



## COLORADO

### Colorado Water Conservation Board

Department of Natural Resources

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**TO:** Colorado Water Conservation Board Members

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

**DATE:** July 16-17, 2014 Board Meeting

**AGENDA ITEM:** Consent Agenda Item 2a - Change to Existing Loan  
Consolidated Home Supply Ditch and Reservoir Company - Emergency George Rist Ditch Repair Project

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#### Guidance

At the May 2005 Board Meeting, the Board authorized staff to present increases to existing loans less than 20% of the original loan as Consent Agenda items. This request for increase is approximately 15% of the original loan amount.

#### Introduction

The Consolidated Home Supply Ditch and Reservoir Company (Company) received approval of a \$440,000 CWCB loan (Contract C150380) to finance the Emergency George Rist Ditch Repair Project (Project) in November 2013. The purpose of the Project was to repair the diversion structure and ditch in response to the September 2013 Flood event in the South Platte River Basin. During construction, and subsequent ditch operation, additional repairs were identified. The Company is requesting a loan increase of \$70,000. This is approximately 15% of the original loan request. See attached Project Data Sheet for a location map and Project summary.

#### Staff Recommendation

Staff recommends the Board approve a loan increase of \$70,700 (\$70,000 for project costs and \$700 for the 1% Loan Service Fee) for a total loan not to exceed \$519,140 (\$514,000 for project cost and \$5,140 for the 1% Loan Service Fee) to the Consolidated Home Supply Ditch and Reservoir Company for engineering and construction costs related to the Emergency George Rist Ditch Repair Project from the Severance Tax Perpetual Base Fund. The loan terms shall remain 3 years of no interest followed by 27 years at a blended interest rate of 1.95% per annum. Security for the loan shall be in compliance with CWCB Financial Policy #5.



## Background

The Company serves approximately 15,000 irrigated acres in Larimer County near Loveland. Its George Rist Ditch is located on the Big Thompson River just downstream of the canyon mouth west of Loveland. 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 George Rist Ditch.

The George Rist Ditch was purchased by the Company in the late 1880's. The ditch serves its shareholders by delivering water to Mariano Reservoir (aka Boedecker Lake). Additionally, the ditch is a carrier ditch for the Buckingham Irrigation Company, delivering its water to Rist Reservoir (aka Buckingham Lake).

During the 2013 flood, the diversion dam, headgate, measuring flume, stilling well and house, and access road were heavily damaged. Additionally, two sections of the ditch's embankment and bottom were completely washed out. At these locations additional erosion occurred adjacent to the breached areas outside of the ditch itself.

## Project Update

The emergency repairs identified in the original damage assessment have been completed within the original budget. However, during the emergency repairs and subsequent annual maintenance and start-up of the ditch, additional flood damage was discovered. These additional repairs will require a \$70,000 increase to the original \$444,000 loan. The additional repairs are briefly described below. The updated Project Cost Summary is shown in Table 1.

**Dry Creek Structure - \$6,700:** The Ditch and Dry Creek converge and share the same channel for approximately 350 feet. At this location additional debris and damage to the ditch was discovered. This work has been completed.

**Flume Replacement - \$46,500:** After additional field investigations and conversations with the Big Thompson River Water Commissioner, it was determined the existing flume could not be repaired. The existing flume was removed and a long throated flume was constructed. This is an overall improvement to the ditch because the original flume was known to have operation issues even prior to the flooding. Approximately \$30,000 of this cost was covered under the original loan request. This work has been completed.

**All-Weather Access - \$26,000:** Road base material was installed to repair and restore the ditch rider road from the headgate to the east breach. This is an overall improvement to the ditch because ditch access was very limited at this location prior to the flood. This work has been completed.

**Bridge Removal - \$9,000:** As part of the repair operations, an unauthorized bridge crossing the ditch was discovered within the ditch easement. During the flood, debris was caught on this bridge causing water to back up and overtop the ditch bank. The Company received a court order to allow for the removal of the bridge. This work has been completed.

**Ditch Stabilization at Bridge - \$7,500:** At the location of the unauthorized bridge, the banks had to be steepened to a near 1:1 slope with buried rip rap. During the first water run in the ditch, there was some movement in the embankment. Additional monitoring will be conducted during the 2014 irrigation season, but the Company believes additional stabilization methods, such as concrete blocks, will be required. This work will be completed this fall after the irrigation season and reservoir run have been completed.

**Ditch Stabilization Downstream of Eastern Breach - \$12,500:** At a location approximately 2,500 feet downstream of the Eastern Breach, additional damage to the ditch bank was discovered after ditch repairs commenced. An area approximately 60 feet in length, 2-3 feet in depth, and 20 feet down to the slope of the ditch bank had sloughed due to overtopping during the flood. Additional monitoring will be conducted during the 2014 irrigation season and repairs will be completed this fall after the irrigation season and reservoir run have been completed.

