

# STATE OF COLORADO

---

## Colorado Water Conservation Board Department of Natural Resources

1313 Sherman Street, Room 721  
Denver, Colorado 80203  
Phone: (303) 866-3441  
Fax: (303) 866-4474  
www.cwcb.state.co.us



---

John W. Hickenlooper  
Governor

Mike King  
DNR Executive Director

James Eklund  
CWCB Director

TO: Colorado Water Conservation Board Members

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

DATE: September 13, 2013

SUBJECT: **Agenda Item 28b, September 24-25, 2013 Board Meeting**  
**Finance/Water Supply Planning – Change to Existing CWCB Loan**  
**McDonald Ditch Company – McDonald Ditch Diversion and Headgate**  
**Replacement Project**

---

### Introduction

The McDonald Ditch Company (Company) received approval of a \$70,000 loan to finance its portion of the McDonald Ditch Diversion and Headgate Replacement Project (Project) in May 2012 (contract C150334, not yet executed). The purpose of the Project is to replace the existing McDonald Ditch diversion structure and headgate. This Project is Task 2 and 3 of the larger “Plaza Project Phase 2: McDonald Ditch Implementation Project.” Due to a design change of the headgate and diversion structure, the Company is requesting a loan increase of \$30,000 to cover its respective financial obligation (10% of Project Cost). The total cost of the Project has increased from \$650,000 to \$1,085,200. See attached Project Data Sheet for a location map and a project summary.

### Staff Recommendation

Staff recommends the Board approve a loan increase of \$30,300 (\$30,000 for project costs and \$300 for the 1% Loan Service Fee) to the McDonald Ditch Company for the McDonald Ditch Diversion and Headgate Replacement Project, for a total loan not to exceed \$101,000 (\$100,000 for project costs and \$1,000 for the 1% Loan Service Fee), from the Construction Fund. The loan terms shall remain 20 years at the original agricultural rate of 2.50% per annum. Security for the loan shall be in compliance with CWCB Financial Policy #5.

## Background

The McDonald Ditch diversion structure and headgate is located seven miles northwest of Monte Vista, Colorado on the Rio Grande River and was constructed over forty years ago. The company's service area irrigates 1,320 acres. Its diversion and headgate structures were poorly designed and are rapidly deteriorating, presenting a growing maintenance burden for the Company. Both the diversion and headgate were highlighted as river rehabilitation priorities in a 2001 study titled "Rio Grande Headwaters Restoration Project." The study analyzed the condition of riparian habitats and structures along a 91-mile reach of the Rio Grande from the town of South Fork to Alamosa and triggered a more localized effort known as the Plaza Project.

The Plaza Project is a multi-phased project intended to improve the health and function of the Rio Grande River in the Sevenmile Plaza area through stream bank restoration, wetland restoration, and the replacement of aging and inefficient diversion and headgate structures. Phase 1 was a planning phase and identified the McDonald diversion and headgate structures as in need of replacement. Phase 2 of the Plaza Project (McDonald Ditch Implementation Project) includes the final engineering design and construction of the new diversion and headgate as well as stream bank stabilization, wetland reclamation, monitoring, outreach and education. The Company is responsible for a portion of the funds that will cover only the McDonald diversion and headgate replacement (Tasks 2 and 3 of the Phase 2 Plaza Project).

The Project funding comes from a variety of grants, this CWCB loan, and in-kind services. The Colorado Rio Grande Restoration Foundation (Foundation) received approval of a Water Supply Reserve Account (WSRA) Grant to help finance the Plaza Project Phase 2: McDonald Ditch Implementation Project in September 2011 (contract C150492). The Foundation is seeking a grant increase concurrent with the Company seeking this loan increase.

## Project Update

During the final engineering design of the McDonald Ditch diversion structure, analysis showed that rebuilding the diversion structure at the existing location would cause flooding in the local community including the upstream bridge of W CR 5 N (Sevenmile Plaza Bridge). The solution is to build the new dam and headgate upstream of the bridge, in a more stable channel reach, pipe the water to the ditch, and replace the existing dam with a rock weir to maintain channel grade at the bridge. This diversion structure will be equipped with a sluice gate as well as a fish and boat passage. Phase 2 has increased by \$468,000 for an estimated total cost of \$1,376,000. Table 1 provides an updated cost summary of the larger Phase 2 project.

