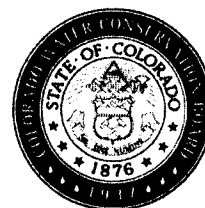


STATE OF COLORADO

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Jennifer L. Gimbel
CWCB Director

TO: Colorado Water Conservation Board Members

FROM: Ryan Edwards, P.E. *[Signature]*
Tim Feehan, P.E., Chief *[Signature]*
Finance Section

DATE: July 1, 2011

SUBJECT: **Agenda Item 26b, July 12-13, 2011 Board Meeting**
Finance Section – New Project Loans
Fisher Ditch Company – Ditch Infrastructure Improvements Project

Introduction

The Fisher Ditch Company (Company) is applying for a loan for the Ditch Infrastructure Improvements Project (Project). The purpose of the project is to perform four separate ditch improvement tasks to ensure reliable water yields and deliveries to shareholders while maintaining affordable assessments. The loan request is for 90% of the estimated \$500,000 total cost of the project. See the attached Project Data Sheet for a location map and a project summary.

Staff Recommendation

Staff recommends the Board approve a loan, from the Construction Fund, not to exceed \$454,500 (\$450,000 for project costs and \$4,500 for a 1% Loan Service Fee) to the Fisher Ditch Company for the Ditch Infrastructure Improvements Project. The loan terms shall be 30 years at a blended interest rate of 5.95% per annum. Security for the loan shall be in compliance with the CWCB Financial Policy #5.

Background

The Company, located in Denver, Colorado, utilizes the Fisher Ditch to deliver water to its shareholders for irrigation, augmentation and industrial use. The ditch has been in place for over 100 years and this project is intended to address aging and failing infrastructure and resolve a growing maintenance issue along the ditch.

The overall project includes four individual infrastructure improvement tasks: headgate rehabilitation, pipe replacement along Broadway, installation of a sand-out gate, and piping of the open channel ditch upstream of Federal Boulevard. These improvements are necessary to ensure

the continued reliable delivery of water, preserving reasonable operating and maintenance assessments, and increasing the safety of the system.

Loan Feasibility Study

The loan feasibility study, titled "Feasibility Study – Fisher Ditch Various Infrastructure Improvements", dated June 2011, was prepared by Richard Belt, P.E., President of Fisher Ditch Company. Assistance in the preparation of the study was provided by Amy Willhite, Secretary/Treasurer of Fisher Ditch Company; Larry Fiore, Director of Fisher Ditch Company; and Gene Brienza, Ditch Superintendent.

Fisher Ditch Company

The Company is a Colorado Mutual Ditch Company and nonprofit corporation registered with the State of Colorado. The Company was formed March 14, 1921, though the ditch itself has been in existence since its earliest water right was appropriated in 1861. The Company is located in the City and County of Denver, where it diverts water from Clear Creek, near the intersection of Lowell Boulevard and Interstate 76. The ditch delivers water for the purpose of irrigation, augmentation, and industrial use to 28 shareholders, totaling 1,344 shares. The Company's facilities include the diversion dam and headworks located along Clear Creek, and approximately 8.2 miles of earthen canal, pipeline, and appurtenant structures. Annual diversions have ranged from 3,509 AF to 12,418 AF, with an average of 7,623 AF.

The Company is governed by a five-member board of directors assigned to manage the affairs of the company and the power to set and levy assessments against the shareholders as warranted. The Company derives the majority of its revenue through share assessments, while receiving minor contributions from interest on savings accounts and crossing agreements. Current assessments are \$37 per share. It is estimated that the project will cost \$27 per share.

Water Rights

The Company diverts water from Clear Creek, a tributary to the South Platte, where it is used for augmentation, commercial/industrial purposes and to irrigate small acreages. The Ditch has a decreed rate of 69.7 cfs with an average annual delivery of 7,623 AF per the following water rights:

TABLE 1: PROJECT WATER RIGHTS

Appropriation Date	Adjudication Date	Decreed Rate (cfs)
6-29-1861	10-04-1884	34.7
3-30-1898	5-13-1936	35.0

Project Description

The Company evaluated multiple aging structures and operation/maintenance issues throughout the Ditch and selected four individual tasks to include in the scope of the project. The Company prioritized the tasks in order of importance.

- A. Headgate Rehabilitation
- B. Replace Broadway Piping
- C. Install Sand-out Gate
- D. Federal Boulevard Piping

Multiple alternatives were analyzed for each task with the intent of addressing the underlying infrastructure or maintenance concern while providing the most value to the Company. Below is a summary of the selected alternative for each task. Pending loan approval, construction is scheduled to take place during the winter months (November-March) of 2011-2012 for tasks A and B, and 2012-2013 for tasks C and D.

A. Headgate Rehabilitation

It is estimated that the existing radial gate at the diversion headworks was constructed in the early 1900's. The lower quarter of the gate has been subject to corrosion, erosion by suspended sediment, and debris impact over the years and has decayed to the point where failure appears imminent. The Company has elected to remove the lower third of the gate and replace it with 3/8-inch steel. It is believed that the upper portion of the gate skin, structural support, and hoist are in good condition and serviceable into the future; however, a more detailed inspection will be performed during the construction phase.

B. Replace Broadway Piping

The 42-inch by 29-inch corrugated elliptical metal pipeline along Broadway was installed with inadequate cover. Over time the crown of the pipe has been exposed in spots and the crown of the pipe has fatigued and failed in numerous locations, allowing stormwater, sediment and other debris to enter the pipe. The Company has elected to replace 650 LF of the existing pipeline with a traffic bearing 24-inch by 38-inch elliptical reinforced concrete pipeline (RCPE). RCPE is more expensive than corrugated metal; however, it is better suited for the minimal cover scenario presented in this task.

