



COLORADO

Colorado Water Conservation Board

Department of Natural Resources
1313 Sherman Street, Room 718
Denver, CO 80203

November 22, 2019

Dennis Harmon, General Manager
The Tunnel Water Company
2319 East Mulberry Street
Fort Collins, CO 80524

Re: West Half Laramie-Poudre Tunnel Rehabilitation - Loan Increase
Contract Number CT2019-3706

Dear Mr. Harmon:

I am pleased to inform you that on November 20, 2019 the Colorado Water Conservation Board approved your loan increase and is recommending it to the General Assembly for approval via the 2020 CWCB Projects Bill. The loan funds in excess of the current contract amount will be available after the Governor has signed the Bill and the loan contract is amended.

The Board approved a loan increase of \$2,525,000 (\$2,500,000 for project costs and \$25,000 for the 1% Loan Service Fee). The total loan amount will become \$11,615,000 (\$11,500,000 for Project costs and \$115,000 for the 1% service fee). Since this increased loan amount exceeds the Board's statutory authority to approve loans without Legislative approval, it will be included in the 2020 Projects Bill. The loan terms shall remain 30 years at blended interest rate of 2.85% per annum.

I have attached a copy of the updated Board memo that includes the Board's approval.

On behalf of the Board, I would like to thank you for your interest in the CWCB Water Project Loan.

Sincerely,

Kirk Russell, P.E., Chief
Finance Section

Attachment: Updated Board Memo





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**Colorado Water
Conservation Board**
Department of Natural Resources

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Denver, CO 80203

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Jared Polis, Governor

Dan Gibbs, DNR Executive Director

Rebecca Mitchell, CWCB Director

TO: Colorado Water Conservation Board Members

FROM: Rachel Pittinger, P.E., Project Manager *R.P.*
Kirk Russell, P.E., Finance Section Chief *K.R.*

DATE: November 20-21, 2019 Board Meeting (Updated November 20, 2019)

AGENDA ITEM: 11b. Change to Existing Loans
The Tunnel Water Company - West Half Laramie-Poudre Tunnel Rehabilitation

Introduction

The Tunnel Water Company (Company) received approval of a \$9,090,000 CWCB loan (Contract number CT2019-3706) to finance the West Half of the Laramie-Poudre Tunnel Rehabilitation (Project) at the March 2019 Board Meeting. The purpose of the Project is to prevent future tunnel collapse and blockage by rehabilitating the existing west half of the tunnel with replacement of the existing support systems and to prevent future collapse and tunnel blockage. The Company began construction in August 2019 and discovered significant voids behind and above the existing structural support that the preliminary engineering investigation did not show. Additional material and structural support is needed beyond the original quantified estimate causing the Project cost to increase. The total Project cost is now estimated to be \$11,500,000. The Company is requesting a loan increase to fund 100% of the Project. This additional Project cost will exceed the Board's \$10 million authorization and therefore will need to be included in the 2020 Projects Bill. See the attached Project Data Sheet for a location map and a Project summary.

Staff Recommendation (Board approved Staff Recommendation November 20, 2019)

Staff recommends the Board request the General Assembly authorize a loan for 11,615,000 to The Tunnel Water Company in the 2020 CWCB Projects Bill.

The \$11,615,000 (\$11,500,000 for Project costs and \$115,000 for the 1% service fee) loan to The Tunnel Water Company is for costs related to the West Half of the Laramie-Poudre Tunnel Rehabilitation Project, from the Construction Fund. This is an increase of \$2,525,000 (\$2,500,000 for Project costs and \$25,000 for the 1% service fee). The loan terms shall remain 30 years at blended interest rate of 2.85% per annum. Security for the loan shall remain in compliance with CWCB Financial Policy #5.



Project Update

West Half of the Laramie Poudre Tunnel: In the transition from the box culverts, installed in 2015 to the historic tunnel, there is a zone which includes some badly deteriorated concrete and steel supports. While the contractor, Harrison Western Construction, prepared preliminary probe holes earlier this year in that area, there was some concern about what might be revealed when the old steel supports and concrete were removed. When additional probe holes were drilled after construction began in August 2019, it was discovered there were significant voids behind and above the concrete and existing steel supports. The contractor has filled those voids with substantial amounts of grout and removed the old concrete and the deteriorated steel support structures. Additionally, there were old square set timbers, rebar, trees, sand, gravel and rocks which had been used to backfill around historic tunnel in that section.

