



COLORADO
**Colorado Water
Conservation Board**
Department of Natural Resources

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TO: Colorado Water Conservation Board Members

FROM: Cole Bedford, P.E., Project Manager
Kirk Russell, P.E., Finance Section Chief

DATE: September 16-17, 2020

AGENDA ITEM: 8a. Water Project Loans
Redlands Water and Power Company - Roller Gate Replacement

Staff Recommendation:

Staff recommends the Board approve a loan not to exceed \$404,000 (\$400,000 for Project costs and \$4,000 for the 1% service fee) to the Redlands Water and Power Company for costs related to the Roller Gate Replacement Project, from the Severance Tax Perpetual Base Fund. The loan terms shall be 20 years at a reduced blended interest rate of 1.50% per annum. Security for the loan shall be in compliance with CWCB Financial Policy #5.

Introduction:

The Redlands Water and Power Company (Company) is applying for a loan for the Roller Gate Replacement (Project). The Company is located in the Grand Valley where it diverts approximately 800-850 cfs from the Gunnison River into their Redlands Power Canal via a diversion structure that utilizes four gates to control flows. These gates are approximately 80-years-old and have corroded to the extent that there is concern that they may fail. To address that risk the gates will be replaced with new stainless steel gates most likely during the winter of 2021/22, but possibly earlier in January or February 2021. The installation will require a shutdown of diversions for approximately one month. See attached Project Data Sheet for a location map and Project summary.



Background:

The Company’s diversion dam spans the Gunnison River south of Grand Junction and diverts water into their Redlands Water and Power Canal on the left bank. This 330-foot-long structure controls all flows into the canal via four roller gates, portions of which were retrofitted in the early 1980’s. The Company conducted a review of operations in 2014-2015 which culminated in the “Redlands Water and Power Company Water Management Plan” and identified the urgent need for the roller gate repair or replacement. A slightly higher priority was placed on another component of the Plan called the Pumpline Replacement Project, the loan for which was approved by the CWCB in May. With that project now underway, the Roller Gate Replacement is also being initiated.

Borrower – Redlands Water and Power Company

The Company is an irrigation and power provider for the Redlands area of the Grand Valley of Colorado. It was established in 1905, is classified as a nonprofit corporation, and is currently in good standing with the Colorado Secretary of State. The Company generates power via its hydroelectric facility, the electricity from which is used to power the pump station and any excess is sold to Xcel Energy. The Company also serves as an irrigation water provider for which it issues shares per its Articles of Incorporation. At present there are 5,759 shares held by 1,089 shareholders. The shareholders own 1,970 acres of land which is served from approximately 600 system headgates. 72% of the land is residential, 26% agricultural pasture grass, and 2% orchards and vinyards.

Loan Feasibility Study:

SGM Inc. prepared the Loan Feasibility Study titled “Loan Feasibility Study: Redlands Water & Power Company Roller Gate Replacement Project.” The feasibility study was prepared under the direction of John J. Boulden, PE. and is in accordance with CWCB guidelines. It includes an analysis of alternatives, preliminary engineering design, construction cost estimates, and audited financial statements prepared by Dalby, Wendland, & Co., P.C.

Water Rights:

The Company relies entirely on surface water diversions from its diversion on the Gunnison River. It holds three water rights. The two senior rights are decreed for multiple purposes and the junior right for power generation only.

TABLE 1: WATER RIGHTS

Name	Amount (cfs)	Appropriation Date	Adjudication Date	Water Court Case No.
Redlands Water and Power Co.	670	07/22/1905	07/22/1912	CA1927
Redlands Water and Power Co.	80	06/26/1941	07/21/1959	CA8303
Redlands Water and Power Co.	100	10/01/1994	12/31/1994	96CW0158

Project Description:

The purpose of the Project is ensure the Company’s continued ability to divert water from the Gunnison River into Redlands Power Canal. The following alternatives were analyzed:

Alternative 1 - No Action: This alternative would entail continuing to use the existing gates. The risks associated with doing so are high as the existing gates have extensive corrosion. Furthermore, failure

of the gates would likely prevent Redlands from making controlled diversions into the Power Canal and would require a full shutdown to replace the gates and resume controlled diversions.

Alternative 2 - Repair the Existing Gates: This alternative would involve repairing the existing gates. Although the gates have functioned for 80 years, they do not meet current design standards and as a result would likely require reinforcement in addition to repairs. A disadvantage of this alternative is that it would only extend the life of the gates for another 10 to 20 years, however, the principal disadvantage is that it would require an extended shut down of the Power Canal. The two month implementation period would result in the loss of \$50,000 to \$60,000 in revenue. Because of the length of the shutdown and the comparatively short life extension resulting from this alternative, this alternative was not selected.

Selected Alternative 3 - Replace the Existing Gates: This alternative was selected as the preferred as it achieves the project purpose and does so while minimizing the shutdown time of the Power Canal. This alternative will replace the existing gate with new stainless steel gates which are expected to last 80 to 100 years. The expected shutdown associated with this alternative is 3 to 4 weeks and would result in \$20,000 to \$30,000 in lost revenue.

The cost estimate of this alternative is \$510,000 as shown in Table 2.

TABLE 2: ESTIMATED PROJECT COST

Task	Total
Gate Fabrication	\$140,000
Dewatering	\$25,000
Gate Installation	\$100,000
Canal Improvements (Concrete Repair, Dredging, Riprap)	\$185,000
Construction Contingency (10%)	\$45,000
Engineering/Project Management	\$15,000
TOTAL	\$510,000

Permitting: All necessary permits have been acquired.

