



**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:** September 15-17, 2015 Board Meeting

**AGENDA ITEM:** 22a. Water Project Loans  
Brighton Ditch Company - River Breach Repair Project

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### Introduction

The Brighton Ditch Company (Company) is applying for a loan for the River Breach Repair Project (Project). Long-term high flows in the South Platte River in May and June 2015 washed out a portion of the east bank of the river. This redirected the South Platte River away from the Company's headgate. The purpose of the Project is to restore river flows at the Company's headgate by repairing the breach in the river. The total Project cost is estimated to be \$530,000. The Company is requesting a loan from CWCB for approximately 90% of the Project Cost. See attached Project Data Sheet for a location map and Project summary.

### Staff Recommendation

Staff recommends the Board approve a loan not to exceed \$481,770 (\$477,000 for Project costs and \$4,770 for the 1% service fee) to the Brighton Ditch Company for costs related to the River Breach Repair Project from the Construction Fund. The loan terms shall be 30 years at a blended interest rate of 2.55% per annum. Security for the loan shall be in compliance with CWCB Financial Policy #5.



## Background

The Company is located in Adams County and operates the Brighton Ditch for the benefit of its shareholders. The ditch diverts from the South Platte River, west of the City of Brighton, and delivers water to approximately 1,840 acres in Adams and Weld County. Irrigated acreage within the service area is primarily used for crop production for sale in local markets with some hay production for cattle feed or sale. Water at the end of the ditch is measured by an augmentation station used by four shareholders: Central Colorado Water Conservancy District, South Adams County Water & Sanitation District, the City of Aurora, and the City of Westminster.

In May and June of 2015, the South Platte River experience extended high flows. This resulted in a breach of the river between the Company's diversion structure and the upstream Ken Mitchell Ponds headgate owned by the City of Brighton (Brighton). Approximately 120 feet of the east bank was washed out, directing the river away from the Company's diversion. Brighton owns the land where the breach is located but notified the Company that it would not be taking any immediate action to repair the breach or damage to its Ken Mitchell Ponds headgate structure. The City of Aurora owns the Prairie Water Pipeline which was exposed by this breach but was able to repair its pipeline independent of the river breach. Metro Waste Water Reclamation District also has a pipeline downstream of the breach but this pipeline was not exposed and thus no action was planned by the District either.

## Loan Feasibility Study

Dawn Jewell, Executive Secretary of the Brighton Ditch Company, with assistance from Colby Hayden, P.E., of Deere & Ault Consultants, Inc., prepared the Loan Feasibility Study, titled "Feasibility Report - Reconstruction of the South Platte River Breach Upstream of the Brighton Ditch Diversion," dated July 2015. The feasibility study was prepared in accordance with the CWCB guidelines.

## Borrower - Brighton Ditch Company

The Company is a mutual ditch company that was incorporated in 1880. Its office is located in Fort Lupton. It operates as a nonprofit corporation and is in good standing with the Colorado Secretary of State. There are 14 shareholders and 20 shares of stock. The Company's revenues are primarily derived from share assessments.

The Company's By-Laws (2014) provide the five-member Board of Directors with corporate powers of the Company and the authority to set assessments should the shareholders fail to levy assessments to meet the necessary expenses of operation and maintenance of the Company, including the repayment of debt. The By-Laws also provide the authority to enforce unpaid assessments by ceasing water deliveries and eventually by selling delinquent stock shares. Shareholder approval is required to authorize the borrowing of money in excess of \$50,000.

## Water Rights

The water rights of the Company include:

TABLE 1: WATER RIGHTS

Name	Amount	Appropriation Date	Adjudication Date	Water Court Case No.
Brighton Ditch	22.22 cfs	12/1/1863	4/28/1883	CA6009
Brighton Ditch	22.58 cfs	11/1/1871	4/28/1883	CA6009

On average, the Company diverts 7,125 AF per year.

## Project Description

The goal of this Project was to restore flows to the Company's headgate to allow for continued irrigation and augmentation water to shareholders. The following alternatives were considered:

**Alternative 1 - Do Nothing:** This alternative was the default alternative as parties within the breach area (City of Brighton, City of Aurora, and Metro Wastewater Reclamation District) determined they

would not take any immediate action to repair the breach. This was considered unacceptable to the Company since it would be unable to deliver water to its shareholders until the breach was repaired.

**Alternative 2 - Install Temporary Cofferdam Upstream of City of Brighton's Headgate:** After consultation with Brighton, this was the original selected alternative and would have provided immediate relief to the Company, though would not have provided a permanent solution. This alternative could have potentially helped Brighton by dewatering Brighton's damaged headgate structure but was ultimately found unacceptable by Brighton.

**Alternative 3 - No Repair on Brighton Property, Place Trench Along the West Bank:** This alternative was proposed by Brighton as a way for the Company to avoid construction on Brighton's property by attempting to direct river water to the headgate by removing an upstream sand bar. This alternative was found to be not feasible because the depth of the breach would still not allow sufficient head at the diversion regardless if more water was flowing towards the structure.

**Selected Alternative 4 - Install Cofferdam Behind Brighton's Headgate:** This alternative was the construction of a cofferdam in the place of the breached river bank which is just downstream of Brighton's headgate. The river face of the cofferdam was constructed of Type VH & L mix riprap with a supporting center layer of Type VL riprap and a back layer of Zone 2 fill material. Fill protection was placed along the breach side of the wing wall island to prevent further loss of land at the east wing wall of the diversion dam. CWCB staff was involved in the construction process to ensure construction occurred in compliance with the pending CWCB loan application.

