



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

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**TO:** Colorado Water Conservation Board Members

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

**DATE:** January 26-27, 2026 Board Meeting

**AGENDA ITEM:** 6a. Water Project Loans  
Silt Water Conservancy District  
Harvey Gap Reservoir Spillway and Outlet Rehabilitation

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#### Staff Recommendation

Staff recommends the Board approve a loan not to exceed \$3,440,060 (\$3,406,000 for project costs and \$34,060 for the 1% service fee) to the Silt Water Conservancy District, acting by and through its water activity enterprise, for costs related to the Harvey Gap Reservoir Spillway and Outlet Rehabilitation, from the Severance Tax PBF. The loan term will be 30 years at an interest rate of 1.90% per annum. Security for the loan shall be in compliance with CWCB Financial Policy #5.

#### Introduction

The Silt Water Conservancy District (District) is applying for a blended interest loan for the Harvey Gap (also known as Grass Valley) Reservoir Spillway and Outlet Rehabilitation (Project) to fund improvements to the Harvey Gap Reservoir (Reservoir) spillway and outlet works. The Reservoir's dam - built in 1909 - is owned by the Farmer's Irrigation Company (FICO), but is operated and maintained by the District. In 2016 the State Engineer's Office (SEO) through the Colorado Division of Water Resources Dam Safety Branch (Dam Safety) imposed a 2 foot storage restriction due to insufficient spillway capacity and a collapsed outlet works. This storage restriction reduced the allowable storage within the Reservoir by 640 AF (13% of total storage), reducing the 5,060 AF capacity down to 4,600 AF. This Project will increase the capacity of the spillway and repair the outlet works, thereby allowing the SEO to remove the storage restriction. The total Project cost is estimated to be \$3,406,000. See attached Project Data Sheet for a location map and Project summary.



### **Borrower - Silt Water Conservancy District**

The District was organized by decree of the Garfield County District Court in June 1957 and delivers approximately 18,000 AF annually to a 6,600 acre service area located in and around the Town of Silt to 461 water user accounts. The District's irrigation infrastructure conveys, stores, and distributes water for irrigated pasture (primarily grass hay and alfalfa) supporting small and large-scale livestock production in Garfield County. Harvey Gap Reservoir and Rifle Gap Reservoir supply stored water to the District's system to provide visitors and residents recreational opportunities for fishing, swimming, and boating.

The District has broad statutory powers concerning the conservation and utilization of water resources within its boundaries. It has contracted with the United States Bureau of Reclamation (BOR) for the BOR Silt Project, encompassing the construction and operation of Rifle Gap Dam, Grass Valley Canal, the Silt Pump Canal and other facilities. Together with FICO, the District has also contracted with the BOR, to coordinate the operation and distribution of contract water from the BOR Silt Project through the FICO system. The BOR Silt Project water supply is commingled with FICO water and - managed by an operational agreement signed in 1964 - conveyed through the combined FICO and BOR infrastructure.

The District is run by a 9 person board whose members are appointed by a District Court judge and serve 4 year terms. The board has the power to incur indebtedness and set assessments. The District's Enterprise revenue comes from an annual fee collected for each account and an assessment collected based on the volume of water allocated to the account. Additionally, due to the overlap of FICO's system with the District's, FICO is contractually obligated to pay 25% of all operation and maintenance costs that the District incurs which is assessed quarterly.

### **Background**

The Reservoir is located about 4 miles north of the Town of Silt within the Harvey Gap State Park. The privately-owned dam and reservoir was originally built in 1894. The dam failed the same year but was reconstructed by FICO in 1909. It is an earthen fill dam with a crest length of about 900 feet and is owned by FICO, operated by the District, and has a safety storage-restricted volume of 4,600 AF - down from the unrestricted 5,060 AF. The SEO determined that the spillway was deteriorated and undersized per Dam Safety specifications and an outlet works collapse inhibited normal operation of the outlet and presented hazardous entry conditions for inspection in the spring for 2016 - leading to a 2 foot storage restriction by the SEO to a staff gage height of 50.0 feet that same year. This safety measure has reduced the amount of water that may be stored in the Reservoir by 640 AF. Spillway rehabilitation and enlargement to the required width would allow for emergency discharge of water during a flood event without overtopping the dam. Additionally, the outlet works is partially collapsed and unsafe for inspection and cannot meet Dam Safety emergency drawdown requirements. In 2024, Dam Safety performed a Comprehensive Dam Safety Evaluation (CDSE) - funded in part by the CWCB - and included an in-depth review of the Harvey Gap Dam which was incorporated into the current spillway and outlet design for this Project. The CDSE determined that the dam as a whole was safe and adequate for continued use and would remain safe to fill both with the spillway and outlet works improved.

