

COLORADO WATER CONSERVATION BOARD
Finance Committee Agenda
11:00 pm - 3:30 pm
Tuesday, September 17, 2019
Alamosa, Colorado

11:00am	1. CWCB Funds Overview
	<ol style="list-style-type: none"> 1. History 2. 2019 Projects Bill Fact Summary Sheet 3. Funds Status, Performance, & Projections 4. Severance Tax Revenue Projections Update 5. Funds Available for 2020 Projects Bill <ol style="list-style-type: none"> a. Financial Policy #13 - Target Growth Rates
12:00 Working Lunch	2. Non-Reimbursable Project Investment Applications (Funding Table)
	<ol style="list-style-type: none"> 1. Satellite Monitoring - Continuation 2. Colorado Floodplain Map Modernization Program - Continuation 3. Weather Modification Permitting Program - Continuation 4. Colorado Mesonet Project - Continuation 5. Lidar Acquisition - Continuation 6. Litigation Fund (Budget for AG's) - Refresh 7. Arkansas River DSS - Continuation 8. CDSS Operations & Maintenance - Continuation 9. Water Forecasting - Continuation 10. Fish & Wildlife Resource Fund - Refresh 11. Water Loss Control Initiative Ph II - Continuation 12. Arkansas Valley Conduit Project Funding 13. Water Plan Implementation Funding - Continuation
1:00	3. Large Project Loans
	<ol style="list-style-type: none"> 1. Southeast Colorado Water Conservancy District - Arkansas Valley Conduit Project - New Loan 2. Pueblo Conservancy District - Arkansas River and Wildhorse Creek Levee Loan Increase
1:30	4. Changes to Statutes, Policies and Procedures of CWCB
	<ol style="list-style-type: none"> 1. Disbursement of Grant Funds (New Policy Consideration) 2. Funding Approval Levels (New Policy Consideration) 3. WSRF Criteria & Guidelines
3:00	5. Project Updates
	<ol style="list-style-type: none"> 1. ALP Ownership Status and Sale 2. Chatfield Reservoir Reallocation Sale
3:20	6. Misc. Funding Discussion
	<ol style="list-style-type: none"> 1. Loan Guarantee Fund
3:30	Adjourn



COLORADO

Colorado Water Conservation Board

Department of Natural Resources

1313 Sherman Street
Denver, CO 80203

P (303) 866-3441
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Jared Polis, Governor

Dan Gibbs, DNR Executive Director

Rebecca Mitchell, CWCB Director

TO: Finance Committee

FROM: Kirk Russell, PE Finance Section Chief

DATE: September 17, 2019 Finance Committee Meeting

ITEM: 1. CWCB Funds Overview

This will provide the Board with an overall review of the Construction Fund and the Severance Tax Perpetual Base Fund. It will include past performance and a review of the funds available for future requests for loans and legislative approval for Non-Reimbursable Investments.

This is an outline of the items to be presented:

1. History of Funds
2. The 2019 Projects Bill Fact Sheet & Signed Bill
3. Funds Status, Performance & Projections
4. Severance Tax Revenue Projections Update
5. Funds Available for 2020 Projects Bill
 - a. Financial Policy #13 - Target Growth Rates



COLORADO WATER CONSERVATION BOARD

Department of Natural Resources

Jared Polis, Governor

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SENATE BILL SB19-221

THE 2019 WATER PROJECTS BILL

Background

The General Assembly annually authorizes water projects from the Construction Fund and the Severance Tax Perpetual Base Fund. The CWCB provides low-interest loans to domestic and agricultural water providers for water supply projects. These revolving loan funds generate interest earning that are used for CWCB operations, programs, projects and grants to help implement the Colorado Water Plan. To date, over 600 loans have helped finance engineering, construction, and the purchase of water.

The CWCB is celebrating the third anniversary of Colorado's Water Plan. This Bill includes several projects and programs that will help implement the Plan including consumptive and non-consumptive projects and activities throughout the state.

The **Construction Fund** was created in 1971 to provide low-interest loans for water projects and provide monies for non-reimbursable investments. The Fund is a revolving loan fund that allows the CWCB to operate without money from the state's General Fund. Revenues come from interest earnings and royalty distributions from federal mineral leases.

The **Severance Tax Perpetual Base Fund** was established by the General Assembly in 1997. The Fund is a revolving loan fund that receives revenues from interest earnings and from severance taxes paid by the producers of gas, oil, coal and other minerals. In early FY17/18 a majority of Severance Tax revenues were needed to pay refunds to oil and gas producers as a result of the BP America Supreme Court ruling in the spring of 2016. This has caused CWCB to reconsider funding commitments and strategically plan for a future with less Severance Tax revenue.

Small Project Loan Report - A report detailing the 12 loans made in calendar year 2018, providing over \$15 million, was submitted the the General Assembly on January 7th 2019. A copy of the report will be available on the legislative website at www.colorado.gov.

Loan interest rates are adjusted bi-monthly by CWCB. The rates mid-year 2018 were:

- 1.70 % for agricultural loans and
- 2.40% to 3.10% for municipal loans 6.0% for commercial loans
- 2.0% for hydroelectric projects



COLORADO

Colorado Water
Conservation Board

Department of Natural Resources

2019 Bill Highlights

Provides \$40 million focusing on Implementation of Colorado's Water Plan. Including: Water storage, Watershed health, Environment and Recreation, Flood control/mitigation, Monitoring streams, Conservation, Innovation, Preserving agriculture, Flood hazard mapping, Water Plan updates, Feasibility studies, Loans, and other programs and projects.

For more information, contact
Doug Vilsack, DNR Legislative
Liaison (303) 866-3311 ext. 8664

Colorado Water Conservation Board
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The CWCB accepts applications for non-reimbursable project investments and project loans over \$10 million on August 1st of each year. Applications include programs, projects or activities of statewide impact or importance and are considered by the Board for inclusion in the annual Water Projects Bill.

