



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

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Dan Gibbs, DNR Executive Director
Lauren Ris, CWCB Director

TO: Colorado Water Conservation Board Members

FROM: Zach Salin, P.E., Project Manager
Kirk Russell, P.E., Finance Section Chief

DATE: September 18, 2024 Board Meeting

AGENDA ITEM: 6c. Water Project Loans
Larimer and Weld Irrigation Company
Cache La Poudre River Diversion Rehabilitation

Staff Recommendation

Staff recommends the Board approve a loan not to exceed \$2,900,720 (\$2,872,000 for project costs and \$28,720 for the 1% service fee) to the Larimer and Weld Irrigation Company for costs related to the Cache La Poudre River Diversion Rehabilitation, from the Severance Tax Perpetual Base Fund. The loan term will be 30 years at an interest rate of 2.15% per annum. Security for the loan shall be in compliance with CWCB Financial Policy #5.

Introduction

The Larimer and Weld Irrigation Company (Company) is applying for a blended interest rate loan for the Cache La Poudre River Diversion Rehabilitation (Project). The Larimer and Weld Irrigation Company's existing diversion dam, is a large concrete structure spanning the Cache La Poudre River and is located northwest of the city of Fort Collins. It serves as a diversion point to deliver water to the Larimer & Weld Canal. Due to the age of the structure and flood impacts over its service lifetime, the dam leaks significantly; additionally, due to issues with the existing gate design and actuation equipment, the dam has difficulty diverting water and controlling the elevation of the river during high and low flow events. Rehabilitation of the diversion structure will improve the ability of the structure to control flows and divert water, particularly during floods and low flow events. Construction is expected to take place between the fall of 2024 and spring of 2025. The total Project cost is estimated to be \$2,872,000. See attached Project Data Sheet for a location map and Project summary.



Borrower - Larimer & Weld Irrigation Company

The Company is a Colorado Mutual Ditch Company and a non-profit corporation. The Company maintains an extensive and complex system consisting of approximately 40 miles of supply ditch including control structures, checks, headgates, and other structures, which bring irrigation water to approximately 61,000 acres of irrigated land. The Company's system extends from the diversion structure on the Cache La Poudre River located north of Fort Collins to near Galeton. Crops grown in the Company's service area include corn, beets, pinto beans, wheat, barley, oats, alfalfa, grass hay, and vegetables. There are 1,419 shares of Company stock held by 340 shareholders, including municipalities such as the City of Greeley and the North Weld County Water District as well as other ditch and canal companies such as the Windsor Reservoir Canal Company, Inc., the Larimer & Weld Reservoir Company, the NISP Water Activity Enterprise, etc. which convey water through the Company's system. Company stockholders with Colorado-Big Thompson and Divide Canal & Reservoir Company shares utilize the Company's system for delivery of that water as well.

The Company is listed as in good standing with the Colorado Secretary of State.

Background

The Company diverts water from the Cache La Poudre River at the Project structure located just north of Fort Collins. The original diversion structure was constructed in approximately 1955, and consists of a reinforced concrete dam with four electronically-controlled radial gates. The water is controlled at the dam via operation of the radial gates and by the addition or removal of checkboards set at the spillway crest.

Due to the age of the structure, a number of issues have become known, including deterioration of the concrete piers between the gates, leaking from the gates under pressure, and inoperability of the electrical gate actuators when submerged. These issues impact the ability of the Company to divert water into their canal, particularly during periods of relatively high and low flow.

This Project is the last of four aging infrastructure replacement projects undertaken by the Company in recent years to support continued use of their diversion structure on the Cache La Poudre River. Other infrastructure replacement projects associated with the Project include rebuilding the canal flow control gates, replacing a downstream grade control structure, and a new trash rack and forebay at the canal inlet.

Loan Feasibility Study

Kimberley Nelson, the Company's General Manager and Andrew Pineda P.E., the Company's agricultural engineer, as well as Scott Parker P.E. and Michelle Martin P.E. with Anderson Consulting Engineers, Inc., prepared the Loan Feasibility Study titled, "Feasibility Study for Rehabilitation of Larimer & Weld Irrigation Company Canal River Diversion Structure on the Cache La Poudre River" dated July 2024. The feasibility study is in accordance with CWCB guidelines and includes an analysis of alternatives, estimated costs, and annual financial reports independently audited by Schulz and Leonard, P.C.

Water Rights

The Company holds several direct flow water rights on the Cache La Poudre River and diverts approximately 61,200 AF of river water in an average year. Water is diverted at the Company's canal diversion structure, which is located adjacent to the river dam proposed for rehabilitation under this Project. In addition to the river water diverted through the Company's canal system, the system also carries approximately 30,000 AF of water from other sources (e.g., Colorado-Big Thompson, etc.) The Company reports that the Project impacts its water rights listed in Table 1.