Upon recommendation by Lithos Engineering and by Harrison Western Corporation, the Company decided to use new, steel square structural supports in the tunnel through the transitional section to carry the weight and ensure short term and long term structural integrity. This transition section runs approximately 200-feet into the tunnel until the structurally competent rock, which comprises the vast majority of the tunnel geology. As of October 2019, 20 steel supports were installed through this transitional section.

With the assistance of Lithos Engineering, the Company revised the projected costs of the Project, which exceeded the initial estimates by \$2,500,000. The increase includes both the cost for the additional work required in this transitional section between the 2015 box culverts and the historic tunnel, and the cost of demobilization and remobilization for a second winter of construction.

The updated Project cost estimate is \$11,500,000 as shown in Table 1.

TABLE 1: UPDATED PROJECT COST ESTIMATE

| Task | Original | Current |
|--|-------------|--------------|
| Design Engineering | \$1,100,000 | \$1,800,000 |
| Construction and Construction Management | \$7,700,000 | \$9,450,000 |
| Contingency | \$200,000 | \$250,000 |
| Total | \$9,000,000 | \$11,500,000 |

Permitting: The Project is a maintenance activity and permitted under the terms of its perpetual tunnel easement and Colorado law.

Schedule: Construction is underway and will continue through Spring 2021, allowing for construction demobilization and remobilization in non-irrigation seasons.

Financial Analysis

Table 2 provides a summary of the Project's financial aspects. The term of the loan will remain at 30 years at a blended interest rate of 2.85% (Ownership: 4% Low-Income Municipal, 25% Middle-Income Municipal, 49% High-Income Municipal, 22% Agriculture). This increase will cover 100% of eligible costs.

TABLE 2: UPDATED FINANCIAL SUMMARY

| | Original | Current |
|---|---------------|---------------|
| Total Project Cost | \$9,000,000 | \$11,500,000 |
| CWCB Loan Amount | \$9,000,000 | \$11,500,000 |
| CWCB Loan Amount (Including 1% Service Fee) | \$9,090,000 | \$11,615,000 |
| CWCB Annual Loan Payment | \$454,818 | \$581,157 |
| CWCB Annual Loan Obligation (including 10% Reserve) | \$500,300 | \$639,272 |
| Number of Shares | 450 | 450 |
| Annual Loan Obligation per Share | \$1,112/share | \$1,420/share |
| Current Assessment per Share | \$1,370/share | \$1,370/share |
| Future Assessment per Share | \$2,620/share | \$2,970/share |

Creditworthiness: The Company has \$3,879,568 in existing debt made up of three CWCB loans as summarized in Table 3. All loans are for the rehabilitation on the Laramie-Poudre Tunnel, and are in good standing.

TABLE 3: UPDATED EXISTING DEBT

| Lender | Original Balance | Current Balance | Annual Payment | Maturity Date | Collateral |
|--------------------------|-------------------------------|----------------------------|-------------------------|---------------|---|
| CWCB C150052 | \$1,570,214 | \$997,263 | \$98,226 | 2032 | Water rights available to the Laramie River System of the Tunnel Water Company. The west and east portal structures and the easement for the Laramie-Poudre Tunnel. |
| CWCB C150065 | \$1,847,932 | \$1,165,305 | \$112,799 | 2032 | |
| Subtotal (Existing Debt) | | \$2,162,568 | \$211,025 | | |
| CWCB CT2016-2001 | \$1,717,000 (In Disbursement) | \$1,717,000 (Max Approved) | \$82,582 (Max Approved) | - | |
| Total | | \$3,879,568 | \$293,607 | | |

