STATE OF COLORADO

Colorado Water Conservation Board
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TO: Colorado Water Conservation Board Members

FROM: Jonathan Hernandez, P.E., Project Manager
Kirk Russell, P.E., Chief
Finance and Administration Section

DATE: October 18, 2013

SUBJECT: **Agenda Item 8c, October 21, 2013 Special Board Meeting**
Finance – Emergency Loans
Rough and Ready Irrigating Ditch Company – Emergency Rough and Ready Ditch River Diversion Structure Repair

Introduction

The Rough and Ready Irrigating Ditch Company (Company) is applying for an Emergency Loan for the Emergency Rough and Ready Ditch River 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 Rough and Ready Ditch river diversion structure received significant damage as a result of this flood. The purpose of the Project is to repair the diversion structure to allow the Company to divert their decreed water rights. See attached Project Data Sheet for a location map and project summary.

Staff Recommendation

Staff recommends the Board approve a loan not to exceed $1,843,250 ($1,825,000 for project cost and $18,250 for the 1% service fee) to the Rough and Ready Irrigating Ditch Company for 100% of engineering and construction costs related to the Emergency Rough and Ready Ditch River Diversion Structure Repair Project from the Severance Tax Perpetual Base Fund, up to the approved loan amount. The loan terms shall be 3 years of no interest followed by 27 years at a blended interest rate of 2.70% per annum. Security for the loan shall be in compliance with CWCB Financial Policy #5.

Additionally, staff 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) days after receipt of said funds

Background

The Company serves approximately 3,100 irrigated acres in Boulder County north of Longmont. 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, including the Company's river diversion for the Rough and Ready Ditch.

The Company and the Palmerton Consolidated Ditch Company share the diversion structure on the St. Vrain Creek. The Company is the Project Sponsor and will be 100% obligated to replay this loan, although the Company is pursuing a cost-sharing arrangement with Palmerton.

Prior to the 2013 flood, the diversion structure consisted of a rock and concrete diversion dam and sand gates, and a headgate structure with four headgates, two serving each of the two ditches separately. The central sand gate had been retro-fitted with a Rubicon flumegate that allowed flows bypassing the Rough and Ready/Palmerton diversion to be controlled and measured. Downstream of the two sets of headgates, two separate channels conveyed water in the two ditches to two separate measuring flumes that were replaced just prior to the 2013 irrigation season.

After the 2013 flood, nothing remains of the diversion dam. The sand gates collapsed and the Rubicon flumegate was destroyed. The headgate structure with the four headgates was damaged and needs to be removed and replaced. The flood waters overtopped the ditches between the headgates and the measuring flumes and washed out both ditches and both measuring flumes. Post-flood, there are only remnants of the individual ditches between the headgates and Highway 66. Both ditches require rebuilding between the diversion structure and Highway 66; however it appears the two flumes may be salvageable.

Loan Feasibility Study

Mark Mclean, P.E. with Deere and Ault Consultants, Inc., 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 – Rough and Ready Irrigating Ditch Company

The Company is a Colorado Non-Profit Mutual Irrigation Ditch Company that was incorporated in 1891. The Company's office is located in Longmont. It is in good standing with the Colorado Secretary of State. The Company has issued 95.3538 shares of stock. The Company's revenues are derived from assessments charged on shares of stock owned by the stockholders and from a carriage agreement with Pleasant Valley Reservoir.

The Company's by-laws authorize the Board of Trustees to manage the business and affairs of the Company. The Board has the authority to take measures to enforce assessments including the suspension of water deliveries and the eventual sale or forfeiture of shares for failure to pay assessments.

Water Rights

The water rights impacted by this project include

TABLE 1: IMPACTED DIRECT FLOW WATER RIGHTS

Name	Amount (CFS)	Appropriation Date	Adjudication Date
Rough and Ready Ditch	41.67	3/13/1869	6/2/1882
Rough and Ready Ditch	41.67	3/4/1873	6/2/1882
Palmerton Ditch	32.35	5/31/1865	6/2/1882
Palmerton Ditch	47.70	5/31/1866	6/2/1882
Palmerton Ditch	84.26	6/30/1874	6/2/1882

TABLE 2: IMPACTED STORAGE WATER RIGHTS

Name	Amount (AF)	Appropriation Date	Adjudication Date
Pleasant Valley Reservoir	1608	6/1/1871	2/21/1883
Pleasant Valley Reservoir	924	2/3/1904	6/1/1926
Pleasant Valley Reservoir	2532	12/31/1929	7/23/1951
Oligarchy Reservoir #1	1080	7/2/1889	3/22/1890
Oligarchy Reservoir #1	357	3/31/1890	3/13/1907
Oligarchy Reservoir #1	386	11/14/1892	3/13/1907
McCall Reservoir	506	3/15/1909	6/1/1926

Average annual diversions through the diversion structure are 7,528 AF through the Rough and Ready headgate and 4,285 AF through the Palmerton headgate.

Project Description

The Project goal is to reconstruct the Company's St. Vrain Creek diversion structure, which was destroyed by the September 12-16, 2013 flood, including the diversion dam, sand gates, Rubicon flumegate, headgates, ditches, and measuring flumes. The Company has retained Deere and Ault Consultants, Inc. to provide design and construction review services.