### Loan Feasibility Study

Silt Water Conservancy District, with support from Nathan Bell P.E., prepared the Loan Feasibility Study titled, "Grass Valley Reservoir - Feasibility Study 2025" dated December 1st, 2025 which was in part funded by a Loan Feasibility Study Grant. The feasibility study is in accordance with CWCB guidelines and includes an analysis of alternatives, estimated costs, and financial statements provided by the District and reviewed by Maggard and Hood P.C.

### Water Rights

The District reports to operate with the water rights listed in Table 1 using the Reservoir and that the Project will improve the ability to put the rights to beneficial use.

TABLE 1: PROJECT WATER RIGHTS

Name (WDID)	Amount (cfs or AF)	Appropriation Date	Adjudication Date	Case No.
Grass Valley Canal (3900563)	100 cfs	07/30/1887	04/30/1892	CA279
Grass Valley Canal (3900563)	15 cfs / 9 AF	04/01/1891	11/10/1966	CA4914
Grass Valley Reservoir (3903505)	3,902 AF	04/01/1891	04/03/1893	92CW0014
Grass Valley Reservoir Enlargement (3903505)	3,087.2 AF	09/15/1946	11/10/1966	CA4914

### Project Description

The purpose of this Project is to remove the SEO storage restriction by improving the spillway and outlet works.

**Alternative 1 - No Action:** Taking no action would result in a continued 2 foot storage restriction and a 640 AF reduction in the Reservoir's storable volume - leading to a reduced ability to irrigate and produce crops. No action could lead to the eventual forced abandonment of some of the water rights listed above in Table 1. For these reasons, this alternative was not selected.

**Selected Alternative 2 - Rehabilitation of the Reservoir's Spillway and Outlet Works:** This alternative includes the widening of the spillway and rehabilitating the outlet works tunnel. The spillway is currently deteriorated and undersized and does not meet Dam Safety requirements. When a flood occurs, the spillway should be sized to allow the surge of water to bypass the reservoir without overtopping - and potentially compromising - the dam. The outlet works collapse in the spring of 2016 inhibited normal operations of the outlet and presented hazardous entry conditions to perform seepage monitoring and outlet inspections. The outlet works were partially repaired in 2018, but significant seepage through the outlet works still occurs. This Project will widen the spillway from approximately 12 feet to 20 feet and will reinforce the outlet pipe. The cost estimate for this alternative is \$3,406,000 as shown in Table 2.

**TABLE 2: ESTIMATED PROJECT COST**

Tasks	Cost
Mobilization and Site Prep	\$335,000
Equipment and Labor	\$516,000
Concrete	\$757,000
Other Materials	\$332,000
Earthwork and Construction	\$665,000
Construction Management and Project Administration	\$356,000
Contingency ~15%	\$445,000
<b>TOTAL</b>	<b>\$3,406,000</b>

**Permitting:** The selected construction contractor will be responsible for all permitting with Garfield County. No easements will be needed since the Project is entirely on FICO-owned land. The District will continue communicating and coordinating with Colorado Parks and Wildlife the Project.

**Schedule:** Final design will occur in 2026 with construction expected to occur between the fall of 2027 and the spring of 2028.

#### Financial Analysis

Table 3 provides a summary of the Project's financial aspects. The District qualifies for a blended interest rate of 2.40% (99% Agricultural, 1% Middle-Income Municipal). Because the Reservoir is under restriction, the District additionally qualifies for an interest rate reduction of 0.50%, bringing the overall interest rate for the loan to 1.90% for a 30-year term. All interest rate evaluations are per CWCB Financial Policy #7 (Lending Rate Determination). While FICO owns the Reservoir, the District operates and maintains it, for which FICO is contractually obligated to pay 25% of all operation and maintenance costs incurred by the District. Additionally, the District generates revenue for its water activity enterprise by charging an account fee and a water usage assessment. The account fee is an annual charge to the accounts of all users living within the District Boundaries who receive an allocation of BOR Silt Project Water. The water usage fee is based on how much water an account is allocated from the BOR Silt Project.

**TABLE 3: FINANCIAL SUMMARY**

Project Item	Loan
Project Cost	\$3,406,000
CWCB Loan Amount	\$3,406,000
CWCB Loan Amount (Including 1% Service Fee)	\$3,440,060
CWCB Annual Loan Payment	\$151,495
CWCB Annual Loan Obligation (1 <sup>st</sup> Ten Years)	\$166,645
Number of District Accounts	461
Current Fee per Account	\$475*
Silt Project Water Annual Amount (AF)	\$10,384
Water Usage Assessment per AF	\$14.00
Annual Loan Repayment per AF	\$16.05**
Project Cost \$/AF of Storage Recovered	\$5,374

\* For the 2026 season, SWCD increased assessments from \$375 to \$475 in anticipation of the Project and expects to raise assessments again for the 2027 season. This is not reflected in Table 5 below.

