STATE OF COLORADO

Colorado Water Conservation Board
Department of Natural Resources
1313 Sherman Street, Room 721
Denver, Colorado 80203
Phone: (303) 866-3441
Fax: (303) 866-4474
www.cwcb.state.co.us

January 29, 2014

Mr. Leonard Arnold
Big Elk Meadows Association
P.O. Box 440
Lyons, Colorado 80540

Re: Emergency Raw Water Storage Repair Project C150391

Mr. Arnold:

I am pleased to inform you that on January 27, 2014, the Colorado Water Conservation Board approved your loan request for the Emergency Raw Water Storage Repair Project as described in the application and approved Loan Feasibility Study titled "*Emergency Loan Application and Feasibility Study*", dated November 30, 2013. The Board approved a loan not to exceed $1,515,000 ($1,500,000 for project costs and $15,000 for the 1% Loan Service Fee). The loan terms shall be three years of no interest followed by 27 years at a middle income-municipal interest rate of 2.75% per annum.

I have attached a copy of the updated Board memo dated January 29, 2014, that includes the Board's approval.

After the Board approves a loan there are a few steps that remain in the loan process including:

A) Contracting: An approved contract must be in place before funds can be disbursed. Peg Mason will contact you to initiate the loan contracting process for this project. When all of the contract conditions are met and the contract is executed the Association may request loan funds to cover eligible project expenses. You can reach Peg at (303) 866-3441 x3227.

B) Design/Construction: You must adhere to the CWCB Design and Construction Administration Procedures. Mike Serlet, P.E. will be the Project Manager for CWCB and will work with you on the disbursements of your loan funds. You can reach Mike at (303) 656-3720.

Collaboration: The Borrower is encouraged to consider rebuilding a river diversion system which improves the consumptive and nonconsumptive uses of the river corridor. Examples include improved fish passage, improved rafting/boating navigation, and possible shared ownership/use of a single diversion structure where possible. If needed, loan funds may be

used for the construction of temporary diversions until such time that a multi-beneficial structure can be designed and constructed.

On behalf of the Board, I would like to thank you for your interest in a loan from the Colorado Water Conservation Board.

Sincerely,

Kirk Russell, P.E., Chief
Finance & Administration Section
Colorado Water Conservation Board

Attachment: Updated Board Memo

E-mail Copy (Including Attachments)

Diane Hoppe, CWCB Board Member – South Platte River Basin
CWCB Finance Section Staff

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TO: Colorado Water Conservation Board Members

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

DATE: January 17, 2014 **(Updated January 29, 2014)**

SUBJECT: **Agenda Item 16b, January 27-28, 2014 Board Meeting**
Finance – Emergency Loans
Big Elk Meadows Association– Emergency Raw Water Storage Reconstruction Project

Introduction

The Big Elk Meadows Association (Association) is applying for an Emergency Loan for the Emergency Raw Water Storage Reconstruction 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. The Association's five raw water storage dams were destroyed as a result of this flood. The purpose of the Project is to rebuild the dams and measurement structures so the Association can restore the water supply to its Big Elk Meadows community and meet water accounting requirements. The total Project cost is estimated to be $1,900,000. See attached Project Data Sheet for a location map and project summary.

Staff Recommendation (Board approved Staff Recommendation on January 27, 2014)

Staff recommends the Board approve a loan not to exceed $1,515,000 ($1,500,000 for Project cost and $15,000 for the 1% service fee) to the Big Elk Meadows Association for 100% of engineering and construction costs related to the Emergency Raw Water Storage Reconstruction 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 middle-income municipal interest rate of 2.75% per annum. Security for the loan shall be in compliance with CWCB Financial Policy #5.

Additionally, staff recommends the following contract condition:

> 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

Big Elk Meadows is a community located between Lyons and Estes Park on the West Fork of the Little Thompson River (West Fork). The Association owns and maintains the raw water supply system, roadways, and common space within Big Elk Meadows. The raw water supply system includes five online reservoirs: Sunset Lake, Rainbow Lake, Willow Lake, Mirror Lake, and Meadow Lake. All lakes were formed by earthen dams. Meadow Lake Dam is classified by the State Engineer's Office (SEO) Dam Safety Branch, as a jurisdictional low hazard dam. The other four dams are classified as non-jurisdictional low hazard dams. The treated water system serving the community is owned and operated by the Big Elk Water Association (BEWA).

