



COLORADO

**Colorado Water
Conservation Board**

Department of Natural Resources

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Jared Polis, Governor

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Rebecca Mitchell, CWCB Director

TO: Colorado Water Conservation Board Members

FROM: Jonathan Hernandez, P.E., Project Manager
Kirk Russell, P.E., Finance Section Chief

DATE: January 28-29, 2019 Board Meeting

AGENDA ITEM: 14a. Changes to Existing Loans
St. Vrain and Left Hand Water Conservancy District - Emergency Rock'n WP Ranch Lake
No. 4 Repair

Introduction

The St. Vrain and Left Hand Water Conservancy District (District), acting by and through its water activity enterprise, received approval of a \$4,545,000 CWCB Emergency Loan (Contract Number CT2016-2452) to finance the Emergency Rock'n WP Ranch Lake No. 4 Repair (Project) at the July 2014 Board Meeting. The District and Boulder County (County) are co-owners of Rock'n WP Ranch Lake No. 4 (Lake 4). The purpose of the Project is to repair the Lake 4 dam which was breached during the September 2013 flood event. CWCB provided emergency loans that included 3-years of 0% interest to give borrowers time and cash flow while they navigated possible FEMA grant funding. Project coordination between the District, County, and FEMA has resulted in multiple schedule delays. However, the final design is now complete and it is expected construction will begin in spring 2019. The loan contract was signed in 2016 and the 0% interest period ends on March 1, 2019. The District has therefore requested a 2-year extension on the 0% interest period to allow time for construction and for FEMA grant funds to be processed and disbursed.

Staff Recommendation

Staff recommends the Board approve the existing loan terms to be increased from 3 to 5 years of 0% interest followed by 27 years at a blended interest rate of 3.20% per annum. Security for the loan shall remain in compliance with CWCB Financial Policy #5.

Additionally, in accordance with similar emergency loans receiving FEMA funds, staff recommends modifying the existing contract condition that reads:

"Any future grant funds obtained for the purpose of this Project shall be submitted to CWCB to be applied to the balance of the loan within thirty (30) calendar days after receipt of said funds."

to read:

"Any future grant funds obtained for the purpose of this Project shall be submitted to CWCB to be applied to the balance of the loan within thirty (30) calendar days after receipt of said funds except that FEMA grant funds can be applied to the balance of the loan within thirty (30) calendar days after FEMA Project Closeout, as long as the borrower deposits received FEMA grant funds in a secured account prior to Project Closeout. FEMA grant funds shall only be used for the repayment of rescinded grant funds or to pay down the loan principal."



Project Update

The emergency repair of Lake 4 has been combined with adjacent projects including the Lake 4 outlet pipeline repair (the subject of Agenda Item 14b), as well as emergency repairs to the adjacent County owned West Lake and A-Frame Lake. As these three lakes are in series and function as a system, it was determined by the County and District to combine the repair projects into one construction activity to be managed by the County. Costs for the individual projects will be accounted for separately to accurately split costs between the District and County.

Construction of Lake 4's emergency repair Project will include rebuilding the breached embankment, removal and replacement of the outlet works, construction of a new spillway, and the addition of a toe drain. Design began in 2016 and has gone through multiple iterations due to the nature of coordinating with multiple owners and simultaneous repair projects at the site. Final design was approved by the Dam Safety Branch of the State Engineer's Office in July 2018. All necessary pre-construction permits have been obtained and the Project is ready for construction bidding.

FEMA determined this repair project qualifies for a 75% public assistance grant reimbursement. The Project's most recent FEMA Project Worksheet estimated Project costs at \$10,336,356 for a like-for-like replacement. The District and County jointly submitted a Scope Change Request (SCR) in March 2018 to FEMA which reflects final design, including a Hazard Mitigation Proposal (HMP) that would reduce the potential for damage to Lake 4 from erosion in a future flood event. Due to the cost effectiveness of the HMP design, the final cost estimate has been reduced to \$8,325,000. However, since FEMA's standard is to provide like-for-like replacement and the final design includes flood mitigation improvements, to remain eligible for FEMA funds, the District and County need FEMA approval (through the SCR) to implement the final design even though it's a more cost effective solution.

