



COLORADO

**Colorado Water
Conservation Board**

Department of Natural Resources

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TO: Colorado Water Conservation Board Members

FROM: Cole Bedford, P.E., Finance Section Project Manager

DATE: November 16-17, 2022 Board Meeting

AGENDA ITEM: 15b. 2023 Projects Bill - Non-Reimbursable Project Investment
(6) Groundwater Management Subdistrict of the Central Colorado Water Conservancy
District - Augmentation Efficiency Project

Staff Recommendation

Staff recommends the Board approve \$3,000,000 in funding from the Construction Fund for the Groundwater Management Subdistrict of the Central Colorado Water Conservancy District - Augmentation Efficiency Project for inclusion in the 2023 Projects Bill.

Introduction

The Central Colorado Water Conservancy District (CCWCD) and its two subdistricts, the Groundwater Management Subdistrict (GMS) and the Well Augmentation Subdistrict (WAS), operate augmentation plans and develop water supplies as directed by the Colorado Water Conservancy Act. Since 2006, these plans have been utilized to increase water supplies for irrigators. To improve the efficiency and effectiveness of these augmentation plans GMS proposes to build a two pipelines. The Southern Phase would connect a slurry wall lined gravel pit reservoir with three irrigation canals, several proposed augmentation wells, and groundwater recharge sites. The Northern Phase will connect several additional augmentation wells, a reservoir, the Farmer's Independent Ditch, and the river. The total project cost is estimated to be approximately \$13,500,000. See attached Project Data Sheet for a location map and Project summary.



Applicant - Groundwater Management Subdistrict

CCWCD was formed in 1965 pursuant to the 1937 Water Conservancy Act of Colorado. Its boundaries encompass approximately 475,000 acres of irrigated agricultural lands and numerous rural communities in the South Platte Basin in Adams, Weld, and Morgan Counties. GMS is a subdistrict of CCWCD created in 1973 for the purpose of coordinating and operating an augmentation plan to replace surface water depletions caused by pumping from alluvial wells. The augmentation plan currently operated by GMS was established in 2006. There are approximately 900 wells contracted for coverage within GMS's plan, augmenting 67,000 AF of consumptive use.

Project Need

At the time of its creation, CCWCD was concerned exclusively with surface water use and it was assumed that nearby groundwater use was entirely separate. By the 1969, though, it was recognized that the consumptive use of groundwater pumped from wells in the region was reducing surface water availability and therefore injuring senior water rights holders in the South Platte Basin. Colorado's 1969 *Water Rights and Determination Act* required that well owners compensate surface water rights holders for any injury caused by groundwater pumping and GMS was created to help orchestrate a regional response to the Act's requirement.

GMS has since developed a portfolio of water rights consisting of changed senior direct flow, junior storage, recharge and exchange rights. Through complex transfers of these rights, GMS is able to replace surface water stream depletions caused by the consumptive use of alluvial groundwater by its members. However, the timing and location of replacements are limited by the existing infrastructure. New pipelines, storage reservoirs, and augmentations wells could allow GMS to augment stream flows more efficiently and flexibly.

Project Description

The Project will consist of two pipelines—and Northern Phase and Southern Phase—to connect reservoirs, irrigation canals, augmentation wells, and recharge sites. Water moved between them will then be flexibly applied to augment stream depletions at different locations and different times as conditions require.

The Southern Phase incorporates a 142 acre reservoir site, which GMS already owns. The 3,400 AF volume will be excavated over the next ten years. The proposed pipeline which will connect the reservoir to three irrigation canals (Platte Valley Irrigation Company, Farmers Independent Ditch Company, and the Western Mutual Ditch Company) and the recharge sites is currently under design. A preliminary construction estimate for the pipeline and associated infrastructure has been completed by J&T Consulting. GMS also proposes to permit two existing wells near the Town of Gilcrest as part of the Project.

The Northern Phase will be constructed on the north side of the river North-West of the Southern Phase infrastructure. It will connect several additional augmentation wells, a reservoir, the Farmer's Independent Ditch, and the river.

The total estimated project cost is approximately \$13,500,000 as shown in Table 1.

TABLE 1: ESTIMATED PROJECT COST

Tasks	Cost
Northern Phase	
Pipeline	\$5,786,840
Augmentation Wells	\$100,000
Southern Phase	
Pipeline	\$2,699,100
Augmentation Wells	\$200,000
Reservoir Improvements	\$4,750,000
TOTAL	\$13,535,940

Financial Summary

Table 2 provides a summary of the Project's financing.

TABLE 2: FINANCIAL SUMMARY

Total Project Cost	\$13,500,000
Non-Reimbursable Project Investment	\$3,000,000
Groundwater Management Subdistrict Contribution	\$10,500,000



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P R O J E C T D E T A I L S	
<i>Project Cost:</i>	\$13,500,000
<i>NRI Funding Request:</i>	\$3,000,000
<i>Funding Source:</i>	Construction Fund
<i>Project Type:</i>	Augmentation Infrastructure
<i>Type of Grantee:</i>	Conservancy District

L O C A T I O N	
<i>Benefits:</i>	South Platte
<i>Water Source:</i>	South Platte
<i>Drainage Basin:</i>	South Platte

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