\*\* This value is based solely on the Water Usage Assessment and excludes FICO's contribution.

**Creditworthiness:** The District has one existing CWCB loan (C150149) for the rehabilitation of system infrastructure. The loan is in good standing and is detailed in Table 4 below.

TABLE 4: EXISTING DEBT

Lender	Original Balance	Current Balance	Annual Payment	Maturity Date	Collateral
CWCB C150149	\$1,074,385	\$600,113	\$51,332	2039	Revenues from water user rates, charges and fees

TABLE 5: FINANCIAL RATIOS

Financial Ratio	Past Years	Future w/ Project
Operating Ratio (revenues/expenses) weak: <100%   typical: 100% - 120%   strong: >120%	112% (typical) \$495K/\$443K	100% (typical) \$610K/\$610K
Debt Service Coverage Ratio (revenues-expenses)/debt service weak: <100%   typical: 100% - 125%   strong: >125%	202% (strong) <u>(\$495K-\$392K)</u> \$51K	100% (typical) <u>(\$610K-\$392K)</u> \$218K
Cash Reserves to Current Expenses weak: <50%   typical: 50% - 100%   strong: >100%	188% (strong) \$835K/\$443K	136% (strong) \$835K/\$610K
Annual Operating Cost per Acre-Foot (18,000 AF) weak: >\$24   typical: \$3 - \$24   strong: <\$3	\$25 (weak)	\$34 (weak)

**Collateral:** Security for this loan will be a pledge of revenues backed by an assessment covenant. This security is in compliance with the CWCB Financial Policy #5 (Collateral).

cc: Charlie Terrell, Board President, Silt Water Conservancy District  
Jennifer Mele, Colorado Attorney General's Office

Attachments: Water Project Loan Program - Project Data Sheet



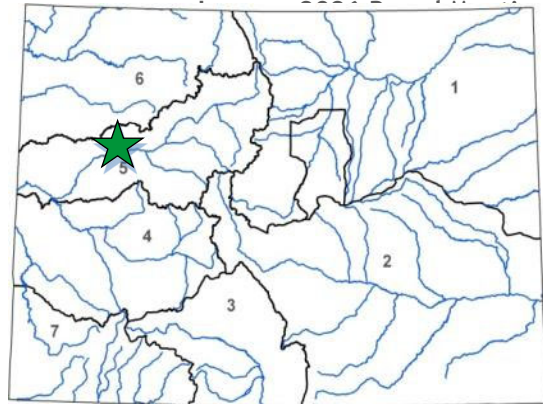
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# Harvey Gap Reservoir Spillway and Outlet Rehabilitation

Silt Water Conservancy District

LOAN DETAILS	
Project Cost:	\$3,406,000
CWCB Loan (with 1% Service Fee):	\$3,440,060
Loan Term and Interest Rate:	30 Yrs @ 1.90%
Funding Source:	Severance Tax PBF
BORROWER TYPE	
Agriculture	Municipal
99%	0% Low - 1% Mid - 0% High
Commercial	0%
PROJECT DETAILS	
Project Type:	Reservoir Rehabilitation
Average Annual Delivery:	18,000 AF
Storage Recovered:	640 AF



The Silt Water Conservancy District (District) was formed in 1957 and operates the U.S. Bureau of Reclamation's Silt Project, one of the Colorado River Storage Project initial units. The District distributes water from both the Harvey Gap Reservoir (also called Grass Valley Reservoir) and Rifle Gap Reservoir to the Farmer's Irrigation Company and other water account holders within the District's service area. The District serves 461 accounts irrigating 6,600 acres of land.

LOCATION	
County:	Garfield
Water Source:	East Rifle Creek
Drainage Basin:	Colorado
Division:	5
District:	39

The Harvey Gap Reservoir (Reservoir) is impounded by a 61ft high dam classified as high hazard by the State Engineer's Office (SEO). The Reservoir is currently under an SEO storage restriction for approximately 640 AF of capacity due to a degraded spillway which will not allow safe flow during an extreme flood event. This Project will widen the spillway as well as rehabilitate the outlet works to meet current SEO requirements and remove the storage restriction. Final design will occur in 2026 with construction expected to begin in the fall of 2027 with completion in the spring of 2028.