Non-Reimbursable Project Investments			
Section 1. Satellite Monitoring (Continuation)	Appropriates funds to install, maintain, and operate satellite monitored stream gauges and lysimeters for water rights administration and data collection, as statutorily authorized.	Statewide	\$380,000
Section 2. Floodplain Map Modernization Program (Continuation)	Assists communities to revise and improve floodplain studies and maps. Provides the required non-federal matching dollars that are further leveraged by local cost share and in-kind services. This Program leverages four million dollars in local and federal funds annually.	Statewide	\$500,000
Section 3. Weather Modification Permitting Program (Continuation)	Assists water conservation and conservancy districts with the development of cloud seeding programs to provide benefits to recreation, streams, and reservoirs through snowpack enhancement. This Program leverages about one million dollars in local and out of state annually.	Statewide	\$175,000
Section 4. Colorado Mesonet Project (Continuation)	This project will provide funding for operation, maintenance, travel, communications, database and website management for temperature and precipitation stations referred to as the Colorado Mesonet, previously managed and operated by NOAA and currently operated by the Colorado Climate Center at CSU.	Statewide	\$150,000
Section 5. In-Stream Flow Engineering Support Services (Continuation)	This funding will assist staff in conducting technical analysis and expert testimony to resolve or defend existing in-stream flow water rights, establish new in-stream flow appropriations, and change the use of acquired water rights for in-stream flow use.	Statewide	\$250,000
Section 6. Lidar Acquisition (Continuation)	High quality topographic data is necessary to develop accurate FEMA flood hazard mapping. Additionally, the Colorado Hazard Mapping program relies on high quality elevation data for debris flow mapping and fluvial hazard mapping. The FEMA funds can be leveraged through the U.S. Geological Survey (USGS) 3D Elevation Program.	Statewide	\$200,000
Section 7. Technical Assistance Grants for CRSP MOA	This funding will assist Project Beneficiaries in the state of Colorado by providing technical assistance funding to advance projects through the design phase so the state can be in a better position for its fair share of Colorado River Storage Project Act (CRSP) funding via the Memorandum of Agreement (MOA).	Colorado River Basin	\$200,000

Section 8. Restoration of Litigation Fund Cash Balance	Restore the CWCB Litigation Fund to \$2,000,000 to assist in addressing legal issues associated with compact compliance or any other litigation activities as defined under section 37-60-121 C.R.S.	Statewide	Up to 2,000,000
Section 9. Supplemental Funding Transfer to WSRF	\$2.5M transfer from Construction Fund to the Water Supply Reserve Fund on June 30, 2019 for supplemental funding to support implementation of the Colorado Water Plan.	Statewide	2,500,000
Section 10. Colorado Water Plan Implementation Funding (Continuation)	<p>Appropriates \$17.5M in grant making from the Construction Fund to support the implementation of the Colorado Water Plan by funding the following activities:</p> <ul style="list-style-type: none"> • \$4M for the Watershed Restoration program funding; • \$1.5M for Environmental, and Recreational projects; • \$1.0M to provide technical assistance, project, or program funding for agricultural projects; • \$1.0M to provide continued funding for the Alternative Agricultural (ATM) Grant Program as developed under SB07-122 as an effort to alternatives to permanent dry-up of agricultural lands; • \$0.5M for grants for Water Education, Outreach, and Innovation efforts; • \$1.0M for grant funding to implement long-term strategies for conservation, land use, and drought planning; • \$3M to facilitate the development of additional storage, artificial recharge into aquifers, and dredging existing reservoirs to restore the reservoirs' full decreed storage capacity for multi-beneficial projects and those projects identified in basin implementation plans to address the water supply and demand gap; • \$5.5M to update Basin Implementation Plans for each of the nine basin roundtables, improve basin data collection and metrics for tracking state water plan implementation, and for use of the data for future updates to the state's Water Plan. 	Statewide	\$17,500,000
Large Water Project Loan Authorizations (> \$10 million)			
Section 11. Walker Recharge Project	<p>The Project is a water supply retiming effort using the alluvial aquifer of the South Platte River. The Project will develop a water supply that can be used to increase irrigation opportunities for agricultural production within its service area by providing augmentation credits that can be used to increase the well pumping quotas of GMS and WAS, and to increase water leasing opportunities of CCWCD. The total Project cost is estimated to be \$18,164,000.</p> <p>This request is for authorization of three loans in support of this Project. The loans will be made available to:</p> <ul style="list-style-type: none"> • Central Colorado Water Conservancy District (CCWCD) \$2,272,500 • Well Augmentation Subdistrict of Central Colorado Water Conservancy District (WAS) \$3,030,000 • Groundwater Management Subdistrict of Central Colorado Water Conservancy District (GMS) \$9,847,500 	South Platte	\$15,150,000 (Sev Tax)

Other Provisions

Session Law Revision: Revision to SB18-218(Section 18) Republican river matters

Allows funds to remain available until they are fully expended. **(Section 12)**

Statutory Revision: Revision to the Colorado Revised Statutes CRS 37-60-122.7 - Feasibility study small grant fund

To automatically restore the unencumbered balance in the fund to \$500,000 annually. **(Section 13)**

Statutory Revision: Revision to the Colorado Revised Statutes CRS 37-60-123.2 - Flood and drought response fund

To automatically restore the unencumbered balance in the fund to \$500,000 annually. **(Section 14)**

Statutory Revision: Revision to Colorado Revised Statutes CRS 39-29-109.5 - Severance tax trust fund

Change to single transfer on July 1, 2019 **(Section 15)**

An Act

SENATE BILL 19-221

BY SENATOR(S) Donovan, Bridges, Cooke, Coram, Court, Crowder, Fields, Ginal, Gonzales, Moreno, Pettersen, Priola, Scott, Sonnenberg, Story, Tate, Todd, Williams A., Winter, Zenzinger, Garcia;
also REPRESENTATIVE(S) Roberts, Arndt, Bird, Bockenfeld, Buck, Buckner, Buentello, Catlin, Cutter, Duran, Esgar, Exum, Gray, Hansen, Humphrey, Jackson, Kennedy, Liston, McCluskie, McKean, McLachlan, Michaelson Jenet, Pelton, Soper, Titone, Valdez D., Van Winkle, Will, Becker.