Schedule: The current plan is to fabricate the four gates during the fall of 2020 and install them during a planned shutdown sometime between October 2021 and March 2022. An early install could take place in January or February 2021 if conditions allow.

Financial Analysis:

Table 3 provides a summary of the Project’s financial aspects. The Company qualifies for a blended interest rate of 1.75% for a 30-year term (Ownership: 28% agricultural, 72% mid-income municipal, 0% commercial). The Company is applying for a 20-year term; therefore, the interest rate is decreased by 0.25% for a final blended interest rate of 1.50% per CWCB Financial Policy #7 (Lending Rate Determination).

TABLE 3: FINANCIAL SUMMARY

Total Project Cost	\$510,000
Company Cash Contribution	\$110,000
CWCB Loan Amount	\$400,000
CWCB Loan Amount (Including 1% Service Fee)	\$404,000
CWCB Annual Loan Payment	\$23,531
CWCB Annual Loan Obligation (1 st Ten Years)	\$25,884
Number of Shares	5,759
Annual Loan Obligation per Share	\$5
Current Assessment per Share	\$195
Proposed Future Assessment per Share	\$200

Creditworthiness: The Company has one existing loan with CWCB not to exceed \$641,350 approved by the Board in May 2020 for the Pumpline Replacement Project. The annual loan obligation for this loan is expected to be about \$42,000. The Company has no other debt.

TABLE 4: FINANCIAL RATIOS

Financial Ratio	Prior Years	Future w/ Project ¹
Operating Ratio (revenues/expenses) weak: <100% - average: 100% - 120% - strong: >120%	110% (average) \$1.37M/\$1.25M	103% (strong) \$1.37M/1.32M
Debt Service Coverage Ratio (revenues-expenses)/debt service weak: <100% - average: 100% - 120% - strong: >120%	N/A	171% (strong) \$1.37M-\$1.25M \$0.07M
Cash Reserves to Current Expenses weak: <50% - average: 50% - 100% - strong: >100%	72% (average) \$0.90M/\$1.25M	68% (average) \$0.90M/\$1.32M
Annual Operating Cost per Acre-Foot (558,800 AF) weak: >\$20 - average: \$10 - \$20 - strong: <\$10	\$2.23 (strong) \$1.25M/0.56M AF	\$2.36 (strong) \$1.32M/0.56M AF

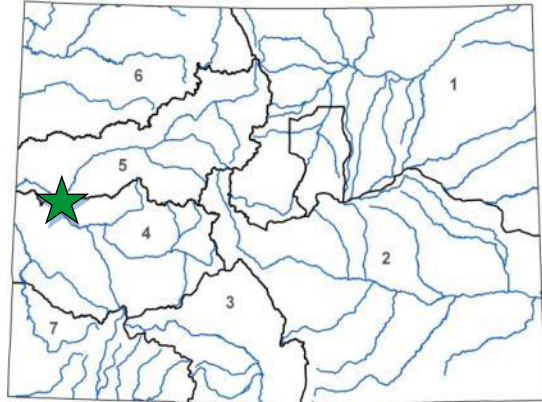
1. Costs associated with the Pumpline Replacement Project are included in the Future w/ Project ratios and not considered in the Prior Years Ratios.

Collateral: Security for this loan will be a pledge of assessment revenues and the project itself (diversion structure). This security is in compliance with the CWCB financial Policy #5 (Collateral).

cc: Kyle Vanderberg, Manager/Superintendent, Redlands Water and Power Company
 Jennifer Mele, Colorado Attorney General's Office

Attachment: Water Project Loan Program - Project Data Sheet

L O A N D E T A I L S		
Project Cost:	\$510,000	
CWCB Loan (with 1% Service Fee):	\$404,000	
Loan Term and Interest Rate:	20 years @ 1.50%	
Funding Source:	Severance Tax Perpetual Base Fund	
B O R R O W E R T Y P E		
Agriculture	Municipal	Commercial
28%	0% Low - 72% Mid - 0% High	0%
P R O J E C T D E T A I L S		
Project Type:	Diversion Structure Rehabilitation	
Average Annual Diversions:	558,800 AF	



The Company is a non-profit corporation formed in 1905 to provide irrigation water and power to 1,970 acres of the Redlands area in the Grand Valley for residential landscaping, pasture grass, orchards and vineyards. Shareholders are predominantly located on bench lands above the Colorado and Gunnison Rivers, requiring most of the irrigation water to be pumped uphill to them. The Company diverts approximately 800 cfs of water from the Gunnison River to its pumping plant and hydroelectric facility via the Redlands Power Canal. Of this water, a portion is pumped to users, while the remaining water is run through the hydroelectric facility to power the pumping plant. Any extra electricity is sold to Xcel Energy as an additional revenue stream for the Company.

L O C A T I O N			
County:	Mesa		
Water Source:	Gunnison River		
Drainage Basin:	Gunnison		
Division:	4	District:	42

The four existing roller gates control the flow into the Power Canal. These gates are approximately 80 years old and are significantly corroded and approaching the end of their useful life. In the event of a failure during the growing season, the canal and power plant could be flooded, or the company would not be able to divert as necessary. The project will include the design, fabrication and installation of new roller gates, with the loan covering approximately 78% of the costs of the project. The gates will be fabricated in the fall of 2020, with installation during a planned shut down in the fall and winter of 2021.