**TABLE 1: UPDATED PROJECT COST SUMMARY**

Task	Original Project Cost	Updated Project Cost
Engineering	\$44,000	\$44,000
Construction (Incl. Contingency)	\$400,000	\$470,000
Total	\$444,000	\$514,000

**Schedule:** With the exception of the two additional ditch stabilization measures to be completed in the Fall of 2014, all other repairs have been completed.

#### Financial Analysis

Table 2 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 1.95% with the principal amortized over 27 years (Ownership: 76% Agriculture, 23% Mid Municipal, <1% High Municipal, <1% Commercial). Staff is recommending an exemption to Financial Policy #11 to allow for 100% funding of eligible Project cost.

**TABLE 2: FINANCIAL SUMMARY**

	Original Approval	New Request
Total Project Cost	\$444,000	\$514,000
CWCB Loan Amount (100% of total Project cost)	\$444,000	\$514,000
CWCB Loan Amount (Including 1% Service Fee)	\$448,440	\$519,140
CWCB Annual Loan Payment	\$21,521	\$24,914
CWCB Loan Obligation (Including 10% Reserve)	\$23,673	\$29,078
Number of Shares	2001	2001
Annual Cost Per Share for Loan	\$12	\$14.50
Current Assessment per Share	\$163	\$163
Future Assessment per Share	\$222	\$225

**Creditworthiness:** The Company has two loans with a total of \$484,358 in existing debt. These loans are in good standing. Additionally, the Company was recently approved for a CWCB Emergency Loan for its Big Dam repairs on the Home Supply Ditch at the October 2013 Special Board Meeting.

**TABLE 3: EXISTING DEBT**

Lender	Original Balance	Current Balance	Annual Payment	Maturity Date	Collateral
USDA Rural Development	\$650,000	\$71,861	\$27,157	12/10/2015	Assessments
CWCB (C150082)	\$533,000	\$412,497	\$29,024	3/1/2034	Mariano Reservoir and Dam; Assessments
CWCB (C150375)	\$1,616,000	Not Yet Disbursed	\$85,308	2044	Big Dam Diversion & Headgate, Assessments

**TABLE 4: FINANCIAL RATIOS**

Financial Ratio	Past 3 Years	Future w/ Project*
Operating Ratio (revenues/expenses) weak: <100% - average: 100% - 120% - strong: >120%	101% (Average) \$328K/\$324K	110% (Average) \$452K/\$411K
Debt Service Coverage Ratio (revenues-expenses)/debt service weak: <100% - average: 100% - 120% - strong: >120%	107% (Average) \$328K-\$268K \$56K	129% (Strong) \$452K-\$268K \$143K
Cash Reserves to Current Expenses weak: <50% - average: 50% - 100% - strong: >100%	59% (Average) \$191K/\$324K	46% (Weak) \$191K/\$411K
Annual Operating Cost per Acre-Foot (22,000 AF) weak: >\$20 - average: \$10 - \$20 - strong: <\$10	\$15 (Average) \$324K/22K AF	\$19 (Average) \$411K/22K AF

*\*Assumes full disbursement of Emergency Loan C150375 and retirement of USDA Rural Development loan.*

**Collateral:** Security for the loan will remain a pledge of assessment revenues backed by rate covenant and the George Rist Ditch diversion structure and headgate. This is in compliance with the CWCB Financial Policy #5 (Collateral).

cc: Minerva Lee, President, Consolidated Home Supply Ditch and Reservoir Company  
 Susan Schneider/Jennifer Mele, Colorado Attorney General's Office

Attachment: Water Project Loan Program - Project Data Sheet

**CWCB Water Project Loan Program  
Project Data Sheet  
(Increase)**

**C150380**

<b>Borrower:</b> Consolidated Home Supply Ditch & Reservoir Company	<b>County:</b> Larimer
<b>Project Name:</b> Emergency George Rist Ditch Repair	<b>Project Type:</b> Ditch Rehabilitation
<b>Drainage Basin/ District:</b> South Platte / 4	<b>Water Source:</b> Big Thompson River
<b>Total Project Cost:</b> \$514,000	<b>Funding Source:</b> Severance Tax PBF
<b>Type of Borrower:</b> Blended	<b>Average Annual Diversion:</b> 22,000 AF
<b>CWCB Loan:</b> \$519,140 (with 1% service fee)	<b>Interest Rate:</b> 1.95% <b>Term:</b> 30-years (76% Ag, 23% Mid, <1% High, <1% 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 George Rist ditch and diversion structure. During the flood, the diversion dam, headgate, measuring flume, stilling well and house, and access road were heavily damaged. Additionally, two sections of the ditch's embankment and bottom were completely washed out. The purpose of this Project is to restore the George Rist Ditch to its pre-flood condition. During repairs, approximately \$70,000 worth of additional needs were identified prompting a request for additional funds.