In 2011, the Association was approved for a CWCB loan (C150327) to replace the existing 6-inch outlet of Meadow Lake Dam with a 12-inch outlet pipe. This loan also provided funds to install flow meters at the upstream and downstream perimeter of Big Elk Meadows. This work was done to bring the Association into compliance with its 1995 augmentation decree and the SEO water accounting requirements. That project was substantially completed on February 1, 2013.

During the September 2013 flood, measured rainfall in and around Big Elk Meadows exceeded the 1,000-year Average Recurrence Interval for rainfall. Flow along the West Fork reached historic levels and resulted in the destruction of all five dams; both flow monitoring stations; the community's access road (CR-47); the majority of interior roads; and the water, power, and telephone services. Following the flood event the community was evacuated by military helicopters. Power was restored on November 8 and CR-47 opened for general access on December 13. However, until water service is restored, the community cannot fully return.

Loan Feasibility Study

Leonard Arnold, with Elk Ridge Consulting, prepared the Loan Feasibility Study titled "*Emergency Loan Application and Feasibility Study,*" dated November 30, 2013, with assistance from Park Engineering. The study includes an alternative analysis and preliminary engineering cost estimates. The feasibility study was prepared in accordance with the CWCB guidelines.

Borrower – Big Elk Meadows Association

The Association is a nonprofit corporation, formed August 2, 1966, and serves the Big Elk Meadows subdivision. The community, located 10 miles northwest of Lyons, includes 205 private lots and 163 residences distributed across 460 acres, and 198 acres of common space. Maximum build-out is not expected to exceed 172 residences. The Association is in good standing with the Colorado Secretary of State.

The Association is governed by a board of directors who exercise all the powers of the Association and levy assessments. Assessments are established by the membership each year. The owners of each lot are personally liable for the assessments and, when not paid, assessments become a lien upon the lot which may be foreclosed against. The primary sources of income are member assessments and a cost reimbursement from BEWA. This cost reimbursement is according to the fairshare agreement between the Association and BEWA. This agreement requires BEWA to reimburse a portion of operation and maintenance cost incurred by the Association when BEWA receives benefits of such cost.

Water Rights

The water rights impacted by this project include:

TABLE 1: IMPACTED WATER RIGHTS

Name	Amount	Appropriation Date	Adjudication Date
Rainbow Lake	28.13 AF	11/10/1952	12/31/1971
Mirror Lake	17.15 AF	11/10/1952	12/31/1971
Meadow Lake	32.30 AF	8/13/1953	12/31/1971
Willow Lake	22.00 AF	8/13/1953	12/31/1971
Sunset Lake	8.60 AF	8/13/1953	12/31/1971

Big Elk Meadows also has seven decreed wells (Case No. 1-W6464) and an augmentation plan to cover its out of priority depletions (Case No. 1-95CW238).

Project Description

The goal of the Project is to restore the community's raw water supply and meet the 1995 augmentation plan's water accounting requirements by reconstructing the five dams and two measurement structures that were destroyed by the September 2013 flood.

Alternative 1 – Do Nothing: This alternative is unacceptable. These reservoirs are the Big Elk Meadows community's water supply and augmentation source.

Selected Alternative 2 – Rebuild with Improvements: This alternative consists of reconstructing the five dams and two monitoring stations, resulting in 108.18 AF of restored water storage for drinking, fire protection, recreation, and downstream use. In addition to the dams, 3.75 miles of stream bed and associated riparian zones will be repaired. In general, each of the five dams will be improved as they will be designed and built to current standards. Each dam was originally built with an upstream slope of approximately 2H:1V and a downstream slope of approximately 1.5H:1V. The dams will be redesigned and reconstructed with all slopes flattened to current standards of 3H:1V. Additionally, the designs will ensure each spillway is adequately sized and will provide for improved water control on each dam's outlet pipe.

