



**TO:** Colorado Water Conservation Board Members

**FROM:** Jonathan Hernandez, P.E., Project Manager  
Kirk Russell, P.E., Finance Section Chief

**DATE:** January 22-23, 2018 Board Meeting

**AGENDA ITEM:** 23c. Water Project Loans  
Groundwater Management Subdistrict of Central Colorado Water Conservancy  
District - Walker Recharge

Agenda Items 23a, 23b, & 23c are loan requests by three related entities for the same project. For convenience, text in blue is identical in all three memos.

Agenda No.	Entity/Borrower	Ownership	Requested Loan
23a	Central Colorado Water Conservancy District	15%	\$2,250,000
23b	Well Augmentation Subdistrict of Central Colorado Water Conservancy District	20%	\$3,000,000
23c	Groundwater Management Subdistrict of Central Colorado Water Conservancy District	65%	\$9,750,000

#### Introduction

The Groundwater Management Subdistrict (GMS) of Central Colorado Water Conservancy District (CCWCD) is applying for a loan for the Walker Recharge (Project). The Project is a water supply retiming effort using the alluvial aquifer of the South Platte River. Retimed water supplies will be used as augmentation credits by CCWCD and its two subdistricts: GMS and Well Augmentation Subdistrict (WAS). The total Project cost is estimated to be \$18,164,000. Funding from each entity will be in proportion to its ownership in the Project. All combined, CCWCD, GMS, & WAS are seeking a total of \$15 million in CWCB loans for this Project, of which \$9,750,000 is being sought by GMS to cover its 65% cost share. See attached Project Data Sheet for a location map and Project summary.

If approved, this loan request will go through the 2019 CWCB Projects Bill because CCWCD and its two subdistricts (GMS & WAS) are closely related entities, and the combined loan request is over \$10 million dollars.

#### Staff Recommendation

Staff recommends the Board request the General Assembly to authorize a loan for \$9,847,500 (\$9,750,000 for Project costs and \$97,500 for the 1% loan service fee) to the Groundwater Management Subdistrict of Central Colorado Water Conservancy District for the Walker Recharge Project in the 2019 CWCB Project Bill, from the Severance Tax Perpetual Base Fund. The loan terms shall be 30 years at the agricultural rate of 1.75% per annum. Security for the loan shall be in compliance with CWCB Financial Policy #5.

Additionally, Staff recommends the following approval condition:

- 1) Execution of the contract shall be contingent upon voter approval of new GMS bond debt at an upcoming election. Should GMS decide to finance this debt through other means, including through its water activity enterprise, GMS will be required to submit an amended loan application and feasibility study for a new board approval.



## **Background**

CCWCD was formed in 1965 to develop, manage, and protect water resources in northeast Colorado. Over 750 square miles in Adams, Weld, and Morgan Counties are included in CCWCD boundaries, which include approximately 210,000 acres of irrigated agricultural lands. Within CCWCD are two subdistricts: GMS formed in 1973 and WAS formed in 2004. Both subdistricts are separate legal entities with distinct legal boundaries and each provide augmentation water for different alluvial groundwater wells under separate decreed plans for augmentation.

GMS was formed to coordinate and operate an augmentation plan to replace depletions caused by the pumping of alluvial wells owned by its constituent members. GMS boundaries are similar to the boundaries of CCWCD with the exception of the Lost Creek Drainage. There are currently 892 constituent wells contracted for coverage in the GMS augmentation plan, distributed among 518 allotment contracts. GMS also replaces evaporation losses associated with two unlined gravel pits. GMS issues an annual pumping quota to its member wells. The quota is a percentage of each member's contracted augmentation supply amount and is an allocation of overall augmentation supplies. The quota for the year is heavily dependent on the amount of water recharged in prior years, and the amount of available water in storage at the beginning of each irrigation season. The annual quota has recently averaged around 50%.

CCWCD, GMS, & WAS have existing demands for water supplies that exceed water availability and are continually looking for ways to provide additional replacement water to meet demands. Recharge operations are a primary way for CCWCD, GMS, & WAS to generate additional replacement water. By building recharge ponds, CCWCD, GMS, & WAS can use the alluvial aquifer of the South Platte River in order to retune its water supply. Retuned water supplies can be used as augmentation credits in plans for augmentation operated by GMS and WAS, and can be leased by CCWCD to water users within its district, including leasing credits to GMS & WAS.

