# STATE OF COLORADO

**Colorado Water Conservation Board**
**Department of Natural Resources**
1313 Sherman Street, Room 721
Denver, Colorado 80203
Phone: (303) 866-3441
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www.cwcb.state.co.us



November 21, 2013

Beeman Irrigating Ditch and Milling Company
Attn: Richard Belt, President
1800 Larimer St., Suite 1300
Denver, CO 80202

Re: Emergency Beeman Diversion Dam Repair
Contract Number C150385

Mr. Belt:

I am pleased to inform you that on November 20th, 2013, the Colorado Water Conservation Board approved your loan request for the Emergency Beeman Diversion Dam Repair as described in the application and approved Loan Feasibility Study titled "*Emergency Loan Application and Feasibility Study*", dated November 1st, 2013. The Board approved a loan not to exceed $2,020,000 ($2,000,000 for project costs and $20,000 for the 1% Loan Service Fee). The loan terms shall be three years of no interest followed by 27 years at an agricultural interest rate of 1.75% per annum.

I have attached a copy of the updated Board memo dated November 21st, 2013, that includes the Board's approval.

After the Board approves a loan there are a few steps that remain in the loan process including:

A) Contracting: An approved contract must be in place before funds can be disbursed. Peg Mason will contact you to initiate the loan contracting process for this project. When all of the contract conditions are met and the contract is executed the Company may request loan funds to cover eligible project expenses. You can reach Peg at (303) 866-3441 x3227.

B) Design/Construction: You must adhere to the CWCB Design and Construction Administration Procedures. Mike Serlet, P.E. will contact you for this phase of the process and will work with you on the disbursements of your loan funds. You can reach Mike at (303) 656-3720.

Collaboration: The Borrower is encouraged to consider rebuilding a river diversion system which improves the consumptive and nonconsumptive uses of 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 diversions until such time that a multi-beneficial structure can be designed and constructed.

On behalf of the Board, I would like to thank you for your interest in a loan from the Colorado Water Conservation Board.

Sincerely,

Kirk Russell, P.E., Chief
Finance & Administration Section
Colorado Water Conservation Board

Attachment: Updated Board Memo

E-mail Copy (Including Attachments)

Diane Hoppe, CWCB Board Member – South Platte River Basin
CWCB Finance Section Staff

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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: November 13, 2013 (Updated November 21, 2013)

SUBJECT: **Agenda Item 31c, November 19-20, 2013 Board Meeting**
**Finance – Emergency Loans**
**Beeman Irrigating Ditch and Milling Company – Emergency Beeman Diversion Dam Repair**

## Introduction

The Beeman Irrigating Ditch and Milling Company (Company) is applying for an Emergency Loan for the Emergency Beeman Diversion Dam 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 headworks to allow the Company to deliver water to shareholders. The total Project cost is estimated to be $2,000,000. See attached Project Data Sheet for a location map and project summary.

## Staff Recommendation (Board approved staff recommendation on November 20, 2013)

Staff recommends the Board approve a loan not to exceed $2,020,000 ($2,000,000 for project cost and $20,000 for the 1% service fee) to the Beeman Irrigating Ditch and Milling Company for 100% of engineering and construction costs related to the Emergency Beeman Diversion Dam 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 1.75% per annum. Security for the loan shall be in compliance with CWCB Financial Policy #5.

Staff additionally recommends the following contract conditions:

Any future grant funds obtained and/or Excel Energy contributions 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 its sister company, Meadow Island No. 2 (Meadow Island), jointly operate a diversion dam on the South Platte River and a sand bypass/dam, headgate, measurement flume, and bifurcation structure. The operation and maintenance of these structures is governed by a 1925 agreement between the companies which allocates the costs and responsibilities associated with these structures (Beeman is allocated 75% of costs, Meadow Island is allocated 25% of costs). The Company has an outstanding loan with the CWCB to address the replacement of the dam in the South Platte River (completed in the early 1980s ). Under that agreement, the Company assesses Meadow Island for its portion of the annual repayment obligation. The Company and Meadow Island propose to maintain that arrangement for this Project.

