

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: October 18, 2013

SUBJECT: **Agenda Item 8f, October 21, 2013 Special Board Meeting**
Finance – Emergency Loans
Boulder and Larimer County Irrigating and Manufacturing Ditch Company –
Emergency Boulder and Larimer Diversion Structure Repair

Introduction

The Boulder and Larimer County Irrigating and Manufacturing Ditch Company (Company) is applying for an Emergency Loan for the Emergency Boulder and Larimer Diversion Structure Repair Project (Project). During the unprecedented flood of September 2013 in the tributaries to the South Platte River, a significant number of diversion structures and dams along the river corridor were damaged. The purpose of this Project is to repair the diversion structure and inlet shared by the Company and the Ish Reservoir Company to give both Companies the ability to deliver water to shareholders. The Company will share the cost of the Project with Ish Reservoir Company. See attached Project Data Sheet for a location map and project summary.

Staff Recommendation

Staff recommends the Board approve a loan not to exceed \$202,000 (\$200,000 for project cost and \$2,000 for the 1% service fee) to the Boulder and Larimer Irrigating and Manufacturing Ditch Company for 100% of engineering and construction costs related to the Emergency Boulder and Larimer Diversion Structure Repair 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 1.90% 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 Company was originally incorporated in 1875. The oldest Company water right on the Little Thompson River dates back to 1883. In 1904, the Company entered into a contract with the Ish Reservoir Company to enlarge the Ish Reservoir and obtained a storage right for 400 cfs off the Little Thompson River.

The diversion dam is located in Section 1, T3N, R70W in Boulder County. The inlet ditch traverses in a generally west to east direction approximately 6 miles to the Ish Reservoir located east of 287 in Sections 2 & 3, T3N, R69W. There are 5,000 acres of land that are irrigated under the Company System. The service area is generally south and southeast of the Town of Berthoud.

The diversion structure consists of a dam with north and south wing walls, two head gates and a sand gate. The north wing wall was destroyed in the flooding and the river is now traveling around the dam on the north side. There was a tremendous amount of debris piled up against the diversion dam and headgate structure as well as in the Parshall flume. The inlet ditch had three minor washouts and a severe washout. The small washouts can be easily repaired; however, the major washout is going to require a significant amount of engineering and reconstruction.

Loan Feasibility Study

Cindy Befus, the Company Secretary of the Board, along with Tara Schutter, P.E., Tessara Water LLC, prepared the Loan Feasibility Study titled “*Emergency Loan Application and Feasibility Study*,” dated October 2013. The study includes an alternative analysis and preliminary engineering design and cost estimates. The study was prepared in accordance with the CWCB guidelines.

Borrower – Boulder and Larimer Irrigating and Manufacturing Ditch Company

The Company is a corporation and is in good standing with the Colorado Secretary of State. The Company has 72 shareholders that own 1,000 shares of stock. The Company’s revenues are primarily generated by assessments charged on shares of stock owned by the stockholders. It also receives revenues from fishing leases.

The Company’s by-laws state that the Board has the power to make assessment on its stock; however, assessments must first be submitted to the stockholders. The Board can also sell shares for failure to pay assessments. Shareholders must approve loans if the term is longer than one year.

Water Rights

Average annual yield of these water rights is 4,500 AF.

TABLE 1: IMPACTED WATER RIGHTS

Name	Water Court Case	Appropriation Date	Adjudication Date	Amount
Direct Flow Priority 27	5/28/1883	6/30/1875	5/28/1883	27.2 cfs
Direct Flow Priority 36	5/28/1883	5/20/1877	5/28/1883	39.52 cfs
Storage Right Priority 4	CA4862	6/30/1875	6/29/1916	1,241.4 AF
Storage Right Priority 5	CA4862	5/20/1877	6/29/1916	553.0 AF
Storage Right Priority 13	CA4862	9/16/1890	6/29/1916	751.59 AF
Storage Right Priority 22	CA4862	1/4/1094	6/29/1916	4,797.7 AF
Refill Right	97CW363	6/9/1987	12/31/1997	307.0 AF

Project Description

There are two components within this Project. The first is the reconstruction of the diversion structure and the second is repairing the major inlet washout.

Alternatives considered were:

Alternative 1 – Do Nothing: This alternative is considered unacceptable. Without the structures, the Company is unable to divert its water rights thereby leading to abandonment of the rights.

