

STATE OF COLORADO

Colorado Water Conservation Board Department of Natural Resources

1313 Sherman Street, Room 721
Denver, Colorado 80203
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www.cwcb.state.co.us



March 20, 2013

Mr. Jay Yeager
Santa Maria Reservoir Company
P.O. Box 288
Monte Vista, CO 81144

John W. Hickenlooper
Governor

Mike King
DNR Executive Director

Jennifer L. Gimbel
CWCB Director

Re: Santa Maria Siphon & Canal System Rehabilitation Project
Contract Number C150350

Mr. Yeager:

I am pleased to inform you that on March 19, 2013 the Colorado Water Conservation Board approved your loan request for the Santa Maria Siphon & Canal System Rehabilitation Project as described in the application and approved Loan Feasibility Study titled "*Phase 1 – Santa Maria Rehabilitation Initiative*." The Board approved a loan not to exceed \$1,405,163 (\$1,391,250 for project costs and \$13,913 for the 1% Loan Service Fee). The loan terms shall be 30 years at an interest rate of 1.75% per annum.

I have attached a copy of the updated Board memo dated March 20, 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 contact Peg at (303) 866-3441 x3227.
- B) Design/Construction: You must adhere to the CWCB Design and Construction Administration Procedures. Anna Mauss will be the project manager for this phase of the process. Anna will make construction site visits, which will be the basis of pay estimates for disbursement of your loan funds. You can contact Anna at (303) 866-3441 x3224.

NOTE: No expenses incurred on any work performed prior to execution of the WSRA Grant Contract will be eligible for reimbursement through the loan or grant.

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 Section
Colorado Water Conservation Board



Anna Mauss, P.E., Project Manager
Finance Section
Colorado Water Conservation Board

Attachment: Updated Board Memo

E-mail Copy (Including Attachments)

Travis Smith, CWCB Board Member – Rio Grande River Basin
CWCB Finance Section Staff

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TO: Colorado Water Conservation Board Members

FROM: Anna Mauss, P.E., Project Manager *AM*
Kirk Russell, P.E., Chief *KR*
Finance and Administration Section

DATE: March 8, 2013 (UPDATED March 20, 2013)

SUBJECT: **Agenda Item 17b, March 19-20, 2013 Board Meeting**
Finance/Water Supply Planning– CWCB Loan and WSRA Applications
Santa Maria Reservoir Company – Santa Maria Siphon & Canal System
Rehabilitation

Introduction

Santa Maria Reservoir Company (Company) is applying for a WSRA grant and CWCB loan to finance the Santa Maria Siphon and Canal System Rehabilitation Project (Project). The purpose of the Project is to make improvements to the siphon and conveyance system that delivers water from Continental Reservoir to Santa Maria Reservoir. The total Project cost is estimated to be \$1,855,000. In January of 2013, the Company was approved for a \$463,750 grant by the Rio Grande Basin Round Table from the Water Supply Reserve Account. The Company is requesting a loan from the CWCB to cover the remaining 75% of Project Costs. See attached Project Data Sheet for a location map and a Project summary.

Staff Recommendation for WSRA Grant (Board approved staff recommendation on March 19, 2013)

Staff recommends approval of up to \$440,750 from the Statewide Account and \$23,000 from the Rio Grande Basin Account to the Santa Maria Reservoir Company to fund the Santa Maria Siphon and Canal System Rehabilitation Project.

Staff Recommendation for Construction Fund Loan (Board approved staff recommendation on March 19, 2013)

Staff recommends the Board approve a loan, from the Construction Fund, not to exceed \$1,405,163 (\$1,391,250 for project costs and \$13,913 for the 1% Loan Service Fee) to the Santa Maria Reservoir Company for the Santa Maria Siphon and Canal System Rehabilitation Project. The loan terms shall be 30 years at the agricultural rate of 1.75% per annum. Security for the loan shall be in compliance with CWCB Financial Policy #5.

Background

The Company provides irrigation water to approximately 70,000 acres in Rio Grande, Saguache, Conejos, and Alamosa Counties, in the San Luis Valley. The Company owns and operates two reservoirs: Santa Maria and Continental. The reservoirs are located about 20 miles southwest of the Town of Creede and are operated in conjunction with each other. Santa Maria receives regulated discharges from Continental through a century old conveyance system comprised of a pipeline, siphon and an open ditch.

