



COLORADO

**Colorado Water
Conservation Board**

Department of Natural Resources

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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: 9a. Water Project Loans
Well Augmentation Subdistrict of Central Colorado Water Conservancy District -
Shores Lakes Pond C Infrastructure Improvement

Introduction

The Well Augmentation Subdistrict (WAS) of Central Colorado Water Conservancy District (CCWCD) is applying for a loan for the Shores Lakes Pond C Infrastructure Improvement (Project). Shores Lakes is a gravel pit complex that has been jointly developed by WAS and CCWCD into a water storage reservoir. The reservoir is a key component of WAS's augmentation plan. The purpose of the Project is to increase the efficiency by which the Shores Lakes can capture and release water for augmentation use. The current Project cost is estimated to be \$3,430,000. CCWCD is contributing \$1,086,000 (32% of the Project cost) in cash, and WAS is seeking this loan to cover the remaining \$2,344,000 (68% of Project costs). See attached Project Data Sheet for a location map and Project summary.

Staff Recommendation

Staff recommends the Board approve a loan not to exceed \$2,367,440 (\$2,344,000 for Project costs and \$23,440 for the 1% loan service fee) to the Well Augmentation Subdistrict of Central Colorado Water Conservancy District for the Shores Lakes Pond C Infrastructure Improvement Project, from the Construction Fund. The loan terms shall be 30 years at the agricultural rate of 1.65% per annum. Security for the loan shall be in compliance with CWCB Financial Policy #5.



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: the Groundwater Management Subdistrict (GMS), formed in 1973, and the Well Augmentation Subdistrict (WAS), formed in 2004. Both subdistricts are separate legal entities with distinct legal boundaries and provide augmentation water for different alluvial groundwater wells under separate decreed plans for augmentation.

WAS was formed to develop a permanent augmentation plan for well owners who were previously members of the Groundwater Appropriators of the South Platte (GASP). WAS extends over the same broad area as the CCWCD boundaries, but is limited to only the land specifically identified in individual contracts with its members. There are currently 275 wells contracted for coverage in WAS's augmentation plan, covering approximately 78 square miles. Some of those wells represent supplemental groundwater for the members, but for others, the wells are their sole source of water. WAS 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. For the first seven years of operation, the pumping quota was zero percent as all augmentation water was needed to replace on-going out-of-priority depletions resulting from well pumping prior to 2006. However, resulting from work done to increase its augmentation supplies, the quota has recently ranged from 35% to 60%.

Shores Lakes is a gravel pit complex located along the north side of Firestone Blvd (Hwy 119) approximately one-mile east of I-25 in Weld County near Firestone. The complex consists of four cells (Ponds A, B, C, and D) which have been lined with slurry walls. The liner has been approved by the State Engineer's Office as meeting leakage standards; therefore, the mined cells are considered a reservoir. Because the cells are interconnected via pipelines, the complex is considered a single reservoir. Mining at Ponds B, C, and D is complete and WAS has actively operated Shores Lakes since 2007. Pond A has been partially mined out and will be completed within two years.

Once mining in Pond A is complete, Shores Lakes will have a storage capacity of 4,500 AF. Permanent infrastructure that has already been installed at Shores Lakes includes the inlet and outlet structures for Ponds A and B. Although envisioned at the time the water rights for Shores Lakes were appropriated in 2000, Pond C's inlet and outlet structures have not yet been completed because of financial constraints. This is causing current operations to be both difficult and inefficient. Namely, the lack of both inlet and outlet structures at Pond C creates a bottleneck where Pond C must rely on flows through the interconnect pipelines. This "staging" of water between the individual ponds impairs the ability for WAS to efficiently divert or release water as needed. Additionally, Pond B's existing inlet structure off the Rural Ditch doesn't have capacity for WAS to divert its full water right. Pond D serves as the emergency water reserve for Shores Lakes and will not need its own inlet or outlet aside from the existing interconnect with Pond C. This Project will complete the infrastructure at Shores Lakes.

