STATE OF COLORADO

Colorado Water Conservation Board
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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 8g, October 21, 2013 Special Board Meeting**
Finance – Emergency Loans
Ish Reservoir Company – Emergency Inlet and Diversion Structure Repair

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Introduction

The Ish Reservoir Company (Company) is applying for an Emergency Loan for the Emergency Inlet and 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 Boulder and Larimer County Irrigating and Manufacturing Ditch Company to give both companies the ability to deliver water to shareholders. The Company's total Project cost is estimated to be $205,000. See attached Project Data Sheet for a location map and project summary.

Staff Recommendation

Staff recommends the Board approve a loan not to exceed $207,050 ($205,000 for project cost and $2,050 for the 1% service fee) to the Ish Reservoir Company for 100% of engineering and construction costs related to the Emergency Inlet and 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 the agricultural interest rate of 1.75% 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 and the Boulder and Larimer County Irrigating and Manufacturing Company share a diversion structure on the Big Thompson River as well as Ish Reservoir and the inlet to the reservoir. 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.

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 in September 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 head gate 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

Jill Baty, the Company Secretary, 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 – Ish Reservoir Company

The Company is a Mutual Ditch and Reservoir Company, established in 1904. It is in good standing with the Colorado Secretary of State. Approximately 15,500 acres are irrigated by the 100 shareholders that own 600 shares of stock. The Company's revenues are generated by assessments charged on shares of stock owned by the stockholders and oil and gas royalties.

The Company's by-laws state that the Board has the authority to enter into loan contracts as well as set annual assessments. The Board can also sell shares for failure to pay assessments.

Water Rights

The water rights impacted by this project include:

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

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

Project Description

The intent of this Project is to restore the Company's system so it can deliver water to shareholders.

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 Boulder and Larimer County Irrigating and Manufacturing 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. Additionally, the headgates are full of silt and debris and the ditch below the diversion dam has 8 – 10 feet of silt and debris that must be removed.

The estimated engineering and construction cost of the Company's portion of the selected alternative is $205,000. (Note: The Boulder and Larimer County Irrigating and Manufacturing Company is also seeking an Emergency Loan from the CWCB to fund its portion of the project costs.)

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

Task	Cost
Design & Permitting	$55,000
Construction	$120,000
Silt and Debris Removal	$30,000
Total	$205,000

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: Debris removal has already begun. 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 the agricultural interest rate of 1.75% with the principal amortized over 27-years. Staff is recommending an exemption to Financial Policy #11 to allow for 100% funding of eligible Project costs.

TABLE 3: FINANCIAL SUMMARY

CWCB Loan Amount (100% of Company's Project cost)	$205,000
CWCB Loan Amount (Including 1% Service Fee)	$207,050
CWCB Annual Loan Payment	$9,688
CWCB Loan Obligation (Including 10% Reserve)	$10,657
Number of Shares	600
Annual Cost Per Share for Loan (with Reserve Account)	$18
Current Assessment per Share	$90
Future Assessment per Share	$108

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%	135% (Strong) $96K/$71K	132% (Strong) $109K/$82K
Debt Service Coverage Ratio (revenues-expenses)/debt service weak: <100% - average: 100% - 120% - strong: >120%	N/A (no existing debt)	345% (Strong) $109K-71K $11K
Cash Reserves to Current Expenses weak: <50% - average: 50% - 100% - strong: >100%	70% (Average) $50K/$71K	61% (Average) $50K/$82K
Annual Operating Cost per Acre-Foot (4,500 AF) weak: >$20 - average: $10 - $20 - strong: <$10	$15.78 (Average) $71K/4.5 AF	$18.22 (Average) $82K/ 4.5K AF

Collateral: As security for the loan, the Company will pledge its assessment revenues backed by a rate covenant and the Company's interest in Ish Reservoir. This is in compliance with the CWCB Financial Policy #5 (Collateral).

cc: Jill Baty, Board Secretary, Ish 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

Borrower: Ish Reservoir Company

County: Boulder

Project Name: Inlet Ditch & Diversion Structure Repair

Project Type: Diversion Rehabilitation

Drainage Basin/ District: South Platte / 6

Water Source: Little Thompson River

Total Project Cost: $205,000

Funding Source: Severance Tax PBF

Type of Borrower: Blended

Average Annual Diversion: 4,500 AF

CWCB Loan: $207,050 (with 1% service fee)

Interest Rate: 1.75% **Term:** 30-years (99% Ag, <1% Mid, <1% Com)

Project consists of the repair of the diversion structure and Ish Reservoir inlet. The scope of work for the diversion structure 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 involves creating a permanent foundation secured to bedrock and building a new water conveyance system on top of this foundation.