

STATE OF COLORADO

Colorado Water Conservation Board Department of Natural Resources

1313 Sherman Street, Room 721
Denver, Colorado 80203
Phone: (303) 866-3441
Fax: (303) 866-4474
www.cwcb.state.co.us



October 2, 2012

Mr. Wayne Whittaker
Pisgah Reservoir and Ditch Company, Secretary
P.O. Box 352
Rocky Ford, CO 81067

John W. Hickenlooper
Governor

Mike King
DNR Executive Director

Jennifer L. Gimbel
CWCB Director

Re: Mt. Pisgah Dam/Wrights Reservoir Outlet Works Rehab Project
Contract Number C150341

Mr. Whittaker:

I am pleased to inform you that on September 28, 2012 the Colorado Water Conservation Board approved your loan request for the Mt. Pisgah Dam/Wrights Reservoir Outlet Works Rehabilitation Project as described in the application and approved Loan Feasibility Study titled "*Mount Pisgah Dam/Wrights Reservoir Outlet Works Rehabilitation*." The Board approved a loan not to exceed \$162,958 (\$161,345 for project costs and \$1,613 for the 1% Loan Service Fee). The loan terms shall be 30 years at an interest rate of 1.75% per annum.

I have attached a copy of the updated Board memo dated October 2, 2012, that includes the Board's approval.

After the Board approves a loan there are a few steps that remain in the loan process including:

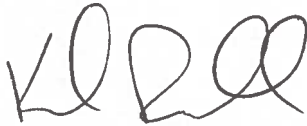
- A) Contracting: An approved contract must be in place before funds can be disbursed. Peg Mason will contact you to initiate the loan contracting process for this project. When all of the contract conditions are met and the contract is executed the Company may request loan funds to cover eligible project expenses. You can contact Peg at (303) 866-3441 x3227.
- B) Design/Construction: You must adhere to the CWCB Design and Construction Administration Procedures. Ryan Edwards will be the project manager for this phase of the process. Ryan will make construction site visits, which will be the basis of pay estimates for disbursement of your loan funds. You can contact Ryan at (303) 866-3441 x3234.

NOTE: No expenses incurred on any work performed prior to execution of the WSRA Grant Contract will be eligible for reimbursement through the loan or grant.

Pisgah Reservoir and Ditch Company
Mt. Pisgah Dam/Wrights Reservoir Outlet Works Rehab Project
October 2, 2012
Page 2 of 2

On behalf of the Board, I would like to thank you for your interest in a loan from the Colorado Water Conservation Board.

Sincerely,

A handwritten signature in black ink, appearing to read 'Kirk Russell', with a stylized, cursive script.

Kirk Russell, P.E., Chief
Finance Section
Colorado Water Conservation Board

A handwritten signature in blue ink, appearing to read 'Ryan Edwards', with a stylized, cursive script.

Ryan Edwards, P.E., Project Manager
Finance Section
Colorado Water Conservation Board

Attachment: Updated Board Memo

E-mail Copy (Including Attachments)

Alan Hamel, CWCB Board Member – Arkansas River Basin
CWCB Finance Section Staff

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TO: Colorado Water Conservation Board Members

FROM: Ryan Edwards, P.E., Project Manager **RME**
Kirk Russell, P.E., Chief **KLR**
Finance Section

John W. Hickenlooper
Governor

Mike King
DNR Executive Director

Jennifer L. Gimbel
CWCB Director

DATE: September 18, 2012 (Updated October 2, 2012)

SUBJECT: **Agenda Item 23b, September 27-28, 2012 Board Meeting**
Finance/Water Supply Planning – WSRA Grant & Construction Fund Loan
Pisgah Reservoir and Ditch Company – Mount Pisgah Dam/Wrights Reservoir
Outlet Works Rehabilitation Project

Introduction

The Pisgah Reservoir and Ditch Company (Company) is applying for a WSRA grant and CWCB loan to finance the Mount Pisgah Dam/Wrights Reservoir Outlet Works Rehabilitation Project (Project). The purpose of the Project is to make improvements to the Pisgah Dam outlet works per State Engineer's Office (SEO) direction to avoid a restriction order. The total cost of the Project is estimated to be \$362,690. The Company was approved for a \$161,345 grant, by the Arkansas River Basin Round Table, from the Water Supply Reserve Account and requested a CWCB loan to assist with Project costs. See the attached Project Data Sheet for a location map and project summary.

Staff Recommendation for WSRA Grant (Board approved recommendation on September 28, 2012)

Staff recommends approval of \$136,345 from the Statewide Account and \$25,000 from the Arkansas Basin account to help fund the Mount Pisgah Dam/Wrights Reservoir Outlet Works Rehabilitation Project.

