water Efficiency is a national, stakeholder-based nonprofit dedicated to the efficient and sustainable use of water. The AWE network brings together more than 500 stakeholders including municipalities, water utilities, businesses, government agencies, non-profit organizations, academic institutions, associations and citizens. AWE brings together innovative technical resources to facilitate adoption of water conservation programs, cutting-edge research, a joined up approach to advocacy efforts, high quality expertise to equip professionals to make a difference, and a collaborative dialogue amongst diverse stakeholders that enables real progress.

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	38.833900	
Longitude	104.821400	
Lat Long Flag Water Source	Other: Coordinates based on other boundaries or locations	
Basins Counties Districts	Arkansas; South Platte; Metro	

Water Project Overview		
Major Water Use Type	Municipal	
Type of Water Project	Planning	
Scheduled Start Date - Design	4/1/2023	
Scheduled Start Date - Construction		
Description		
The proposed project will improve the	understanding of water use in mobile home parks and identify the barriers	
and opportunities to supporting this segment of Colorado communities in achieving water conservation. This		
grant will provide no-cost services to mobile home park residents to audit the home, replace low-efficiency		

fixtures with high-efficiency fixtures, detect and repair leaks, and provide resident education. The second part of the grant will conduct research on the potential for water savings in mobile home parks across Colorado, gather perspectives from stakeholders, research options and costs for submetering systems, and identify opportunities to address equity issues in current metering and billing practices. A recent case study by Colorado Springs Utilities achieved a 27% water use savings from a retrofit/repair service. Building upon this initial success, the proposed effort will further explore and refine the direct-install approach, generate estimates of potential water savings, costs to achieve those water savings, analysis of water-use issues in mobile home parks, lessons learned on how to work with these communities, and other resources that will be helpful to water utilities and mobile home park owners, managers and residents. The information may be used to inform future changes to mobile home park policies and legislation.

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)

Efficiency Savings (dollars/year)

46 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)

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

2,000 Number of Coloradans Impacted by Engagement Activity

Other

The repair retrofit is expected to deliver water savings to 210 mobile home park units. Assuming 2.5 residents per unit is 525 people, though the goal is for this work to spur additional activity across the state. The engagement and education efforts will be farther reaching. 2000 estimates the number directly reached as part of the project, but the resources generated will be able to have a wider impact. The water savings and costs are based on the 210 units only.

Water Project Justification

First, why focus on mobile home parks?

The Colorado way of life depends on using water wisely. Some residents, however, have been left out of the opportunities to adopt water conservation practices and efficiency measures. Mobile home parks have long been a missed segment of customers, and there is a growing demand to address the barriers so we can create more equitable water utility programs and services.

Manufactured housing or mobile homes are one means for affordable housing in Colorado, though there are challenges including park infrastructure and water and wastewater services. Utilities have found that since parks are often on a single master meter, there is little incentive to reduce water use. Residents have long been a hard-to-reach customer segment, and which higher than average water use, could achieve significant water savings through retrofits, repairs and submetering/individualized billing.

The Colorado Department of Local Affairs (DOLA) manages a Mobile Home Park Oversight Program. This includes mobile home park registration database, which includes over 700 mobile home parks and 52,000 units across Colorado, with an additional 3000 vacant units or lots. DOLA estimates that less than 100 additional mobile home parks are currently unregistered and/or their registration has expired. A 2021 article estimates that

in Colorado, this represents about 90,000 residents.

At scale, there is great potential to achieve water savings and have water use systems and billing practices that support wise water use and wise management of infrastructure. This work is critical as part of a journey toward more equitable processes and outcomes, which is a new value highlighted in the draft 2023 Colorado Water Plan.

Colorado Water Plan

Under the 2015 Colorado Water Plan, this project helps address measurable objectives: "to reduce Colorado's projected 2050 municipal water demands by 400,000 acre-feet through active conservation, while preserving the contribution of urban landscape to vibrancy and sustainability and local flexibility" (CWP, Sec. 6.3 pp. 6-65). Further, this project supports the overall desire to "...promotes technical and financial assistance throughout Colorado, enabling the State to plan and implement long-term water efficiency strategies that meet local and statewide water needs" (Sec 6.3, pp. 6-59).

And, this project will help to meet the goals of "improving the level of public awareness and engagement regarding water issues statewide" (Education, Outreach, and Innovation measurable objective).

This projects also strongly aligns with the draft 2023 Colorado Water Plan, such that it supports the action areas of preserving and creating vibrant communities and enables resilient planning. Most notably, this project delivers directly on the Plan's water value of "An informed public with creative, forward-thinking solutions that are sustainable and resilient to changing conditions and result in strong, equitable communities that can adapt and thrive in the face of adversity" (p.1-9). This project utilizes many of the identified tools for action like public outreach and education, data collection and sharing, collaboration groups, water efficiency and conservation programs, and equity (p.1-10).

The draft plan highlights that collaborative action is helping generate real progress and that it is increasingly important to make sure every water project or strategy uses water as wisely as possible, making it stretch as far as it can to realize its maximum value for cities, farms, streams and people. Doing so will require shared stewardship—a commitment to partnership where the state government and every Coloradan must work together toward greater action (draft plan, p1-4).

The draft plan shows that water conservation efforts have decreased statewide per capita water use by 5%. (1-4) – but this isn't nearly enough to help address projected gaps, and there's far more we can do. Based on experience elsewhere in the West, there remains considerable potential to continue to meet the Colorado Water Plan's goals for reducing municipal water demand through both passive and active water efficiency measures.

