COLORADO
Colorado Water Conservation Board
Department of Natural Resources

1313 Sherman Street, Room 718
Denver, CO 80203

P (303) 866-3441
F (303) 866-4474

Jared Polis, Governor

Dan Gibbs, DNR Executive Director

Lauren Ris, CWCB Director

TO: Colorado Water Conservation Board Members

FROM: Joshua Godwin, P.E., Project Manager
Kirk Russell, P.E., Finance Section Chief

DATE: July 17-18, 2024 Board Meeting

AGENDA ITEM: 18a. Water Project Loans
Montezuma Valley Irrigation Company
Lower Arickaree and Garrett Ridge Canal Piping

Staff Recommendation

Staff recommends the Board approve a loan not to exceed $3,034,040 ($3,004,000 for project costs and $30,040 for the 1% service fee) to the Montezuma Valley Irrigation Company for costs related to the piping of Lower Arickaree and Garrett Ridge Canals, from the Construction Fund. The loan term will be 30 years at an interest rate of 2.10% per annum. Security for the loan shall be in compliance with CWCB Financial Policy #5.

Introduction

The Montezuma Valley Irrigation Company (Company) is applying for a loan at a blended interest rate to finance the piping of the Lower Arickaree and Garrett Ridge Canals (Project). The Company experiences seepage and evaporation losses because of the open canals and requires significant operational water to push deliveries through. Enclosing portions of each canal through piping will allow the conserved water to be used by irrigators and held in the reservoirs longer during the irrigation season. The total Project cost is estimated to be $6,004,000; the Company was awarded a WaterSMART grant in the amount of $3,000,000 and is seeking a CWCB loan for $3,004,000 to fund the remainder of the Project. See attached Project Data Sheet for a location map and Project summary.

Borrower – Montezuma Valley Irrigation Company
The Montezuma Valley Irrigation Company is a mutual ditch company that was initially organized in 1880 and filed with the State of Colorado in 1920. The Company operates and maintains the Lower Arickaree and Garrett Ridge Canals for the benefit of its 1,546 shareholders and supplies water to over 37,500 acres in Montezuma County. Groundhog, Narraquinnep, and Totten Reservoirs—a total of 48,738 AF of storage—are operated and maintained by the Company as well. The Company is directed by a seven-member board with staggered three year terms who are elected each year at the annual board meeting. The Company's board has the power to: take on debt up to $500k, set annual assessments to be paid by shareholders, to cut off water deliveries to shareholders that fail to pay their assessments, and to offer stock for sale to pay back assessments. Debt above $500k must be voted on by the shareholders. The Company is formed as a non-profit and is in good standing with the Colorado Secretary of State's Office.

Background
The Company owns and administers the Lower Arickaree and Garrett Ridge Canals, which are 10,400 and 19,720 feet long and deliver 10 and 22 cfs of water, respectively, to shareholders to irrigate over 1,100 acres of farmland. The open canals currently lose water to seepage and evaporation and require significant operational water to force deliveries down the canals. The Dolores Water Conservancy District's 2018 Drought Contingency Plan (DCP) listed the piping of the entire length of the Lower Arickaree canal as a priority project. The DCP detailed the benefits as seepage water conservation and reduction in salt loading along the canal.

This Project will enclose portions of each canal through piping and allow the conserved water to be used by irrigators and held in the reservoirs longer during the irrigation season. The reduction in losses will provide additional water for use in times of drought.

The Company has also recently secured a $3,000,000 federal grant from the US Bureau of Reclamation's (BOR) WaterSMART Water and Energy Efficiency Grant (WEEG) program to fund this Project.

Loan Feasibility Study
Ian Rogers, P.E., with JUB Engineers, prepared the Loan Feasibility Study titled, "Lower Arickaree and Garrett Ridge Canal Piping Project", dated May 2024. The feasibility study is in accordance with CWCB guidelines and includes an analysis of alternatives, estimated costs, and financial statements prepared by the Montezuma Valley Irrigation Company.