Schedule: The project is ready to bid pending FEMA's approval of the SCR. To ensure the Project remains compliant with FEMA grant reimbursement procedures, the District and County have elected to not bid the Project until FEMA approval is obtained. It is anticipated that FEMA's approval will be obtained in time to allow the Project to be bid in early 2019 and construction to be complete by early 2020.

Funding Update: The District originally planned to receive a FEMA and state of Colorado public assistance grants that respectively equaled 75% and 12.5% of project cost. In addition to being approved for both of those grants, the District also received approval of a \$450,000 Community Development Block Grant for Disaster Recovery (CDBG-DR) which will further reduce the Emergency Loan's final principal balance. The District does not anticipate needing, and is not requesting, additional loan funds for this Project.

To date, only \$141,967 out of the available \$4,500,000 (3%) has been disbursed covering some engineering costs.

cc: Sean Cronin, Executive Director, St. Vrain and Left Hand Water Conservancy District
Jennifer Mele, Colorado Attorney General's Office

Attachment: Original Board Memo (July 2014)



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John Hickenlooper, Governor

Mike King, DNR Executive Director

James Eklund, CWCB Director

Attachment to 14a

TO: Colorado Water Conservation Board Members

FROM: Jonathan Hernandez, P.E., Project Manager *JH*
Kirk Russell, P.E., Finance Section Chief *KLR*

DATE: July 16-17, 2014 Board Meeting (Updated July 18, 2014)

AGENDA ITEM: 24a. Emergency Loan
St. Vrain and Left Hand Water Conservancy District - Emergency Rock'n WP
Ranch Lake No. 4 Repair Project

Introduction

The St. Vrain and Left Hand Water Conservancy District (District), acting by and through its water activity enterprise, is applying for an Emergency Loan for the Emergency Rock'n WP Ranch Lake No. 4 Repair Project (Project). During the unprecedented flood of September 2013 in the tributaries to the South Platte River, a significant number of diversion structures and dams along the river corridor were damaged. Rock'n WP Ranch Lake No. 4 (Lake), co-owned by the District and Boulder County, received significant damage as a result of this flood. The purpose of the Project is to repair the Lake to resume its use as a water augmentation reservoir by the District. The total Project cost is estimated to be \$9,000,000. The District is responsible for 50% of final Project cost and is seeking a loan to cover its share. See attached Project Data Sheet for a location map and Project summary.

Staff Recommendation (Board approved staff recommendation on July 17, 2014)

Staff recommends the Board approve a loan not to exceed \$4,545,000 (\$4,500,000 for Project cost and \$45,000 for the 1% service fee) to the St. Vrain and Left Hand Water Conservancy District, acting by and through its water activity enterprise, for 100% of its engineering and construction cost share related to the Emergency Rock'n WP Ranch Lake No. 4 Repair Project from the Severance Tax Perpetual Base Fund, up to the approved loan amount. The loan terms shall be 3 years of no interest followed by 27 years at a blended interest rate of 3.20% per annum. Security for the loan shall be in compliance with CWCB Financial Policy #5.

Additionally, staff recommends the following contract conditions:

1. Any future grant funds obtained for the purpose of this Project shall be submitted to CWCB to be applied to the balance of the loan within thirty (30) days after receipt of said funds.



Background

The District's mission is to serve its basin by protecting water rights, encouraging improved water management, and supporting the development of additional water storage. In addition to its original purpose the District has operated an augmentation plan for use by basin water users since 1992. The District operates its umbrella augmentation plan to cover existing water users who were facing complete curtailment of indoor and outdoor uses due to increased enforcement of small wells. These users, due to remote locations, typically do not have access to a domestic water supply. The plan covers approximately 95 irrigated acres in Boulder County.