Santa Maria was constructed in 1910 and has a design capacity of 43,500 acre-feet (AF). It stores irrigation water, Rio Grande compact water, San Luis Valley Water Conservancy District water, Colorado Division of Parks and Wildlife water, transmountain water, and provides flood control. Continental was also constructed in 1910 with a design capacity of 27,000 AF; however, due to seepage and spillway deterioration, for the past 20 years it has been limited by the State Engineer's Office (SEO) to a storage capacity of 15,000 AF.

The conveyance system between the reservoirs is also deteriorating. In order to continue to provide irrigation water to shareholders the Santa Maria siphon and Santa Maria canal both need to be repaired.

The siphon is 8,070 feet long, with a 7-foot diameter. It is made of welded steel plates and discharges water into a rock/concrete lined channel. The first 700 feet of the siphon is above ground and then continues below grade into the canal. The upstream portion of the siphon was constructed on glacial till which has been sliding, resulting in loss of support for the siphon.

The canal is approximately 7,200 feet long and is between three and eight feet deep with a bottom width varying from 20 to 25 feet wide. A 4-foot by 6-foot box culvert is located along the entire length of the canal at the right (looking downstream) inside toe of the canal. The box culvert is used for all winter flows. In summer, both the open channel and the box culvert are used.

In September of 2008, the Company was awarded \$191,700 in WSRA grants (\$50,000 from the Rio Grande Basin Account and \$141,700 from the Statewide Account) to conduct a Feasibility Study and final design plans and specifications of needed improvements including: Continental Reservoir, the conveyance system, and Santa Maria Reservoir. As a result of the work, the Company plans on improving its system in two phases. This Project will address the siphon and canal repairs.

Loan Feasibility Study

The Loan Feasibility Study, titled "*Phase 1 – Santa Maria Rehabilitation Initiative*," dated January 30, 2013, was prepared by Ed Toms, P.E. of URS Corporation. The Study was prepared in accordance with CWCB guidelines and includes preliminary engineering and an engineer's estimate of probable cost that were used in determination of the total Project cost.

The Santa Maria Reservoir Company

The Company is a Mutual Reservoir Company, incorporated in 1931. It is governed by a five-member board of directors. There are 225 shareholders with a total of 5,400 shares of stock. The board has the ability to take on debt and to withhold delivery of water to stockholders if assessments are unpaid. Shareholders must also approve annual assessments. If shareholders fail to set an assessment, the Board of Directors has the power to set assessments to provide for the maintenance and operation of the Company.

Water Rights

The Company's decreed water rights include 37,524 AF of storage in Santa Maria Reservoir (1916 appropriation date), 64,240 AF of storage in Continental Reservoir (1934 appropriation date), and 275 cfs of direct flow rights from North Clear Creek, Bennett Creek, and Bolder Creek. On average the Company diverts 6,300 AF annually.

Project Description

The objectives of this Project are to rehabilitate the main structural elements of the conveyance system between the reservoirs to avoid potential failure of the delivery system, to reduce maintenance issues for the Company, and to address water management inefficiencies.

Siphon: Several alternatives were considered to address the siphon including: 1) reducing land slide lateral pressure by removing the slide material and reconstructing the siphon in the slide section; 2) replacing the support system with a similar system and benching the slide area; and 3) rehabilitating and reinforcing the existing supports in place.

The Company chose alternative 3 to rehabilitate and reinforce the existing supports in place. This alternative includes: repairing the existing supports with reinforced concrete, and replacing the steel bearing plates that support the siphon.

Canal: Several alternatives were considered to improve the canal to match the capacity of the siphon. These alternatives included: 1) lining the canal with a 6-foot by 10-foot concrete box; 2) lining the canal with three 60-inch high-density polyethylene (HDPE) pipes; and 3) removing drop structures and adding concrete lining of the canal to improve the flow.

The Company chose alternative 3. It was decided that working within the existing footprint of the canal would minimize environmental and permitting issues and would be the most cost effective solution. In addition to removing drop structures and lining a portion of the canal, the rehabilitation will also include reshaping of the canal and the installation of a 42-inch bypass pipe within the existing box structure.

Final engineering documents have been prepared and used for estimating the total project cost summary as provided in Table 1.