Loan Feasibility Study

Ed Armbruster, P.E., with White Sands Water Engineers, Inc., prepared the Loan Feasibility Study titled, "CWCB Loan Feasibility Study, Shores Lakes Infrastructure Improvement Project," dated September 15, 2017. The feasibility study was prepared in accordance with CWCB guidelines and includes an alternative analysis and construction costs estimates. Audited financial statements of WAS were provided by Anton Collins Mitchell, LLP.

Borrower - Well Augmentation Subdistrict of Central Colorado Water Conservancy District

WAS is a special district created by the Weld County District Court on January 8, 2004, 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. WAS is governed by the same 16-member Board of Directors as its parent district, CCWCD. Revenues of WAS are derived from member assessments and property taxes. In 2004, voters elected to "de-Bruce" WAS, allowing it to keep and use revenues that otherwise would have been returned to taxpayers under TABOR.

All members of the WAS Augmentation Plan have a legal contract with WAS to provide augmentation services. Contracts are reviewed and renewed annually. Contracts may be deleted from the plan with a majority vote from the Board of Directors for reasons including failure to pay assessments or violating policies regarding over-pumping or meter tampering.

Water Rights

The WAS plan of augmentation (Division 1 Water Court Case No. 03CW099) was signed in 2008. The portfolio of WAS water rights consists of changed senior direct flow, junior storage, recharge and exchange rights that have been decreed or are pending adjudication. The storage rights impacted by this Project are shown in Table 1.

TABLE 1: SHORES LAKES STORAGE WATER RIGHTS

Name	Amount	Appropriation Date	Adjudication Date	Water Court Case No.
Shores Lakes	775.42 AF	5/31/2000	12/31/2000	15CW3096 (00CW083)
Shores Lakes	2,724.58 AF (Conditional)	5/31/2000	12/31/2000	15CW3096 (00CW083)
Shores Lakes	1000 AF (Conditional)	10/07/2002	12/31/2000	15CW3096 (00CW083)

The WAS Augmentation Plan currently has contracts totaling 15,250 AF.

Project Description

The purpose of the Project is to increase the efficiency by which the Shores Lakes can capture and release water for augmentation.

Alternative 1 - No Action: Under this alternative, WAS would continue to operate Shores Lakes using existing infrastructure. This alternative was not selected because existing infrastructure is unable to efficiently capture all water available to be diverted and stored. Since supplies of water available for use in WAS's augmentation plan is less than its augmentation needs, this alternative is unacceptable.

Alternative 2 - Temporary Facilities: This alternative would consist of using temporary portable pumps and pipelines in an effort to maximize capture of available storage water. WAS and CCWCD have on occasion used such temporary infrastructure in the past and found that because the window of opportunity to operate junior water rights can be brief, a significant amount of water that was available to store was not captured. This alternative is unacceptable as a long-term solution.

Selected Alternative 3 - Permanent Infrastructure Improvements: This alternative consists of constructing the permanent infrastructure improvements to Pond C. The three components to the Project are as follows:

- **Pond C Inlet from Tri-Town Drainage:** This inlet will allow for the capture and storage of water conveyed down the Tri-Town Drainage. During intense (but short) rain events, flows can be substantial and at these times there is often not a call on the river allowing WAS to divert these flows into storage.
- **Pond C Inlet from Rural Ditch:** This inlet will greatly reduce the staging difficulties associated with the existing system, and will approximately double the storage inflow capacity from the Rural Ditch, allowing WAS to divert its full Rural Ditch water right.
- **Pond C Outlet:** This outlet will alleviate the staging difficulties associated with releases from Ponds C and D, and will convey water to the St. Vrain River more effectively. The outlet structure will be a combination of a gravity outlet and a pump station, and will include an outlet pipeline extending beneath the Tri-Town Drainage.

The total Project's cost is estimated to be \$3,430,000 as shown in Table 2.