CONCERNING THE FUNDING OF COLORADO WATER CONSERVATION BOARD PROJECTS, AND, IN CONNECTION THEREWITH, MAKING AN APPROPRIATION.

Be it enacted by the General Assembly of the State of Colorado:

SECTION 1. Continuation of the satellite monitoring system operation and maintenance - appropriation. (1) For the 2019-20 state fiscal year, \$380,000 is appropriated to the department of natural resources for use by the division of water resources. This appropriation is from the Colorado water conservation board construction fund created in section 37-60-121, C.R.S. To implement this section, the division of water resources may use this appropriation for renovation of existing gauging

Capital letters or bold & italic numbers indicate new material added to existing law; dashes through words or numbers indicate deletions from existing law and such material is not part of the act.

stations; replacement of outdated collection platforms; lysimeter support, data collection, and maintenance; upgrading of transmission components of the satellite monitoring system established and operated pursuant to section 37-80-102 (10), C.R.S.; stream gauge flood hardening projects; and data collection efforts related to flood forecasting and warning.

(2) The money appropriated in subsection (1) of this section remains available for the designated purposes until it is fully expended.

SECTION 2. Continuation of the Colorado floodplain map modernization program - appropriation. (1) For the 2019-20 state fiscal year, \$500,000 is appropriated to the department of natural resources for use by the Colorado water conservation board. This appropriation is from the Colorado water conservation board construction fund created in section 37-60-121, C.R.S. To implement this section, the Colorado water conservation board may use this appropriation to continue to assist with the preparation of revised and improved floodplain studies and maps for communities throughout Colorado and participate in federally sponsored floodplain map modernization activities.

(2) The money appropriated in subsection (1) of this section remains available for the designated purposes until it is fully expended.

SECTION 3. Continuation of the weather modification permitting program - appropriation. (1) For the 2019-20 state fiscal year, \$175,000 is appropriated to the department of natural resources for use by the Colorado water conservation board. This appropriation is from the Colorado water conservation board construction fund created in section 37-60-121, C.R.S. To implement this section, the Colorado water conservation board may use this appropriation to continue to assist water conservation districts, water conservancy districts, and other water providers and their fiscal agents with the development of cloud seeding programs that provide benefits to recreation, streams, and reservoirs through snowpack enhancement.

(2) The money appropriated in subsection (1) of this section remains available for the designated purposes until it is fully expended.

SECTION 4. Continuation of the Colorado Mesonet project - appropriation. (1) For the 2019-20 state fiscal year, \$150,000 is

appropriated to the department of natural resources for use by the Colorado water conservation board. This appropriation is from the Colorado water conservation board construction fund created in section 37-60-121, C.R.S. To implement this section, the Colorado water conservation board may use this appropriation to support the Colorado Mesonet, including for the following activities: Operation, maintenance, travel, communications, and database and website management for temperature and precipitation stations.

(2) The money appropriated in subsection (1) of this section remains available for the designated purposes until it is fully expended.

SECTION 5. Continuation of instream flow engineering support services - appropriation. (1) For the 2019-20 state fiscal year, \$250,000 is appropriated to the department of natural resources for use by the Colorado water conservation board. This appropriation is from the Colorado water conservation board construction fund created in section 37-60-121, C.R.S. To implement this section, the Colorado water conservation board may use this appropriation to assist staff in conducting technical analysis and providing expert testimony to resolve or defend existing instream flow water rights, establish new instream flow appropriations, and change the use of acquired water rights for instream flow use.

(2) The money appropriated in subsection (1) of this section remains available for the designated purposes until it is fully expended.

SECTION 6. Acquisition of LIDAR data - appropriation. (1) For the 2019-20 state fiscal year, \$200,000 is appropriated to the department of natural resources for use by the Colorado water conservation board. This appropriation is from the Colorado water conservation board construction fund created in section 37-60-121, C.R.S. To implement this section, the Colorado water conservation board may use this appropriation to acquire high-quality elevation data to develop accurate flood hazard, debris flow, and fluvial hazard mapping.

(2) The money appropriated in subsection (1) of this section remains available for the designated purposes until it is fully expended.

SECTION 7. Technical assistance grants for Colorado River Storage Project Act beneficiaries - appropriation. (1) For the 2019-20

state fiscal year, \$200,000 is appropriated to the department of natural resources for use by the Colorado water conservation board. This appropriation is from the Colorado water conservation board construction fund created in section 37-60-121, C.R.S. To implement this section, the Colorado water conservation board may use this appropriation to provide technical assistance grants to aid beneficiaries of the federal "Colorado River Storage Project Act" in the state of Colorado with the aim of advancing these projects through the design phase.

(2) The money appropriated in subsection (1) of this section remains available for the designated purposes until it is fully expended.

SECTION 8. Restoration of litigation fund cash balance - transfer. On July 1, 2019, the state treasurer shall transfer the sum of \$2,000,000, or so much thereof as may be necessary to restore the balance of the litigation fund to \$2,000,000, from the unreserved cash in the Colorado water conservation board construction fund created in section 37-60-121, C.R.S., to the litigation fund created in section 37-60-121 (2.5), C.R.S., to assist in addressing legal issues associated with compact compliance or any other litigation activities as specified under section 37-60-121, C.R.S.

SECTION 9. Water supply reserve fund - transfer. On June 30, 2019, the state treasurer shall transfer the sum of \$2,500,000 from the unreserved cash in the Colorado water conservation board construction fund created in section 37-60-121, C.R.S., to the water supply reserve fund created in section 39-29-109 (2)(c), C.R.S.