The Beeman/Meadow Island joint diversion headworks was constructed in the early 1900s. Pre-flood, water diverted at the dam was conveyed by a braided channel to the joint headworks area. Typical flows averaged 60 cfs that irrigated approximately 5,000 acres under both canal systems.

Post-September 2013 flooding, the river deposited silt extensively at the diversion dam, embedding the structure in a sand bar. In conjunction with this siltation, a new channel was cut through the historic island, cutting off flow from the historic inlet channel and the joint headworks area. During the active flooding, the headworks were breached, resulting in uncontrolled flooding in the service area until an earthen plug could be installed and an intentional bank breach could be constructed to relieve flooding downstream along the ditch.

## Loan Feasibility Study

Richard Belt, P.E., the Company President, prepared the Loan Feasibility Study titled "*Emergency Loan Application and Feasibility Study,*" dated November 2013. The study includes an alternative analysis, preliminary engineering design and cost estimates. The study was prepared in accordance with the CWCB guidelines.

## Borrower – Beeman Irrigating Ditch and Milling Company

The Company is a nonprofit ditch company, established in 1878. It is in good standing with the Colorado Secretary of State. The Company has 10 shareholders that own 40 shares of stock. The Company's income comes from assessment revenues and oil and gas royalties.

The Company's by-laws state that the board of directors has the power to levy assessments with shareholder approval. Shareholders must also approve debt over $5,000. If assessments are unpaid, water delivery can be curtailed and the delinquent shares sold.

## Water Rights

The water rights impacted by this project include:

## TABLE 1: IMPACTED WATER RIGHTS

| Name | Amount | Appropriation Date | Adjudication Date |
|---|---|---|---|
| Meadow Island No. 2 / Beeman | 57.8 cfs | 5/3/1865 | 4/28/1883 |
| Meadow Island No. 2 / Beeman | 8.33 cfs | 4/10/1876 | 4/28/1883 |
| Beeman | 127 cfs | 12/19/1877 | 4/28/1883 |
| Big Meadow Farm | 6 cfs | 9/20/2000 | 12/31/2002 |
| Various Magness Enterprises (Conditional) | 90 cfs | 9/20/2000 | 12/31/2002 |
| Ulrich Farms (Conditional) | 6.3 cfs | 7/7/2011 | - |

Average annual yield of these water rights is 10,586 AF.

**Project Description**

Alternative 1 – Do Nothing: This alternative is considered unacceptable because the ditch is unable to deliver water to shareholders, potentially leading to the abandonment of water rights.

Alternative 2 – Rebuilding Collaboratively with Improvements: The project is a collaboration between two ditch companies. Improvements will be made as adjustable height check dams will replace the old structures.

Selected Alternative 3 – Repair Diversion Dam: The project includes four phases:

Phase 1 – Demolition of existing, inoperable structures and reconstruction of the headworks (headwall, headgates, flow measurement, and bifurcation structure).

Phase 2 – Installation of an adjustable height check dam in place of the current stop log dam.

Phase 3 – Demolition of a portion of the existing "big dam" structure at the river. It is believed that the immovable weir at this location contributed to the flood damage. This portion will be replaced with an adjustable height check dam.

Phase 4 – Channel bank stabilization will be coordinated with adjoining landowners.

Due to the agricultural exemption, this alternative is exempt from the Clean Water Act and therefore a U.S. Army Corps of Engineers permit will not be required. The Company has submitted a letter requesting exemption.

The estimated construction cost of the selected Alternative is $2,000,000 (as provided by Eckas Water Solutions) and is further broken down as follows:

**TABLE 2: PROJECT COST SUMMARY**

| Task | Cost |
|---|---|
| Design | $146,810 |
| Permitting | - |
| Construction | $1,468,098 |
| Contingency | $385,092 |
| Total | $2,000,000 |

***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:*** Phase 1 is scheduled for fall/winter of 2013/2014. Phases 2, 3, and 4 are scheduled for fall/winter of 2014/2015.