TABLE 2: ESTIMATED PROJECT COST

Tasks	Cost
Pond C Inlet from Tri-Town Drainage	\$240,000
Pond C Inlet from Rural Ditch	\$150,000
Pond C Outlet	
Gravity Outlet	\$425,000
Pump Station Outlet	\$947,000
Pipeline & Meter	\$937,000
Engineering	\$447,000
Contingency	\$284,000
TOTAL	\$3,430,000

Permitting: Burnco Colorado, Inc. holds the active mining permit with the Division of Mining, Reclamation, and Safety (DRMS). The DRMS permit includes Pond C's proposed inlet and outlet structures as part of the final reclamation activities. Pond C's outlet pipeline will require crossing permits from Weld County and two ditch companies, as well as an easement with an adjacent landowner.

Schedule: Final design is anticipated to be complete by summer 2018 so the Project can be put out to bid for a Fall 2018 construction start. All work within the reservoir is planned to be completed by April 1, 2019 so as not to interfere with the irrigation season.

Financial Analysis

Table 3 provides a summary of the Project's financial aspects. WAS qualifies for the agricultural interest rate of 1.65% for a 30-year term.

TABLE 3: FINANCIAL SUMMARY

Project Cost	\$3,430,000
CCWCD Cash Contribution	\$1,086,000
CWCB Loan Amount	\$2,344,000
CWCB Loan Amount (Including 1% Service Fee)	\$2,367,440
CWCB Annual Loan Payment	\$100,687
CWCB Annual Loan Obligation (1 st Ten Years)	\$110,756
Number of Wells	275
Current Annual Assessment per Contracted AF (15,250 AF)	\$64
Annual Loan Obligation per Contracted AF (15,250 AF)	\$7.26

Creditworthiness: WAS has \$14,019,068 in existing long term debt as shown in Table 4. CWCB Loan C150194 was for water development projects including the original purchase of Shores Lakes. CWCB Loan CT2015-060 was for the acquisition of water rights. CT2015-060 was substantially completed in 2017 and its first annual payment will be due in 2018. Both loans are in good standing.

Voters approved WAS to issue up to \$39 million in bonds for water development and water rights acquisition in the November 2004 election. That ballot measure also approved a 9 mill property tax to service the approved debt. With this new loan, WAS will have issued approximately \$19 million out of the approved debt limit of \$39 million, with a total debt service of \$974,021 (includes CWCB's 10% reserve requirement). Tax revenue in 2017 is projected to be approximately \$1.4 million which is sufficient to cover the total future debt service.

TABLE 4: EXISTING DEBT

Lender	Original Balance	Current Balance	Annual Payment	Maturity Date	Collateral
CWCB (C150194)	\$14,934,612	\$12,367,163	\$713,541	2040	Pledge of tax revenues
CWCB (CT2015-060)	\$1,651,905	\$1,651,905	\$71,246	2047	Pledge of tax revenues, Water Rights purchased with loan
Total		\$14,019,068	\$784,787\$		

TABLE 5: FINANCIAL RATIOS

Financial Ratio	Past 3 Years	Future w/ Project
Operating Ratio (revenues/expenses) weak: <100% - average: 100% - 120% - strong: >120%	129% (strong) \$3.73M/\$2.90M	121% (strong) \$3.73M/\$3.09M
Debt Service Coverage Ratio (revenues-expenses)/debt service weak: <100% - average: 100% - 120% - strong: >120%	206% (strong) (\$3.73M-\$2.12M) \$0.78M	166% (strong) (\$3.73M-\$2.12M) \$0.97M
Cash Reserves to Current Expenses weak: <50% - average: 50% - 100% - strong: >100%	235% (strong) \$6.82M/\$2.90M	221% (strong) \$6.82M/\$3.09M
Annual Operating Cost per Acre-Foot (15,250 AF) weak: <50% - average: 50% - 100% - strong: >100%	\$190 ¹ \$2.9M/15,250 AF	\$203 ¹ \$3.09M/15,250 AF

¹Strong-Average-Weak rating is for diverted irrigation water and not applicable to augmented well pumping water.

