



COLORADO
Colorado Water Conservation Board
Department of Natural Resources

1313 Sherman Street, Room 718
Denver, CO 80203

P (303) 866-3441
F (303) 866-4474

Jared Polis, Governor

Dan Gibbs, DNR Executive Director

Rebecca Mitchell, CWCB Director

TO: Colorado Water Conservation Board Members

FROM: Joshua Godwin, P.E., Project Manager
Kirk Russell, P.E., Finance Section Chief

DATE: March 15-16, 2023 Board Meeting

AGENDA ITEM: 21b. Water Project Loans
Colorado City Metropolitan District
Lake Beckwith Dam Modifications

Staff Recommendation

Staff recommends the Board approve a loan not to exceed \$3,333,000 (\$3,300,000 for project costs and \$33,000 for the 1% service fee) to the Colorado City Metropolitan District, acting by and through its water enterprise, for costs related to the Lake Beckwith Dam Modifications, from the Severance Tax Perpetual Base Fund. The loan term will be 30 years at an interest rate of 2.00% per annum. Security for the loan shall be in compliance with CWCB Financial Policy #5.

Introduction

The Colorado City Metropolitan District (District) is applying for a loan for the Lake Beckwith Dam Modifications (Project) at a reduced interest rate due to a reservoir restriction. Lake Beckwith is the District's sole reservoir with a storage capacity of 1,033 AF and has been under a State Engineer's Office (SEO) dam safety compliance plan and storage restriction since October 2021. The result of the Project will be to repair Lake Beckwith Dam - bringing it back into compliance and lifting the storage restriction. The Project will also prepare Lake Beckwith for future expansion by widening the dam crest. The total Project cost is estimated to be \$3,300,000. See attached Project Data Sheet for a location map and Project summary.



Borrower - Colorado City Metropolitan District

The District is a special district, formed pursuant to the Special District Act, C.R.S. Title 32. The District is located within the Arkansas Basin located 30 miles southwest of Pueblo, Colorado, in southwestern Pueblo County. Colorado City serves water and sewer to 1,057 households and businesses within the District service area. It also provides residents located outside the service area with a water dispensing haul station. The District is governed by a five-member board of directors and managed by an appointed district manager. Board members are elected on odd years and alternate between 2 and 3 members up for election; there is a two-term limit for each director. The board of directors has authority to incur debt, set rates, and penalize in the event of nonpayment.

Background

Lake Beckwith Dam and Reservoir (also known as Hayden Reservoir) was built in 1912 and serves as the only storage for the District. Since October 1, 2021, Lake Beckwith Dam has been under a SEO dam safety compliance plan and storage restriction due to identified dam safety deficiencies. The dam safety compliance plan imposed a storage restriction beginning October 1, 2021. If the dam remains out of compliance, the reservoir would be limited to 798 AF of storage. The average peak daily water demand for the District can exceed 2 AF.

Dam Safety's concerns with Lake Beckwith Dam are cracking and settlement of the dam, inadequate emergency drawdown capacity, and potential internal erosion along the dam's low level outlet. With the constant growth of Colorado City, the District also recognizes a need to expand the storage of Lake Beckwith. Along with the rehabilitation of the dam, the District intends to use this opportunity to prepare the reservoir for an expansion in the future by widening the crest during construction. The widening of the crest would allow for the District to raise the dam height at a later date, thereby increasing storage capacity.

Loan Feasibility Study

The District, along with Michael Graber, P.E., RJH Consultants, Inc. prepared the Loan Feasibility Study titled, "Feasibility Study for Lake Beckwith Dam Modifications." dated November 2022. The feasibility study was prepared in accordance with CWCB guidelines and includes preliminary engineering, an analysis of alternatives, and costs. Audited financial statements were provided by Colorado City Metropolitan District and were prepared by Garren, Ross & DeNardo, Inc, CPA.

Water Rights

The District’s water rights are shown in Table 1.

