

Colorado Water Conservation Board

Water Plan

Water Project Summary

Name of Applicant Name of Water Project	Consolidated Mutual Water Co Welton Reservoir Expansion	
Grant Request Amount Primary Category Water Storage & Supply		\$919,441.00 \$919,441.00
Total Applicant Match Applicant Cash Match Applicant In-Kind Match		\$1,082,848.00 \$1,082,848.00
Total Other Sources of Funding Total Project Cost		\$0.00 \$2,002,289.00

Applicant & Grantee Information

Name of Grantee: Consolidated Mutual Water Co Mailing Address: 12700 W 27th Ave Lakewood Colorad FEIN: 840,177,040	lo 80215
Organization Contact: Jarod Roberts Position/Title: Phone: (303) 238-0451	Email: jroberts@cmwc.net
Organization Contact - Alternate: Raj Jerath Position/Title: CFO Phone: 303.274.7415	Email: rjerath@cmwc.net
Grant Management Contact: Jarod Roberts Position/Title: Phone: (303) 238-0451	Email: jroberts@cmwc.net
Grant Management Contact - Alternate: Jarod Roberts Position/Title: Phone: (303) 238-0451	Email: jroberts@cmwc.net

Description of Grantee/Applicant

The Consolidated Mutual Water Company is a private (non-profit) water utility serving communities in the western suburbs of the Denver Metro area. We are seeking loan and/or grant funding for a plethora of water resource and infrastructure related projects.

Type of Eligible Entity

Public	(Government)
Public	(District)

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□ 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

Location of Water Project

projects identified in basin implementation plans to address the water supply and demand gap.

Latitude	39.862448
Longitude	105.180965
Lat Long Flag	Precise coordinates: Project coordinates are readily definable and precisely define the
	location of the project
Water Source	Clear Creek and Coal Creek
Basins	South Platte
Counties	Jefferson
Districts	7-Clear Creek; 6-Boulder Creek

Water Project Overview

Construction / Implementation

Municipal

7/1/2023

6/3/2024

Major Water Use Type Type of Water Project Scheduled Start Date - Design Scheduled Start Date - Construction Description

The Consolidated Mutual Water Company (CMWC) is requesting a \$919,441 grant to support the construction of expanding the storage capacity of Welton Reservoir. Prior studies have indicated that this expansion project is feasible, and the planning and design processes are underway. Expanding Welton Reservoir helps CMWC secure drought storage and the ability to store water rights that are already owned and are native to the South Platte Basin.

Measurable Results	
400	New Storage Created (acre-feet)
	New Annual Water Supplies Developed or Conserved (acre-feet), Consumptive or Nonconsumptive
	Existing Storage Preserved or Enhanced (acre-feet)
400	New Storage Created (acre-feet)
	Length of Stream Restored or Protected (linear feet)
	Length of Pipe, Canal Built or Improved (linear feet)
\$130,340	Efficiency Savings (dollars/year)
400	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
225,000	Number of Coloradans Impacted by Engagement Activity
Other	
- Encoura	ges implementation of projects: water storage and supply
	es development of native South Platte supplies: CMWC has enough native water rights to support the storage volume. CMWC could store more South Platte water and reduce reliance on Colorado River

water (which is received via a lease from Denver Water).

- Maintain and promote municipal and industrial conservation and efficiency: CMWC is seeking to maximize its use of existing facilities to increase efficiency and reduce overall footprint needs.

- Support collaborative development and management of supply options outside of the South Platte Basin: CMWC continues to develop ways to operate more efficiently by maximizing our use of existing water supplies and reducing our reliance on non-native water supplies.

- Improve efficiency and effectiveness of water project permitting: CMWC has worked with CO State DWR Dam Safety group through an in-depth hydrologic and hydraulic assessment of the Welton Reservoir Dam. It was determined that a relatively minor construction project could net a significant amount of additional storage capacity—this results in a unit cost of about \$5,000 per acre-foot of storage gained.

Water Project Justification

The Welton Reservoir Expansion is a project that expands water storage at an existing facility owned and operated by The Consolidated Mutual Water Company, CMWC (a private, non-profit domestic water provider). The expansion will increase the physical water storage capacity at Welton Reservoir by an additional 400 acre-feet. This expansion coincides with the Colorado Water Plan by addressing the water storage gap and also helps CMWC secure additional storage for drought protection and storage of water rights that are native to the South Platte Basin. Expanding Welton Reservoir also addresses many of the South Platte's Basin Implementation Plans (BIPs) by achieving the following:

- Encourages implementation of projects: water storage and supply

- Maximizes development of native South Platte supplies: CMWC has enough native water rights to support the additional storage volume. CMWC could store more South Platte water and reduce reliance on Colorado River water (which is received via a lease from Denver Water).

- Maintain and promote municipal and industrial conservation and efficiency: CMWC is seeking to maximize its use of existing facilities to increase efficiency and reduce overall footprint needs.

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Related Studies

Through our internal work of performing CWCB and Dam Safety recommended Comprehensive Dam Safety Evaluation (CDSE) of Welton (aka Fortune) Dam, the enclosed Fortune Dam Hydrologic Analysis noted: CMWC could increase the storage in Welton Reservoir by up to about 2.3 feet without significant modifications to the dam. This could result in about 400 acre-feet of additional storage. Modifications would include raising the low areas of the dam crest in areas protected by the parapet wall and modifying the spillway structure to accommodate a higher normal pool. Small raises to the water level may be accommodated with a stoplog-type sill on the spillway crest. However, to achieve the maximum raise, significant spillway reconstruction may be required. The preliminary cost for construction modifications required to increase water level raises up to 2.3 feet were between approximately \$2,300 and \$4,500 per acre-foot.

Furthermore, CMWC commissioned a water availability study in 2019. The findings in this report indicated that demands on our system through the year 2050 will result in a need of an additional 2500 acre-feet of storage. This report is enclosed under the title "Water Availability Study_Final".

Taxpayer Bill of Rights

No Tax Bill of Rights provided