SECTION 10. Continuation of the Colorado water plan - appropriation. (1) For the 2019-20 state fiscal year, \$17,500,000 is appropriated to the department of natural resources for use by the Colorado water conservation board. This appropriation is from the unreserved cash in the Colorado water conservation board construction fund created in section 37-60-121, C.R.S. To implement this section, the Colorado water conservation board may use this appropriation to finance grant-making, studies, programs, or projects that assist in implementing the state water plan adopted pursuant to section 37-60-106.3, C.R.S., including the following:

(a) Up to \$4,000,000 to provide planning and engineering studies,

including implementation measures, to address technical needs for watershed restoration and flood mitigation projects throughout the state, aquatic habitat protection, flexible operations for multiple uses, restoration work, quantification of environmental flow needs, and monitoring efforts to support watershed health goals outlined in the Colorado water plan;

(b) Up to \$3,000,000 to facilitate the development of additional storage, artificial recharge into aquifers, and dredging existing reservoirs to restore the reservoirs' full decreed storage capacity for multi-beneficial projects and those projects identified in basin implementation plans to address the water supply and demand gap;

(c) Up to \$1,000,000 to provide technical assistance, project, or program funding for agricultural projects;

(d) Up to \$1,000,000 for grant funding to implement long-term strategies for conservation, land use, and drought planning;

(e) Up to \$500,000 for grants for water education, outreach, and innovation efforts;

(f) Up to \$1,500,000 for environmental and recreational projects;

(g) Up to \$1,000,000 to provide continued funding for the alternative agricultural grant program as developed under SB07-122, enacted in 2007; and

(h) Up to \$5,500,000 to fund updates to basin implementation plans for each of the nine basin roundtables, improve basin data collection and metrics for tracking state water plan implementation, and for use of the data for future updates to the state water plan.

(2) The money appropriated in subsection (1) of this section remains available for the designated purposes until it is fully expended.

SECTION 11. Walker recharge project - authorization. (1) The Colorado water conservation board is authorized to make loans of up to \$15,150,000 from the Colorado water conservation board construction fund for the Walker recharge project, a water supply retiming effort that uses the alluvial aquifer of the South Platte river to increase irrigation opportunities

for agricultural production. The following loans are authorized:

(a) Up to \$2,272,500 to the central Colorado water conservancy district;

(b) Up to \$3,030,000 to the well augmentation subdistrict of the central Colorado water conservancy district; and

(c) Up to \$9,847,500 to the groundwater management subdistrict of the central Colorado water conservancy district.

(2) The money authorized in subsection (1) of this section remains available for the designated purposes until it is fully expended.

(3) The Colorado water conservation board may make loans for the project specified in subsection (1) of this section from money that is or may become available to the Colorado water conservation board construction fund. The total amount of the loans will be in the amount listed in subsection (1) of this section plus or minus the amount, if any, as may be justified by reason of ordinary fluctuations in construction costs as indicated by the engineering cost indices applicable to the types of construction required for the project or as may be justified by reason of changes in the plans for the project due to differing or unforeseen site conditions, errors or omissions in the plans and specifications, changes instituted by regulatory agencies, or changes in material quantities beyond contract limits.

SECTION 12. In Session Laws of Colorado 2018, **amend** section 18 (2) of chapter 336, (SB18-218), as follows:

Section 18. **Republican river matters - appropriation.** (2) The money appropriated in subsection (1) of this section remains available for the designated purposes ~~through June 30, 2019~~ UNTIL IT IS FULLY EXPENDED.

SECTION 13. In Colorado Revised Statutes, 37-60-122.7, **amend** (5)(b) as follows:

37-60-122.7. Feasibility study small grant fund - creation. (5)(b) ON JULY 1, 2019, AND ON EACH JULY 1 THEREAFTER, IN ADDITION TO ANY REMAINING BALANCE IN THE FUND AT THE END OF THE FISCAL YEAR, the

state treasurer is hereby authorized and directed to ANNUALLY transfer ~~two~~ UP TO FIVE hundred thousand dollars from the Colorado water conservation board construction fund to the feasibility study small grant fund TO RESTORE THE UNENCUMBERED BALANCE IN THE FEASIBILITY STUDY SMALL GRANT FUND TO FIVE HUNDRED THOUSAND DOLLARS. The ~~moneys~~ MONEY in the feasibility study small grant fund ~~are~~ IS hereby continuously appropriated to the board for grants in compliance with this subsection (5). All interest derived from the investment of ~~moneys~~ MONEY in the feasibility study small grant fund shall be credited to the Colorado water conservation board construction fund. Any balance remaining in the feasibility study small grant fund at the end of any fiscal year shall remain in the fund and shall not revert to the Colorado water conservation board construction fund.

SECTION 14. In Colorado Revised Statutes, 37-60-123.2, **amend** (1) as follows:

37-60-123.2. Flood and drought response fund - created.
(1) There is hereby created in the state treasury the flood and drought response fund, referred to in this section as the "response fund". ON JULY 1, 2019, AND ON EACH JULY 1 THEREAFTER, IN ADDITION TO ANY REMAINING BALANCE IN THE RESPONSE FUND AT THE END OF THE FISCAL YEAR, THE STATE TREASURER IS HEREBY AUTHORIZED AND DIRECTED TO ANNUALLY TRANSFER UP TO FIVE HUNDRED THOUSAND DOLLARS FROM THE COLORADO WATER CONSERVATION BOARD CONSTRUCTION FUND TO THE RESPONSE FUND TO RESTORE THE UNENCUMBERED BALANCE IN THE RESPONSE FUND TO FIVE HUNDRED THOUSAND DOLLARS. The board is authorized to provide funding for flood and drought preparedness and for response and recovery activities following flood or drought events and disasters. The ~~moneys~~ MONEY in the response fund ~~are~~ IS hereby continuously appropriated to the board for flood and drought response purposes, including the immediate availability of funds for aerial photography of flooded areas, flood and drought documentation and identification of specific hazards, evaluations and revisions of floodplain designations and drought-prone areas, flood and drought forecasting and preparation, and development of disaster and recovery mitigation plans. The state treasurer shall credit all interest derived from the investment of ~~moneys~~ MONEY in the response fund to the Colorado water conservation board construction fund. Any balance remaining in the response fund at the end of any fiscal year remains in the fund.

