

STATE OF COLORADO

Colorado Water Conservation Board Department of Natural Resources

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TO: Colorado Water Conservation Board Members

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

DATE: January 18, 2013

SUBJECT: **Agenda Item 23a, January 28-29, 2013 Board Meeting**
Finance – Changes to Existing Loans
Tri-County Water Conservancy District – Tri-County Water Hydropower Project

John W. Hickenlooper
Governor

Mike King
DNR Executive Director

Jennifer L. Gimbel
CWCB Director

Introduction

The Tri-County Water Conservancy District (District), acting by and through its Water Enterprise (Enterprise), is requesting an increase to its existing CWCB loan (Contract # C150324) for the Tri-County Hydropower Project (Project). The Project is the construction of an 8-megawatt (MW) hydroelectric generating facility at the existing outlet works of Ridgway Dam. The loan increase is needed due to the withdrawn application for funding through the Governor's Energy Office. This request will increase the existing CWCB loan of \$9,090,000 to \$13,130,000. Per CRS 37-60-122, this new loan amount will require legislature approval via the 2013 CWCB Project Bill. See the attached Project Data Sheet for a location map and a Project summary.

Staff Recommendation

Staff recommends the Board approve a loan increase of \$4,040,000 (\$4,000,000 for project costs and \$40,000 for the 1% Loan Service Fee), from the Construction Fund, to the Tri-County Water Conservancy District, acting by and through its Water Enterprise, for the Tri-County Water Hydropower Project. The amended loan amount will be \$13,130,000 (\$13,000,000 for project costs and \$130,000 for the 1% Loan Service Fee). The loan terms shall remain 30 years at the hydroelectric rate of 2.0% per annum. Security for the loan shall be in compliance with the CWCB Financial Policy #5. All previously approved contract conditions shall remain.

Background

The Ridgway Dam and Reservoir are located on the Uncompahgre River about 6 miles north of the community of Ridgway, Colorado. The Reservoir has a capacity of 84,410 AF and stores waters for use by the District, Uncompahgre Valley Water Users Association and private land owners for irrigation, municipal, domestic, and industrial needs.

The Bureau of Reclamation (Bureau) completed construction of the Ridgway Dam in 1987 as part of the Dallas Creek Project, authorized by Congress as part of the Colorado River Basin Project Act of 1968. In 1981, the Bureau conducted a study and determined that a hydropower facility was technically feasible at the site; however, market rates at the time made the power production cost prohibitive.

In September 2011, the CWCB approved a loan to the District for \$9,090,000 for the construction of the Project. In November of 2012 the Board approved modifications to the original contract conditions which limited the timing of disbursing loan funds. This modification was related to a delay in executing an interconnection agreement between the District and San Miguel Power Association or Tri-State Generation and Transmission Association.

Project Description

The purpose of the Project is to incorporate a clean and renewable energy source into Ridgway Dam that is locally controlled and will generate revenue for the District. The District will tap into the existing outlet works and will direct flow to a powerhouse. The powerhouse will contain two turbines and generators, rated at a combined total of 8 MW and associated mechanical and electrical equipment capable of generating an estimated 22,600 megawatt-hours (MWh) annually. A proposed transmission line will carry power to an existing Tri-State Generation and Transmission Association 115-kV transmission line. River flow rates downstream of the dam will not be impacted by the power facility due to a network of proposed valves, enabling the District to convey flows to the powerhouse, or divert them away from the powerhouse for maintenance or emergency purposes.

Project Update

The District has made significant progress in securing the necessary agreements and permits to meet the Project's scheduled milestones in order to meet the energy production obligations in June 2014. Mountain States Hydro, LLC is the contractor providing design and construction services. Mountain States is scheduled to have the Project 100% designed around May 1, 2013. The District anticipates taking receipt of the turbines by October 2013.

