COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Colorado Water Conservation Board

Water Plan

Water Project Summary

Name of Applicant	Central Colorado Water Conservancy District
Name of Water Project	Sweet Valley Reservoir Complex Water Storage Project
Grant Request Amount	**$304,919.00**
Primary Category	$304,919.00
Water Storage & Supply	
Total Applicant Match	**$101,640.00**
Applicant Cash Match	$101,640.00
Applicant In-Kind Match	$0.00
Total Other Sources of Funding	**$0.00**
Total Project Cost	**$406,559.00**

Applicant & Grantee Information

Name of Grantee: Central Colorado Water Conservancy District
Mailing Address: 3209 W 28th St Greeley Colorado 80634
FEIN: 846,049,901

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Organization Contact - Alternate: William Mihelich
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Engineering Contact: William Mihelich
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Description of Grantee/Applicant

The Central Colorado Water Conservancy District was formed in 1965 pursuant to the 1937 Water Conservancy Act of the State of Colorado (CRS 150-5). The District includes over 750 square miles in Adams, Weld, and Morgan Counties. Two subdistricts of the Central District, the Groundwater Management Subdistrict (GMS) and the Well Augmentation Subdistrict (WAS), were formed in 1973 and 2004, respectively. The subdistricts operate

decreed plans for augmentation to replace depletions to the South Platte River from pumping of approximately 1,400 alluvial groundwater wells. Well depletions are replaced through allotment contracts with constituent well owners totaling over 80,000 acre-feet.

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	40.286000
Longitude	-104.818000
Lat Long Flag	Precise coordinates: Project coordinates are readily definable and precisely define the location of the project
Water Source	South Platte River
Basins	South Platte
Counties	Adams; Weld; Morgan
Districts	2-South Platte: Denver Gage to Greeley; 1-South Platte: Greeley to Balzac

Water Project Overview

Major Water Use Type	Agricultural
Type of Water Project	Design / Engineering
Scheduled Start Date - Design	2/1/2024

Scheduled Start Date - Construction

Description

The Central Colorado Water Conservancy District (Central) is requesting funding assistance to complete an engineering study to design two slurry wall liners at the Sweet Valley Reservoir Complex Storage Project and the inlet/outlet facilities for the newly created reservoirs. The Project will be developed on land that is owned by Central and will consist of two separate reservoirs that are bisected by the Western Mutual Ditch. The requested funding will assist Central with the design of the impermeable slurry wall liners that are necessary to impound the water that is diverted by Central for storage and for the design of the inlet/outlet facilities to store and release water stored in Sweet Valley Reservoirs.

Measurable Results

4,500	New Storage Created (acre-feet)
4,500	New Annual Water Supplies Developed or Conserved (acre-feet), Consumptive or Nonconsumptive
	Existing Storage Preserved or Enhanced (acre-feet)
4,500	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)
	Number of Coloradans Impacted by Incorporating Water-Saving Actions into Land Use Planning
	Number of Coloradans Impacted by Engagement Activity

Other

No additional measurable results provided

Water Project Justification

The importance of the Sweet Valley Reservoir Complex Water Storage Project to Central, Central's members and Northeast Colorado cannot be overstated. Colorado's population continues to grow at a rapid rate, placing an increasing demand on our natural systems, including water. Beginning in the late 1970's, Central's members invested heavily in their augmentation plans by purchasing and upgrading infrastructure and other works, participating in extensive legal proceedings, conducting substantial engineering design and analyses, and acquiring sources of augmentation supply. These investments were made because of the importance of groundwater use in increasing water use efficiency at the farm-level and protecting against drought.

Though Central's augmentation plans are well-established, they can be improved by adding additional supplies. In recent years, the augmentation plans have operated anywhere between 35 percent and 60 percent pumping allocations. Sweet Valley Reservoirs will allow Central to continue to build their augmentation plans with the goal of achieving sustainable 100 percent allocations for their members.

Sweet Valley Reservoirs will clearly provide a direct benefit to Central's members, but it will also provide broader regional benefits. Weld County, a substantial amount of which lies within Central's boundaries, is the top agricultural producing county in the State of Colorado and one of the top three agricultural producing counties in the United States. Morgan County, also in Central's district, is similarly an agricultural powerhouse for Colorado. Producers in this region are confronted with climate uncertainties, increased competition for water resources, and an agricultural industry facing commodity price decreases on a scale we haven't seen since the 1980s. Establishing a resilient water supply will help sustain individual producers and regional economies and ensure

that our food and fiber continues to be grown locally.Central is one of the largest providers of water in the South Platte Basin and understands the importance of proactive planning and collaborative project development. Sweet Valley Reservoirs are consistent with, supports, and implements several key portions of the Colorado Water Plan, as discussed below.

