

STATE OF COLORADO

Colorado Water Conservation Board

Department of Natural Resources

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TO: Colorado Water Conservation Board Members

FROM: Anna Mauss, P.E., Project Manager
Kirk Russell, P.E., Chief
Finance and Administration Section

DATE: November 13, 2013

SUBJECT: **Agenda Item 31b, November 19-20, 2013 Board Meeting**
Finance – Emergency Loans
Davidson Ditch and Reservoir Company – Emergency Davidson Ditch Lining

Introduction

The Davidson Ditch and Reservoir Company (Company) is applying for an Emergency Loan for the Emergency Davidson Ditch Lining Project (Project). During the unprecedented flood of September 2013 a section of the Davidson Ditch was breeched. The purpose of this Project is to repair the ditch to allow the Company to deliver water to shareholders and prevent a potential washout of Marshall Road (State Highway 170) below Eldorado Springs. The total Project cost is estimated to be \$37,000. See attached Project Data Sheet for a location map and project summary.

Staff Recommendation

Staff recommends the Board approve a loan not to exceed \$37,370 (\$37,000 for project cost and \$370 for the 1% service fee) to the Davidson Ditch and Reservoir Company for 100% of engineering and construction costs related to the Emergency Davidson Ditch Lining Project from the Severance Tax Perpetual Base Fund, up to the approved loan amount. The loan terms shall be three years of no interest followed by 27-years at a blended interest rate of 2.45% per annum. Security for the loan shall be in compliance with CWCB Financial Policy #5.

Staff additionally recommends the following contract condition:

Any future grant funds obtained for the purpose of this Project shall be submitted to CWCB to be applied to the balance of the loan within thirty (30) calendar days after receipt of said funds.

Background

The Davidson Ditch carries decreed water to the shareholders and municipalities. The head gate is on South Boulder Creek in Eldorado Canyon next to the Dowdy Draw trailhead parking lot. The ditch crosses highway 93 just south of Eldorado Springs Drive and runs alongside Marshall Road, then runs north on the west side of the Davidson Mesa. It then runs east in the vicinity of Arapahoe and Baseline roads feeding Hecla Lake in Lousiville and Burke Lake in the county. About half of the decree then enters the Davidson High Line Ditch (west of the Lafayette water treatment plant), and the High Line travels through Lousiville and Lafayette, feeding Waneka Lake in Lafayette and terminating about a half a mile east of the intersection of Hwy 387 and Arapahoe Road, where any excess flow is discharged into the South Boulder Canon Ditch. Normal flows are approximately 35 cfs.

Loan Feasibility Study

William Howland, the Company Secretary, prepared the Loan Feasibility Study titled “*Emergency Loan Application and Feasibility Study*,” dated November 2013. The study includes an alternative analysis and cost estimates. It did not include engineering design; however the CWCB will require that the Company hire an engineer to assist with structural elements of the Project. The study was prepared in accordance with the CWCB guidelines.

Borrower – Davidson Ditch and Reservoir Company

The Company is nonprofit ditch company, established in 1919. It is in good standing with the Colorado Secretary of State. The Company has 80 shareholders that own 3,135.5 shares of stock. The Company’s income comes from assessment revenues. The Company’s by-laws state that shareholders set assessments at the Company’s annual meeting. If assessments are unpaid, water delivery can be curtailed and the delinquent shares sold.

Water Rights

The Davidson Ditch water rights sum 223.1744 cfs with adjudication dates ranging from 6/2/1882 to 12/31/1997 and appropriation dates ranging from 10/1/1859 to 6/30/1997. Average annual yield of these water rights ranges from 12 to 720 AF.

Project Description

The goal of this project is to repair the ditch to its pre-flood condition.

Alternative 1 – Do Nothing: Failure to repair the breach will result in the loss of all irrigation water via the breach which will wash out Marshall Road (State Highway 170) below Eldorado Springs.

Selected Alternative 2 – Ditch Lining: This alternative involves repairing the breach and lining the entire section of the ditch on the side of the hill. This will lessen the chances of another breach and will decrease seepage losses.

