

# STATE OF COLORADO

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## Colorado Water Conservation Board Department of Natural Resources

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TO: Colorado Water Conservation Board Members

FROM: Tim Feehan, P.E., Project Manager  
Water Supply Planning and Finance Section

DATE: September 9, 2009

SUBJECT: **Agenda Item 8a, September 15-16, 2009 Board Meeting**  
**Water Supply Planning and Finance Section – Revisions to Existing Loans**  
**Bull Creek Reservoir, Canal & Power Company – Reservoir No. 4**  
**Rehabilitation & Enlargement**

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### Introduction

At the January 2007 board meeting, the Colorado Water Conservation Board (CWCB) approved a loan to the Bull Creek Reservoir, Canal and Power Company (Company) in the amount of \$1,212,000 (90% of project costs) from the Severance Tax Trust Fund Perpetual Base Account. The \$1,212,000 loan was for the enlargement of Bull Creek Reservoir No. 4.

The Company is requesting an increase of \$244,218 to its 2007 approval. The requested loan increase is for additional costs associated with the dam embankment, outlet pipe, spillway, haul road, and remobilization. The request is for 90% of the increased costs.

### Staff Recommendation

Staff recommends that the Board approve an increase of \$244,218 (\$241,800 for project costs and \$2,418 for the 1% loan service fee) to the Bull Creek, Canal and Power Company, from the Severance Tax Trust Fund Perpetual Base Account, at its current interest rate of 2.5% for 30 years. The Company's total amended loan amount will be \$1,456,218 (\$1,441,800 for project costs and \$14,418 for the 1% loan service fee) for the enlargement of Bull Creek Reservoir No. 4. Security for the loan shall remain in compliance with CWCB Financial Policy No. 5.

## **Background**

The Company has operated five reservoirs (Bull Creek Reservoirs 1 through 5) for nearly 100 years, with a service area of 800 acres and a current annual storage capacity of approximately 780 acre-feet. In 2001 the Division of Water Resources, Division 5, filed a decennial abandonment list with the water court, claiming the abandonment of a portion of the storage right in Reservoir No. 4. The water right listed for abandonment was a result of a SEO filling restriction placed on the reservoir due to dam safety concerns in 1984. The abandonment list also included portions of the decreed storage rights in Reservoirs No. 1 and No. 2. This was due to the fact that both of these reservoirs did not provide the necessary volume for the decreed water storage right.

In October 2003, the Company entered into an agreement with the SEO to restore the capacity of the three reservoirs. Several amendments to the agreement have occurred over the last 3 years and the Company has filed an additional amendment, requesting that the Company be allowed time to repair the Reservoir No. 4, returning it to at least its original capacity and removing it from the abandonment list. In addition, the Company has filed an application in Case No. 06CW261, Division No. 5, for adjudication of an additional 115 ac-ft of storage in Reservoir No. 4. The Company filed the application to accommodate the potential enlargement of Bull Creek Reservoir No. 4 from 313 ac-ft. to 428 ac-ft. This application was approved and a decree was granted by the Division 5 Water Court on September 28, 2008 for the additional 115 ac-ft.

At the September 2004 board meeting, the CWCB approved a loan to the Company in the amount of \$599,940 to enlarge Bull Creek Reservoirs 1 and 2 and to rehabilitate Bull Creek Reservoir No. 4. The intent of the project was to preserve the Company's decreed rights in Bull Creek Reservoir No. 1, 2, and 4, and to remove the SEO fill restriction on Bull Creek Reservoir No. 4. Prior to construction, however, and given the remote location of Bull Creek Reservoirs 1 and 2, it became apparent to the Company that this alternative would be far too disruptive, difficult, and costly to construct. Therefore, based on the recommendation of the SEO, the Company began investigating the possibility of enlarging Bull Creek Reservoir No. 4 and transferring the decreed rights from Bull Creek Reservoir 1 and 2 into Bull Creek Reservoir No. 4.

At the January 2007 board meeting, the CWCB approved a loan to the Company in the amount of \$1,212,000, to solely enlarge Bull Creek Reservoir No. 4. This alternative eliminated the need to enlarge Bull Creek Reservoirs 1 and 2, removed the fill restriction on No. 4, and resolved the abandonment issue with SEO, therefore allowing the Company to utilize its full decree.

With a revised project and approved funding in-place, the Company over the course of 2007 continued to utilize the services of its Consultant to complete the design plans, obtain SEO approval, and secure the necessary permits from the Forest Service and Army Corps of Engineers. In January 2008 a meeting was held between the Forest Service, CWCB, SEO, Consultant, and the Company to set hard deadlines on securing permits and obtaining SEO approval, for a construction commencement date of July 1, 2009, weather permitting. Based on that meeting the Company solicited bids on a time and material basis and selected Gear Up

Construction (Contractor), Loma, Colorado, to complete the work at a bid of \$750,000. The Contractor was given a notice to proceed on July 7, 2009, but full SEO approved drawings did not occur until August 11, 2009. This resulted in a 5 week delay to the Contractor during optimal construction season on the Grand Mesa, which played a critical role in the project not being substantially completed in 2009.