TABLE 1: WATER RIGHTS

Name	Amount (cfs)	Appropriation Date	Adjudication Date	Case No.
No. 10 Ditch	3.00	6/1/1864	4/11/1882	CA0320
Chamberlain Private	1.47	4/1/1866	4/11/1882	CA2798
LWIC 1st Enlargement	16.67	4/1/1867	4/11/1882	CA0320
LWIC 2nd Enlargement	75.00	9/2/1871	4/11/1882	CA0320
LWIC 3rd Enlargement	54.33	1/15/1875	4/11/1882	CA0320
LWIC 4th Enlargement	571.00	9/18/1878	4/11/1882	CA0320
LWIC 5th Enlargement	326.00	4/1/1893	12/18/1945	CA5362

Project Description

The purpose of this Project is to repair and replace deficient components of the dam in order to ensure the Company's continued ability to divert water for the use of shareholders.

This Project will address the issue by replacing the diversion structure and gates with a more effective design. The damaged concrete piers will be removed and rebuilt to fit the new gates. Two of the existing radial gates will be replaced with newer radial gates of a similar size. The other two radial gates and the check boards at the spillway crest will be replaced with two overshot gates, which act as overflow-style adjustable weirs which allow the diversion operator to set the upstream water level based on the position of the gate. All replacement gates will be electronically actuated and remotely operable, enabling more precise control over diversions.

Alternative 1 - No Action: Taking no action would leave the Company's diversion dam in place in its existing configuration. The dam would continue to leak at an approximate rate of 10 cfs (20 acre-feet per day) leading to an estimated annual loss of 1,800 acre-feet of water. There would be no capital cost for this option.

Alternative 2 - In-Kind Replacement of Existing Operable Gates: This alternative would replace the four radial gates on the dam with new radial gates. Leakage through the new gates will be reduced, however leakage through the flashboards at the spillway crest will continue in the range of 5 cfs leading to an estimated annual loss of 900 acre-feet of water. The total estimated cost of this alternative is \$1,265,000.

Selected Alternative 3 - Full Dam Rehabilitation: This alternative involves addressing the issues with the diversion dam through a comprehensive rehabilitation project, including the replacement of two radial gates with two new, remotely operable radial gates. The remaining two radial gates and the flash boards will be replaced with two new, remotely operable overshot gates. A new floating trash boom will be installed to keep debris out of the radial gates. This alternative will minimize leakage through the dam and automation for remote operation under normal and flood flow regimes and will enable more efficient operation of the structure. The total estimated cost of this alternative is \$2,872,000 as shown in Table 2.

TABLE 2: ESTIMATED PROJECT COST

Tasks	Cost
Design Engineering	\$300,000
Construction Engineering	\$50,000
Mobilization	\$110,000
Earthwork, Demolition & Dewatering	\$275,000
Concrete and Riprap	\$460,000
New Gates	\$1,000,000
Steel Fabrication	\$175,000
Controls	\$72,000
Contingency (20%)	\$430,000
TOTAL	\$2,872,0000

Permitting: The project is exempt per 33 C.F.R. Part 323.4(a)(3) and will not require a US Army Corps of Engineers 404 Permit. The Project will require and the Company is pursuing a Floodplain Development Permit from Larimer County; because the Project site lies within a Federal Emergency Management Agency-designated floodplain, FEMA will also review the Floodplain Development Permit. The Project is also pursuing a Construction Dewatering Permit from the Colorado Department of Public Health and Environment.

Schedule: Design of the Project is approximately 75% complete. The Company is currently applying for permits. Construction is planned to start in November 2024. Construction is expected to be complete by April 2025.

Financial Analysis

Table 3 provides a summary of the Project's financial aspects. The Company qualifies for a blended interest rate (96% agriculture, 3% middle-income municipal, 1% low-income municipal) of 2.15% for a 30-year loan. All interest rate evaluations are per CWCB Financial Policy #7 (Lending Rate Determination).

TABLE 3: FINANCIAL SUMMARY

Project Cost	\$2,872,000
CWCB Loan Amount	\$2,872,000
CWCB Loan Amount (Including 1% Service Fee)	\$2,900,720
CWCB Annual Loan Payment (30-year term @ 2.15%)	\$132,203
CWCB Annual Loan Obligation (1 st Ten Years)	\$145,423
Number of Company Shares	1,419
Current Annual Assessment (per share)	\$350
Estimated Annual Loan Obligation per Share	\$102.48*

*The company does not anticipate a need to raise share assessments at this time.