SECTION 15. In Colorado Revised Statutes, 39-29-109, **amend** (2)

introductory portion and (2)(a)(XVI) as follows:

39-29-109. Severance tax trust fund - created - administration - distribution of money - repeal. (2) State severance tax receipts shall be credited to the severance tax trust fund as provided in section 39-29-108. ~~Except as otherwise set forth in section 39-29-109.5,~~ All income derived from the deposit and investment of the money in the fund shall be credited to the fund. At the end of any fiscal year, all unexpended and unencumbered money in the fund remains in the fund and shall not be credited or transferred to the general fund or any other fund. All money in the fund is subject to appropriation by the general assembly for the following purposes:

(a) **The severance tax perpetual base fund.**
(XVI) (A) Notwithstanding any provision of this subsection (2)(a) to the contrary, on July 1, 2017, ~~and each year thereafter on July 1, 2019,~~ the state treasurer shall transfer ten million dollars from the fund to the Colorado water conservation board construction fund, created in section 37-60-121 (1)(a), for use by the Colorado water conservation board, created in section 37-60-102, for the board to fund studies, programs, or projects that assist in implementing the state water plan adopted pursuant to section ~~37-60-106~~ (1)(a) 37-60-106.3.

(B) THIS SUBSECTION (2)(a)(XVI) IS REPEALED, EFFECTIVE SEPTEMBER 1, 2020.

SECTION 16. Safety clause. The general assembly hereby finds,

determines, and declares that this act is necessary for the immediate preservation of the public peace, health, and safety.



Leroy M. Garcia
PRESIDENT OF
THE SENATE



KC Becker
SPEAKER OF THE HOUSE
OF REPRESENTATIVES



Cindi L. Markwell
SECRETARY OF
THE SENATE

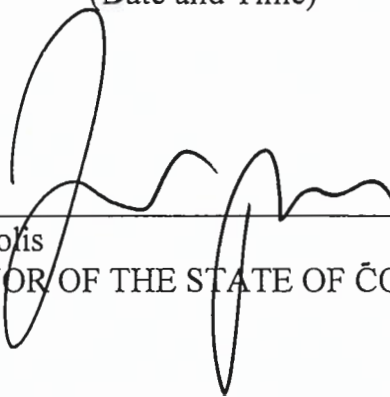


Marilyn Eddins
CHIEF CLERK OF THE HOUSE
OF REPRESENTATIVES

APPROVED

Jun 3, 2019 at 11:10 A.M.

(Date and Time)



Jared S. Polis
GOVERNOR OF THE STATE OF COLORADO

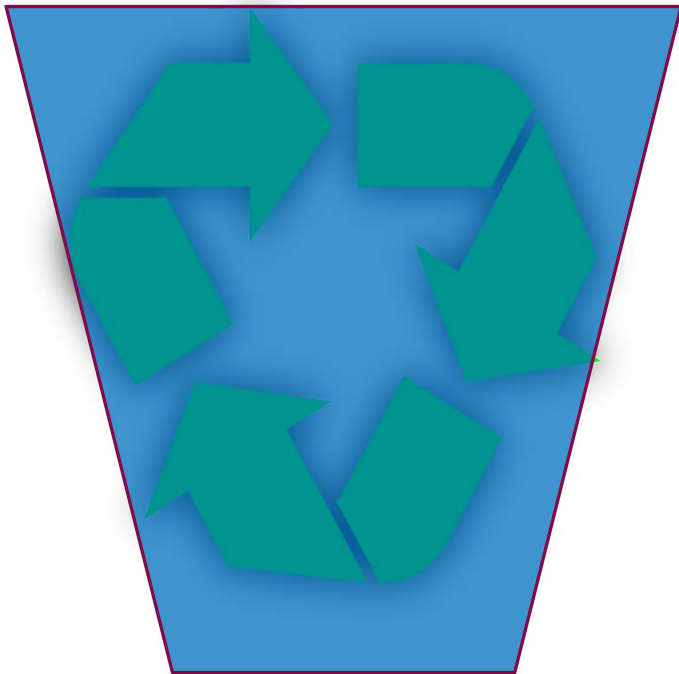


COLORADO
Colorado Water
Conservation Board
Department of Natural Resources

By the Numbers



Construction Fund & Severance Tax Perpetual Base Fund



\$950M CWCB's Fund Equity

\$40M Average Sev Tax rev. (last 5 yrs)

\$30M Average P&I that is received (about
1/2 is interest earnings)

\$10M Average FML rev (last 10 years)

\$10M to Operate CWCB

\$40M Average new loans (\$50M last yrs)

