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: November 15-16, 2023 Board Meeting

AGENDA ITEM: 16a. Water Project Loans
Last Chance Ditch Company
Measurement Structure Reconstruction Project

Staff Recommendation

Staff recommends the Board approve a loan not to exceed $197,960 ($196,000 for project costs and $1,960 for the 1% service fee) to the Last Chance Ditch Company for costs related to the Measurement Structure Reconstruction Project, from the Construction Fund. The loan term will be 30 years at an interest rate of 4.50% per annum. Security for the loan shall be in compliance with CWCB Financial Policy #5.

Introduction

The Last Chance Ditch Company (Company) is applying for a loan at a blended interest rate to finance the Measurement Structure Reconstruction (Project). The Company operates the Last Chance Ditch, which diverts approximately 11,000 AF of water from St. Vrain Creek every year. In order to accurately measure and report these diversions, the Company maintains a Parshall flume about a half mile down the ditch just before it passes under Interstate 25. In 2022, the Colorado Division of Water Resources (DWR) conducted a Structure Assessment which found major deficiencies with the flume and recommended the Company replace it. In accordance with DWR's recommendations, the Company retained an engineering firm to address the issue. The total Project cost is estimated to be $196,000. See attached Project Data Sheet for a location map and Project summary.

Borrower – Last Chance Ditch Company

The Company is a mutual ditch company, currently in good standing with the Colorado Secretary of State, that delivers water to its shareholders for beneficial use. It was formed in 1872 to divert water from the St. Vrain Creek and irrigate acreage south of the creek. Now, after 150-years of Front Range development, the Company's shareholders include special districts, commercial interests, and municipalities in addition to farmers. The Company's income is derived from stockholder assessments, carriage and crossing agreements. In order to take on debt, the Company must call a special stockholder meeting at which a presentation will be made describing the project need, financing requirements, and any necessary special assessment to stockholders. Stockholders must pass a resolution approving the improvements and debt service.

Background

In May 2022, DWR performed a Structure Assessment on the Company's Parshall measurement flume. The 7-foot flume is located approximately 0.65 miles down the ditch from the river diversion and is the primary means of measuring diversions into the Last Chance Ditch. The flume includes a staff gage, a stilling well, stage recorder, and telemetry capable of reporting average daily diversion rates to DWR.

The Structure Assessment found that the existing flume was in poor condition and approaching the end of its usable life. The flume walls were rusted out and scouring was occurring on the downstream end of the flume. Additionally, the flume's invert appeared to be set too low, for accurate readings. As a result of these deficiencies, DWR recommended that the Company replace the flume.

Loan Feasibility Study

Ryan Cook P.E., of Summit Water Engineers Inc. prepared the Loan Feasibility Study titled, "Loan Feasibility Report: Reconstruction of Last Chance Ditch Measurement Structure" dated September 2023. The feasibility study is in accordance with CWCB guidelines and includes an analysis of alternatives, estimated costs, and annual financial reports.

Water Rights

The Company operates under a single, relatively senior water right on the St. Vrain Creek. The direct flow right is 97 cfs which was historically utilized to irrigate about 3,000 acres of land. Since 1950, however, irrigated acreage has averaged only 1,500 acres and in 2021 the Last Chance Ditch irrigated only approximately 820 acres. This reduction in irrigated acreage is a result of increasing use by municipal and commercial shareholders. Annual diversions since 2000 have averaged approximately 11,000 AF. A summary of the Company's water right is shown in Table 1.

TABLE 1: WATER RIGHTS

Name	Amount (cfs)	Appropriation Date	Adjudication Date	Case No.
Last Chance Ditch	96.94	03/15/1872	06/02/1882	CA1622

Project Description
The Purpose of this Project is to provide the Company and DWR with a reliable, accurate, and durable means of measuring and reporting its diversions.

Alternative 1 – No Action: The "take no action" alternative would not achieve the Project Purpose. While this alternative was considered, the Company believed it was not reasonable based on the findings of the Structure Assessment.

Alternative 2 – Rehabilitation of Existing Flume: This alternative would improve the existing flume to restore its accuracy and effectiveness. This alternative would achieve the Project Purpose. However, based on review of the Structure Assessment and consultation with Summit Water Engineers Inc., the Company deemed rehabilitation infeasible due to its poor condition and the magnitude of the remedial actions required.

Selected Alternative 3 – Replacement with Cast-in-Place Concrete Flume: This alternative involves the replacement of the existing flume with a cast-in-place concrete flume. The cast-in-place method will allow the flume to be constructed to standard flume dimensions and will be exceptionally durable. In addition to constructing the flume, work will include removal of the existing flume, relocating the housing for the electronic monitoring equipment and stilling well, armoring the ditch channel in the vicinity of the flume, and other minor work. This alternative achieves the Project Purpose and represents the best alternative to provide a reliable, accurate, and durable means of measuring and reporting diversions. The total estimated cost of this alternative is $196,000 as shown in Table 2.

