

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

Jennifer L. Gimbel
CWCB Director

TO: Colorado Water Conservation Board Members

FROM: Ryan Edwards, P.E.
Tim Feehan, P.E., Chief
Finance Section

DATE: March 4, 2011

SUBJECT: **Agenda Item 25a, March 15-16, 2011 Board Meeting**
Finance Section – New Project Loans
Trinchera Irrigation Company – Garland #2 Canal Repair

Introduction

The Trinchera Irrigation Company (Company) is applying for a loan to rehabilitate a deteriorated portion of the Garland #2 Canal and diversion headgate, thereby restoring its ability to reliably convey flows while increasing overall efficiency. This project has been identified as the Garland #2 Canal Repair Project (Project). The loan request is for 90% of the estimated \$277,000 total cost of the project. See the attached Project Data Sheet for a location map and a project summary.

Staff Recommendation

Staff recommends the Board approve a loan not to exceed \$251,793 (\$249,300 for project costs and \$2,493 for a 1% Loan Service Fee) to the Trinchera Irrigation Company for the Garland #2 Canal Repair Project from the Construction Fund. The loan terms shall be 30 years at the agricultural rate of 2.75% per annum. Security for the loan shall be in compliance with CWCB Financial Policy #5.

Background

The Garland #2 Canal delivers irrigation water to a portion of the Company's service area located north of US Highway 160 and west of Fort Garland. The Canal was originally constructed around 1913 and required emergency repairs following a 2010 flash flood that washed out part of the canal. The repairs were temporary and not sufficient for a permanent solution. This Project offers a permanent solution with the installation of approximately 2,300 feet of pipe and rehabilitation of the headgate, inlet and outlet structures.

The Company has received loans from the CWCB Board on three separate occasions for improvements to their system. The current status of these loans is detailed in the *Creditworthiness* section of this memo.

Loan Feasibility Study

The Company prepared the Loan Feasibility Study titled, “Feasibility of Garland Two Canal Repairs,” dated January 24, 2011. Assistance was provided by Jane Devine, Company Office Manager; Merrit Gardner, Gardner Excavating, Inc.; and the NRCS for preparation of construction documents. The study was prepared in accordance with the CWCB guidelines and includes Company by laws, construction documents, and a 2010 stockholder list.

Trinchera Irrigation Company

The Trinchera Irrigation Company, located in Costilla County, is a non-profit mutual irrigation company incorporated on February 4, 1944. It owns and operates two reservoirs (Smith and Mt. Home reservoirs) and approximately 26 miles of canals and 45 miles of laterals. The Company services approximately 14,100 acres of farm land and delivers an annual average of 26,700 acre-feet.

The Company is managed by a five-member board of directors. There are 40 shareholders and 12,500 shares of stock, 12,396 of which are currently issued (the remaining shares are held by the Company). The board has the power to enter into contracts, cut off water deliveries to shareholders who fail to pay their assessments, and the power to offer stock for sale to collect outstanding assessments. Revenues are generated from assessments voted on and set by shareholders at the annual board meeting held on the 2nd Tuesday of each March.

Water Rights

The Project will not require any additional water rights beyond the Company’s current portfolio. The Garland #2 Canal, with an average annual yield of 3,700 AF, is supplied by a diversion along Newton Ditch #2, and consists of the following rights:

TABLE 1: PROJECT WATER RIGHTS

Water Right	Appropriation Date	Amount	Use
Priority 39, Garland Ditch No. 2	October 31, 1887	51 cfs	Irrigation
Priority 71, Garland Ditch No. 2	July 11, 1908	123 cfs	Irrigation

Project Description

The Company considered the following three alternatives for improving the delivery of irrigation water through the Garland #2 Canal:

Alternative No. 1 – No immediate action: This alternative was considered unacceptable to the Company based on the deteriorated condition of the canal and the agricultural dependence on irrigation water.

Alternative No. 2 – Install a 24” irrigation pipeline: This alternative includes the installation of a 24” PVC pipeline to deliver water to shareholders, utilizing the existing canal to convey excess water during times of higher than average flows. This alternative was not chosen as it lacked excess capacity to convey above average flows, resulting in an increased potential for canal erosion and/or canal failure.

(*Selected*) **Alternative No. 3 – Install a 36” irrigation pipeline:** This alternative includes the installation of a 36” irrigation pipeline to deliver water to shareholders. The increased diameter affords the necessary capacity to convey excess water during times of above average flows. The Company selected this alternative in order to eliminate the reliance on a deteriorated channel and headgate. The selected bid price for the construction of the project is \$277,000, and includes the following tasks:

- Installation of a new concrete diversion headgate structure to divert water from Newton Ditch #2
- Installation of approximately 2,300 LF of 36” low head irrigation pipe, including 4 air vents
- Renovating the concrete siphon inlet structure to accommodate a new trash rack
- Rock riprap installation at the siphon outlet structure

The contractor, Gardner Excavating, Inc., is estimating a three week construction schedule. The project is expected to begin construction immediately following approval of the loan request.

TABLE 2: TOTAL PROJECT COST SUMMARY

Task	Cost
Engineering	\$0 (prepared by NRCS)
Construction	\$277,000
Total	\$277,000

Financial Analysis

Table 3 provides a summary of the financial criteria of the loan request. The Company qualifies for an agriculture interest rate of 2.75% for a 30-year term.