Colorado Water Conservation Board
Sept 17, 2019 Finance Committee Meeting

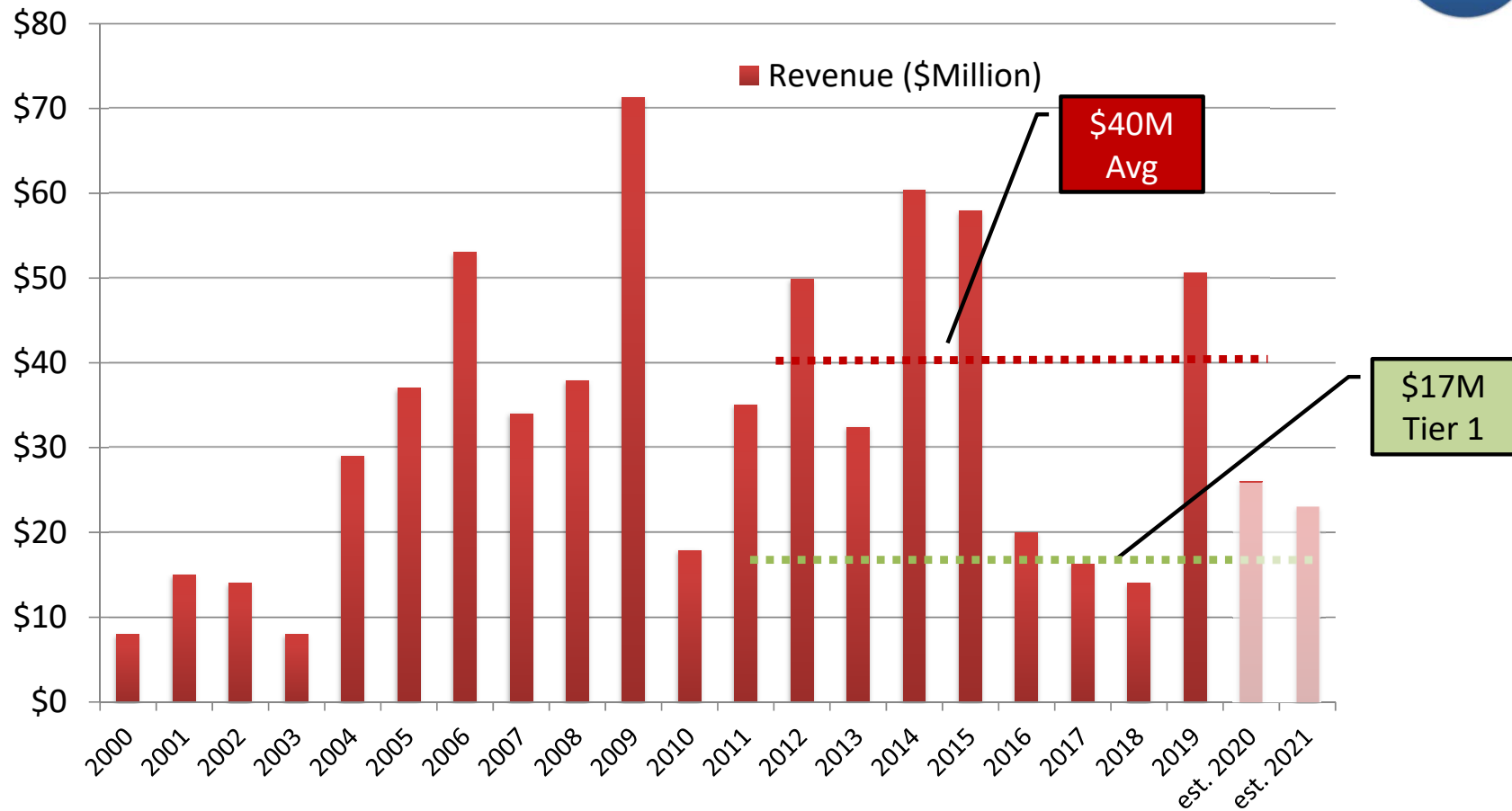
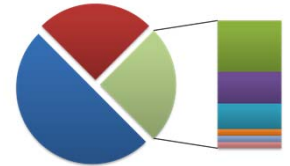
Projections and Budget through FY22/23

FY 20/21					
Construction Fund		Severance Tax PBF			
+ \$	10.4	Est. Available 7/1/20	+ \$	10.6	Est. Available 7/1/20
+ \$	15.0	Loan Prin/Int/Treas/Reversals	+ \$	15.0	Loan Prin/Int/Treas/Reversals
+ \$	11.5	Federal Mineral Lease (6/19 Projections)	+ \$	23.0	Sev Tax (6/19 Projections)
\$	36.9		\$	48.6	
- \$	10.0	Projected New CF Loans	- \$	30.0	Projected New ST Loans
- \$	11.0	20/21 Operations & Auto Refreshes	-		
- \$	5.0	21/22 NRI/Programs/Projects	- \$	10.0	Water Plan Project Funding
\$	26.0		\$	40.0	
\$	10.9	Estimated Balance on 7/1/21	\$	8.6	Estimated Balance on 7/1/21
			\$	19.5	Total Balance on 7/1/21
FY 21/22					
Construction Fund		Severance Tax PBF			
+ \$	10.9	Est. Available 7/1/21	+ \$	8.6	Est. Available 7/1/21
+ \$	15.0	Loan Prin/Int/Treas/Reversals	+ \$	15.0	Loan Prin/Int/Treas/Reversals
+ \$	10.0	Federal Mineral Lease (No Projection)	+ \$	40.0	Sev Tax (No Projections)
\$	35.9		\$	63.6	
- \$	10.0	Projected New CF Loans	- \$	50.0	Projected New ST Loans
- \$	11.0	21/22 Operations & Auto Refreshes	-		
- \$	5.0	22/23 NRI/Programs/Projects	- \$	10.0	Water Plan Project Funding
\$	26.0		\$	60.0	
\$	9.9	Estimated Balance on 7/1/22	\$	3.6	Estimated Balance on 7/1/22
			\$	13.5	Total Balance on 7/1/22
FY 22/23					
Construction Fund		Severance Tax PBF			
+ \$	9.9	Est. Available 7/1/22	+ \$	3.6	Est. Available 7/1/22
+ \$	15.0	Loan Prin/Int/Treas/Reversals	+ \$	15.0	Loan Prin/Int/Treas/Reversals
+ \$	10.0	Federal Mineral Lease (No Projection)	+ \$	40.0	Sev Tax (No Projections)
\$	34.9		\$	58.6	
- \$	10.0	Projected New CF Loans	- \$	40.0	Projected New ST Loans
- \$	11.0	22/23 Operations & Auto Refreshes	-		
- \$	5.0	23/24 NRI/Programs/Projects	- \$	10.0	Water Plan Project Funding
\$	26.0		\$	50.0	
\$	8.9	Estimated Balance on 7/1/23	\$	8.6	Estimated Balance on 7/1/23
			\$	17.5	Total Balance on 7/1/23