Collateral: Security for this loan will be a pledge of the revenues from WAS's 9 mil property tax revenue. 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

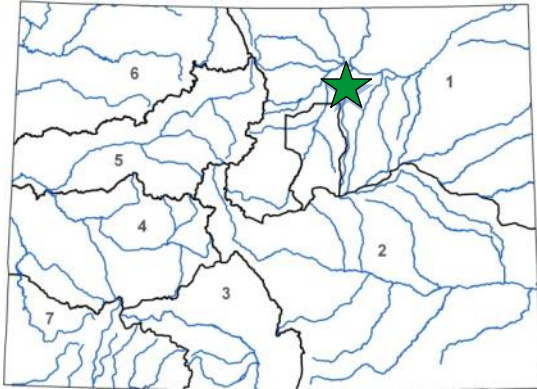


Well Augmentation Subdistrict of Central Colorado Water Conservancy District

Shores Lakes Pond C Infrastructure Improvement

January 2018 Board Meeting

L O A N D E T A I L S	
Project Cost:	\$3,430,000
CWCB Loan (with Service Fee):	\$2,367,440
Loan Term and Interest Rate:	30 years @ 1.65%
Funding Source:	Construction Fund
B O R R O W E R T Y P E	
Agriculture	Municipal
100%	0 % Low - 0% Mid -0% High
	Commercial
	0%
P R O J E C T D E T A I L S	
Project Type:	Reservoir Rehabilitation
Storage Maintained:	4,500 AF

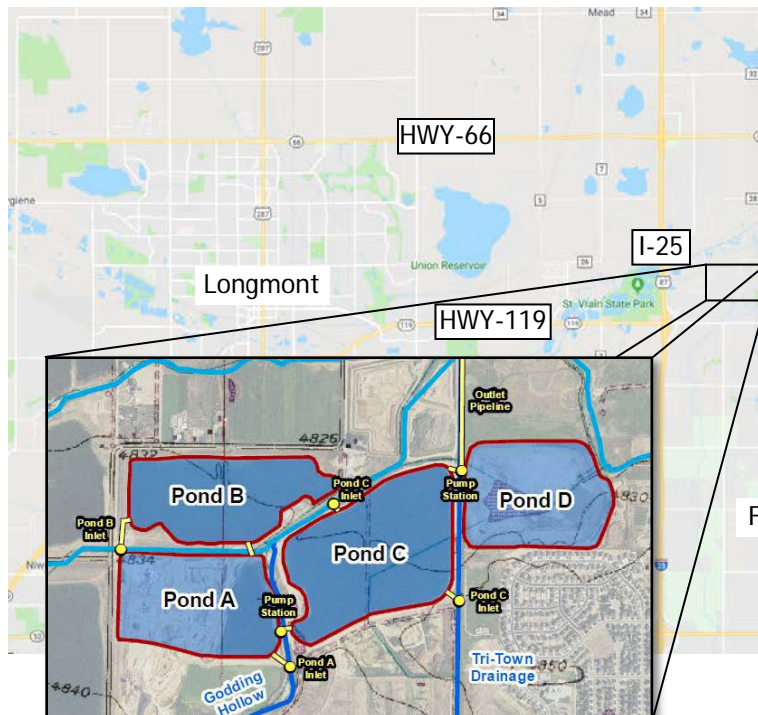


L O C A T I O N	
County:	Weld
Water Source:	South Platte River
Drainage Basin:	South Platte
Division:	1
District:	2

The Well Augmentation Subdistrict (WAS) was formed in 2004 to develop a permanent augmentation plan for well owners who were previously members of the Groundwater Appropriators of the South Platte (GASP), and covers land in Adams, Weld, and Morgan counties.

There are currently 275 wells contracted for coverage in the WAS Augmentation Plan, covering 78 square miles, for a total of 15,250 AF. WAS issues an annual pumping quota to its member wells based on WAS overall augmentation supplies. The first seven years the quota was set to 0%, but in recent years the quota has ranged from 35%-60%.

The Shores Lakes is a gravel pit complex located near Firestone in Weld County and consists of four lined cells (Ponds A, B, C, D), which are interconnected via pipelines. Shores Lakes has all planned infrastructure installed except Pond C's inlet and outlet structures. This Project will install the inlet and outlet infrastructure for Pond C, thereby allowing WAS to efficiently store and release water under its augmentation plan. Construction is anticipated to being in fall 2018 and be complete in spring 2019.



Pond C Temporary Outlet