While Brighton understood the Company's need for a quick repair, it was cautious because of the possibility that the Company's construction activity could adversely affect Brighton's headgate. The two entities agreed to hold good faith negotiations on whether this cofferdam could permanently remain. A contingency has been included in this loan request should Brighton determine the berm must be removed or modified because of negative impacts to Brighton's headgate structure.

The costs associated with this alternative are shown in Table 2.

**TABLE 2: PROJECT COST**

<b>Task</b>	<b>COST</b>
Design Engineering	\$9,000
Legal Review and Consultations	\$14,000
Construction	\$402,000
Contingency	\$105,000
<b>TOTAL</b>	<b>\$530,000</b>

**Permitting:** Construction was exempt from the U.S. Army Corps of Engineers 404 permitting. Floodway permits were obtained from Brighton and Adams County and a license agreement was entered into with Brighton for permission to access the site.

**Schedule:** Construction began on July 6, 2015 and was completed on July 21, 2015. Brighton and the Company will determine by April 2016 if the cofferdam must be removed or modified.

#### **Financial Analysis**

The Company qualifies for a blended interest rate of 2.55% for a 30-year term (Ownership: 36% Agricultural, 53% Mid Municipal, 5% High Municipal, 5% Commercial). Table 3 provides a summary of the Project's financial aspects. FEMA reimbursement covering repairs due to the 2015 flooding are not anticipated. The Company raised its contribution through its 2015 assessments.

**TABLE 3: FINANCIAL SUMMARY**

Total Project Cost	\$530,000
Borrowers Contribution (10%)	\$53,000
CWCB Loan Amount (90%)	\$477,000
CWCB Loan Amount (Including 1% Service Fee)	\$481,770
CWCB Annual Loan Payment	\$23,172
CWCB Annual Loan Obligation (1 <sup>st</sup> Ten Years)	\$25,489
Number of Shares	20
Annual Loan Obligation per Share	\$1,274/share
Current Assessment per Share (2015)	\$4,000/share
Future Assessment per Share	\$5,274/share
Project Cost per AF Delivered (7,125 AF)	\$74/AF

**Creditworthiness:** The Company has no existing long-term debt. A short-term loan with the Bank of Colorado was obtained to serve as a bridge loan for this emergency repair. The Company will pay that loan in full using proceeds from this CWCB loan.

**TABLE 4: EXISTING DEBT**

Lender	Original Balance	Current Balance	Maturity Date	Collateral
Bank of Colorado	\$200,518	\$200,518	2016	All inventory, Chattel Paper, Accounts, Equipment and General Intangibles

**TABLE 5: FINANCIAL RATIOS**

Financial Ratio	Past 3 Years <sup>1</sup>	Future w/ Project
Operating Ratio (revenues/expenses) weak: <100% - average: 100% - 120% - strong: >120%	131% (Strong) \$109K/\$83K	124% (Strong) \$134K/\$108K
Debt Service Coverage Ratio (revenues-expenses)/debt service weak: <100% - average: 100% - 120% - strong: >120%	NA	204% (Strong) (\$134K-\$83K) \$25K
Cash Reserves to Current Expenses weak: <50% - average: 50% - 100% - strong: >100%	48% (Weak) \$40K/\$83K	37% (Weak) \$40K/\$108K
Annual Operating Cost per Acre-Foot (7,125 AF) weak: >\$20 - average: \$10 - \$20 - strong: <\$10	\$12 (Average) \$83K/K 7AF	\$15 (Average) \$108K/7K AF

<sup>1</sup> The Company experienced higher than normal expenses and revenues in 2013 and 2014 related to the September 2013 flood event. For the purposes of maintaining comparable financial ratios, only normal revenue and operating expenses were considered.

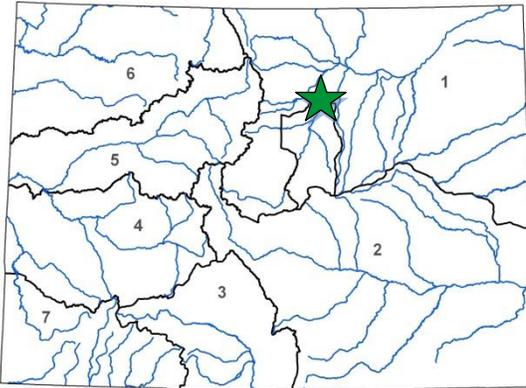
**Collateral:** Security for this loan will be a pledge of the Company's assessment revenues backed by an assessment covenant, and the Brighton Ditch diversion and headgate structure. This is in compliance with the CWCB Financial Policy #5 (Collateral).

cc: Robert Sakata, President, Brighton Ditch Company  
 Susan Schneider/Jennifer Mele, Colorado Attorney General's Office

Attachment: Water Project Loan Program - Project Data Sheet



L O A N   D E T A I L S	
Project Cost:	\$530,000
CWCB Loan (with Service Fee):	\$481,770
Loan Term and Interest Rate:	30 Years @ 2.55%
Funding Source:	Construction Fund
B O R R O W E R   T Y P E	
Agriculture	Municipal
36%	0% Low - 53% Mid - 5% High
	Commercial
	5%
P R O J E C T   D E T A I L S	
Project Type:	Ditch Rehabilitation
Average Annual Diversion:	7,125 AF



L O C A T I O N	
County:	Adams
Water Source:	South Platte River
Drainage Basin:	South Platte
Division:	1      District: 2

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