

# 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



TO: Colorado Water Conservation Board Members

John W. Hickenlooper  
Governor

FROM: Kirk Russell, P.E., Chief  
Finance & Administration Section

Mike King  
DNR Executive Director

DATE: May 3, 2013

Jennifer L. Gimbel  
CWCB Director

SUBJECT: **Agenda Item 16a, May 14-15, 2013 Board Meeting**  
**Finance – New Water Project Loans**  
**Missouri Heights – Mountain Meadow Irrigation Company – Irrigation Ditch**  
**Lining Project**

---

### Introduction

The Missouri Heights – Mountain Meadow Irrigation Company (Company) is applying for a CWCB loan for the Irrigation Ditch Lining Project (Project). The Project is needed in order to prevent water loss due to canal seepage. The total Project cost, including engineering and construction, is estimated at \$550,000. The Company plans to contribute cash to the Project and is eligible to receive assistance from Natural Resources Conservation Service (NRCS) and has applied for funding assistance from other sources. The balance of the project costs will become a 30-year CWCB loan. See attached Project Data Sheet for a location map and Project summary.

### Staff Recommendation

Staff recommends the Board approve a loan, not to exceed \$454,500 (\$450,000 for project costs and \$4,500 for the 1% Loan Service Fee) for project costs, to the Missouri Heights – Mountain Meadow Irrigation Company from the Construction Fund for the Irrigation Ditch Lining Project. The loan terms shall be 30 years at a blended interest rate of 2.2% per annum. Security for the loan shall be in compliance with CWCB Financial Policy #5.

Contract Conditions will include: All additional 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) calendar days after receipt of funds.

## **Background**

The Company and its service area lies in the Roaring Fork Valley in the southwestern portion of Eagle County and the eastern portion of Garfield County, Colorado. The Company has approximately 6 miles of distribution ditch starting at the outlet of the Spring Park Reservoir. The area is known locally as Missouri Heights and is located north and east of Carbondale, Colorado and directly north of El Jebel, Colorado.

The Company serves 54 users including private landowners and homeowners associations. 70% of the shareholders are agricultural water users. The Company provides water to irrigate about 2,000 acres of land. Irrigated acreage within the service area is primarily used for cattle ranching, hobby farms, nursery trees, sod production, and to grow hay and forage crops. The hay crop is used as cattle and horse feed, or is sold.

Garfield County has seen rapid population growth and development. This growth puts demands on the water in the Roaring Fork River for agriculture irrigation, recreation, municipal and industrial uses. The Company has increased its number of shareholders from 14 in 1968 to 36 in 1989 and currently has 54 shareholders. In addition to the increased pressure on the ditch and its water quantity, the reservoir has seen increased use by bird watching and hunting over the last 20 years.

The Company operates the irrigation system for the benefit of the shareholders by distributing irrigation water from the Company's Spring Park Reservoir. The focus of this Project is to line the earthen ditch below the reservoir which has seepage losses of 30% due to the coarse and rocky soils.

## **Loan Feasibility Study**

The Loan Feasibility Study, titled "Feasibility Study, Missouri Heights – Mountain Meadow Irrigation Company, Irrigation Ditch Lining Project", dated April 1, 2013, was prepared by Dennis Davidson. The study includes preliminary engineering design and construction cost estimates prepared by Mike Kishimoto, NRCS, Garfield County Office. The study was prepared in accordance with the CWCB guidelines.

## **Borrower – Missouri Heights – Mountain Meadows Irrigation Company**

The Company was created out of the consolidation of the Missouri Heights Irrigation Company established in (1919) and the Mountain Meadow Ditch and Irrigation Company as a mutual ditch company in the State of Colorado in 1999. The Company is in good standing with the Secretary of State and has 10,000 shares and 54 shareholders. The Company has an elected Board of Directors that manages the day-to-day business and operation of the ditch. The Company is made up of 70% agricultural and 30% high income municipal type shareholders.

The Company's bylaws indicate the Board of Directors may enter into debt and has the power to sell stock for non-payment of annual assessments. The Company's annual meeting is held in February.

## **Water Rights**

The Company's water comes from a direct diversion from Cattle Creek delivered through an open ditch to Spring Park Reservoir. The water is withdrawn from the reservoir as needed by the shareholders. Water rights are 13 CFS with an appropriation date of May 31, 1902 and a second

right for 40 cfs with an appropriation date of December 28, 1911. The ditch is usually runs from early May till the first of October and has an average yield of about 4,480 AF.

### **Project Description**

The Project includes a 3,500 ft ditch lining or piping to be installed to prevent canal seepage. The Project will also include concrete water control structures and related rock protection.