Based on the late start the Company negotiated an amendment to the original contract to finish the remaining items in 2009. In January 2009 the Company terminated its relationship with its Consultant due to performance. In addition, the Company has refused payment in the amount of \$23,615 to the Consultant for tasks not being completed in a timely manner and billings for services which exceed fair market. The Company and CWCB staff are strongly united on this issue.

In March 2009, the Company hired Vista Engineering to complete the project, which was reviewed and approved by SEO. During the months of March through June, Vista Engineering developed a new construction strategy for the project, hired new material testers, and brought a more defined partnering atmosphere to the job. The Contractor commenced construction again during the first week of July 2009 and has been working diligently to complete the project.

## **Discussion**

The Bull Creek Reservoir No. 4 Project has taken on many different forms over the past five years. There have been changes in project scope, engineering frustrations, board member changes within the Company, and performance and funding concerns by CWCB. It has been a long road to completion. The goal of CWCB and the Company has been to construct a project that meets the long term needs of the Company, with a long term financing package from CWCB that works with the Company's annual revenue stream.

The project is currently 95% complete, and though there have been additional cost overruns, which are described in detail below, the completed project will still provide for a long term benefit to the Company.

The following is a brief explanation of additional costs that have occurred on the project:

### *Embankment:*

The original contract to complete the embankment work was based on a unit cost of \$3.00 per yard to excavate on-site material and an additional \$4.50 per yard to place that material. The original contract was based on the engineer's estimate of 30,000 yard of excavated material and 26,000 yards of compacted embankment. Based on a fresh survey and computer model of the completed dam embankment, the actual quantity required was 37,040 yards for placed embankment material and 42,500 yards of excavated on-site material, resulting in an increase in \$87,180 to the project.

### *Spillway:*

At the beginning of this construction season, Vista Engineering did an extensive investigation of site conditions in the spillway area, which had not been done previously in the development of the original project design. This investigation revealed a subsurface porous gravel lens at the

spillway site. SEO recommended that the gravel material be removed and backfilled with suitable on-site borrow material. The removal of the gravel lens required the excavation of an additional 2,040 yards of material. The Company renegotiated the contract price of \$30 per yard to excavate the material to \$15 per yard and reduced the structural backfill unit cost from \$20 per yard to \$10 per yard. This resulted in an added cost to the project of \$55,590.

#### Haul Road Stabilization and Outlet Pipe:

During excavation of the borrow material at the project site, the Contractor encountered significant subsoil moisture. This required the placement of geogrid material along the haul road to stabilize the road surface, which significantly improved the productivity of the haul trucks. This resulted in an added cost to the project of \$13,788.

In order to prevent long term erosion problems at the outlet, the Company elected to extend the outlet pipe to provide a better downstream flow alignment. This resulted in an added cost to the project of \$3,200.

#### Remobilization

The delay in receiving SEO approval and the subsequent loss of five critical working weeks on the Mesa created a situation that the Company, Contractor, and Engineer did not want to have to address. Given the high moisture content of the borrow material, it became imperative for the Contractor to have long warm days to assist in drying the material. The late start date resulted in shorter days, cooler nights, and less ability for the Contractor to work the material to achieve the desired moisture content and density. In October 2009, it became obvious to the Company, Contractor, SEO, and CWCB staff that the project could not be completed, and a winter shutdown plan was submitted to SEO.

In the fall of 2008, the Company negotiated a new contract with the Contractor to complete the project. It was based on time and productivity lost due to the delay in plan approval, the need to do extensive unplanned work on the relining of the reservoir outlet (pursuant to a SEO approved change order) and the need and commitment of both the Company and Contractor to finish the project. Given those factors the Company negotiated a new contract to complete the project for a revised contract price of \$850,000 or an increase of \$100,000.

Table 1 below is a comparison of the original construction cost presented in September 2004, the revised cost estimated presented at the January 2007 Board Meeting, and the actual project costs.