Alternative 1 – Do Nothing: This alternative is considered unacceptable. Failure to replace the diversion structure would prevent the diversion of the Company's water rights and result in the inability to uphold the Company's responsibility to deliver Pleasant Valley Reservoir, Oligarchy Reservoir #1, and McCall Reservoir water rights.

Selected Alternative 2 – Rebuilding Collaboratively with Improvements: The Rough and Ready Ditch and Palmerton Ditch already serve multiple users and interests, including the shareholders of the two Companies, and the owners of the Oligarchy Reservoir #1 and McCall Reservoir. The Rubicon flumegate serves the interests of the St. Vrain Creek Corridor Committee for preserving stream flow past the structure. The Project will reconstruct the damaged facilities in the same location, size and for the same function as the pre-flood structure, with a combined conveyance section and the addition of a bypass to the river to regulate diversions, and with improvements to provide a long lasting installation. The rebuilt structure will provide a better hydraulic cutoff and energy dissipation, which should provide additional protection of the structure under future flood flow conditions. The rebuilt headgates structure will combine the diversions for both ditches into one ditch with one set of headgates at the river. A bypass channel with gates will return water to St. Vrain Creek prior to the bifurcation of the two ditches. A bifurcation structure with gates for each ditch will control the diversions into the Rough and Ready Ditch and into the Palmerton Ditch.

The Company is currently in the permitting process with the U.S. Army Corps of Engineers and will begin to obtain a Boulder County grading permit if required. The estimated engineering and construction cost of this Alternative is $1,825,000 and is further broken down as follows:

TABLE 3: PROJECT COST SUMMARY

Task	Cost
Design and Construction Engineering, Geotechnical, Surveying and Testing	$187,000
Permitting	$47,000
Construction	$1,170,000
Subtotal	$1,404,000
Contingency (30%)	$421,000
Total	$1,825,000

Collaboration: The borrower is encouraged to consider rebuilding a river diversion that enhances the nonconsumptive uses of water within the river corridor. Examples include improved fish passage and improved rafting/boating navigation. 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 commence December 2013 with Project completion to occur by March 2014.

Financial Analysis

Table 4 provides a summary of the Project's financial aspects. The first three years of the loan will be assessed a zero % interest rate. The remaining term of the loan will be assessed a blended interest rate of 2.70% with the principal amortized over 27 years (Ownership: 15% Agriculture, 69% Mid Municipal, 13% High Municipal, 3% Commercial). Staff is recommending an exemption to Financial Policy #11 to allow for 100% funding of eligible Project costs.

TABLE 4: FINANCIAL SUMMARY

Total Project Cost	$1,825,000
CWCB Loan Amount (100% of total Project cost)	$1,825,000
CWCB Loan Amount (Including 1% Service Fee)	$1,843,250
CWCB Annual Loan Payment	$97,028
CWCB Loan Obligation (Including 10% Reserve)	$106,731
Number of Shares	95.3538
Annual Cost Per Share for Loan*	$1,119
Current Assessment per Share	$160
Future Assessment per Share*	$1303

* Does not account for possible Palmerton Consolidated Ditch Company cost sharing.

Creditworthiness: The Company has no existing debt.

TABLE 5: FINANCIAL RATIOS

Financial Ratio	Past 3 Years	Future w/ Project
Operating Ratio (revenues/expenses) weak: <100% - average: 100% - 120% - strong: >120%	96% (Weak) $51K/$53K	100% (Average) $160K/$160K
Debt Service Coverage Ratio (revenues-expenses)/debt service weak: <100% - average: 100% - 120% - strong: >120%	No Existing Debt	100% (Average) $160K-$53K $107K
Cash Reserves to Current Expenses weak: <50% - average: 50% - 100% - strong: >100%	42% (Weak) $22K/$53k	14% (Weak) $22K/$160K
Annual Operating Cost per Acre-Foot (7,528 AF) weak: >$20 - average: $10 - $20 - strong: <$10	$7 (Strong) $53K/7.5K AF	$21 (Weak) $160K/7.5K AF

Collateral: As security for the loan, the Company will pledge its assessment revenues backed by a rate covenant and the Project itself (Rough and Ready ditch diversion structure and headgate). This is in compliance with the CWCB Financial Policy #5 (Collateral).

cc: Dan Grant, Secretary/Treasurer, Rough and Ready Irrigating 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

C150371

Borrower: Rough & Ready Irrigating Ditch Company

County: Boulder

Project Name: Rough & Ready Ditch River Diversion Structure Repair

Project Type: Diversion Rehabilitation

Drainage Basin/ District: South Platte / 5

Water Source: St. Vrain Creek

Total Project Cost: $1,825,000

Funding Source: Severance Tax PBF

Type of Borrower: Blended

Average Annual Diversion: 7,528 AF

CWCB Loan: $1,843,250 (with 1% service fee)

Interest Rate: 2.7% **Term:** 30-years
(15% Ag, 69% Mid, 13% High, 3% Com)

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 including the Company's river diversion off the St. Vrain Creek. This structure also serves as the diversion dam for the Palmerton Ditch. The diversion dam and sand gates no longer exist and the headgates sustained major damage. The purpose of this Project is to rebuild the diversion dam, sand gates, Rubicon flumegate, headgates, ditches, and measuring flumes. The structure will be the same size and location but will include a combined conveyance ditch off the diversion and will include the addition of a bypass to the river to better regulate diversions.