TABLE 1: TOTAL PROJECT COST SUMMARY

Task	Cost
Santa Maria Siphon Support Repair	\$156,800
Santa Maria Canal Improvements	\$1,467,200
Construction Engineering Support	\$163,000
Admin and Legal	\$18,000
Environmental Permitting	\$50,000
Total	\$1,855,000

Schedule: The Project schedule is as follows: bid the project in June of 2013; construction in the summer/fall of 2013.

TABLE 2: PROJECT FUNDING SUMMARY

WSRA Grant	
Rio Grande River Basin	\$23,000
<u>Statewide</u>	\$440,750
TOTAL	\$463,750
CWCB Construction Fund Loan	\$1,391,250
Total Project Cost	\$1,855,000

CWCB will disburse funds at a rate of 75% loan to 25% grant of each invoice amount for Project related expenses, up to the approved grant and loan limits.

Water Supply Reserve Account Grant

At the January 2013 Rio Grande Basin Roundtable meeting, the Roundtable granted approval of the Siphon Support System and Canal Improvements Project application request for \$23,000 in Basin Funds and recommended approval of \$440,750 of Statewide Funds. Letters of support for the Project were received from the Rio Grande Water Conservation District, the Rio Grande Water Users Association, the Monte Vista Water Users Association, the Colorado Potato Administrative Committee, the Rio Grande Canal Water Users Association, and the San Luis Valley Irrigation District.

Source of Funds: \$440,750 Statewide Funds, \$23,000 Rio Grande Basin Funds

Matching Funds: \$1,391,250 CWCB Loan

Threshold and Evaluation Criteria: The application articulates how the project satisfies the Threshold and Evaluation Criteria as summarized below:

Tier 1: Promoting Collaboration/Cooperation & Meeting Water Management Goals & Identified Needs:

This Project takes the first step in restoring full capacity to the conveyance system between two major reservoirs in the Rio Grande Basin. This Project benefits water users of the Rio Grande Canal and the Monte Vista Canal. This includes irrigators in a 70,000-acre agricultural area as well as local governments in three counties.

The original grant request was for a larger project to repair both the conveyance system and Continental Reservoir; however, given the high cost of the project, the work was split into two phases. When looking at both phases combined, there are additional benefits to the basin. Continental Reservoir has been used primarily to store irrigation water for agricultural producers spread throughout five counties of the San Luis Valley of Colorado. Continental also stores Colorado Division of Parks and Wildlife (CPW) water, Rio Grande Compact water, San Luis Valley Water Conservancy District water, and water for Groundwater Management Subdistrict #1. The CPW has water rights to three transmountain diversions that it hopes to be able to store, by mutual agreement, in Santa Maria to allow for beneficial use to wildlife, increasing habitat in critical winter range lands. This will allow for a productive fishery; sustained and increased riparian habitat; irrigation of lands for wildlife nesting, shelter and forage; and for well augmentation.

Tier 2: Facilitating Water Activity Implementation: The Company has committed to funding 75% of the Project costs through a CWCB loan.

Tier 3: The Water Activity Addresses Issues of Statewide Value and Maximizes Benefits: This Project directly improves the ability of Company shareholders to irrigate 70,000 acres of farm and ranch land in the San Luis Valley. It also increases the ability to release and manage Rio Grande Compact entitled waters by upgrading and making critical repairs to the conveyance system's siphon and canal, enabling future phases of the Project to move forward.

Discussion:

As identified in the SWSI findings, agricultural water users often lack the financial ability to adequately address infrastructure needs without financial aid. The Company does not possess the financial resources to make the improvements to efficiently and safely utilize its existing water rights without the loan and

grant funding. In addition, the SWSI Management Objectives, of the SWSI Phase II Report: Addressing the Water Supply Gap Technical Roundtable, includes the “sustainably meet agricultural demands,” which is directly met through this activity. The proposed Project effectively meets the objectives of HB 1177 and the consumptive needs of the Rio Grande Basin by rehabilitating existing infrastructure to preserve agricultural water use.

Reporting and Deliverables: All products, data and information developed as a result of this grant must be provided to CWCB in hard copy and electronic format as part of the project documentation. This information will in turn be made widely available to Basin Roundtables and the general public and will help promote the development of a common technical platform.

In accordance with the revised WSRA Criteria and Guidelines, staff would like to highlight additional reporting and final deliverable requirements provided below:

Reporting: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of the executed contract. The progress report shall describe the completion or partial completion of the tasks identified in the scope of work including a description of any major issues that have occurred and any corrective action taken to address these issues.