Development of New Agricultural Water Supplies

Sweet Valley Reservoirs will make additional water supplies available for agricultural uses in the South Platte Basin north and east of Denver by diverting water during times it is legally and physically available (wet periods), storing that water temporarily, and releasing the water during times of shortage which typically occur during dry periods.

Improved Efficiency in Use of Existing Supplies

Central operates numerous storage and recharge projects along the South Platte River. Those projects have been instrumental in retiming water supplies to allow some level of well pumping. Because of the physical location of Central's existing facilities and the locations of their member wells, there are constraints that limit the amount of well pumping that can be authorized. In addition, because of natural variations in streamflow conditions and changes in downstream administrative calls, Central routinely has excess fully consumable water supplies in the River at any given time. The strategic location of Sweet Valley Reservoirs provides the ability for Central to a) better match the location of their replacement obligations with the locations of their supplies, and b) recapture and retime other supplies through the Reservoir. As noted above, this has a significant positive impact on the amount pumping that Central can authorize through their augmentation plan projections. Sweet Valley Reservoirs will increase the efficiency to which the water can be placed to beneficial use.

Easing Pressure to Dry Up Irrigated Lands

An Executive Order by Colorado's Governor calling for development of the Colorado Water Plan states "The South Platte Basin is our largest agriculture producing basin" and "Coloradoans find the current rate of buy and dry is unacceptable". To the degree transfers of irrigation rights to municipal uses continues in the future, alternative supplies to meet agricultural demands must be developed. Sweet Valley Reservoirs will ease pressure towards agricultural dry-up by developing additional agricultural water supplies, keep farms in production, and reduce dry-up of productive farm ground.

Environmental and Socioeconomic Benefits

Sweet Valley Reservoirs provides environmental and societal benefits as well. Absent a dependable water supply, many agricultural producers in the region would opt to cease irrigating their farms. Wide scale "buy and dry" has led to significant environmental issues around the State, e.g., dust storms, soil erosion, and weed problems, and loss of wildlife habitat and corridors. This transfer of water out of the agricultural sector has led to decreased tax revenues and declining social infrastructure in several rural areas. Central and its constituents are committed to preserving working farms and the accompanying benefits of a thriving agricultural region.

Sweet Valley Reservoirs will provide wildlife and environmental benefits. Central currently operates several reservoir storage projects along the South Platte River and its tributaries and has observed benefits ranging from providing additional habitat for waterfowl, especially during times of the year when other similar habitat may be limited, to large game such as deer using the reservoir for watering and feeding. Environmental benefits of the Project include providing important wildlife habitat and migratory corridors, open space, view sheds, and carbon sequestration.

The completion of the Sweet Valley Reservoir Complex Water Storage Project will help to reduce the adverse effects of flooding and high river conditions downstream of the Reservoir. At times when the reservoir is empty, and high water or flooding conditions exist downstream of the installed Inlet, Central will be able to divert up to 4,500 ac-ft, reduce the flows in the South Platte River by up to 150 cfs and potentially help to minimize the overall effects of flood damage.

Drought Mitigation

The Colorado Drought Mitigation and Response Plan (“Drought Plan”) has three primary components: mitigation, response, and vulnerability assessment. The mitigation component describes eight statewide goals for mitigating the risks of drought. The third goal is most relevant to the Sweet Valley Reservoirs: Enhance Mechanisms to Provide Water Supplies to Areas of Shortage During Droughts. One of the identified action items for this goal is to “Explore technologies for water supply banking, floodwater diversion, storage, aquifer recharge, snow banking.” (page 119 of the Drought Plan). The Drought Plan assigns this action item a “medium” priority, indicating that the development of such projects is ongoing and at projects should be implemented within 3-6 years. The Sweet Valley Reservoir Complex Water Storage Project supports and implements an identified component of Colorado’s Drought Plan.

Related Studies

The Sweet Valley Reservoir Complex Water Storage Project is complimentary to CWCB programs that evaluate and support storage development, drought protection, water use efficiency, and water supply planning (e.g., the HB16-1276 South Platte Storage Study).

Taxpayer Bill of Rights

CCWCD, GMS and WAS have been "de-Bruced" from TABOR by voters.