Creditworthiness: The Company's only long-term liability is their two existing CWCB loans. The total outstanding principal on the two loans totals \$1,331,830.36; both loans are in good standing and on-schedule for repayment. The Company's existing long-term debt is described in Table 4 and their financial ratios are shown in Table 5.

TABLE 4: EXISTING DEBT

CWCB Loan Contract Number	Original Balance	Current Balance	Annual Payment	Maturity Date	Collateral
C150109	\$1,000,000	\$426,685.16	\$49,384.42	2034	Pledge of Assessment Revenues and the Project itself (Check Structure)
C150189	\$1,620,492	\$905,145.20	\$77,423.28	2038	Pledge of Assessment Revenues and the Project itself (Big Windsor Inlet Structure and Lake Lee Dam Structure)
TOTALS	\$1,620,492	\$1,331,830.36	\$126,807.70	—	N/A

TABLE 5: FINANCIAL RATIOS

Financial Ratio	Past Years	Future w/ Project
Operating Ratio (revenues/expenses) weak: <100% typical: 100% - 120% strong: >120%	350% (strong) \$9.92M/\$2.83M	338% (strong) \$10.0M/\$2.97M
Debt Service Coverage Ratio (revenues-expenses)/debt service weak: <100% typical: 100% - 120% strong: >120%	6,705% (strong) <u>(\$9.92M-\$2.72M)</u> \$107k	2,888% (strong) <u>(\$10.0M-\$2.72M)</u> \$252k
Cash Reserves to Current Expenses weak: <50% typical: 50% - 100% strong: >100%	8% (weak) \$234k/\$2.83M	8% (weak) \$234k/\$2.97M
Annual Cost per Acre-Foot (61,200 AF) weak: >\$24 typical: \$3 - \$24 strong: <\$3	\$46.28 (weak)	\$48.64 (weak)

Collateral: Security for this loan will be a pledge of assessment revenues backed by a covenant as well as the Project itself, including all access, easements, rights, and appurtenances associated therewith. This security is in compliance with the CWCB financial Policy #5 (Collateral).

cc: Kimberly Nelson, General Manager, Larimer & Weld Irrigation Company
Jennifer Mele, Colorado Attorney General's Office

Attachments: Water Project Loan Program - Project Data Sheet

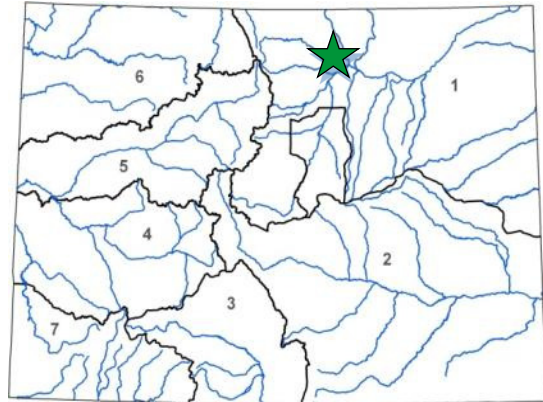


Cache La Poudre River Diversion Rehabilitation

Larimer and Weld Irrigation Company

September 2024 Board Meeting

L O A N D E T A I L S	
Project Cost:	\$2,872,000
CWCB Loan (with 1% Service Fee):	\$2,900,720
Loan Term and Interest Rate:	30 Yrs @ 2.15%
Funding Source:	Severance Tax Perpetual Base Fund
B O R R O W E R T Y P E	
Agriculture	Municipal Commercial
96%	1% Low - 3% Mid - 0% High 0%
P R O J E C T D E T A I L S	
Project Type:	Diversion Structure Replacement
Average Annual Diversions:	61,200 AF



The Larimer and Weld Irrigation Company (Company) is a Colorado Mutual Ditch Company and a nonprofit corporation incorporated in 1879. The Company's service area extends from the Cache la Poudre River diversion north of Fort Collins, east to near the town of Galeton, encompassing approximately 61,000 acres of irrigated land in Larimer and Weld Counties.

L O C A T I O N			
County:	Larimer		
Water Source:	Cache la Poudre		
Drainage Basin:	South Platte		
Division:	1	District:	3

The project will replace the Company's diversion structure on the Cache la Poudre, which was constructed in 1956 and includes four radial gates with checkboards set over a spillway crest. While still functioning, the structure is nearing the end of its useful life, particularly with the radial gates. These have been repeatedly repaired, but still experience significant leakage when under pressure and are rendered inoperable when they are submerged. Work will include demolishing the existing structure, constructing a new diversion with remotely operable radial and overshot gates, debris management, automation for both normal and flood operations, and provisions for future fish passage. This work represents the final phase of a series of projects to replace the aging infrastructure on the Company's Cache la Poudre system. Construction is expected to begin in the fall of 2024 and be completed in time for the 2025 irrigation season.