TABLE 1: WATER RIGHTS

Name	Amount	Appropriation Date	Adjudication Date	Case No.
Hayden Supply Canal	89.74 (cfs) ¹	05/01/1859 -06/08/1905	06/26/1893 - 07/05/1929	80CW44
Colorado City (Graneros Creek)	2.55 (cfs) ²	03/01/1862 - 12/31/1877	07/26/1893	
Hayden Reservoir (Lake Beckwith)	939.28 AF	06/08/1905	07/05/1929	
Nontributary Groundwater	1,116 AF/yr	07/09/1971 - 08/28/1984	12/31/1963 -05/23/1976	

¹ Comprised of 17 different amounts that range in priority from 3 to 231.

² Comprised of 5 different amounts that range in priority from 9 to 179.

Project Description

The purpose of this Project is to rehabilitate Lake Beckwith Dam and lift the storage restrictions on Lake Beckwith. A secondary purpose is to widen the dam crest to allow for a future reservoir expansion.

Alternative 1 - No Action: No action would mean that the District’s sole storage would be significantly restricted, leaving Colorado City more vulnerable during a drought especially as it continues to grow and the demand for water increases. For these reasons, the alternative was not selected.

Alternative 2 - Dam Safety Compliance Modifications: This alternative directly addresses Dam Safety’s concerns and would bring Lake Beckwith Dam into compliance. Once concerns are addressed the storage restriction to Lake Beckwith would be lifted. The modifications would include: leveling the dam embankment, constructing drains and filters in the embankment and toe, constructing a seepage cutoff trench through the foundation, and construction of a new siphon outlet works. This alternative would cost approximately \$2,450,000 and would immediately address Dam Safety’s concerns, but the District also desires to increase Lake Beckwith storage. Since this alternative does not prepare Lake Beckwith for future expansion, it was not selected.

Selected Alternative 3 - Dam Safety Compliance Modifications and Crest Widening: This alternative addresses the identified Dam Safety issues and maintains the existing storage volume of 1,033 AF. In addition to lifting the compliance plan and storage restrictions, the benefit this alternative provides is that the embankment widening for a future dam raise demonstrates progress towards increasing reservoir storage for District held conditional storage rights. This effort would demonstrate diligence to the water courts towards eventually storing the conditional storage rights which would then allow them to be decreed absolute water rights. The estimated cost of this alternative is \$3,300,000 as shown in Table 2.

TABLE 2: ESTIMATED PROJECT COST

Tasks	Cost
General Site Work and Management	\$300,000
Outlet Works Construction	\$450,000
Embankment Construction	\$1,250,000
Engineering	\$900,000
Contingency (14%)	\$400,000
TOTAL	\$3,300,000

Permitting: Dam modifications will require SEO’s review and approval, a FEMA Letter of Map Amendment will be required to level the embankment crest or raise the dam, plans and specifications of road design will be subject to Pueblo County review, and Pueblo County will also review the District’s plan to determine if a 1041 will be required.

Schedule: The District expects to complete the Project’s design in summer 2023 and begin the bidding process in fall 2023. Construction is then expected to start at the end of 2023 with a Project closeout target date in the spring of 2025.

Financial Analysis

Table 3 provides a summary of the Project’s financial aspects. The District qualifies for an interest rate of 2.50% for a 30-year loan (100% Low-Income Municipal). A 0.5% interest rate reduction is available due to the storage restriction resulting in a 2.00% rate for a 30 term. All interest rate evaluations are per CWCB Financial Policy #7 (Lending Rate Determination). In anticipation of this Project and system-wide improvements, the District raised rates in 2018 and 2023 and is prepared to raise rates, if needed, in 2025.

TABLE 3: FINANCIAL SUMMARY

Project Cost	\$3,300,000
CWCB Loan Amount	\$3,300,000
CWCB Loan Amount (Including 1% Service Fee)	\$3,333,000
CWCB Annual Loan Payment	\$148,818
CWCB Annual Loan Obligation (1 st Ten Years)	\$164,700
Number of Taps	1057
Current Average Monthly Water Bill	\$54.08
Monthly Loan Obligation per Tap	\$12.98
Future Average Monthly Water Bill (Estimate)	\$54.08 ¹

¹Rates have already been set in anticipation of the loan repayment.