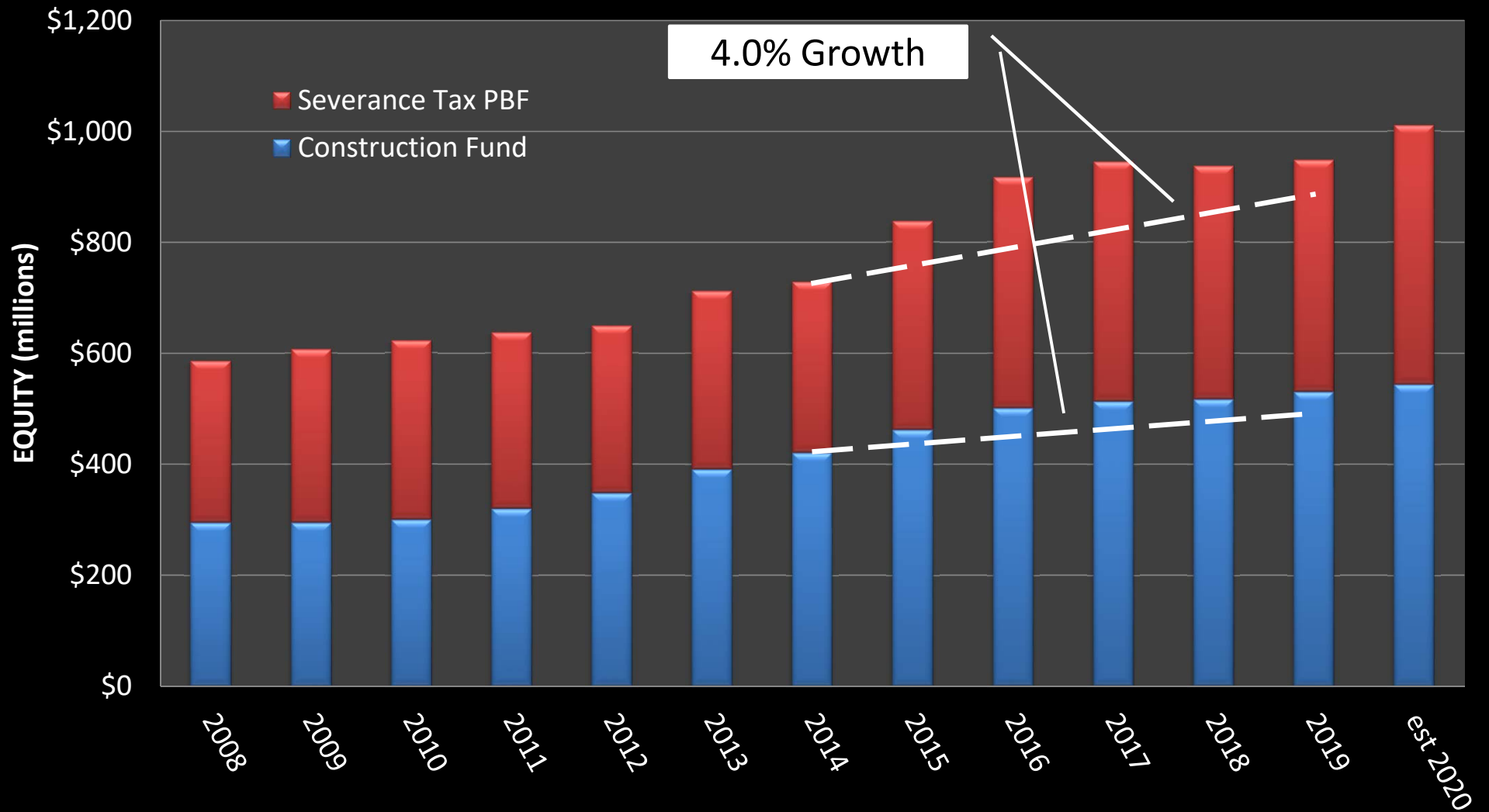
Kirk Russell, Finance Section Chief
September 17, 2019

Severance Tax Volatility

Showing 25% of Revenue (\$Million)



CWCB's Fund Equity



POLICY NUMBER: 13

SUBJECT: **TARGET GROWTH RATES FOR THE EQUITY OF THE
CONSTRUCTION FUND AND SEVERANCE TAX
PERPETUAL BASE FUND**

EFFECTIVE DATE: October 1, 2000

REVISED DATES: January 27, 2004
September 14, 2004
November 18, 2015

POLICY: The Colorado Water Conservation Board (CWCB) will attempt to maintain an overall growth rate for the equity of the Construction Fund (CF) and Severance Tax Perpetual Base Fund (Sev. Tax Fund). CWCB shall grow the Construction Fund at the rate of return on the interest rates invested in water projects throughout the state. This will be the “growth rate” for the Funds.

PURPOSE: To offset the impacts of cost inflation, to maintain the financial integrity of the CWCB Construction Fund and Sev. Tax Fund and to provide a process for estimating the financial resources available for non-reimbursable investments from the Funds in any given year.

APPLICABILITY: This policy and procedure applies to the CWCB Construction Fund and Severance Tax Perpetual Base Fund.

PROCEDURE: The overall growth for the fund equity of the Construction Fund and Sev Tax Fund will be presented as part of the Comprehensive Annual Financial Report by CWCB staff at the Annual Finance Committee Meeting and subsequent Board meeting each year. Staff will present an annual estimate of funds available for non-reimbursable investments relative to the target growth rate. The estimate of funds available for non-reimbursable investments will be based on Federal Mineral Lease projections, Severance Tax projections, projected expenses and fund performances.

Staff will present a summary of long-term construction cost indices with any recommendations for revisions to the target growth rate of the equity of the fund.