The projects will be phased in order of importance and are as follows:

TABLE 2: PROJECT PHASING

Phase	Task	SEO Classification	Storage Size	Notes
1	(2) Monitoring Stations	-	-	Required for water accounting.
	Mirror Lake Dam	Non-Jurisdictional, Low Hazard	17 AF	Connected to water treatment plant (intake to be enlarged). Access road over dam.
	Rainbow Lake Dam	Non-Jurisdictional, Low Hazard	28 AF	Largest storage above water treatment plan intake.
2	Meadow Lake Dam	Jurisdictional, Low Hazard	32 AF	Most downstream reservoir. Releases water for downstream users.
3	Willow Lake Dam	Non-Jurisdictional, Low Hazard	22 AF	Above water treatment plant.
4	Sunset Lake Dam	Non-Jurisdictional, Low Hazard	9 AF	Above water treatment plant.

The estimated engineering and construction cost of this Alternative is $1,900,000 and is further broken down in Table 3. The Association has been approved for two grants through the CWCB/Northern emergency grant program totaling $45,000. FEMA has classified the five dams as critical infrastructure; accordingly, up to 75% of the cost associated with the dams should be reimbursable through FEMA. In an unforeseen event where FEMA funds become unavailable, the Association's members have agreed to cap the CWCB loan at $1.5 million and fund the balance with a special assessment. This $1.5 million loan request will allow the Association to partially use the loan as a bridge loan to cover expenses before FEMA funds are reimbursed. Included in Table 3 is the estimated FEMA contribution and resulting loan balance. FEMA amounts are shown for informational purposes only and the final loan amount is subject to actual reimbursements.

TABLE 3: PROJECT COST SUMMARY

Task	Cost	Estimated FEMA Contribution	Estimated Association Responsibility
Engineering & Permitting	$170,000	$123,750	$46,250
Phase 1 Construction	$572,000	$376,500	$195,500
Phase 2 Construction	$427,000	$320,250	$106,750
Phase 3 Construction	$290,500	$217,875	$72,625
Phase 4 Construction	$240,500	$180,375	$60,125
Subtotal	$1,700,000	$1,218,750	$481,250
Contingency	$200,000	$146,550	$53,450
Total	$1,900,000	$1,365,300	$534,700

Schedule: Design has already commenced and construction will begin as soon as possible. The Association has set a July 2014 goal to complete Rainbow and Mirror Lake (and water distribution repairs) which will allow residences to return. Total Project completion is projected to occur by February 2016.

Financial Analysis

Table 4 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 middle-income interest rate of 2.75% with the principal amortized over 27 years. Staff is recommending an exemption to Financial Policy #11 to allow for 100% funding of eligible Project cost.

In addition to the dams and monitoring stations, extensive work will also be required on the water distribution system, interior roads, and general repairs. The water distribution system is estimated to require $1,600,000 in repairs, of which FEMA will provide 75% reimbursement. BEWA has applied for a Small Business Authority (SBA) emergency loan to serve as a bridge loan for water distribution repairs. This will allow BEWA to fund its 25% match of $400,000 through a special assessment spread over three years ($818 per homeowner per year). Therefore this SBA bridge loan is not included in the future financial ratios in Table 7. The Association has separately been approved for a $247,500 loan through the SBA to fund its interior roads and general repair projects. This loan is included in the future financial ratios in Table 7.

TABLE 4: FINANCIAL SUMMARY

	Without FEMA Funds	Estimated after FEMA Funds
Total Project Cost	$1,900,000	$1,900,000
Borrower Match or FEMA Contribution	$355,000	$1,365,300
CWCB/Northern Grant	$45,000	$45,000
CWCB Loan Amount	$1,500,000	$489,700
CWCB Loan Amount (Including 1% Service Fee)	$1,515,000	$504,700
CWCB Annual Loan Payment	$80,231	$26,728
CWCB Loan Obligation (Including 10% Reserve)	$88,254	$29,401
Number of Association Members	163	163
Annual Cost Per Homeowner for Emergency CWCB Loan	$541	$180
Annual Cost Per Homeowner for 2011 CWCB Loan	$103	$103
Annual Cost Per Homeowner for Emergency SBA Loan	$7	$7
Special Assessment for Borrower Match	$2,178	NA
Current Association Dues (Annual)	$1,471	$1,471
Future Association Dues (Annual)	$2,041	$1,681
Project Cost per AF recovered (108 AF)	$17,600	$17,600