Creditworthiness: The District has no current or previous loans with the CWCB. The District does have two existing external debts, of which one will be paid off in 2024. Table 4 provides a summary of those loans.

TABLE 4: EXISTING DEBT

Lender	Original Balance	Current Balance	Annual Payment	Maturity Date	Collateral
Bank of the San Juans	\$3,526,301	\$3,276,650	\$261,404	02/19/2040	Pledge of Revenues
Colorado Water Resources & Power Development Authority	\$2,394,341	\$172,245	\$113,813	08/01/2024	Pledge of Revenues
Total		\$3,448,895	\$375,217		

TABLE 5: FINANCIAL RATIOS

Financial Ratio	Past Years	Future ¹ w/ Project
Operating Ratio (revenues/expenses) weak: <100% average: 100% - 120% strong: >120%	108% (average) \$3.50M/\$3.24M	106% (average) \$3.50M/\$3.29M
Debt Service Coverage Ratio (revenues-expenses)/debt service weak: <100% average: 100% - 120% strong: >120%	168% (strong) <u>\$3.50M-\$2.87M</u> \$0.375M	148% (strong) <u>\$3.50M-\$2.87M</u> \$0.426M
Cash Reserves to Current Expenses weak: <50% average: 50% - 100% strong: >100%	54% (average) \$1.74M/\$3.24M	53% (average) \$1.74M/\$3.29M
Debt per Tap (1057 taps) weak: >\$5,000 average: \$2,500 - \$5,000 strong: <\$2,500	\$3,264 (average) \$3.45M/1057	\$6,414 (weak) \$6.78M/1057
Average Monthly Water Bill weak: >\$60 average: \$30 - \$60 strong: <\$30	\$54.08 (average)	\$54.08 (average)

¹ Assumes CWRPDA loan is paid off prior to CWCB repayment begins

Collateral: Security for this loan will be a pledge of revenues backed by a rate covenant as evidenced by annual financial reporting. This security is in compliance with the CWCB financial Policy #5 (Collateral).

cc: James Eccher, District Manager, Colorado City Metropolitan District
 Jennifer Mele, Colorado Attorney General's Office

Attachments: Water Project Loan Program - Project Data Sheet

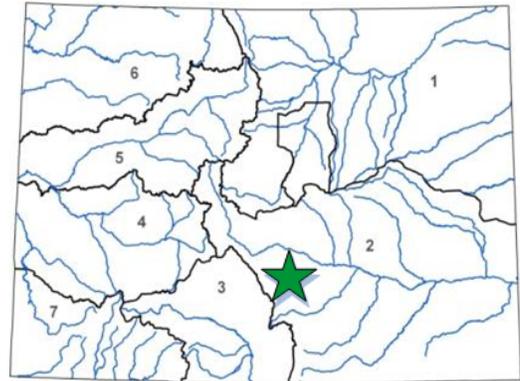


Lake Beckwith Dam Modifications

Colorado City Metropolitan District

March 2023 Board Meeting

LOAN DETAILS		
Project Cost:	\$3,300,000	
CWCB Loan (with 1% Service Fee):	\$3,333,000	
Loan Term and Interest Rate:	30 Yrs @ 2.0%	
Funding Source:	STPBF	
BORROWER TYPE		
Agriculture	Municipal	Commercial
0%	100% Low - 0% Mid - 0% High	0%
PROJECT DETAILS		
Project Type:	Reservoir Rehabilitation	
Average Annual Delivery:	568 AF	



Colorado City Metropolitan District (District) is a Title 32 Special District that provides water and sewer service for approximately 2,400 residents.

LOCATION	
County:	Pueblo
Water Source:	Greenhorn Creek
Drainage Basin:	Arkansas
Division: 2	District: 15

Lake Beckwith is a high hazard dam constructed around 1912 that serves as the only water supply for the District. It's an earthen embankment that has been under a storage restriction since October 2021 from the Colorado Dam Safety Branch. The project will help the District to remove the storage restriction and provide a basis for a potential future enlargement. Construction will include a new filter protection system, a new outlet works siphon adjacent to the existing one to meet drawdown requirements, and a downstream crest widening. Construction is expected to take place between winter 2023 and spring 2025.