**Table 1**

<b>Construction Items</b>	<b>Original Est. Res. 1,2 &amp; 4 Sept. 2004</b>	<b>Revised Est. Enlarge Res. 4 Jan. 2007</b>	<b>Actual Costs Enlarge Res. 4 Sept. 2009</b>
1. Planning/Eng./Permits/Water Rights	\$183,000	\$157,000	\$432,000
2. Construction	\$477,100	\$984,000	<b>\$990,000</b>
3. Mobilization	\$0	\$0	\$125,000
4. Submittals	\$0	\$0	\$2,000
5. Filter Drain/Cutoff/Drain Mat'l.	\$0	\$0	\$108,000

6. Rip Rap	\$0	\$0	\$137,000
7. Dam Embankment	\$0	\$0	\$410,000
8. Toe Drain	\$0	\$0	\$10,000
9. Outlet Work	\$0	\$0	\$103,000
10. Spillway	\$0	\$0	\$90,000
11. Instrumentation/Reveg.	\$0	\$0	\$5,000
12. Contingency	\$0	\$137,000	\$20,000
13. Construction Management	\$0	\$55,000	160,000
<b>Totals:</b>	<b>\$660,000</b>	<b>\$1,333,000</b>	<b>\$1,602,000</b>

\*The total presented in column three for construction is the summation of items 3 through 11.

## Financial Analysis

Table 2 is a summary of the financial aspects of the project.

**Table 2. Financial Summary**

Total Project Cost	\$1,602,000
CWCB Loan Amount	\$1,441,800
CWCB Loan Amount (Including 1% Service Fee)	\$1,456,218
CWCB Loan Payment	\$69,575
CWCB Loan Payment (Including 10% Reserve)	\$76,533
Current Assessment Per Share	\$150
Future Assessment Per Share	\$175
Total Number of Shares	500
Future Annual Assessment Revenue	\$87,500
Total Cost per Acre-Foot for Enlarged No. 4 Reservoir – 428 AF	\$3,742
Annual Project Cost per Acre-Foot for Enlargement	\$162

**Creditworthiness:** The Company currently has no other outstanding debt. To-date, the CWCB has disbursed \$1,168,308 from the current loan authorization. Table 3 below shows the Financial Ratios for the Company.

**Table 3. Financial Ratios**

<i>Financial Ratio</i>	<i>January 2007 Enlargement Ratios</i>	<i>Completed Project 2009</i>
<p align="center">Operating Ratio (revenues/expenses)</p> <p>weak: &lt;100% - average: 100% - 120% - strong: &gt;120%</p>	<p>100%</p> <p>(Average)</p> <p>(10K/10K)</p>	<p>100%</p> <p>(Average)</p> <p>(10K/10K)</p>
<p align="center">Debt Service Coverage Ratio (revenues-expenses)/debt service</p> <p>weak: &lt;100% - average: 100% - 120% - strong: &gt;120%</p>	<p>103%</p> <p>(Average)</p> <p>(75K-10K/63K)</p>	<p>100%</p> <p>(Average)</p> <p>(87K-10K/77K)</p>
<p align="center">Cash Reserves to Current Expenses</p> <p>weak: &lt;50% - average: 50% - 100% - strong: &gt;100%</p>	<p>5%</p> <p>(Weak)</p> <p>(4K/75K)</p>	<p>6%</p> <p>(Weak)</p> <p>(5K/87K)</p>
<p align="center">Annual Operating Cost per Acre-Ft. (800 AF)</p> <p>weak: &gt;\$ 20 - average: \$10 - \$20 - strong: &lt;\$10</p>	<p>\$115</p> <p>(Weak)</p> <p>(75K/650)</p>	<p>\$109</p> <p>(Weak)</p> <p>(87K/800)</p>

\*Based on current delivery of 650 AF and a future delivery of 800 AF

**Collateral:** As security for this loan, the Company has pledged assessment revenues backed by a rate covenant and annual financial reporting. In addition, the Shareholders have pledged 90% of their individual Company stock certificates. This security exceeds compliance with CWCB Financial Policy #5 (Collateral).

For the past 4 years the Company's annual assessments have been set at \$150 per share, which generates \$75,000 in revenue annually. The Company has a current annual operating expense of \$10,000 and a future debt obligation of \$76,533, which will require the Company to increase its annual assessments from \$150 to \$175 per share to cover its future expenses.

Ute Water Conservancy District has shown support for the project and indicates a value of this stored water at \$3,000/ac-ft. The value of 500 shares of Company stock which produces 800 ac-ft of water is \$2,400,000.

### **Staff Recommendation**

Staff recommends that the Board approve an increase of \$244,218(\$241,800 for project costs and \$2,418 for the 1% loan service fee) to the Bull Creek, Canal and Power Company, from the Severance Tax Trust Fund Perpetual Base Account, at its current interest rate of 2.5% for 30 years. The Company's total amended loan amount will be \$1,456,218(\$1,441,800 for project costs and \$14,418 for the 1% loan service fee) for the enlargement of Bull Creek Reservoir No. 4. Security for the loan shall remain in compliance with CWCB Financial Policy No. 5.

cc: John Groo, Secretary, Bull Creek Reservoir, Canal and Power Company  
Susan Schneider, AGO