C. Install Sand-out Gate

The Company lacks an operable river return in the upper segment of the ditch, thus preventing it from flushing sediment and other debris out of the system. This is a critical component due to the number of pipes and culverts in the upper segment of the ditch. The Company has elected to install a sand-out gate at the pedestrian path crossing over the ditch. The existing 72-inch corrugated metal pipe (CMP) culvert, with visible signs of corrosion, will be replaced and a slide gate, concrete headwall, 100 LF of 48-inch diameter plastic pipe, and check gate will be installed, giving the Company the ability to flush debris from the system.

D. Federal Boulevard Piping

The Ditch consists of 1,500 LF of unlined open channel at the base of a steep bluff just west of Federal Boulevard. A tremendous quantity of debris, including furniture, building materials, and yard waste gets dumped down the bluff where it tumbles into the ditch. As a deterrent, the Company constructed a chain-link fence along the top of the bluff; however, the fence has been badly damaged over the years and been proven ineffective. The Company has elected to replace the open channel with 1,500 LF of 48-inch plastic pipe along with a concrete headwall, manholes, and trash rack.

TABLE 2: TOTAL PROJECT COST SUMMARY

Task	Cost
Task A – Headgate Rehabilitation	\$12,870
Task B – Replace Broadway Piping	\$117,500
Task C – Install Sand-out Gate	\$83,600
Task D – Federal Boulevard Piping	\$191,800
Engineering and Contingency	\$94,230
Total	\$500,000

Financial Analysis

Table 3 provides a summary of the financial criteria of the loan request. The Borrower qualifies for a blended (12% middle-income municipal, 20% high-income municipal, and 68% commercial) interest rate of 5.95% for a 30-year term.

TABLE 3: PROJECT FINANCIAL SUMMARY

Total Project Cost	\$500,000
CWCB Loan Amount (90% of total Project cost)	\$450,000
CWCB Loan Amount (including 1% Service Fee)	\$454,500
CWCB Annual Loan Payment	\$32,842
CWCB Loan Obligation (including 10% debt reserve funding)	\$36,127
Number of Shares	1,344
Current Assessment per Share	\$37
Project Cost per Share (including 10% reserve)	\$27

Creditworthiness:

The Company has no outstanding debt. Revenues are derived from shareholder assessments which the Company will increase to cover the annual debt obligation and a special assessment is planned to finance the Company's 10% of the total project cost.

TABLE 4: FINANCIAL RATIOS

Financial Ratio	2009-2010	Future w/ Project
Operating Ratio (operating revenues/operating expenses) weak: <100% - average: 100% - 120% - strong: >120%	123% (strong) \$49.2K/\$40.1K	112% (average) \$85.3K/\$76.2K
Debt Service Coverage Ratio (total eligible revenues-operating expenses)/total debt service weak: <100% - average: 100% - 120% - strong: >120%	No Current Debt (strong) (\$49.2K-\$40.1K)/\$0K	125% (strong) (\$85.3K-\$40.1K)/\$36.1K
Cash Reserves to Current Expenses weak: <50% - average: 50% - 100% - strong: >100%	112% (strong) \$45.1K/\$40.1K	59% (average) \$45.1K/\$76.2K
Annual Operating Cost per Acre-Foot (based on 7,623 AF) weak: >\$20 - average: \$10 - \$20 - strong: <\$10	\$5.26 (strong) \$40.1K/7,623	\$10.00 (strong) \$76.2K/7,623

Collateral: As security for the loan, the Company will pledge assessment revenues backed by a rate covenant and the water rights as listed in Table 1. This is in compliance with the CWCB Financial Policy #5 (Collateral).

Staff Recommendation

Staff recommends the Board approve a loan, from the Construction Fund, not to exceed \$454,500 (\$450,000 for project costs and \$4,500 for a 1% Loan Service Fee) to the Fisher Ditch Company for the Ditch Infrastructure Improvements Project. The loan terms shall be 30 years at a blended interest rate of 5.95% per annum. Security for the loan shall be in compliance with the CWCB Financial Policy #5.

cc: Richard L. Belt, President, Fisher Ditch Company
 Susan Schneider, AGO
 Peter Johnson, AGO

Attachment: Water Project Loan Program – Project Data Sheet

Water Project Loan Program – Project Data Sheet

Borrower: Fisher Ditch Company

County: Denver

Project Name: Ditch Infrastructure Improvements

Project Type: System Rehabilitation

Drainage Basin: South Platte, District 7

Water Source: Clear Creek

Total Project Cost: \$500,000

Funding Source: Construction Fund

Type of Borrower: Blended
(middle-income muni, high-income muni, commercial)

Avg. Annual Diversion: 7,623 AF

CWCB Loan: \$454,500 (w/ 1% service fee)

Interest Rate: 5.95% **Term:** 30 years

The Fisher Ditch Company (Company) utilizes the Fisher Ditch to supply water to its 28 shareholders for the purpose of irrigation, augmentation and industrial uses. The ditch has been in place for over 100 years and annual maintenance of its aging infrastructure is becoming a burden and inhibiting its ability to provide a reliable supply of water. The Company is requesting a loan from the CWCB for four system rehabilitation tasks: 1) headgate rehabilitation, 2) replacement of 650 LF of damaged CMP with RCP, 3) installation of a sand-out pipe and gate, and 4) burying 1,500 LF of open ditch with plastic irrigation pipe. This Project will restore reliable water deliveries while reducing annual maintenance costs.

Location Map