Staff Recommendation for Construction Fund Loan (Board approved recommendation on September 28, 2012)

Staff recommends the Board approve a loan, from the Construction Fund, not to exceed \$162,958 (\$161,345 for Project costs and \$1,613 for the 1% Loan Service Fee) to the Pisgah Reservoir and Ditch Company for the Mount Pisgah Dam/Wrights Reservoir Outlet Works Rehabilitation Project. The loan terms shall be 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 has a crest width of 12 feet. Over the life of the dam there have been few significant improvements documented. 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. And in 1988, the spillway was enlarged in accordance with SEO guidelines.

An SEO inspection of Pisgah was performed 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. The Company is required to modify the outlet works and replace the existing control valves or the reservoir is in danger of a storage level restriction being issued by the SEO; thereby reducing the allowable storage capacity of the reservoir.

Loan Feasibility Study

The loan feasibility study titled "*Mount Pisgah Dam/Wrights Reservoir Outlet Works Rehabilitation*," dated July 2012, was prepared by Elise M. Bergsten, from Balanced Management Services Company, with support from Wayne Whittaker, Secretary, Pisgah Reservoir and Ditch Company. Engineering was provided by Michael Graber, P.E. from RJH Consultants, Inc. (RJH) and legal support was provided by Ms. Carolyn Burr, Esq. from Wellborn Sullivan Meck & Tooley, P.C. The study was prepared in accordance with CWCB guidelines and includes a preliminary engineering design that was used in the determination of the total Project cost.

The Company hired RJH to perform two related studies: the "*Mt. Pisgah Dam and Reservoir Outlet Inspection*," dated August 2011, and the "*Alternatives Evaluation*," dated November 2011. Results from both studies were incorporated into the loan feasibility study.

Pisgah Reservoir and Ditch Company

The Company, with its principal office located in Rocky Ford, CO, is a mutual ditch company and a non-profit corporation formed in 1923. The Company has 25,000 shares of stock issued to 573 current shareholders. The purpose of the Company is to provide 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 in the Company include Catlin Canal Company, Canon Heights Irrigation and Reservoir Company, Park Center Water District, City of Rocky Ford, Colorado Parks and Wildlife (CPW), and individual agricultural users. On average, the Company diverts 86,000 AF per year which it delivers to shareholders through the 38-mile Catlin Canal.

The Company is governed by a 5-member board of directors authorized to manage the Company's business and affairs. Revenues are derived from annual shareholder assessments. Shareholders vote on assessment rates at the annual shareholder meeting, the first Monday in December. Should shareholders fail to authorize any such assessment by the first of April then the directors have the

power to set the assessment rates. Delinquent assessments are subject to cumulative interest penalties and can be sold by the Company. Shareholder approval is required for the Company to enter in to debt.

Water Rights

The Company is located in the Arkansas River Basin, District 12. On January 13, 1928 the Company was awarded an absolute decree, case number CA4796, to store 2,743 AF per year in Wrights Reservoir for irrigation purposes. The decree has an appropriation date of October 15, 1907 and the source of the water is Four Mile Creek.

Project Description

The objective of the Project is to complete design and construction of repairs to the inlet structure, control valves, and dual 30-inch intake conduits, required per SEO order, to restore control and extend the useful life of Pisgah. The engineering firm RJH performed an analysis of the existing conditions of the dam, including a field inspection of the inlet/outlet works, control valves and intake pipes; topographic survey; and a hydraulic evaluation of the existing system. This data enabled RJH to develop preliminary engineering concepts and engineering cost estimates for the following three rehabilitation alternatives:

Alternative 1 – Upstream Flow Control Only

This alternative provides a single slide gate at the existing intake structure, extends hydraulic control lines and air venting from the intake structure to a gate operator in the existing valve house, and calls for removal of the internal valve components.

Alternative 2 – Single Mid-Dam Section Flow Control

This alternative removes the valve from one of the intake conduits and grouts it in, lines the other conduit with a 24-inch steel pipe, installs two knife valves, removes the existing hydraulic control lines, and extends a new control line to a new gate control in the valve house. This alternative includes an optional bulkhead at the intake structure allowing for the outlet works to be dewatered.

Alternative 3 – Dual Mid-Dam Section Flow Control

This alternative removes both valves, lines both pipes with 24-inch steel pipes, installs two new knife valves, removes the existing hydraulic control lines, and extends new control lines to new gate controls in the valve house. This alternative includes an optional bulkhead at the intake structure allowing for the outlet works to be dewatered.