Existing Water Plan Grant: CCWCD received approval of a \$750,000 CWCB Water Plan Grant out of the Supply & Demand Gap category at the November 2017 CWCB Board Meeting for this Project. These funds are matched with a \$750,000 Bureau of Reclamation grant and will provide for initial funding of the Project. The Water Plan Grant contract has not yet been signed as it is pending a final scope and budget.

## **Loan Feasibility Study**

Ed Armbruster, P.E., with White Sands Water Engineers, Inc., prepared the Loan Feasibility Study titled, "CWCB Loan Feasibility Study, Walker Recharge Project," dated July 2018. The feasibility study was prepared in accordance with CWCB guidelines and includes an alternative analysis and construction costs estimates. The same feasibility study is used for CCWCD, GMS, & WAS. Audited financial statements of CCWCD, GMS, & WAS were provided by Anton Collins Mitchell, LLP.

## **Borrower - Groundwater Management Subdistrict of Central Colorado Water Conservancy District**

GMS was created by the Weld County District Court on April 23, 1973, pursuant to the "Water Conservancy Act," § 37-45-101, C.R.S. It has the power to acquire and sell water rights, construct and operate facilities, exercise eminent domain, levy taxes, and contract with other agencies. GMS is governed by the same 15-member Board of Directors as its parent district, CCWCD.

## **Water Rights**

The GMS plan of augmentation (Division 1 Water Court Case No. 02CW335) was signed in 2005. The portfolio of GMS water rights consists of changed senior direct flow, junior storage, recharge and

exchange rights that have been decreed or are pending adjudication. The GMS Augmentation Plan currently has contracts totaling approximately 67,000 AF in terms of volume of consumptive use.

CCWCD, GMS, & WAS jointly filed an application for water rights and for approval of plan of augmentation for the Walker Recharge Project (Division 1 Water Court Case No. 16CW3202) on December 30, 2016. The court application includes surface water rights for three diversions, groundwater rights for four well fields and one existing well, numerous recharge structures, and a plan for augmentation. The plan for augmentation would allow diversions from the included water rights as well as other water rights owned or otherwise controlled by CCWCD, GMS, or WAS to be delivered to the recharge ponds to generate accretions to the South Platte River.

### **Project Description**

The purpose of the Project is to develop a water supply that can be used by CCWCD, GMS, & WAS in order to increase irrigation opportunities for agricultural production within its service area by providing augmentation credits that can be used to increase the well pumping quotas of GMS and WAS, and to increase water leasing opportunities of CCWCD.

The Walker Property is located in Weld and Morgan Counties between the towns of Orchard and Wiggins and was identified for as a location for a recharge operation. Recharge ponds will be constructed on the Walker Property and on neighboring properties through easement agreements. This Project is one of many that may be developed by CCWCD, GMS & WAS and pursuing this Project does not eliminate the need to pursue recharge opportunities at other locations in the future.

**Alternative 1 - No Action:** Under this alternative, CCWCD, GMS, & WAS would only rely on existing infrastructure and water rights to provide water supplies to constituent members. Since supplies of water available for use is less than augmentation needs of the districts, this alternative is unacceptable.

**Alternative 2 - Reduced Scale Project (Phase 1 Only):** This alternative would only develop Phase 1 of the Project. A scaled down version of the Project would be less total cost as it would include fewer diversions, smaller pipelines and pump stations, and fewer recharge ponds. However, it is the engineer's opinion that the reduction in cost would not be proportional to the reduction in project yield. As there are substantial economies of scale associated with developing the large scale project, a reduced scale project would result in an overall higher cost per acre-foot of developed water supply.

**Selected Alternative 3 - Full Scale Project (Phase 1 and 2):** This alternative will construct Phase 1 and 2 facilities as described below. Final design will determine the exact location and size of facilities but overall, its anticipated that CCWCD, GMS, & WAS combined will divert up to 50 cfs from the South Platte and 50 cfs from the alluvial aquifer into approximately 330 acres of recharge ponds up to five miles from the South Platte River.

- Phase 1 - The first phase of construction will include the development of one well field, one surface water diversion structure, approximately 7,500 feet of trunk line pipeline, and two recharge ponds.
- Phase 2 - The second phase of construction will include an additional surface water diversion structure, a conveyance pipeline under the South Platte River, and pipelines to deliver water to additional recharge sites.

Development of Phase 1 and 2 will result in an average annual yield of approximately 14,000 AF. GMS owns 65% of the Project, and therefore expects the Project to add 9,100 AF per year to its augmentation plan, potentially allowing for a quota increase of 13%.