Water Rights
The Company's water rights portfolio consists of senior direct flow and storage rights from the Dolores River and is supplemented by stored Dolores Project water from McPhee Reservoir, which allow for the irrigation of 37,500 acres of primarily alfalfa and grass hay. Of these 37,500 acres, 26,300 acres are defined as irrigable by BOR and can therefore receive Dolores Project water. The Company's annual Dolores Project water allocation varies from year to year and is calculated by taking the difference between the available non-Dolores Project supply and the supply required to irrigate the 26,300 acres of Dolores Project eligible water at a rate of 4.01 acre-feet per acre. By contract, the Company must limit their total non-Dolores Project diversions to 150,400 acre-feet, which includes the capacity of Groundhog, Narraguinnep and Totten Reservoirs.

Project Description
The Purpose of this Project is to pipe portions of both the Lower Arickaree and the Garrett Ridge Canals to reduce water seepage and evaporative losses.

Alternative 1 – No Action: Taking no action is the least expensive option. However, these canals will continue to suffer from significant seepage and evaporative losses and still require the inefficient practice of using operational water to push deliveries down-canal to shareholders. Additionally, the Company received a $3,000,000 grant from the BOR for this Project - money that will be inaccessible to the Company if the "No Action" alternative is taken. For these reasons, this alternative was not selected.

Alternative 2 – Pipe the Canals with C-900: This involves piping a total of 16,600 feet of the Garrett Ridge and the Lower Arickaree canals with 36" C-900 PVC pipe. While this would eliminate open ditch seepage, evaporative losses, and the need for operational water, the pipe's rigidity is a limitation when needing to maintain alignment within the nonlinear canals. The winding nature of the canals' alignments would require numerous additional pipe fittings if using C-900 - resulting in increased costs. For this reason, this alternative was not selected.

Selected Alternative 3 – Pipe the Canals with HDPE: This alternative uses 36" HDPE pipe for both canals. This alternative has the same benefits of reducing water loss through seepage and evaporation as the C-900 with the added benefit of the HDPE's greater plasticity to allow for bending the pipe through the exist canal alignments - thus significantly reducing the number of pipe fittings and appurtenances, as well as maintenance costs associated with fittings. The total cost of this alternative is $6,004,000 as shown in Table 1.

TABLE 1: PROJECT COST

Tasks	Cost
Mobilization	$400,000
Materials & Construction w/ Contingency	$4,711,000
Construction Inspection	$408,000
Permitting	$230,000
Engineering	$255,000
TOTAL	**$6,004,000**

Permitting: While any significant impacts on the natural environment are not expected, a NEPA document (likely an Environmental Assessment and subsequent Finding of No Significant Impact) will be prepared including a cultural resources survey. Additionally, a US Army Corp of Engineers RGP-5 permit will be obtained prior to construction. NEPA compliance work will be completed in close coordination with the BOR, US Fish and Wildlife Service, and other agencies. The contractor will be responsible for submitting a Storm Water Pollution Prevention Plan.

Schedule: Design for the pipeline began in May 2024 and is expected to be finalized in August 2025. Construction is anticipated to start in October 2025 and completed by June 2027.

Financial Analysis

Table 2 provides a summary of the Project's financial aspects. The Company qualifies for a blended interest rate of 2.10% for a 30-year loan (Share ownership is 97% agricultural, 2% low-income municipal, and 1% commercial). All interest rate evaluations are per CWCB Financial Policy #7 (Lending Rate Determination). Prior to the application for this loan, the Company increased assessments from $38/share to $41/share and has demonstrated a willingness to to raise assessments in order to maintain a positive cash flow balance,

TABLE 2: FINANCIAL SUMMARY

Project Cost	$6,004,000
BOR WaterSMART WEEG	$3,000,000
CWCB Loan Amount	$3,004,000
CWCB Loan Amount (Including 1% Service Fee)	$3,034,040
CWCB Annual Loan Payment	$137,340
CWCB Annual Loan Obligation (1st Ten Years)	$151,074
Number of Shares	33,284
Current Assessment per Share	$41.00[1]
Annual Loan Obligation per Share	$4.54
Future Assessment per Share	$45.54

1. Each shareholder is also charged a $410 account fee annually.

Creditworthiness: The Company has $866,586 in existing debt in the form of a CWCB loan (C150251) for the MVIC May Lateral Piping Construction that was approved by the Board in July 2007. The loan is in good standing and is scheduled to be paid off in 2031. Additionally, the Board approved a loan (CT 2024-3135) to the Company at the November 2023 board meeting in the amount of $1,414,000 for the Beaver Creek Ditch Repairs. This loan is still open and not reflected in the "Past Years" ratios below in Table 4, but is reflected in the "Future w/ Project" with the conservative assumption that the full loan amount approved by the Board will be disbursed to the Company.