After evaluation of each alternative for technical, operational and economical considerations the Company selected Alternative 1 – Upstream Flow Control as the preferred alternative. The cost of the alternative fell between Alternative 2 (cheapest) and Alternative 3 (costliest); however, it offered the greatest peak flow capacity, and offered an ability to restore mid-section flow control in the future, if desired. Table 1 provides a Project cost summary.

TABLE 1: TOTAL PROJECT COST SUMMARY

Task	Cost
Engineering	\$78,715
Construction	\$158,500
Construction Management	\$70,000
Contingency (18%)	\$55,475
Total	\$362,690

Pisgah and the reservoir lie entirely on a 400-acre parcel owned by the Company. Access to the site is from County Road 11 and traverses a brief easement across private property. No additional access or construction easement acquisitions are required. Beyond SEO approval of final engineering documents and specifications, no additional permitting requirements are anticipated to be necessary. The final engineering design and approval process is scheduled to begin following approval of Project funding and is expected to take up to four months. Construction is expected to follow SEO approval and take 3 months to complete.

Table 2 provides a summary of financing components for the Project.

TABLE 2: PROJECT FUNDING SUMMARY

Applicant Contribution	\$40,000
WSRA Grant	
Arkansas River Basin	\$25,000
Statewide	\$136,345
TOTAL	\$161,345
CWCB Construction Fund Loan	\$161,345
Total Project Cost	\$362,690

CWCB disbursement of loan and WSRA grant funds will be issued at a prorated ratio of 1:1, up to the approved limit, for design and construction activities related to the Project. The loan and grant disbursements will be issued at a rate of 90% of invoice amount.

Water Supply Reserve Account Grant

At the March 14, 2012 Arkansas Basin Roundtable meeting the Roundtable granted approval of the Mount Pisgah Dam/Wrights Reservoir Outlet Works Rehabilitation Project application request for \$25,000 in Basin Funds and recommended approval of \$136,345 of Statewide Funds. Letters of support for the Project were received from Otero County, the Catlin Canal Company, City of Rocky Ford and the Canon Heights Irrigation and Reservoir Company.

Source of Funds: \$136,345 Statewide Funds, \$25,000 Arkansas Basin Funds

Matching Funds: \$161,345 CWCB Loan, \$40,000 Applicant Contribution

Threshold and Evaluation Criteria: The application articulates how the Project satisfies the Threshold and Evaluation Criteria as summarized below:

Tier 1: Promoting Collaboration/Cooperation & Meeting Water Management Goals & Identified Needs: By making structural improvements to the outlet works this project preserves raw water storage and retains a habitat for fish and wildlife. Pisgah serves multiple entities, including: the Catlin Canal Company, Canon Heights Irrigation and Reservoir Company, Park Center Water District, City of Rocky Ford and CPW. By avoiding an SEO restriction the Company is avoiding a negative impact on the overall water needs of the State.

Tier 2: Facilitating Water Activity Implementation: Without the WSRA grant the Company does not believe it could implement the Project. The Company does not have sufficient cash reserves to fund the Project and the Company does not feel its shareholders would be able to absorb the debt obligation from fully funding the Project through a loan. In addition to the loan request of \$161,345, the Company has already spent over \$33,000 in cash towards engineering efforts.

Tier 3: The Water Activity Addresses Issues of Statewide Value and Maximizes Benefits: This is a multipurpose project that benefits both consumptive and nonconsumptive uses. By repairing the outlet works the Company will be able to sustain agricultural operations by supplying irrigation water for approximately 20,000 acres of agricultural land, while preserving the existing habitat in and around the reservoir. In addition, the Company is anticipating entering negotiations with CPW in hopes of re-opening the reservoir to public access. The grant will be used to preserve the 2,192-AF storage capacity at an overall project cost of \$165/AF when combined with the requested CWCB loan.

Discussion: The requested WSRA funds would enable the Company to finance a multi-purpose project in the Arkansas River Basin that would preserve raw water storage for serving multiple entities, preserve the environment, and has the potential to offer a future recreational amenity.

In addition to the requested WSRA funds the applicant is seeking CWCB loan funds in the amount of \$161,345.

Issues/Additional Needs: CWCB staff requests that the following issues be addressed during contracting and project execution:

- The sequencing of CWCB fund disbursements will be issued at a prorated ratio of 1:1, up to the approved limit, for design and construction activities related to the Project.
- Applicant to provide a Statement of Work detailing which tasks and subtasks will be funded with the WSRA monies.