Additional future phases and partnerships are also envisioned for the Project and may include development of additional well fields, surface diversion structures, pipeline networks, and additional recharge sites. The Town of Wiggins, Orphan Wells of Wiggins, Riverside Irrigation District, Bijou Irrigation Company, Weldon Valley Ditch Company, and several local dairy operations that have need for additional augmentation supplies have expressed interest in partnering with future phases. For the purpose of this loan request, it is assumed that CCWCD, GMS & WAS will be the Project's only financial partners.

The total Project cost is estimated to be \$18,164,000 as shown in Table 2.

**TABLE 2: ESTIMATED PROJECT COST**

<b>Tasks</b>	<b>Cost</b>
Land Acquisition (Completed)	\$666,000
Preliminary Engineering Investigations (In Progress)	\$850,000
Phase 1 Construction	
<i>Northside Infrastructure/ Recharge Pond</i>	\$160,000
<i>Southside Wells, pumps, manifold, controls</i>	\$2,533,000
<i>Pipelines</i>	\$2,367,000
<u><i>Empire Recharge Pond</i></u>	<u>\$176,000</u>
Phase 1 Construction Total	\$5,236,000
Phase 2	
<i>Weldon Valley Ditch Pump Station</i>	\$2,897,500
<i>Weldon Valley Ditch Bypass Structure</i>	\$364,000
<i>Pipelines</i>	\$2,844,000
<i>Bore Under South Platte River</i>	\$1,570,000
<u><i>Recharge Ponds along CR U</i></u>	<u>\$962,500</u>
Phase 2 Construction Total	\$8,638,000
Engineering/Permitting (10% Construction Cost)	\$1,387,000
Contingency (10% Construction Cost)	\$1,387,000
<b>TOTAL</b>	<b>\$18,164,000</b>

**Permitting:** Permitting and easement requirements will be determined during final design.

**Schedule:** The Walker Property was purchased in 2016 and preliminary engineering for Phase 1 has been completed. A design-build delivery arrangement for Phase 1 will be entered into by early 2019 and it is expected to be completed within three to four years. Phase 2 is also expected to take three to four years to complete, though it may begin prior to the completion of Phase 1.

### Financial Analysis

Table 3 provides a summary of the Project's financial aspects. GMS qualifies for the agricultural interest rate of 1.75% for a 30-year term.

**TABLE 3: FINANCIAL SUMMARY**

Project Wide Financial Summary	
Project Cost	\$18,164,000
CCWCD, GMS, & WAS Previous Cash Contributions	\$1,416,000
CCWCD, GMS, & WAS Future Cash Contributions	\$248,000
Bureau of Reclamation Grant	\$750,000
CWCB Water Plan Grant (November 2017)	\$750,000
CCWCD - CWCB Loan Amount	\$2,250,000
WAS - CWCB Loan Amount	\$3,000,000
GMS - CWCB Loan Amount	\$9,750,000
GMS Specific Financial Summary	
CWCB Loan Amount (Including 1% Service Fee)	\$9,847,500
CWCB Annual Loan Payment	\$424,720
CWCB Annual Loan Obligation (1 <sup>st</sup> Ten Years)	\$467,192
Number of Wells	892
Current Annual Assessment per Contracted AF (67,000 AF)	\$26.13
Annual Loan Obligation per Annual Developed Water Supply (9,100 AF)	\$51/AF

**Creditworthiness:** As of December 31, 2017, GMS had \$13,498,926 in existing long-term debt made up of two CWCB loans. In March 2018, GMS paid to CWCB a \$7 million prepayment which paid in full loan C150160 and reduced the current balance on loan C150117. GMS now has a current balance of \$6,102,378 in existing long-term debt as summarized in Table 4. The annual payment of the loan paid in full (C150160) is reflected in the "Past Years" column of Table 5 but is not included in the "Future w/ Project" column.