The Technical Update to the Colorado Water Plan estimated that water conservation and efficiency measures could reduce our potential future water needs by 300,000 acre-feet per year assuming high population growth and a future climate that is warmer and drier. (draft plan, p3-19)

Statewide municipal and industrial gaps are projected to be from 230,000 acre-feet (in Weak Economy) to 740,000 acre-feet (in Hot Growth) in dry years. Municipal conservation efforts significantly reduce the risk of future gaps, (draft plan, p3-21).

Statewide Water Education Action Plan

Additionally, this project is likely to positively promote the following strategies outlined by the Statewide Water Education Action Plan (SWEAP, Water Education Colorado 2020). This project will help improve the education, awareness and skills of mobile home park residents and property managers and provide examples for other

utilities to build on this work. This project will increase the proportion of Coloradoans that are demonstrating sustainable water behaviors and will demonstrate the potential of achieving water savings through relevant local and state policies, regulations and practices. Specifically, this work will support increasing the "proportion of Coloradoans in each river basin that are demonstrating sustainable water behaviors" (Outcome 7), the "proportion of Coloradoans in each river basin who have confidence in having the knowledge necessary to take an active role in water stewardship in their community" (Outcome 3), and increasing "participation in community discourse and decision processes about water at the state, regional, and local levels" (Outcome 5).

Basin Implementation Plans:

This project initially impacts the Arkansas, Metro, and the South Platte Basins, however, depending on the broader and longer-term impact, the information and analysis generated could impact all basins in Colorado. According to the most recent Basin Implementation Plan updates (January 2022), these basins all expect to see a gap in supplies and demands for the municipal and industrial sectors and want to support strategies to reduce the projected gaps, including fundamental strategies to "maintain and promote municipal and industrial conservation and efficiency" (South Platte/Metro BIP p.27).

Local Goals and Plans:

Colorado Springs: The Understanding Water Use in Mobile Homes project with the Alliance for Water Efficiency will help Colorado Springs Utilities reach the savings targets defined in our 2022 Water Efficiency Plan related to our Multifamily Affordable Housing Rehab Project. This program also aligns with the City of Colorado Springs' Affordable Housing initiatives and meets our CEO Board Instruction I-13 related to community investment (i.e., develop programs intended to support affordable housing within the City.)

Thornton: There are 6 mobile home communities within the Thornton water service area with 3,095 units that will benefit from the research and services this program proposes. This program aligns with the sustainable water and land management goals of Thornton's 2018 Water Efficiency Plan, 2020 Comprehensive Plan and Sustainability Action Agenda, which are to reduce potable water demand across all customer classes. While our existing water efficiency programs are available to all Thornton residents, we do not have the resources for a targeted program for mobile home parks and we appreciate the opportunity to participate in this effort.

Fountain: This project proposal supports the City of Fountain's goal to reduce system-wide demand by 71 acre-feet (AF) annually through 2028 as outlined in the City's Water Efficiency Plan (Resolution 18-024). The plan identifies indoor water assessments, and pursuing new means of providing resources, information, and inspiring change in the community as goals (pg. 25-26).

This project meets the criteria set forth in the 2015 Water Plan Framework (CWP, pgs. 9-43-44) as follows:

- Demonstrates a commitment to collaboration by bringing together three different communities to work together, and bringing together a diverse set of stakeholders to better understand each perspective related to mobile home parks.
- Addresses an identified water gap in the municipal and industrial sector by promoting water conservation programs that can be a cost-effective means to reduce the gap between projected supplies and demands in each of the basins.
- Demonstrates sustainability by addressing a gap in access to water conservation programs and services for a historically underserved population, conducting pilots and gathering information to offer up-to-date costs and benefits for economic decision-making, and ultimately aims to reduce water use and contribute to environmental sustainability.
- Establishes fiscal and technical feasibility by combining a strong commitment of in-kind and cash matching

funds, and bringing together established expertise.

The Alliance for Water Efficiency (AWE) and the three committed community partners have the passion, the technical expertise and experience to successfully carry out this project. Colorado Springs Utilities has already been piloting work with mobile home parks, providing our team recent experience to build upon. Further, the staff across the three agencies have many years of experiences and can help navigate the unique needs of their communities. AWE has been engaged with water efficiency, conservation, water affordability, and equity issues since its inception in 2007. While this project is focused on repairs and retrofits, it might help identify opportunities for zoning and building requirements to be more water efficient moving forward. This is key as mobile homes or other manufactured housing is considered to support affordable housing needs. The findings of this project will be widely applicable and will be publicly available and shared across the state. Therefore, the project will also save municipalities time and money, especially in communities that are limited in technical and staff capacity. This project leverages existing funding resources, momentum, and achieves the 25% match requirement. This project is ready to proceed upon receipt of funding.

The Alliance for Water Efficiency is a nonprofit dedicated to the efficient and sustainable use of water. AWE serves as an advocate across North America for water efficient products and programs, provides information and assistance to a variety of stakeholders, including water utilities, and creates new knowledge to advance water conservation and efficient. AWE has 42 members in Colorado alone. This grant will provide direct benefits to participating water utilities and Colorado residents, indirect benefits to many more by providing currently missing data and information to support decision-making. Given that AWE has members across the U.S and Canada, this project will surely deliver value and impact far beyond Colorado, too.

Related Studies

Sustainability in Manufactured Home Communities: Cost Effective Energy, Water and Community Infrastructure Strategies to Maximize Long-Term Value (2012). CTG Energetics Inc., Enterprise Green Communities, ROC USA.

Taxpayer Bill of Rights

N/A