The estimated construction cost of the selected Alternative is \$37,000. The estimate included engineering services from Merrick & Co. and a bid from E-Z Excavating.

TABLE 1: PROJECT COST SUMMARY

Task	Cost
Engineering	\$2,000
Construction	\$34,055
Contingency	\$945
Total	\$37,000

Collaboration: The borrower is encouraged to consider rebuilding a system that enhances consumptive and nonconsumptive uses of water within the river corridor. Examples include improved fish passage, improved rafting/boating navigation, and possible shared ownership/use of a single diversion structure where possible. If needed, loan funds may be used for the construction of temporary diversion until such time that a multi-beneficial structure can be designed and constructed.

Schedule: Project construction will begin in November of 2013 with completion by April of 2014.

Financial Analysis

Table 3 provides a summary of the Project's financial aspects. The first three years of the loan will be assessed a 0% interest rate. The remaining term of the loan will be assessed a blended interest rate of 2.45% with the principal amortized over 27-years (Ownership: 41% Agricultural and 59% High-Income Municipal). Staff is recommending an exemption to Financial Policy #11 to allow for 100% funding of eligible Project costs.

TABLE 2: FINANCIAL SUMMARY

Total Project Cost	\$37,000
CWCB Loan Amount (100% of total Project cost)	\$37,000
CWCB Loan Amount (Including 1% Service Fee)	\$37,370
CWCB Annual Loan Payment	\$1,908
CWCB Loan Obligation (Including 10% Reserve)	\$2,099
Number of Shares	3,135.5
Annual Cost Per Share for Loan (Including 10% Reserve)	\$1
Current Assessment per Share	\$13
Future Assessment per Share (no assessment increase is necessary)	\$13

Creditworthiness: The Company has no existing debt.

TABLE 3: FINANCIAL RATIOS

Financial Ratio	Past 2 Years	Future w/ Project
Operating Ratio (revenues/expenses) weak: <100% - average: 100% - 120% - strong: >120%	145% (Strong) \$45K/\$31K	136% (Strong) \$45K/\$33K
Debt Service Coverage Ratio (revenues-expenses)/debt service weak: <100% - average: 100% - 120% - strong: >120%	N/A	700% (Strong) <u>\$45K - \$31K</u> \$2K
Cash Reserves to Current Expenses weak: <50% - average: 50% - 100% - strong: >100%	377% (Strong) \$117K/\$31K	355% (Strong) \$117K/\$33K
Annual Operating Cost per Acre-Foot (354AF) weak: >\$20 - average: \$10 - \$20 - strong: <\$10	\$87.57 (Weak) \$31K/354 AF	\$93.22 (Weak) \$33K/354 AF

Collateral: As security for the loan, the Company will pledge its assessment revenues backed by a rate covenant and the Davidson diversion dam. This is in compliance with the CWCBC Financial Policy #5 (Collateral).

cc: William Howland , President, Davidson Ditch and Reservoir Company
Susan Schneider/Jennifer Mele, Colorado's Attorney General Office

Attachment: Water Project Loan Program – Project Data Sheet

**CWCB Water Project Loan Program
Project Data Sheet**

C150384

Borrower: Davidson Ditch
& Reservoir Company

County: Boulder

Project Name: Emergency Davidson
Ditch Lining

Project Type: Ditch Rehabilitation

Drainage Basin/ District: South Platte / 6

Water Source: South Boulder Creek

Total Project Cost: \$37,000

Funding Source: Severance Tax PBF

Type of Borrower: Blended

Average Annual Diversion: 354 AF

CWCB Loan: \$37,370
(with 1% service fee)

Interest Rate: 2.45% **Term:** 30-years
(41% Ag, 59% High-Income Municipal)

The Davidson Ditch carries decreed water to the shareholders and municipalities from its head gate on South Boulder Creek in Eldorado Canyon next to the Dowdy Draw trailhead parking lot. The ditch crosses highway 93 just south of Eldorado Springs Drive and runs alongside Marshall Road, then runs north on the west side of the Davidson Mesa. During the September 2013 flood event a section of the ditch below Eldorado Springs failed. The breached section must be repaired before spring irrigation can begin.