TABLE 3: FINANCIAL SUMMARY

Total Project Cost	\$277,000
CWCB Loan Amount (90% of total Project cost)	\$249,300
CWCB Loan Amount (including 1% Service Fee)	\$251,793
CWCB Annual Loan Payment	\$12,435
CWCB Loan Obligation (including 10% debt reserve funding)	\$13,678
Number of Shares	12,396
Current Assessment per Share	\$22.00
Annual Cost per Share for this Project (1 st 10 years)	\$1.10
Assessment per Share (minimum necessary to cover future debt service)	\$23.10

Creditworthiness:

The Company had three previous loans approved by the CWCB and all are in good standing.

- Trinchera Watershed Project, this \$251,690 loan was approved in 1977 and had annual payments of \$11,238. This loan was paid in full in April 2009.

- Mountain Home Reservoir Dam Project, this \$1,000,000 loan was approved in 1992 and has a balance of \$395,614, with \$18,623 due annually. The maturity date of the loan is September 2034. This loan was secured by a pledge of assessment revenues and the Mountain Home Reservoir.
- Smith Dam Repair Project, this \$606,000 loan was approved in 2010 and has a balance of \$524,553, with \$29,927 due annually (\$32,920 with 10% debt service funding). The maturity date of the loan is September 1, 2035. This loan was secured by a pledge of assessment revenues, Smith Reservoir and corresponding water storage rights.

In September 2009, the Company was approved for a \$200,000 Water Supply Reserve Account grant (\$150,000 from the state wide funds and \$50,000 from the Rio Grande basin funds) for the “Sangre de Cristo Trinchera Diversion Canal Restoration Project”. In November 2009, the Company applied for an additional \$54,000 grant from the Rio Grande Basin for a project titled “Shortfall Request Sangre de Cristo Trinchera Diversion Canal Restoration.” This request was approved by the CWCB and the contract was executed in March 2010.

TABLE 4: FINANCIAL RATIOS

Financial Ratio	2007-2009	Future w/ Project
Operating Ratio (operating revenues/current expenses) weak: <100% - average: 100% - 120% - strong: >120%	109% (Average) \$284K/\$260K	101% (Average) \$297K/\$295K
Debt Service Coverage Ratio (operating revenues-operating expenses)/debt service weak: <100% - average: 100% - 120% - strong: >120%	180%* (Strong) (\$284K-\$230K)/\$30K	103%** (Average) (\$297K-\$230K)/\$65K
Cash Reserves to Current Expenses weak: <50% - average: 50% - 100% - strong: >100%	25% (Weak) \$64K/\$260K	37% (Weak) \$109K/\$295K
Annual Operating Cost per Acre-Foot (based on 27,600 AF) weak: >\$20 - average: \$10 - \$20 - strong: <\$10	\$9.73 (Strong) \$260K/26,700	\$11.06 (Average) \$295K/26,700

* Past Debt Service includes the 1977 and 1992 loans (\$11,238 + \$18,623 = \$29,861)

** The 1977 loan was paid off in April 2009; therefore, Future Debt Service includes the 1992 and 2010 loans, in addition to this loan (\$18,623 + \$32,920 + \$13,678 = \$65,221)

Collateral: As security for the loan, the Company will pledge assessment revenues backed by a rate covenant and the Garland #2 Canal water rights as listed in Table 1. This is in compliance with the CWCB Financial Policy #5 (Collateral).

Staff Recommendation

Staff recommends the Board approve a loan not to exceed \$251,793 (\$249,300 for project costs and \$2,493 for a 1% Loan Service Fee) to the Trinchera Irrigation Company for the Garland #2 Canal Repair Project from the Construction Fund. The loan terms shall be 30 years at the agricultural rate of 2.75% per annum. Security for the loan shall be in compliance with CWCB Financial Policy #5.

cc: Jane Devine, Office Manager, Trinchera Irrigation Company
Susan Schneider, AGO
Peter Johnson, AGO

Attachment: Water Project Loan Program – Project Data Sheet

Water Project Loan Program - Project Data

Borrower: Trinchera Irrigation Company

County: Costilla

Project Name: Garland #2 Canal Repair

Project Type: Ditch Rehabilitation

Drainage Basin: Rio Grande, District 35

Water Source: Ute Creek

Total Project Cost: \$277,000 (Construction)
Engineering provided by NRCS

Funding Source: Construction Fund

Type of Borrower: Agricultural

Avg. Annual Diversion: 26,700 AF

CWCB Loan: \$251,793 (incl. 1% loan fee)

Interest Rate: 2.75% **Term:** 30 years

The Trinchera Irrigation Company (Company) owns and operates Smith Reservoir, Mountain Home Reservoir, and approximately 26 miles of canals and 45 miles of laterals to provide irrigation water for the benefit of its shareholders. The Company services approximately 14,100 acres of irrigated farm land. The Company is applying for a loan to repair a portion of the Garland #2 Canal. The Canal was originally constructed around 1913 and is responsible for the average annual delivery of 3,700 AF of irrigation water to its shareholders. A substantial portion of the ditch is severely deteriorated and has become increasingly unreliable and inefficient. Emergency repairs were made following a 2010 flash flood; however, the repairs were temporary and never intended as a permanent solution. The proposed project includes: replacement of the diversion headgate, modifying the siphon inlet to accommodate a new trash rack, installing rock riprap at the siphon outlet, and installing 2,300 linear feet of 36" irrigation pipe. Construction is expected to commence immediately following loan approval in order to minimize the impacts during irrigation season.

Location Map