Financial Analysis

The Project was originally to be funded with a portfolio of cash reserves, a CWCB loan, a Colorado Water Resources and Power Development Authority (CWRPDA) loan, and a Qualified Energy Conservation Bond (QECCB) through the Governor's Energy Office. However, due to uncertainties regarding the QECCB funding the District removed its application for funding and is requesting CWCB funds to replace this funding source.

The Project's cost has been reduced from an original \$18 million to a current estimate of between \$15 to \$17 million. A Project cost of \$17 million has been used in this financial analysis.

The District qualifies for the hydroelectric interest rate of 2.00% for a 30-year term. Table 1 provides a summary of the financial criteria of the loan request.

TABLE 1: PROJECT FINANCIAL SUMMARY

Total Project Cost		\$17,000,000
CWCB Loan Amount (50% of total Project cost)		\$13,000,000
CWCB Loan Amount (including 1% Service Fee)		\$13,130,000
CWCB Annual Loan Payment		\$586,253
CWCB Loan Obligation (including 10% debt reserve funding)		\$644,878
Additional Funding Sources:	District Contribution	\$2,000,000
	CWRPDA	\$2,000,000
	GEO - QECB	\$ 0
	TOTAL	\$4,000,000
Projected 2014 Expenses: (for Power Generation)	CWCB Loan Obligation (2.0% with a 10% reserve)	\$644,878
	CWRPDA Debt Service (2.0%)	\$122,313
	O&M	\$220,745
	<u>Bureau of Reclamation Lease</u>	<u>\$67,800</u>
	TOTAL	\$1,055,736
Projected 2014 Power Revenue		\$1,243,000
Number of Water Taps		7,417
Monthly CWCB Obligation Cost per Tap: $(\$644,878/7,417) / 12\text{mo.}$		\$7.25
Monthly Project Cost per Tap: $(\$1,055,736/7,417) / 12\text{mo.}$		\$11.86

This summary is based on the District's assumption of: annual power sales at a negotiated PPA rate of \$0.055/kWh, Bureau lease rate of \$0.003/kWh, and O&M projected expenses equivalent to those of similar facilities.

Creditworthiness:

The District has \$32.8M in debt remaining to the Bureau for the Dallas Creek Project. Annual payments total \$2.18M; however, the District has contracts with five other water providers that account for 54% of the annual payment. The District collects water usage fees as its primary source of revenue. Over the last three years the operating revenues for water usage have exceeded operating expenses by an annual average of \$1.1M, generating a surplus that has enabled the District to grow its cash reserve balance to nearly \$12M.

Upon completion of the Project, the District anticipates that it will be able to sell 22,600 MWh annually through its PPA at a rate of \$0.055 per kWh, generating \$1,243,000. With expenses for operating and maintenance estimated at \$220,000, and a Power Privilege lease payment to the Bureau of \$67,800 (based on a rate of \$0.003 per kWh), the District expects power generated revenues to exceed expenses by a minimum of \$965,200 over the first 12 months of operation. Based on the projected annual increase in O&M (2.5%), Bureau lease (2.0%) and power sale (3%), revenues are expected to increase at a greater rate than expenses over the life of the project. The resulting balance will be used for repayment of the CWCB and CWRPDA debt service (totaling \$767,000). If the power related income falls short of projections, the District will use the excess revenue from water sales in combination with an increase in water rates to cover its loan obligation to the CWCB.

TABLE 4: FINANCIAL RATIOS

Financial Ratio	Previous Years	Future w/ Project
Operating Ratio (revenues/expenses)* weak: <100% - average: 100% - 120% - strong: >120%	126% (strong) \$6.3M/\$5.0M	103% (average) \$6.3M/\$6.1M
Debt Service Coverage Ratio (revenues- expenses)/total debt service** weak: <100% - average: 100% - 120% - strong: >120%	146% (strong) (\$6.3M-\$2.8M)/\$2.4M	107% (average) (\$6.3M-\$3.1M)/\$3.0M
Cash Reserves to Current Expenses weak: <50% - average: 50% - 100% - strong: >100%	231% (strong) \$12M/\$5.2M	128% (strong) \$7.8M/\$6.1M
Average Residential Water Bill (monthly) weak: >\$60 - average: \$30 - \$60 - strong: <\$30	\$30.92 (average)	\$30.92 (average)
Debt per Tap (Total Debt/taps) weak: >\$5,000 - average: \$2,500 - \$5,000 - strong: <\$2,000	\$4,449 (average) \$33.0M/7,417	\$6,472 (weak) \$48.0M/7,417