The Lake, aka Western Mobile Lake 4, is an off channel reservoir created by gravel mining. The State Engineer approved its slurry wall liner in 1996. In November 2001, the District and Boulder County both acquired an undivided 50% interest in the Lake. The District uses the Lake in its augmentation plan (Case No. 01-02CW334) to make releases of augmentation water to replace out-of-priority depletions generated by its approximately 240 members. The Lake is an integral component of the District's augmentation plan; it is the District's only reservoir that can provide winter time replacement. Boulder County uses the Lake primarily for in-reservoir purposes including recreation, and fish and wildlife propagation. It is also decreed for releases to maintain minimum stream flows for fish, recreation, and wildlife.

Prior to the 2013 flood, the Lake had a physical capacity of approximately 600 acre-feet. Its infrastructure included inlet works (a diversion structure off the South Branch of the St. Vrain Creek with a flume and recorder), a water level recorder, and outlet works (outlet gate, pipe, weir box, and recorder). During the 2013 flood, St. Vrain Creek breached in over four locations above the Lake. These breaches rerouted the Creek into gravel pits and the Lake to the point where the creek bed adjacent to the Lake became dry during the flood event. The unlined gravel pits above the Lake were flooded, causing their earthen embankments to fail, sending flood waters into the Lake. The Lake filled and eventually overtopped, breaching its eastern embankment. With the breach and damaged liner, the Lake is unable to be used for its intended purposes.

Loan Feasibility Study

Sean Cronin, Executive Director of the District, with assistance from Mark McLean, P.E. of Deere and Ault Consultants, prepared the Loan Feasibility Study, titled "Emergency Loan Application and Feasibility Study," dated December 2, 2013. The study includes an alternative analysis and preliminary engineering cost estimates. The feasibility study was prepared in accordance with the CWCB guidelines.

Borrower - St. Vrain and Left Hand Water Conservancy District

The District was established in 1971 as a non-profit water conservancy district under the provisions of the 1937 Water Conservancy Act of the State of Colorado. The District is a quasi-municipal corporation and a political subdivision of the State of Colorado with all powers thereof which include the power to levy taxes against property within the District. The District is administered by an appointed Board of Directors.

Each augmentation member is assessed an annual membership fee based on their annual use in acre-feet, with a minimum charge of 1 acre-foot. The District's water activity enterprise primary source of revenues are augmentation membership fees, interest income, C-BT water rental income, and transfers from the District's general fund as allowed by statute.

Water Rights

The water rights impacted by this project include:

TABLE 1: IMPACTED WATER RIGHTS

Name	Amount	Appropriation Date	Adjudication Date	Water Court Case No.
Rock'n WP Ranch Lake No. 4	880 AF	4/23/1992	5/3/1995	88CW74
Rock'n WP Ranch Lake No. 4	600 AF	12/19/2001	4/26/2006	01CW262
Rock'n WP Ranch Lake No. 4	Change in Use	NA	12/19/2007	02CW334

On average the District annually provides 200 acre-feet of augmentation water to its members, though is contracted to provide over 240 acre-feet of augmentation water.

Project Description

The goal of this project is to repair the Lake, allowing the District to regain its use as a water augmentation reservoir. The District has retained the engineering services of Deere and Ault Consultants, Inc. to provide feasibility level engineering. Engineering Firm Request for Proposals were submitted on June 30, 2014 and interviews will be conducted on July 18, 2014. A design engineer will be selected by Boulder County and the District in July 2014.

Alternative 1 - Do Nothing: This alternative is considered unacceptable. Failure to restore the Lake would leave most of the District's augmentation plan members without an augmentation source to replace their depletions, causing the State Engineer to curtail those depletions.

Alternative 2 - Rebuilding with Improvements: FEMA will not provide reimbursement for any improvements to the Lake that are not required by new or updated standards. The Division of Water Resources Dam Safety Branch did not identify any additional improvements required to bring the Lake into compliance with current standards. With the high cost of rebuilding, and the historic infrequency of this magnitude of flood event, the District and Boulder County have determined improvements beyond Dam Safety's requirements and FEMA approved repairs are not feasible.