**TABLE 1: PLAZA PROJECT PHASE 2 COST SUMMARY**

Task	Original	Revised
Task 1: Finalize Design	\$101,500	\$108,000
<b>Task 2: McDonald Ditch Diversion Replacement</b>	<b>\$427,500<sup>1</sup></b>	<b>\$644,800<sup>2</sup></b>
<b>Task 3: McDonald Ditch Headgate Replacement</b>	<b>\$222,500<sup>1</sup></b>	<b>\$440,400<sup>2</sup></b>
Task 4: Channel Shaping and Stream bank Stabilization	\$40,000 <sup>1</sup>	\$64,800 <sup>2</sup>
Task 5: Wetland Reclamation ( <i>Completed</i> )	\$65,000 <sup>1</sup>	\$66,000
Task 6: Monitoring	\$3,700	\$3,800
Task 7: Outreach and Education	\$3,500	\$3,500
Task 8: Administration	\$44,300	\$44,700
<b>Task 2 &amp; 3 (Loan Project) Total</b>	<b>\$650,000</b>	<b>\$1,085,000</b>
<b>Plaza Project Phase 2 Total</b>	<b>\$908,000</b>	<b>\$1,376,000</b>

<sup>1</sup> Costs based on "Means Heavy Construction Cost Data" utilized by NRCS

<sup>2</sup> Costs based on Pre-Bids submitted by Contractors

**Schedule:** The final design is nearly complete. Task 2 and 3 construction is expected to begin around November 2012 and be complete by March 2014.

### **Borrower - McDonald Ditch Company**

The Company is a Mutual Ditch Company formed in 1921 and is in good standing with the Colorado Secretary of State. The Company is governed by a three-member board of directors responsible for managing the operation and maintenance responsibilities of the ditch. The Company is made up of 14.4 shares held by 8 shareholders. All shareholders are agricultural owners. Revenues are derived from annual shareholder assessments. The Company's By-laws require an order from the Board of Directors to incur debt and provide the Board with the authority to restrict water deliveries on delinquent shares. Shareholder approval is required for assessment increases.

### **Financial Analysis**

The Company was originally approved for an agricultural interest rate of 2.50% for a 20-year term (reduced from a 2.75% agricultural rate for a 30-year term per CWCB Financial Policy #7). The Company still qualifies for this rate. Table 2 provides an updated summary of the financial criteria of the loan request.

**TABLE 2: TASK 2 & 3 (LOAN PROJECT) FINANCIAL SUMMARY**

	<b>Original Approval</b>	<b>New Request</b>
Total Project Cost	\$650,000	\$1,085,200
<u>Additional Funding Sources</u>		
<i>WSRA Grant (awarded to the RGHRF)<sup>1</sup></i>	\$160,000	\$565,200
<i>EQIP from NRCS (awarded to the McDonald Ditch Company)</i>	\$150,000	\$150,000
<i>CPP from NRCS (awarded to the RGHRF)</i>	\$50,000	\$50,000
<i>CCPI from NRCS (awarded to the RGHRF)</i>	\$200,000	\$200,000
<i>SLVREC (in-kind services for the relocation of power lines)</i>	\$ 20,000	\$ 20,000
Total	\$580,000	\$985,200
CWCB Loan Amount	\$70,000	\$100,000
CWCB Loan Amount (including 1% Service Fee)	\$70,700	\$101,000
CWCB Annual Loan Payment	\$4,535	\$6,479
CWCB Loan Obligation (including 10% debt reserve funding)	\$4,989	\$7,127
Number of Shares	14.4	14.4
Current Assessment (per Share)	\$500	\$500
Annual Cost of Project (per Share)	\$346	\$495

The Company will fund their portion of the Project through a CWCB loan (40%) and a NRCS grant (60%). CWCB will disburse loan funds at a rate of no greater than 40% of the Company's Project obligation, up to the approved limit of \$100,000.