GMS has an assessed valuation of \$2,064,393,320 in 2017 for property taxes collected in 2018. With an annual levy of 3 mills, GMS can collect up to \$6,193,180 in annual property taxes. GMS currently levies 1.353 mills which will result in the collection of \$2,793,124 in property taxes. Given its current mil levy, GMS anticipates being able to pay off C150117 by 2022. In November 2018, GMS will ask voters to approve a \$48.7 million bond issue and associated mill levy. If passed by the voters, this loan request will be the first debt under the November 2018 debt allowance, requiring an assessment of 0.22 mills

**TABLE 4: EXISTING DEBT**

Lender	Original Balance	Current Balance	Annual Payment <sup>1</sup>	Maturity Date	Collateral
CWCB (C150117)	\$15,000,000	\$6,102,378	\$740,766	2028	Pledge of tax revenues
CWCB (C150160)	\$4,513,200	<i>Paid in Full 3/2018</i>	\$215,630	2035	Pledge of tax revenues,
Total	\$19,513,200	\$6,102,378	\$956,396		

**TABLE 5: FINANCIAL RATIOS**

Financial Ratio	Past Years	Future w/ Project
Operating Ratio (revenues/expenses) weak: <100% - average: 100% - 120% - strong: >120%	146% (strong) \$3.19M/\$2.18M	151% (strong) \$3.66M/\$2.43M
Debt Service Coverage Ratio (revenues-expenses)/debt service weak: <100% - average: 100% - 120% - strong: >120%	205% (strong) (\$3.19M-\$1.22M) \$0.96M	202% (strong) (\$3.66M-\$1.22M) \$1.21 M
Cash Reserves to Current Expenses weak: <50% - average: 50% - 100% - strong: >100%	15% (weak) \$0.32M/\$2.18M	13% (weak) \$0.32M/\$2.43M

**Collateral:** Security for this loan will be a pledge of the revenues from the mill levy to be approved at the November 2018 election. This security is in compliance with CWCB Financial Policy #5 (Collateral).

cc: Randy Ray, Executive Director, Central Colorado Water Conservancy District  
Jennifer Mele, Colorado Attorney General's Office

Attachment: Water Project Loan Program - Project Data Sheet



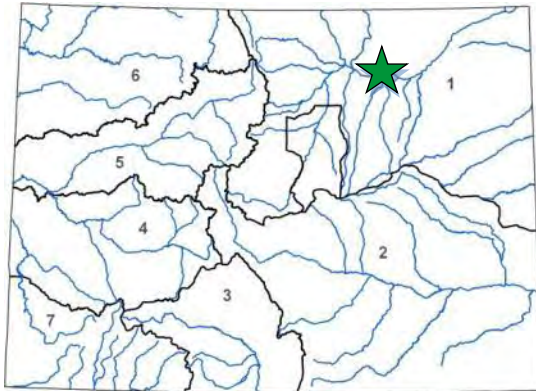


## Walker Recharge

### Groundwater Management Subdistrict of Central Colorado Water Conservancy District

September 2018 Board Meeting

L O A N   D E T A I L S	
Project Cost:	\$18,164,000
CWCB Loan (with Service Fee):	\$9,847,500
Loan Term and Interest Rate:	30 years @ 1.75%
Funding Source:	Severance Tax PBF
B O R R O W E R   T Y P E	
Agriculture	Municipal      Commercial
100%	0 % Low - 0% Mid -0% High      0%
P R O J E C T   D E T A I L S	
Project Type:	Augmentation Facility
Annual Yield:	9,100 AF



L O C A T I O N	
County:	Weld & Morgan
Water Source:	South Platte River
Drainage Basin:	South Platte
Division:	1      District: 1

The Central Colorado Water Conservancy District (CCWCD) was formed in 1965 to develop, manage, and protect water resources in northeast Colorado. CCWCD includes approximately 210,000 acres of irrigated agricultural lands. CCWCD has two subdistrict each with its own augmentation plan: The Groundwater

Management Subdistrict (GMS), formed in 1973, and the Well Augmentation Subdistrict (WAS), formed in 2004. CCWCD, GMS, & WAS have partnered together to build and the Walker Recharge Project.

The Walker Recharge Project will be located in Weld and Morgan Counties between the towns of Orchard and Wiggins. CCWCD, GMS, & WAS jointly filed an application for water rights and for approval of plan of augmentation for the Walker Recharge site (Division 1 Water Court Case No. 16CW3202) on December 30, 2016. The court application includes surface water rights for three diversions, groundwater rights for four well fields and one existing well, numerous recharge structures, and a plan for augmentation. The plan for augmentation would allow diversions from the included water rights as well as other water rights owned or otherwise controlled by CCWCD, GMS, or WAS to be delivered to the recharge ponds to generate accretions to the South Platte River.

Construction is expected to generally occur in two phases, each taking three to four years. When finished, recharge credits will be used by GMS and WAS to increase the well pumping quota issued under the respective augmentation plans. CCWCD will use its recharge credits to increase the amount of water leased to GMS, WAS, and other water users within the CCWCD boundaries.