**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. Share ownership is 42% agricultural and 58% Xcel Energy. At the conclusion of construction, Xcel Energy, typically considered a commercial borrower, will reimburse the CWCB for its share of the costs to complete the Project. Staff is recommending an exemption to Financial Policy #11 to allow for 100% funding of eligible Project costs.

**TABLE 3: FINANCIAL SUMMARY**

| | |
|---|---|
| Total Project Cost | $2,000,000 |
| CWCB Loan Amount (100% of total Project cost) | $2,000,000 |
| CWCB Loan Amount (Including 1% Service Fee) | $2,020,000 |
| CWCB Annual Loan Payment | $94,517 |
| CWCB Loan Obligation (Including 10% Reserve) | $103,969 |
| Number of Shares | 40 |
| Annual Cost Per Share for Loan (Including 10% Reserve) | $2,599 |
| Current Assessment per Share | $1,300 |
| Future Assessment per Share | $3,734 |

***Creditworthiness***: The Company has an existing loan with the CWCB.

**TABLE 4: EXISTING DEBT**

| Contract Number | Original Balance | Current Balance | Annual Payment | Maturity Date | Collateral |
|---|---|---|---|---|---|
| C153391 | $92,512 | $36,278 | $5,275 | 10/1/22 | 50% of the diversion dam |

**TABLE 5: FINANCIAL RATIOS**

| Financial Ratio | Past 2 Years | Future w/ Project |
|---|---|---|
| Operating Ratio (revenues/expenses)<br>weak: <100% - average: 100% - 120% - strong: >120% | 104%<br>(Average)<br>$47K/$45K | 100%*<br>(Average)<br>$149K /$149K |
| Debt Service Coverage Ratio<br>(revenues-expenses)/debt service<br>weak: <100% - average: 100% - 120% - strong: >120% | 140%<br>(Strong)<br>$47-40K<br>$5K | 100%<br>(Average)<br>$149K - $40K<br>$109K |
| Cash Reserves to Current Expenses<br>weak: <50% - average: 50% - 100% - strong: >100% | 136%<br>(Strong)<br>$61K/$45K | 41%<br>(Weak)<br>$61K/$149K |
| Annual Operating Cost per Acre-Foot (10,586 AF)<br>weak: >$20 - average: $10 - $20 - strong: <$10 | $4.25<br>(Strong)<br>$45K/10,586 AF | $14.08<br>(Average)<br>$149K/10,586 AF |

**Assumes a new assessment of $3,734/share. Actual assessment will be less once Xcel Energy pays its portion of the Project costs to the CWCB.*

***Collateral***: As security for the loan, the Company will pledge its assessment revenues backed by a rate covenant and the Beeman diversion dam. This is in compliance with the CWCB Financial Policy #5 (Collateral).

cc: Richard Belt, President, Beeman Irrigating Ditch and Milling 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**

# C150385

**Borrower:** Beeman Irrigating Ditch and Milling Company
**County**: Weld

**Project Name:** Emergency Beeman Diversion Dam Repair
**Project Type:** Diversion Rehabilitation

**Drainage Basin/ District:** South Platte / 2
**Water Source:** South Platte River

**Total Project Cost:** $2,000,000
**Funding Source:** Severance Tax PBF

**Type of Borrower:** Agricultural
**Average Annual Diversion:** 10,586 AF

**CWCB Loan:** $2,020,000 (with 1% service fee)
**Interest Rate:** 1.75% **Term:** 30-years

The Company and Meadow Island No. 2, jointly operate a diversion dam, measurement flume, and bifurcation structure. (Beeman is allocated 75% of costs, Meadow Island is allocated 25% of costs). The diversion headworks was constructed in the early 1900s to irrigate approximately 5,000 acres under both canal systems. The September 2013 flood deposited silt covered the diversion dam and cut a new channel through the historic island, cutting off flow to the joint headworks area. The project includes four phases: 1) Demolition of existing structures and reconstruction of the headworks (headwall, headgates, flow measurement, and bifurcation structure), 2) Install an adjustable check dam in place of the current stop log dam, 3) Demolition of a portion of the existing "big dam" structure at the river, 4) Channel bank stabilization will be coordinated with adjoining landowners.