The Company looked at a couple products and plans to utilize a product called “Smart Ditch” which is a plastic ditch liner. Smart Ditch is a new product that uses plastic interlocking peaces to line the ditch. Design has been completed by the suppliers of the product. Additional design provided by NRCS includes concrete structures and rock riprap. The estimated cost of the Project is \$550,000. The cost breakdown is summarized in Table 1.

**Table 1.  
Cost Estimate**

Mobilization	\$5,000
Earthwork/Rip Rap	\$20,000
Concrete inlet Structure	\$10,000
Install 3,500LF (Smart Ditch) Liner	\$465,000
10% engineering and contingencies permits	<u>\$50,000</u>
Total	\$550,000

NRCS is expected to complete the final design in the summer of 2013 and construct in the fall of 2013.

### **Financial Analysis**

Table 2 shows a summary of potential funding sources for the Project in addition to the CWCB loan and Company cash reserves. The loan will be reduced to after the Project is completed and the Borrower receives funds from other sources.

**Table 2. Potential Funding Sources**

<b>Funding Source</b>	<b>Amount</b>	<b>Decisions Date</b>
<b>Company Cash</b>	<b>\$100,000</b>	<b>Approved</b>
<b>NRCS Design Services</b>	<b>\$0</b>	<b>Approved</b>
<b>Colorado River District</b>	<del><b>\$100,000</b></del>	<b>Denied - April 2013</b>
<b>CWCB Loan</b>	<b>\$450,000</b>	<b>May 2013</b>
<b>Colorado River BRT</b>	<b>\$50,000</b>	<b>May 2013</b>
<b>NRCS Cost Share *</b>	<b>\$268,000</b>	<b>June 2013</b>

\* Funding received from NRCS will be disbursed after construction is complete

Table 3 shows a summary of the financial aspects of the Project. The Company qualifies for a blended 2.2% loan (70% agricultural at 1.75% and 30% High income Municipal at 3.25%) for a 30 year term.

**Table 3. Financial Summary of Project**

<b>PROJECT/LOAN</b>		
Total Project Cost		\$550,000
Borrower Match		\$100,000
CWCB Loan Amount		\$450,000
CWCB Loan Amount with 1% Service Fee		\$454,500
CWCB Annual Loan Payment		\$20,856
CWCB Loan Obligation (including 10% debt reserve funding)		\$22,941
Annual Loan Payment per AF (using 4,480 AF)		\$0.21/AF
Assessments		Before After
Assessments per share (10,000 shares)		\$4/share \$6/share

**Creditworthiness:** The Company has no existing debt.

Table 4 shows the Financial Ratios for the Company.

**Table 4. Financial Ratios**

<b>Financial Ratio</b>	<b>Past Years</b>	<b>Future</b>
Operating Ratio (revenues/expenses) weak: <100% - average: 100% - 120% - strong: >120%	117% (Average) \$68K/58K	112% (Average) \$91K/81K
Debt Service Coverage Ratio (revenues-expenses)/debt service weak: <100% - average: 100% - 120% - strong: >120%	N/A (No Debt)	143% (Strong) \$91-58/23K
Cash Reserves to Current Expenses weak: <50% - average: 50% - 100% - strong: >100%	283% (Strong) \$164K/58K	79% (Average) \$64K/81K
Annual Operating Cost per Acre-Foot (4,480 AF) weak: >\$20 - average: \$10 - \$20 - strong: <\$10	\$12.95/AF (Average) \$58K/4,480AF	\$18.08/AF (Average) \$81K/4,480AF

**Collateral** - Security for the loan shall be a pledge of the Company's assessment revenues and the project itself. This is in compliance with CWCB Financial Policy #5 (Collateral).

cc: Leslie (Gay) Lewis, Treasurer  
 Susan Schneider, AGO

Attachment: Water Project Loan Program – Project Data Sheet

**CWCB Water Project Loan Program  
Project Data Sheet**

**Borrower:** Missouri Heights - Mountain Meadows Irrigation Company **County:** Eagle, Garfield

**Project Name:** Irrigation Ditch Lining Project

**Project Type:** Ditch Rehabilitation

**Drainage Basin:** Colorado

**Water Source:** Roaring Fork

**Total Project Cost:** \$550,000

**CWCB Funding Source:** Construction Fund

**Type of Borrower:** Agricultural/High Income

**Average Annual Diversion:** 4,480 AF

**CWCB Loan:** \$454,500 (w/ 1% service fee)

**Interest Rate:** 2.2% Blended **Term:** 30yr

Missouri Height Mountain Meadows Irrigation Company provides irrigation water to approximately 1,500 acres of ranch land located 12 miles northeast of Carbondale. The Company worked with the Natural Resources Conservatio service (NRCS) to evaluate losses within its ditch. A one-mile section has been identified as an area of high seepage, with losses estimated at 30%. The NRCS is providing technical design assistance. The Company has applied for grant funding from additional sources. Construction is anticipated to occur in the fall of 2013.