TABLE 3: EXISTING DEBT

Lender	Original Balance	Current Balance	Annual Payment	Maturity Date	Collateral
CWCB (C150251)	$2,979,825	$866,586	$137,666	2031	Assessment Revenues and Project
CWCB (CT 2024-3135)*	$1,414,000	—	$70,407	—	Assessment Revenues and Project
		Total:	**$208,073**		

*CT 2024-3135 is still an active project and not yet in repayment. The annual payment is calculated assuming the full amount approved by the board will be disbursed.

TABLE 4: FINANCIAL RATIOS

Financial Ratio	Past Years	Future w/ Project
Operating Ratio (revenues/expenses) weak: <100% | typical: 100% - 120% | strong: >120%	167% (strong) $3.40M/$2.03M	151% (strong) $3.40M/$2.25M
Debt Service Coverage Ratio (revenues-expenses)/debt service weak: <100% | typical: 100% - 125% | strong: >125%	1092% (strong) ($3.40M-$1.89M) $138K	420% (strong) (3.40M-$1.89M) $359K
Cash Reserves to Current Expenses weak: <50% | typical: 50% - 100% | strong: >100%	61% (typical) $1.23M/$2.03M	55% (typical) $1.23M/$2.25M
Annual Operating Cost per Acre-Foot (125,000 AF) weak: >$24 | typical: $3 - $24 | strong: <$3	$16.24 (typical) $2.03M/125K	$18.00 (typical) $2.25M/125K

Collateral: Security for this loan will be a pledge of assessment revenues backed by an assessment covenant and the Project itself (the piped Lower Arickaree and Garrett Ridge Canals and associated easements). This security is in compliance with the CWCB financial Policy #5 (Collateral).

cc: Brandon Johnson, General Manager, Montezuma Valley Irrigation Company
Jennifer Mele, Colorado Attorney General's Office

Attachments: Water Project Loan Program – Project Data Sheet

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Lower Arikaree and Garrett Ridge Canal Piping

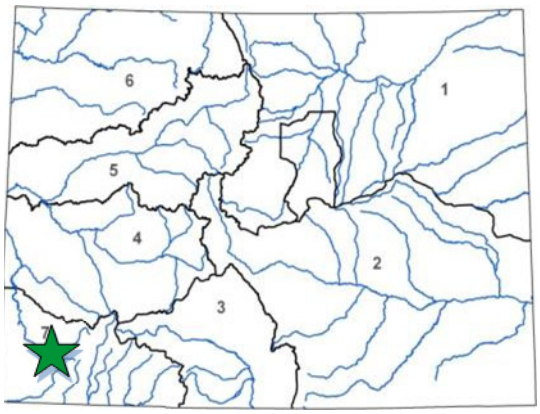
Montezuma Valley Irrigation Company

July 2024 Board Meeting

LOAN DETAILS	
Project Cost:	$6,004,000
CWCB Loan (with 1% Service Fee):	$3,034,040
Loan Term and Interest Rate:	30 Yrs @ 2.10%
Funding Source:	Construction Fund

BORROWER TYPE		
Agriculture	*Municipal*	*Commercial*
97%	2% Low - 0% Mid - 0% High	1%

PROJECT DETAILS	
Project Type:	Ditch Piping
Average Annual Diversions:	*125,000 AF*



The Montezuma Valley Irrigation Company (Company) is a mutual ditch and reservoir company initially organized in 1880. The Company provides irrigation water to 1,546 shareholders on approximately 37,500 acres of land near Cortez.

LOCATION	
County:	Montezuma
Water Source:	Dolores
Drainage Basin:	San Juan/Dolores
Division: 7	*District:* 32

The Project is the design, permitting, and construction of piping within the two canals. It will benefit water users by reducing seepage, the need for operational water (e.g. "push" water), and evaporative losses along the Garrett Ridge and Lower Arickaree canals. The project will also facilitate management of reservoir releases to meet current demands, and water savings accumulated from the project will increase reservoir supplies. Project funding will also come from a Bureau of Reclamation WaterSMART grant. Construction is expected to begin in the fall of 2025 and continue until the summer of 2027.