Alternative 2 – Rebuilding Collaboratively with Improvements: The replacement will be built in collaboration with the Ish Reservoir Company. Final design alternatives are being evaluated.

Selected Alternative 3 – Repair of Both the Diversion Structure and Ish Reservoir Inlet: The scope of work for the diversion structure repairs involves removing debris from the dam and inlet structure, forming and pouring a new wing wall on the north side of the diversion dam, and then rechanneling the Little Thompson River to flow back over the diversion dam.

The scope of work for inlet washout repairs involves creating a new path for the Company's ditch through this area. This will involve creating a permanent foundation secured to bedrock and building a new water conveyance system on top of this foundation. The decision on the type of conveyance system will be determined based on an engineering analysis. The options include an open ditch, a box culvert or pipe. The selection of the best option will be based on a feasibility study and economical analysis. Significant weight will be given to the option that is most likely to handle the next major flood event.

The Company's portion of the estimated engineering and construction costs of the selected alternative is \$305,000. (Note: The Ish Reservoir Company is also seeking a \$200,000 Emergency Loan from the CWCB to fund part of their portion of the project costs.)

TABLE 2: PROJECT COST SUMMARY (COMPANY'S PORTION ONLY)

Task	Cost
Design (Survey & Engineering)	\$60,000
Construction	\$185,000
Silt and Debris Removal	\$60,000
Total	\$305,000

Note: Contingencies were built into each task's estimates

Collaboration: The borrower is encouraged to consider rebuilding a river diversion 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: Construction of the Project is expected to occur between October of 2013 and March 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 1.90% with the principal amortized over 27-years (Ownership: 81% Agriculture, and 19% Middle-Income Municipal). While the preliminary Project cost estimate is \$305,000, the Company shareholders approved a maximum loan amount of \$200,000. The additional Project funds will come from a combination of special assessment and/or grants.

Staff is recommending an exemption to Financial Policy #11 to allow for 100% funding of eligible Project costs.

TABLE 3: FINANCIAL SUMMARY

Company's Portion of the Total Project Cost	\$305,000
CWCB Loan Amount (invoices will be paid at 100% up to this amount)	\$200,000
CWCB Loan Amount (Including 1% Service Fee)	\$202,000
CWCB Annual Loan Payment	\$9,633
CWCB Loan Obligation (Including 10% Reserve)	\$10,596
Number of Shares	1,000
Annual Cost Per Share for Loan (with Reserve Account)	\$10.60
Current Assessment per Share	\$14
Future Assessment per Share	\$114*

**Note: The future assessment is in excess of the Project cost per share. This increase is to help fund the difference in the total Project cost versus the CWCB loan amount.*

Creditworthiness: The Company has no existing debt.

TABLE 4: FINANCIAL RATIOS

Financial Ratio	Past 2 Years	Future w/ Project
Operating Ratio (revenues/expenses) weak: <100% - average: 100% - 120% - strong: >120%	160% (Strong) \$48K/\$30K	117% (Average) \$48K/\$41K
Debt Service Coverage Ratio (revenues-expenses)/debt service weak: <100% - average: 100% - 120% - strong: >120%	N/A (No ex. Debt)	164% (Strong) <u>\$48K-\$30K</u> \$11K
Cash Reserves to Current Expenses weak: <50% - average: 50% - 100% - strong: >100%	167% (Strong) \$50K/\$30K	122% (Strong) \$50K/\$41K
Annual Operating Cost per Acre-Foot (4,500 AF) weak: >\$20 - average: \$10 - \$20 - strong: <\$10	\$6.67 (Strong) \$30K/4.5K AF	\$9.11 (Strong) \$41K/4.5K AF

Collateral: As security for the loan, the Company will pledge its assessment revenues backed by a rate covenant and the Project itself (Boulder and Larimer Diversion Structure). This is in compliance with the CWCB Financial Policy #5 (Collateral).

cc: Cindy Befus, Board Secretary, Boulder and Larimer County Irrigating and Manufacturing
Ditch 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**

C150374

Borrower: Boulder & Larimer County
Irrigating & Manufacturing Ditch Company
Project Name: Boulder & Larimer Diversion
Structure Repair
Drainage Basin/ District: South Platte / 4