TABLE 5: PROJECTED RECOVERY FUNDING

Activity	Project Cost	Loan	Special Assessment	Northern Grant	FEMA	Authority Annual Obligation
Dam Reconstruction	$1,900,000	$489,700 (CWCB)	-	$45,000	$1,365,300 (FEMA)	$29,401
Water Distribution	$1,600,000	-	$400,000	-	$1,200,000 (FEMA)	-
Roads & Office Repair	$247,500	$247,500 (SBA)	-	-	-	$1,045
TOTAL	$3,747,500	$737,200	$400,000	$45,000	$2,565,300	$30,446

Creditworthiness: The Association has three loans with a total of $343,421 in existing debt. These loans are in good standing. The first payment on CWCB Loan C150327 is due on February 1, 2014. To provide much needed capital to address the flood emergency, the Association is seeking a three year deferment of this loan under Agenda Item 17a of this Board Meeting.

TABLE 6: EXISTING DEBT

Lender	Original Balance	Current Balance	Annual Payment	Maturity Date	Collateral
CWCB (Contract C150327)	$272,700	$272,700	$16,741	2043	Assessment Revenues, 40-acre parcel.
Private Party	$90,000	$62,167	$12,048	2019	Unsecured
Wright Water Engineers	$24,994	$8,554	$13,128	2014	Unsecured

TABLE 7: FINANCIAL RATIOS

Financial Ratio	Past 3 Years	Future* w/ Project ($1.5M Loan)	Future* w/ Project & FEMA Funds
Operating Ratio (revenues/expenses) weak: <100% - average: 100% - 120% - strong: >120%	104% (Average) $340K/$326K	103% (Average) $433K/$419K	104% (Average) $374K/$360K
Debt Service Coverage Ratio (revenues-expenses)/debt service weak: <100% - average: 100% - 120% - strong: >120%	156% (Strong) $340K-$301K $25K	122% (Average) $445K-$301K $118K	124% (Average) $374K-$301K $59K
Cash Reserves to Current Expenses weak: <50% - average: 50% - 100% - strong: >100%	7% (Weak) $21.7K/$326K	5% (Weak) $21.7K/$419K	6% (Weak) $21.7K/$360K
Debt Per Tap (total debt/homeowners) weak: >$5,000 - average: $2,500 - $5,000 - strong: <$2,500	$2,100 (Strong) $343K/163	$12,600 (Weak) $2.05M/163	$6,400 (Weak) $1.04M/163

** Includes: Emergency CWCB loan, SBA emergency loan, 2011 CWCB Loan, and existing Private Party loan*

Collateral: As security for the loan, the Association will pledge its assessment revenues backed by a rate covenant, and the Project itself. Additionally, the Association is willing to pledge up to 160-acres of land within Big Elk Meadows. This pledge of land will be amended as necessary to cover 110% of the final loan amount after the Project is completed and FEMA reimbursements have been applied. This is in compliance with the CWCB Financial Policy #5 (Collateral).

cc: Roger Vesely, President, Big Elk Meadows Association
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

C150391

Borrower: Big Elk Meadows Association

County: Boulder/Larimer

Project Name: Emergency Raw Water Storage Repair Project

Project Type: Reservoir Rehabilitation

Drainage Basin/ District: South Platte / 4

Water Source: West Fork of the Little Thompson River

Total Project Cost: $1,900,000

Funding Source: Severance Tax PBF

Type of Borrower: Middle-Income Municipal

Water Storage: 108 AF

CWCB Loan: $1,515,000 (with 1% service fee)

Interest Rate: 2.75% **Term:** 30-years

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. Measured rainfall in and around Big Elk Meadows exceeded the 1,000-year Average Recurrence Interval for rainfall. Flow along the West Fork reached historic levels and resulted in the destruction of all five dams; both flow monitoring stations; the community's access road (CR-47); the majority of interior roads; and the water, power, and telephone services. The purpose of this project is to restore the community's water supply by reconstructing the five dams and two monitoring stations.