



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: November 19-20, 2014 Board Meeting

AGENDA ITEM: 28a - Change to Existing Loans
Pisgah Reservoir and Ditch Company - Mount Pisgah Dam/Wrights Reservoir
Outlet Works Rehabilitation Project

Introduction

The Pisgah Reservoir and Ditch Company (Company) received approval of a \$161,345 CWCB loan (C150341) and a matching \$161,345 WSRA grant (C150505) to finance the Mount Pisgah Dam/Wrights Reservoir Outlet Works Rehabilitation Project (Project) at the September 2012 CWCB Board Meeting. The purpose of the Project is to make improvements to the Pisgah Dam outlet works, per the State Engineer's Office (SEO) direction, to avoid a restriction order. The loan and grant together funded approximately 90% of the Project's estimated cost of \$362,690. During final engineering, it was determined that the cost to rehabilitate the dam has increased and the current estimated cost is now \$745,000. The Company is requesting a loan increase of \$382,310 to fund these additional costs. See attached Project Data Sheet for a location map and Project summary.

Staff Recommendation

Staff recommends the Board approve a loan increase of \$386,133 (\$382,310 for Project costs and \$3,823 for the 1% Loan Service Fee) for a total loan not to exceed \$549,091 (\$543,655 for Project cost and \$5,437 for the 1% Loan Service Fee) to the Pisgah Reservoir and Ditch Company for engineering and construction costs related to the Mount Pisgah Dam/Wrights Reservoir Outlet Works Rehabilitation Project from the Construction Fund. The loan terms shall remain at 30 years at a blended interest rate of 1.75% per annum. Security for the loan shall be in compliance with CWCB Financial Policy #5.



Background

The Company owns and operates Wrights Reservoir and Pisgah Dam (Pisgah), located in Teller County, for the benefit of its shareholders. The reservoir is an on-channel reservoir along Fourmile Creek and has a normal storage capacity of 2,192 acre-feet (AF). After release from the reservoir, Fourmile Creek conveys the Company's water to the Arkansas River, where it passes through Pueblo Reservoir before being diverted to shareholders through the Catlin Canal.

Pisgah was originally constructed in 1911. It is classified as a significant hazard dam and stands 69 feet high, 610 feet long, and 12 feet wide at the crest. As the result of an upstream slope failure in 1928, a new outlet conduit was constructed through the right abutment, and the original outlet works were abandoned. The new outlet is the one currently in use today. In 1988, the spillway was enlarged in accordance with SEO guidelines.

The State Engineer's Office (SEO) inspected Pisgah in June 2011. The Engineer's Inspection Report issued by the SEO identified multiple deficiencies and safety concerns and placed conditional requirements on the full storage capacity of the reservoir. To avoid a storage level restriction order by the SEO, the Company is required to modify the outlet works and replace the existing control valves.

Project Update

Final engineering has been completed and the SEO has recently approved the plans for construction. Based on the final design, the Project's engineer, RJH Consultants, Inc., is anticipating higher construction cost than the cost estimate used in the September 2012 loan request, specifically for the outlet's hydraulic system. Additionally in 2013, the SEO requested a video inspection of the original outlet works pipes that were abandoned in 1929. This inspection revealed broken pipe, debris, and seepage in the dual 16-in cast iron pipes, even at reduced reservoir stages. The SEO determined these conditions present a dam safety risk and is requiring remedial abandonment measures consisting of full-length grouting of the pipes and construction of a diaphragm filter to properly and safely abandon the original outlet.

With the expected increase to construction cost and the change to the Scope of Work for the remedial abandonment measures, the Project cost has increased from \$362,690 to \$745,000 as shown on Table 1. Although the Company may seek additional grant funding, the approval of this loan increase will ensure sufficient Project funding to cover the Project costs in full so that the contractor procurement process can continue without further delay.

TABLE 1: UPDATED PROJECT COST SUMMARY

Task	Original Project Cost	Updated Project Cost
Engineering	\$78,715	\$80,000
Construction	\$158,500	\$495,000
Construction Management	\$70,000	\$70,000
Contingency	\$55,475 (35% of construction)	\$100,000 (20% of construction)
Total	\$362,690	\$745,000

Schedule: Final engineering is completed and the Project is expected to go out to bid in November with a construction start in January 2015. Construction is expected to be completed in July 2015.

Financial Analysis

Table 2 provides a summary of the Project's financial aspects. The Company's blended interest rate of 1.75% for a 30-year term (Ownership: 93% agricultural, 7% low-income municipal), will remain as per the terms of the original contract.