Selected Alternative 3 - Reconstruct to Pre-Flood Conditions: This alternative will reconstruct the damaged facilities in the same location, size, and for the same function as the pre-flood structure. The breached clay liner and earthen embankments will be rebuilt and all debris and sediment deposited during the flood event will be removed. The Project will also ensure any needed repairs to the Lake's measurement and delivery structures are performed so that the Lake can be used and administered as an augmentation delivery structure.

FEMA's Cost Estimating Format (CEF) Cost Estimate is \$9,000,000 as shown in Table 2.

TABLE 2: FEMA's CEF Cost Estimate

Task	Cost
Engineering Design	\$250,000
Project Management	\$250,000
Construction	\$8,250,000
Construction Contingency (3% of Construction)	\$250,000
Total	\$9,000,000

Schedule: Final Engineering is expected to occur during summer and fall of 2014. Construction has a planned completion date of May 2016.

Project Funding: The District and Boulder County entered into an IGA in May 2014 describing how each entity will address the repair of the Lake. Both the District and Boulder County are responsible for 50% of the Project cost. Boulder County will oversee and manage the construction and will invoice the District for its cost share.

Both the District and Boulder County are eligible for FEMA public assistance and are thus expecting a reimbursement through FEMA covering 75% of Project cost. Additionally, the State of Colorado, through its Public Assistance Program, will pay for 12.5% of the Project cost. The remaining 12.5% of Project cost will be split equally by Boulder County and the District (6.25% each). Both FEMA and State funds are provided on a reimbursement basis, requiring all Project cost to be fronted by Boulder County and the District. Boulder County is funding its portion from cash reserves and the District will provide its portion through this CWCB Emergency Loan. Once all Project funding has been received, the District will be responsible for 6.25% of Project cost, currently estimated to be \$562,500.

Financial Analysis

Table 3 provides a summary of the Project's financial aspects. The first three years of the loan will be assessed a 0% interest rate. The remaining term of the loan will be assessed a blended interest rate of 3.2% with the principal amortized over 27 years (Ownership: 93% High Municipal, 7% Commercial). Staff is recommending an exemption to Financial Policy #11 to allow for 100% funding of eligible Project costs, up to the approved loan amount.

TABLE 3: FINANCIAL SUMMARY

	Without Reimbursements	After Reimbursements
Total Project Cost	\$9,000,000	\$9,000,000
FEMA Reimbursement (75%)	-	\$6,750,000
State Reimbursement (12.5%)	-	\$1,125,000
Boulder County Contribution (50% of Cost Less Reimbursements)	\$4,500,000	\$562,500
District's Contribution (50% of Cost Less Reimbursements)	\$4,500,000	\$562,500
CWCB Loan Amount	\$4,500,000	\$562,500
CWCB Loan Amount (Including 1% Service Fee)	\$4,545,000	\$607,500
CWCB Annual Loan Payment	\$253,918	\$33,940
CWCB Annual Loan Obligation (1 st Ten Years)	\$279,310	\$37,333
Annual Loan Obligation per AF of Augmentation Water (240 AF)	\$1,164/AF	\$155/AF
Existing Augmentation Annual Renewal Fee per AF	\$63/AF	\$63/AF
Future Augmentation Annual Renewal Fee per AF	\$815/AF	\$245/AF
Project Cost per Acre-Foot of Storage (600 AF)	\$15,000/AF	\$15,000/AF

Creditworthiness: The District has no existing debt and owns 271 C-BT units. The C-BT units are not a part of its decreed augmentation plan and are instead annually leased out to other users. The C-BT units are currently unencumbered.

The past 3 years the District's water activity enterprise had negative operating ratios due to a cost per AF of augmentation water well below market value. The Board decided to slowly reverse this trend by increasing its fees incrementally instead of making a fee correction in one single year. In 2011 the cost of augmentation water was \$55/AF. This was raised to \$58/AF in 2012, and \$63/AF in 2013 with additional increases in future years. The debt service for this loan will be raised through increasing the District's various augmentation fees including its annual renewal fees. Should these fees fail to provide sufficient income, the District can sell its C-BT units as needed.