Final Deliverable: At completion of the project, the applicant shall provide the CWCB a final report that summarizes the project and documents how the project was completed. This report may contain photographs, summaries of meetings and engineering reports/designs.

Engineering: All engineering work (as defined in the Engineers Practice Act (§12-25-102(10) C.R.S.)) performed under this grant shall be performed by or under the responsible charge of professional engineer licensed by the State of Colorado to practice Engineering.

CWCB Loan Program

Financial Analysis

The Company qualifies for the agricultural interest rate of 1.75% for a 30-year term. Table 3 provides a financial summary of the loan request.

TABLE 3: LOAN FINANCIAL SUMMARY

Total Project Cost	\$1,855,000
WSRA Grant Request	\$463,750
CWCB Loan Amount (75% of total Project cost)	\$1,391,250
CWCB Loan Amount (including 1% Service Fee)	\$1,405,163
CWCB Annual Loan Payment	\$60,604
CWCB Annual Loan Obligation (including reserve account)	\$66,665
Number of Shareholders	250
Number of Shares	5,400
Current Annual Assessment (per Share)	\$28
Annual Cost per share for loan repayment	\$12

Creditworthiness:

The Company has no existing debt. It paid off a \$454,000 CWCB loan in 2003. The loan terms were 5% for a 20-year term. The Company deferred a payment in 1994 but ultimately paid off the loan early, making it a 13-year term.

In addition to assessment revenues, the Company also receives \$5,000 annually from a fishing club lease.

TABLE 4: FINANCIAL RATIOS

Financial Ratio	2009-2011	Future w/ Project
Operating Ratio (operating revenues/operating expenses) <div>weak: <100% - average: 100% - 120% - strong: >120%</div>	128% (strong) \$187K/\$146K	120% (average) \$254K/\$212K
Debt Service Coverage Ratio (total eligible revenues-operating expenses)/total debt service <div>weak: <100% - average: 100% - 120% - strong: >120%</div>	N/A	162% (strong) (\$254K-\$146K)/\$66.7K
Cash Reserves to Current Expenses <div>weak: <50% - average: 50% - 100% - strong: >100%</div>	285% (strong) \$416K/\$146K	196% (strong) \$416K/\$212K
Annual Operating Cost per Acre-Foot (based on 6,300 AF) <div>weak: >\$20 - average: \$10 - \$20 - strong: <\$10</div>	\$23.17 (weak) \$146K/6,300	\$33.65 (weak) \$212K/6,300

Collateral: As security for the loan, the Company will pledge assessment revenues backed by a rate covenant and annual financial reporting and the project itself including: the conveyance system including the open channel, the pipeline and the siphon. This is in compliance with the CWCB Financial Policy #5 (Collateral).

cc: Jay Yeager, Manager, Santa Maria Reservoir Company
Susan Schneider, AGO
Peter Johnson, AGO

Attachment: Water Project Loan Program – Project Data Sheet

**Water Project Loan Program
Project Data Sheet**

Borrower:	Santa Maria Reservoir Company	County:	Hinsdale & Mineral		
Project Name:	Santa Maria Siphon and Canal System Rehabilitation Project	Project Type:	Dam Rehabilitation & Ditch Rehabilitation		
Drainage Basin:	Rio Grande / District 20	Water Source:	North Clear Creek		
Total Project Cost:	\$1,855,000	Funding Source:	Construction Fund and Water Supply Reserve Account Grants		
Type of Borrower:	Agricultural	Avg. Annual Diversion:	6,300 AF		
CWCB Loan:	\$1,405,163 (w/ 1% service fee)	Interest Rate:	1.75%	Term:	30 years

Santa Maria Reservoir Company owns and operates Continental Reservoir (27,000 AF) and Santa Maria Reservoir (43,500 AF), located in the Rio Grande River Basin near Creede, Colorado. Santa Maria and Continental operate in conjunction with each other via a century old conveyance system made up of a pipeline, siphon, and open ditch. For the past 20 years, Continental has been under a storage restriction due to seepage issues, limiting the storage to 15,000 AF. The Company is planning a two phased approach to rehabilitate its system. The first phase (the subject of this funding request) is the rehabilitation of the conveyance system between the reservoirs including repairs to the siphon and lining of the canal. Construction is expected to occur in the summer/fall of 2013.