Reporting and Deliverables: All products, data and information developed as a result of this grant must be provided to CWCB in hard copy and electronic format as part of the project documentation. This information will in turn be made widely available to Basin Roundtables and the general public and will help promote the development of a common technical platform.

Staff would like to highlight additional reporting and final deliverable requirements in accordance with the revised WSRA Criteria and Guidelines:

Reporting: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of the executed contract. The progress report shall describe the completion or partial completion of the tasks identified in the scope of work including a description of any major issues that have occurred and any corrective action taken to address these issues.

Final Deliverable: At completion of the project, the applicant shall provide the CWCB a final report that summarizes the project and documents how the project was completed. This report may contain photographs, summaries of meetings and engineering reports/designs.

Engineering: All engineering work (as defined in the Engineers Practice Act (§12-25-102(10) C.R.S.)) performed under this grant shall be performed by or under the responsible charge of professional engineer licensed by the State of Colorado to practice Engineering.

CWCB Construction Fund Loan

Financial Analysis

The Company qualifies for a blended interest rate (93% agricultural and 7% low-income municipal) of 1.75% for a 30-year term. Table 3 provides a summary of the financial aspects of the loan request.

TABLE 3: LOAN SUMMARY

CWCB Loan Amount	\$161,345
CWCB Loan Amount (including 1% Service Fee)	\$162,958
CWCB Annual Loan Payment	\$7,028
CWCB Loan Obligation (including 10% debt reserve funding)	\$7,731
Number of Shareholders	573
Number of Shares	25,000
Current Annual Assessment (per share)	\$3
Annual Cost of Project Loan (per share)	\$0.31
Cost of Project per AF to Preserve Storage (based on 2,192 AF)	\$165

Creditworthiness: The Company generates revenue through annual share assessments and lease income. The assessments are evaluated annually and set at a rate sufficient to cover projected operation and maintenance expenses. The Company increased assessment rates from \$2 per share to \$3 per share in 2012, in anticipation of this Project. Table 4 provides Financial Ratios for the Company.

TABLE 4: FINANCIAL RATIOS

Financial Ratio	2009 - 2010	Future w/ Project
Operating Ratio (operating revenues/operating expenses) weak: <100% - average: 100% - 120% - strong: >120%	130% (strong) \$52K/\$40K	160% (strong) \$77K/\$48K
Debt Service Coverage Ratio (total eligible revenues-operating expenses)/total debt service weak: <100% - average: 100% - 120% - strong: >120%	No Current Debt	463% (strong) (\$77K-\$40K)/\$8K
Cash Reserves to Current Expenses weak: <50% - average: 50% - 100% - strong: >100%	353% (strong) \$141K/\$40K	210% (strong) \$101K/\$48K
Annual Operating Cost per Acre-Foot (based on 86,000 AF) weak: >\$20 - average: \$10 - \$20 - strong: <\$10	\$0.46 (strong) \$40K/86,000	\$0.55 (strong) \$48K/86,000

Collateral: As security for the loan, the Company will pledge its assessment revenues backed by a rate covenant, the Project itself (slide gate and gate operator), and provide annual financial reporting. This is in compliance with the CWCB Financial Policy #5 (Collateral).

cc: Elise M. Bergsten, Balanced Management Services Company
Susan Schneider, AGO
Peter Johnson, AGO

Attachment: Water Project Loan Program – Project Data Sheet

Water Project Loan Program - Project Data Sheet

Borrower: Pisgah Reservoir and Ditch Company **County:** Teller

Project Name: Mt. Pisgah Dam/Wrights
Reservoir Outlet Works Rehabilitation

Project Type: Reservoir Rehabilitation

Drainage Basin: Arkansas River, District 12

Water Source: Fourmile Creek

Total Project Cost: \$362,690

Funding Sources: Construction Fund &
WSRA Grant

Type of Borrower: Blended
(93% Ag, 7% low-income Muni)

Average Water Delivery: 86,000 AF
Water Storage: 2,192 AF

Loan Amount: \$161,345 (Including 1% fee) **Interest Rate:** 1.75% **Term:** 30 years
WSRA Grant Amounts: \$25,000 Arkansas Basin & \$136,345 Statewide

The Pisgah Reservoir and Ditch Company is applying for a \$161,345 loan to modify the inlet/outlet works and replace existing control valves on Pisgah Dam, in compliance with an SEO conditional order. By complying with the SEO recommendations the Company can avoid a storage level restriction on the reservoir. The Company has 25,000 shares issued amongst 573 current shareholders. The purpose of the Company is to provide 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.

LOCATION MAP