The District is willing to use its cash reserves to help soften the effect of needed fee increases. By doing so projections indicate the District's operating ratio will exceed 100% by the year 2021 while

maintaining at all times a cash reserve of \$30,000. By 2021, augmentation fees will have increased by a total of 433%. As a worst case scenario where FEMA and State reimbursements are no longer available to public agencies, augmentation fees would have to be increased by a total of 1300%. It is likely that the District would offset the majority of such an increase by selling C-BT shares to pay down the loan principal.

TABLE 4: FINANCIAL RATIOS

Financial Ratio	Past 3 Years	Future w/ Project (Without Reimbursements)	Future w/ Project (After Reimbursements)
Operating Ratio (revenues/expenses) weak: <100% - average: 100% - 120% - strong: >120%	84% (Weak) \$59K/\$70K	101% (Average) \$359K/\$356K	103% (Average) \$117K/\$114K
Debt Service Coverage Ratio (revenues-expenses)/debt service weak: <100% - average: 100% - 120% - strong: >120%	N/A	101% (Average) (\$359K-\$77K) \$279K	108% (Average) (\$117K-\$77K) \$37K
Cash Reserves to Current Expenses weak: <50% - average: 50% - 100% - strong: >100%	249% (Strong) \$174K/\$70K	8% (Weak) \$30K/356K	26% (Weak) \$30K/114K
Annual Operating Cost per Acre-Foot weak: >\$20 - average: \$10 - \$20 - strong: <\$10	\$290 (weak)* \$70K/240AF	\$1,495 (weak)* \$349K/240AF	\$490 (weak)* \$117K/240AF

* Annual Operating Cost ratios are intended for water delivery versus fully consumable augmentation water; therefore, "weak" status is not representative.

Collateral: As security for the loan, the District will pledge its water activity enterprise revenues backed by a rate covenant as evidenced by annual financial reporting. The District will also pledge C-BT units valued at a minimum of 110% of the final loan amount. This is in compliance with the CWCB Financial Policy #5 (Collateral).

cc: Sean Cronin, Executive Director, St. Vrain and Left Hand Water Conservancy District
 Susan Schneider/Jennifer Mele, Colorado Attorney General's Office

Attachment: Water Project Loan Program - Project Data Sheet

**CWCB Water Project Loan Program
Project Data Sheet**

Attachment to 14a

Borrower: St. Vrain and Left Hand Water
Conservancy District
Project Name: Emergency Rock'n WP Ranch
Lake No. 4 Repair Project
Drainage Basin: South Platte

County: Boulder

Project Type: Reservoir Rehabilitation

Water Source: St. Vrain Creek

Total Project Cost: \$9,000,000

Funding Source: Severance Tax Perpetual
Base Fund

Type of Borrower: Blended

Average Annual Augmentation: 200 AF

Preserved Water Supply Storage: 600 AF

CWCB Loan: \$4,545,000 (with 1% service fee)

Interest Rate: 3.2% **Term:** 30-years

(Ownership: 93% High Municipal, 7% Commercial)

During the unprecedented flood of September 2013 in the tributaries to the South Platte River, a significant number of diversion structures and dams along the river corridor were damaged including the District's Rock'n WP Ranch Lake No. 4. During the flood, St. Vrain Creek breached in over four locations above the Lake. The unlined gravel pits above the Lake were flooded, causing their earthen embankments to fail, sending flood water into the Lake. The Lake filled and eventually overtopped, breaching its eastern embankment. The purpose of the Project is to repair the Lake to resume its use as a water augmentation reservoir by the District. Boulder County is a co-owner of the Lake. As the County and the District are public agencies, it is expected that FEMA will reimburse 75% of the Project Cost and the State's Public Assistance Program will cover 12.5% under their respective emergency programs. The remaining cost of repairs will be evenly split with Boulder County.