*"Future Expenses" include projected expenses for O&M (\$220,000) and Bureau lease (\$67,800)

** In 1970 the District issued General Obligation Bonds for an approximate debt service of \$200,000 per year. This debt service was retired in 2010 and is not included in "Future w/ Project"

Collateral: The collateral identified in the original loan contract is a pledge of power revenues and water usage revenues backed by a rate covenant will remain as security for this increased loan amount. This is in compliance with the CWCB Financial Policy #5 (Collateral).

cc: Mike Berry, General Manager, Tri-County Water Conservancy District
Susan Schneider, AGO
Peter Johnson, AGO

Attachment:

- 1) CWCB Construction Loan Program - Project Data Sheet
- 2) Letter of Support from Mike Brod, Executive Director, Colorado Water Development and Power Authority

CWCB Construction Loan Program Project Data Sheet

Borrower: Tri-County Water Conservancy District **County:** Ouray, Montrose, Delta

Project Name: Ridgway Reservoir Micro-Hydro **Project Type:** Hydroelectric

Drainage Basin: Gunnison, District 68

Water Source: Uncompahgre River

Total Project Cost: \$17,000,000

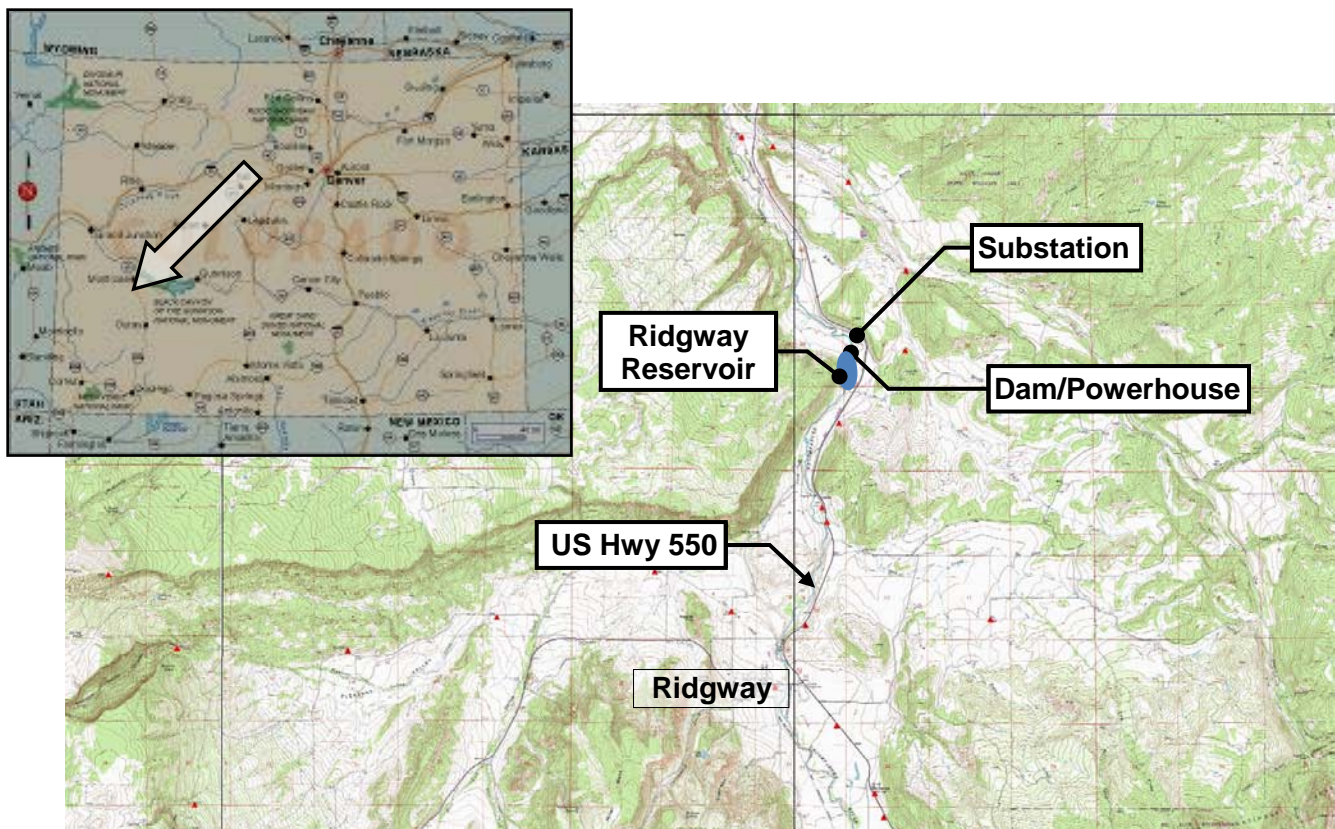
Funding Sources: Construction Fund,
CWRPDA