TABLE 2: FINANCIAL SUMMARY

	Original Approval	Current Request
Total Project Cost	\$362,690	\$745,000
Borrower's Contribution	\$40,000	\$40,000
WSRA Grant		
Arkansas River Basin	\$25,000	\$25,000
Statewide	\$136,345	\$136,345
TOTAL WSRA GRANT	\$161,345	\$161,345
CWCB Loan Amount	\$161,345	\$543,655
CWCB Loan Amount (Including 1% Service Fee)	\$162,958	\$549,091
CWCB Annual Loan Payment	\$7,028	\$23,682
CWCB Loan Obligation (Including 10% Reserve)	\$7,731	\$26,050
Number of Shares	25,000	25,000
Annual Cost Per Share for Loan	\$0.31/share	\$1.04/share
Current Assessment per Share	\$3/share	
Future Assessment per Share	\$3/share	\$3/share
Cost of Project per AF to Preserve Storage (2,192 AF)	\$165/AF	\$340/AF

The original funding request was approved with ratios of 44.5% loan, 44.5% grant, and 11% borrower's contribution. These ratios will be maintained until the original budget of \$362,690 is reached. Project cost in excess of \$362,690 will be 100% covered by the loan, up to the approved loan limit.

Creditworthiness: The Company has no existing debt. In anticipation of this Project, assessments were already raised from \$2 per share to \$3 per share in 2012.

TABLE 3: FINANCIAL RATIOS

Financial Ratio	Past 2 Years	Future w/ Project
Operating Ratio (revenues/expenses) weak: <100% - average: 100% - 120% - strong: >120%	160% (Strong) \$75K/\$47K	102% (Average) \$75K/\$73K
Debt Service Coverage Ratio (revenues-expenses)/debt service weak: <100% - average: 100% - 120% - strong: >120%	N/A	108% (Average) \$75K-\$47K \$26K
Cash Reserves to Current Expenses weak: <50% - average: 50% - 100% - strong: >100%	417% (Strong) \$196K/\$47K	214% (Strong) \$156K/\$73K
Annual Operating Cost per Acre-Foot (86,000 AF) weak: >\$20 - average: \$10 - \$20 - strong: <\$10	\$0.55 (Strong) \$47K/86K AF	\$0.85 (Strong) \$73K/86K AF

Collateral: Security for the loan will remain a pledge of assessment revenues backed by rate covenant and the Project itself (slide gate and gate operator). This is in compliance with the CWCB Financial Policy #5 (Collateral).

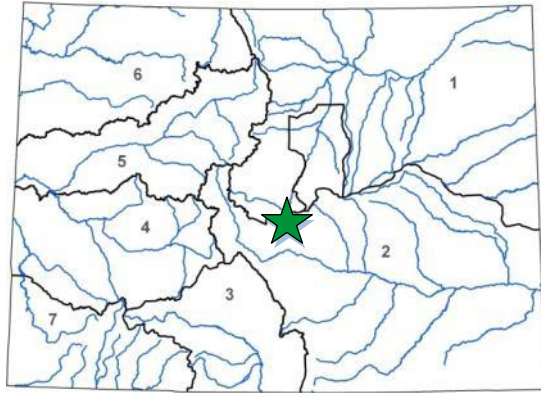
cc: Wayne Whittaker, President, Pisgah Reservoir and Ditch Company
Susan Schneider/Jennifer Mele, Colorado Attorney General's Office

Attachment: Water Project Loan Program - Project Data Sheet



(Loan Increase)

L O A N D E T A I L S	
Project Cost:	\$745,000
CWCB Loan (with Service Fee):	\$549,091
Loan Term and Interest Rate:	30 Years @ 1.75%
Funding Source:	Construction Fund
B O R R O W E R T Y P E	
Agriculture	Municipal Commercial
93%	7% Low - 0% Mid - 0% High 0%
P R O J E C T D E T A I L S	
Project Type:	Reservoir Rehabilitation
Average Annual Diversion:	86,000 AF
Water Supply Storage Preserved:	2,192 AF



L O C A T I O N	
County:	Teller
Water Source:	Fourmile Creek
Drainage Basin:	Arkansas
Division:	2 District: 12

The Pisgah Reservoir and Ditch Company provides raw water for the irrigation of approximately 20,000 acres of agricultural land across an 18 mile stretch from Manzanola to La Junta. Primary shareholders include Catlin Canal Company, Canon Heights Irrigation and Reservoir Company, Park Center Water District, City of Rocky Ford, Colorado Parks and Wildlife, and individual agricultural users.

The Company was approved for a \$161,345 loan and a \$161,345 WSRA grant at the September 2012 CWCB Board Meeting to modify the operational inlet and outlet works and replace existing control valves on Pisgah Dam, in compliance with an SEO conditional order. During final engineering, construction costs were found to have increased and additional remedial abandonment work on the outlet originally abandoned in 1929 was added to the Project's Scope of Work. With these changes, the cost estimate has risen from \$362,875 to \$745,000. The Company is seeking to cover this cost increase with an increase to its approved loan. Construction is scheduled for 2015.