TABLE 2: ESTIMATED PROJECT COST

Tasks	Cost
Design and Engineering	$45,000
Site Preparation	$18,000
Cast-in-Place Concrete Flume	$82,000
Charthouse and Stilling Wells	$8,000
Channel Armoring	$12,000
Contingency and Miscellaneous (25% of Construction Items)	$31,000
TOTAL	**$196,000**

Permitting: The U.S. Army Corps of Engineers determined that an individual 404 permit will not be required. The Project will require access through the St. Vrain State Park and the Company is seeking approval from Colorado Parks and Wildlife to do so. No other permits or approvals will be required.

Schedule: Engineering design began in conjunction with development of the Loan Feasibility Study in the Summer of 2023. If the loan request is approved, the Company will proceed with Shareholder approval. The Company intends to complete necessary surveying and will bid the project in January 2024. Construction will be complete before the 2024 irrigation season begins in April.

Financial Analysis:
Table 3 provides a summary of the Project's financial aspects. The Company qualifies for a blended interest rate of 4.50% (Ownership: 25% agricultural, 20% high-income municipal, and 55% commercial) for a 30-year term. All interest rate evaluations are per CWCB Financial Policy #7 (Lending Rate Determination).

TABLE 3: FINANCIAL SUMMARY

Project Cost	$196,000
CWCB Loan Amount	$196,000
CWCB Loan Amount (Including 1% Service Fee)	$197,960
CWCB Annual Loan Payment	$12,153
CWCB Annual Loan Obligation (1st Ten Years)	$13,368
Number of Shares	20
Annual Loan Obligation per Share	$668
Current Assessment per Share	$1,064
Future Assessment per Share	$1,732

Creditworthiness: The Company has no outstanding debt. It received a loan from the CWCB Water Project Loan Program in 2012 for the Ditch Headworks Replacement Project (C150318), the original principal balance of which was $166,461. That loan was paid off ahead of schedule in June 2021. Financial ratios are shown in Table 4.

TABLE 4: FINANCIAL RATIOS

Financial Ratio	Past Years	Future w/ Project
Operating Ratio (revenues/expenses) weak: <100% | average: 100% - 120% | strong: >120%	167% (strong) $50K/$30K	147% (strong) $63K/$43K
Debt Service Coverage Ratio (revenues-expenses)/debt service weak: <100% | average: 100% - 120% | strong: >120%	N/A	253% (strong) ($63K-$30K) $13K
Current Assets to Current Expenses weak: <50% | average: 50% - 100% | strong: >100%	380% (strong) $114K/$30K	265% (strong) $114K/$43K
Annual Operating Cost per Acre-Foot (10,950 AF) weak: >$20 | average: $10 - $20 | strong: <$10	$2.73 (strong) $30K/11K AF	$3.91 (strong) $43K/11K AF

Collateral: Security for this loan will be a pledge of assessment revenues backed by an assessment covenant and the Project itself (Measurement Structure). This security is in compliance with the CWCB financial Policy #5 (Collateral).

cc: Garrett Varra, President, Last Chance Ditch Company
Jennifer Mele, Colorado Attorney General's Office

Attachments: Water Project Loan Program – Project Data Sheet

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Measurement Structure Reconstruction

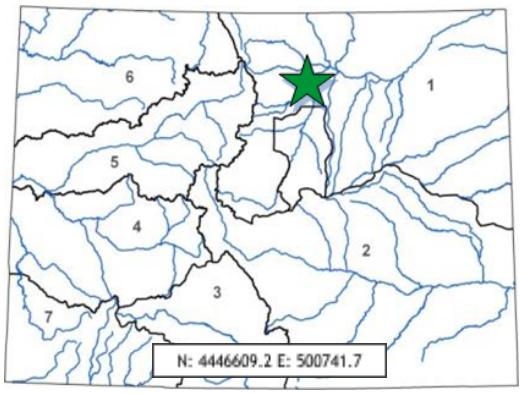
Last Chance Ditch Company

November 2023 Board Meeting

LOAN DETAILS	
Project Cost:	$196,000
CWCB Loan (with 1% Service Fee):	$197,960
Loan Term and Interest Rate:	30 Yrs @ 4.50%
Funding Source:	Construction Fund

BORROWER TYPE		
Agriculture	*Municipal*	*Commercial*
25%	0% Low - 0% Mid - 20% High	55%

PROJECT DETAILS	
Project Type:	Ditch Rehabilitation
Average Annual Diversions:	*10,950 AF*



The Last Chance Ditch Company (Company) is a mutual ditch company that has been operating since 1872. The Company provides direct flow water to 14 shareholders. Water is used for gravel pit mining, municipal use, augmentation, and irrigation of approximately 820 acres.

LOCATION	
County:	Weld
Water Source:	St. Vrain Creek
Drainage Basin:	South Platte
Division: 1	*District:* 5

The Project will replace the existing measurement flume that was determined by the Division of Water Resources to be at the end of its useful life in the spring of 2022. The replacement will be a cast-in-place concrete flume. Construction is expected to begin in the winter of 2023 and will be completed prior to the 2024 irrigation season.