Type of Borrower: Hydroelectric

Avg. Diversion: 35,000 AF (84,410 AF of
reservoir storage)

Loan Amount: \$13,130,000 (Including 1% fee) **Interest Rate:** 2.00% **Term:** 30 years
> Increased from \$9,090,000 in Jan 2013

The Tri-County Water Conservancy District is requesting a CWCB loan for the construction of a 8MW hydroelectric power generating facility at Ridgway Reservoir. The project will be permitted through the "Lease of Power Purchase" process with the Bureau of Reclamation, allowing the incorporation of a hydropower facility into the existing outlet works of Ridgway Dam. The dam, constructed by the Bureau as part of the Dallas Creek Project, began storing waters of the Uncompahgre Basin in 1987. The District projects that the facility will produce an annual average of 22,600 MWh, which will be sold to the San Miguel Power Association/Tri-State Generation and Transmission and the City of Aspen/Municipal Energy Agency of Nebraska through a Power Purchase Agreement. Construction is scheduled to begin in the spring of 2013 and take approximately 2 years to complete, with energy production expected by summer 2014.





COLORADO WATER RESOURCES & POWER DEVELOPMENT AUTHORITY

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January 17, 2013

Kirk Russell
Finance and Administration Section
Colorado Water Conservation Board
1580 Logan Street, Suite 600
Denver, CO 80203

**Re: Letter of Support for Additional Financing to Tri-County Water
Conservancy District ("District") from the Colorado Water
Conservation Board ("CWCB")**

Dear Mr. Russell:

We are in receipt of the District's letter to the CWCB dated December 31, 2012, requesting an additional \$4,000,000 from the CWCB for the District's hydropower project. This request, if approved by the CWCB, would raise the CWCB loan amount to \$13,130,000. We understand from the letter that this additional loan approval from the CWCB would eliminate the need for the District to borrow funds through the issuance of Qualified Energy Conservation Bonds.

The Authority is in full support of the District's additional funding request to the CWCB and of this project. When the conditions in Resolution 11-44 adopted by the Authority Board of Directors are met, Authority staff will work with the District to execute a loan agreement for the \$2,000,000 approved by the Authority. Please contact Ryan Shipley at (303) 830-1550 ext.11 if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael Brod", with a long horizontal flourish extending to the right.

Michael Brod
Executive Director

cc: Mike Berry, District (via email)
Kathleen Margetts, District (via email)