TABLE 4: UPDATED FINANCIAL RATIOS

| Financial Ratio | Past Years | Future w/ Project |
|--|---|--|
| Operating Ratio (revenues/expenses) weak: <100% - average: 100% - 120% - strong: >120% | 106% (average) \$518K/\$490K | 100% (average) \$1.22M/\$1.21M |
| Debt Service Coverage Ratio (revenues-expenses)/debt service weak: <100% - average: 100% - 120% - strong: >120% | 113% (average) (\$518K-\$279K) \$211K | 100% (average) (\$1.22M-\$279K) \$933K |
| Cash Reserves to Current Expenses weak: <50% - average: 50% - 100% - strong: >100% | 31% (weak) \$154K/\$490K | 13% (weak) \$154K/\$1.21M |
| Annual Operating Cost per Acre-Foot (15,755AF) weak: >\$20 - average: \$10 - \$20 - strong: <\$10 | \$31 (weak) \$490K/15,755 AF | \$77 (weak) \$1.21M/15,755 AF |

Collateral: Security for this loan will remain a pledge of assessment revenues, and the Project itself, the west and east portal structures for the Laramie-Poudre Tunnel. This is in compliance with CWCB Financial Policy #5 (Collateral).

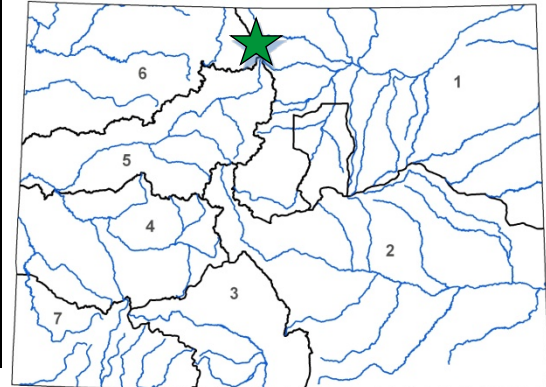
cc: Dennis Harmon, General Manager, The Tunnel Water Company
Jennifer Mele, Colorado Attorney General's Office

Attachments: Water Project Loan Program - Project Data Sheet
Original Board Memo (March 2019)



(Loan Increase)

| L O A N D E T A I L S | |
|-------------------------------|-------------------------------------|
| Project Cost: | \$ 11,500,000 |
| CWCB Loan (with Service Fee): | \$11,615,000 |
| Loan Term and Interest Rate: | 30 Years @ 2.85% |
| Funding Source: | Construction Fund |
| B O R R O W E R T Y P E | |
| Agriculture | Municipal Commercial |
| 22% | 4% Low - 25% Mid - 49% High 0% |
| P R O J E C T D E T A I L S | |
| Project Type: | Ditch Rehabilitation |
| Average Annual Diversion: | 15,755 AF |



The Tunnel Water Company (Company) operates the Laramie-Poudre Tunnel for the benefit of its two shareholders: Water Supply and Storage Company (WSSC) and Windsor Reservoir and Canal Company (WRCC). The tunnel diverts from the Laramie River, about 60 miles west of Fort Collins, and delivers water through a 2.2-mile tunnel to the Poudre River. WSSC delivers irrigation water to its shareholders, primarily for agricultural irrigation on approximately 40,000 acres lying below the Larimer County Canal. WRCC delivers water to shareholders via the Soldier Canyon and Bellvue Water Treatment Plants for use in their service areas.

| L O C A T I O N | |
|-----------------|---------------------------|
| County: | Larimer |
| Water Source: | Laramie River |
| Drainage Basin: | North Platte/South Platte |
| Division: | 1 District: 48/3 |

The Company purchased the Laramie Poudre Tunnel and its adjoining Laramie River System in 1938. Since 2001, the Company has repaired various sections of the tunnel. To prevent future collapse and tunnel blockage, this project includes replacement of aging support structures and the addition of new supports, rock bolts and shotcrete to ensure future serviceability and maintenance access. Construction began in September 2019 and will continue through spring of 2021.

The original Project cost was \$9,000,000 and the total estimated Project cost is \$11,500,000. Since construction began, significant voids behind and above the existing concrete and existing steel sets were found. Substantial amounts of grout, above the anticipated quantities, filled voids. The old concrete and preexisting steel support structures are being replaced. In addition to the void spaces, in an original tunnel section, old square set timbers, rebar, trees, sand gravel and rocks were used as backfill. To ensure the tunnel is structurally sound in the short and long term, new steel sets are being used to replace the compromised section. Based on the initial geology report, it is anticipated the majority of the tunnel has more structural integrity and contains competent rock.