County: Boulder & Larimer

Project Type: Diversion Rehabilitation

Water Source: Big Thompson River

Total Project Cost: \$200,000

Funding Source: Severance Tax PBF

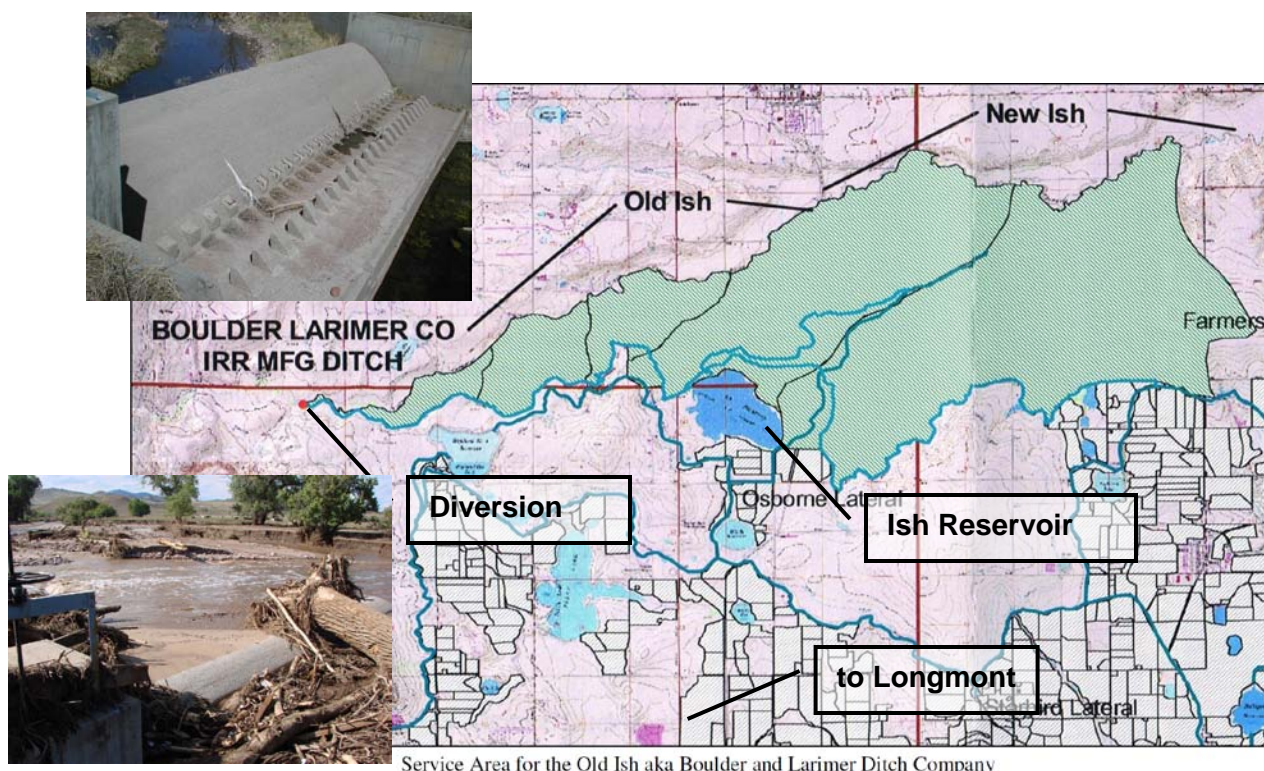
Type of Borrower: Blended Rate

Average Annual Diversion: 4,500 AF

CWCB Loan: \$202,000
(with 1% service fee)

Interest Rate: 1.90% **Term:** 30-years
(81% Ag, 19% Mid)

During the unprecedented flood of September 2013 in the tributaries to the South Platte River, a significant number of diversion structures and dams along the river corridor were damaged. The purpose of this Project is to repair the diversion structure and crossing structures to allow the Company to deliver water to shareholders. The Project includes the repair of the diversion structure and Ish Reservoir Inlet. The scope of work for the diversion structure repairs involves removing debris from the dam and inlet structure, forming and pouring a new wing wall on the north side of the diversion dam, and then rechanneling the Little Thompson River to flow back over the diversion dam. The scope of work for inlet washout repairs involves creating a new path for the Company's ditch through this area. This will involve creating a permanent foundation secured to bedrock and building a new water conveyance system on top of this foundation.



Service Area for the Old Ish aka Boulder and Larimer Ditch Company