### **Creditworthiness:**

The Company has no outstanding debt and a high ratio of cash reserves to current expenses relative to other irrigation ditch companies. The majority of the current assessments are used to cover diversion and headgate maintenance and bolster cash reserves in anticipation of this Project. This project is expected to significantly reduce annual maintenance expenses; thereby, strengthening the Company's ability to cover the CWCB debt obligation with minimal impact on current assessment rates. Table 2 provides a summary of the financial ratios of the loan request.

**TABLE 3: FINANCIAL RATIOS**

<b>Financial Ratio</b>	<b>2009 - 2012</b>	<b>Future w/ Project<sup>1</sup></b>
Operating Ratio (operating revenues/operating expenses) weak: <100% - average: 100% - 120% - strong: >120%	189% (average) \$8.5K/\$4.5k	104% (average) \$12.1K/\$11.6
Debt Service Coverage Ratio (total eligible revenues-operating expenses)/total debt service weak: <100% - average: 100% - 120% - strong: >120%	No Current Debt	107% (average) (\$12.1K-\$4.5K)/\$7.1K
Cash Reserves to Current Expenses weak: <50% - average: 50% - 100% - strong: >100%	622% (strong) \$28K/\$4.5K	241% (strong) \$28K/\$11.6K
Annual Operating Cost per Acre-Foot (based on 5,018 AF) weak: >\$20 - average: \$10 - \$20 - strong: <\$10	\$0.90 (strong) \$4.5K/5K AF	\$2.38 (strong) \$11.9K/5K AF

<sup>1</sup> The "Future with Project" revenue figures include a \$250/share assessment increase. Actual assessment increases may be lower based on a reduction of annual maintenance expenses.

**Collateral:** In the original loan approval the CWCB required the Company to pledge its assessment revenues and its water rights as collateral. The water rights are estimated to be valued in excess of \$500,000, far exceeding the value of the loan request. The Company is requesting that this approval require a pledge of assessment revenues backed by a rate covenant and the Project itself (diversion dam and headgate structure). This is in compliance with CWCB Financial Policy #5 (Collateral).

cc: James Hart, President, McDonald Ditch 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**

**Borrower:** The McDonald Ditch Company

**County:** Rio Grande

**Project Name:** McDonald Ditch Diversion  
and Headgate Replacement Project

**Project Type:** Ditch Rehabilitation

**Drainage Basin/ District:** Rio Grande / 20

**Water Source:** Rio Grande River

**Total Project Cost:** \$1,085,200

**Funding Source:** Construction Fund

**Type of Borrower:** Agricultural

**Average Annual Diversion:** 45,000 AF

**CWCB Loan:** \$101,000  
(with 1% service fee)

**Interest Rate:** 2.50% **Term:** 30-years

The McDonald Ditch Company is a Mutual Ditch Company formed in 1921. Their diversion structure and headgate were poorly designed and are rapidly deteriorating, presenting a growing maintenance burden for the Company. Both the diversion and headgate were highlighted as rehabilitation priorities in a 2001 study titled “Rio Grande Headwaters Restoration Project (RGHRP).” The study analyzed the condition of riparian habitats and structures along a 91-mile reach of the Rio Grande from the town of South Fork to Alamosa and triggered a more localized effort known as the Plaza Project. Phase 2 of the Plaza Project includes the final engineering design and construction of a new diversion and headgate for the McDonald Ditch Company.

A loan to the McDonald Ditch Company was approved for this Project in May 2012 in the amount of \$70,700. During the final engineering design of the McDonald Ditch diversion structure, analysis showed that the chosen design of the diversion structure at the existing location would cause flooding in the local community including the upstream bridge of W CR 5 N (Sevenmile Plaza Bridge). The solution is to relocate the diversion structure and headgate just upstream of the bridge and has increased Project cost. This loan increase request of \$30,300 is sought to cover the Company’s portion of the Project cost increase.