Colorado Water Conservation Board
September 17, 2019 Finance Committee Meeting

NonReimbursable Investment Applications

Construction Fund Programs & Projects			Benefit	Statute/Bill Amount	Unencumb Refresh	Estimated FY19/20	
Auto Refresh							
A	CWCB - Linda Bassi	Wild and Scenic Fund - Refresh 37-60-122.3	Statewide	\$ 400,000	\$ 299,709	\$ 300,000	<i>Est 19/20 spending</i>
B	CWCB - Linda Bassi	Acquisitions of Water for Instream Flows - Refresh 37-60-123.7	Statewide	\$ 1,000,000	\$ 790,276	\$ 600,000	<i>Est 19/20 spending</i>
C	CWCB - Linda Bassi	Stream Gauge Fund - Refresh 37-60-124.4	Statewide	\$ 250,000	\$ 45,700	\$ 100,000	<i>Est 19/20 spending</i>
D	CWCB - Kevin H	Flood & Drought Response Fund - Refresh 37-60-123.2	Statewide	\$ 500,000	\$ 257,870	\$ 500,000	<i>Est 19/20 spending</i>
E	CWCB - Matt Stearns	Small Feasibility Grant Fund - Refresh 37-60-122.7	Statewide	\$ 500,000	\$ 136,844	\$ 350,000	<i>Est 19/20 spending</i>
F	Colo Water Ed Foundation	Annual Support	Statewide	\$ 150,000	\$ 150,000	\$ 150,000	<i>Est 19/20 spending</i>
				\$ 2,800,000	\$ 1,680,399	\$ 2,000,000	

Projects Bill

				Requested Amount	Approved in Previous Yrs	Staff Recommends	
1	DWR - M Hardesty/B. Logan	Satellite Monitoring System Maintenance Program - Continuation	Statewide	\$ 380,000	(\$380K in 2019)	\$ 380,000	
2	CWCB - Thuy Patton	Colorado Floodplain Map Modernization Program - Continuation	Statewide	\$ 500,000	(\$500K in 2019)	\$ 500,000	
3	CWCB - Andrew Rickert	Weather Modification Permitting Program - Continuation	Statewide	\$ 350,000	(\$175K in 2019)	\$ 350,000	
4	CSU - Ben Wade	Colorado Mesonet Project - Continuation	Statewide	\$ 150,000	(\$150K in 2019)	\$ 150,000	
5	CWCB - Thuy Patton	Lidar Acquisition - Continuation	Statewide	\$ 200,000	(\$200K in 2019)	\$ 200,000	
6	CWCB - Andrew Rickert	Litigation Fund (Budget for AG's) - 37-60-121.1 (\$2M Refresh)	Statewide	\$ 1,452,700	(\$2M in 2019)	\$ 600,000	\$850K Balance
7	CWCB - Brian Macpherson	Ark DSS - Continuation	Arkansas	\$ 500,000	(\$2.7M to date)	\$ 500,000	
8	CWCB - Brian Macpherson	CDSS Operations & Maintenance - Continuation	Statewide	\$ 500,000	(\$200K in 2017)	\$ 500,000	
9	CWCB - Joe Busto	Watershed Forecasting Partnership Program - Continuation	Statewide	\$ 350,000	(\$800K in 2018)	\$ 350,000	
10	CWCB - JoJo Law	Fish & Wildlife Resources Fund - Refresh	Statewide	\$ 1,000,000	(\$1.5M in 2017)	\$ 1,000,000	
11	CWCB - Kevin Reidy	Water Loss Control Initiative Ph II - Continuation	Statewide	\$ 1,000,000	(\$1.1M in 2017)	\$ 1,000,000	
12	SE Colo Water Cons. Dist.	Southeast Colo WCD - Arkansas Valley Conduit	Arkansas	\$ 20,000,000	N/A	\$ 10,000,000	
				\$ 26,382,700		\$ 15,530,000	
Water Plan Implimentation Funding							
13	CWCB - Lauren Ris	Water Plan Implimentation Grants	Statewide	\$ 13,500,000			
	Chris Sturm	Watershed Restoration Grants			(\$4M in 2019)	\$ 4,000,000	
	Chris Sturm	Environment / Recreation WPGGrants			(\$1.5M in 2019)	\$ 1,500,000	
	Alex Funk	Agricultural Proj WPGGrants			(\$1M in 2019)	\$ 1,500,000	
	Anna Mauss/Matt Stearns	New Storage / Supply Gap WPGGrants (Add River Diversions)			(\$3M in 2019)	\$ 5,000,000	
	Kevin Reidy	Conservation WPGGrants			(\$1M in 2019)	\$ 1,000,000	
	Ben Wade	Innovation/Outreach WPGGrants			(\$0.5M in 2019)	\$ 500,000	
WPI =				\$ 13,500,000		\$ 13,500,000	

Total Projects Bill - Non-Reimbursable Investments = \$ 31,030,000



COLORADO

Colorado Water Conservation Board

Department of Natural Resources

1313 Sherman Street, Room 718
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Jared Polis, Governor

Dan Gibbs, DNR Executive Director

Rebecca Mitchell, CWCB Director

TO: Finance Committee

FROM: Brandy Logan, Hydrologist
Stream and Lake Protection Section

DATE: September 17, 2019 Finance Committee Meeting

ITEM: 2. Non-Reimbursable Project Investment Applications
(1) Satellite Monitoring/Maintenance Program

Introduction

The Division of Water Resources (DWR) has requested an appropriation of \$380,000 for the continued operational viability of the state Satellite-linked Monitoring System (SMS) and Arkansas Compact Lysimeter Research Project. Each year, funding for these programs has been reviewed and approved by both the Finance Committee and the Board. It has been recognized that it is critical for both the State's water planning and water administrative agencies to support and maintain state-of-art stream gaging programs and continue to provide accurate water resources data to support multi-agency and water user needs. The DWR Satellite-linked Monitoring Program is outlined in §37-60-121 and §37-80-102, C.R.S. (2018).

Discussion

The \$380,000 request for FY 2020-2021 will support the continued, long-term operational viability of 600 satellite-linked water resources monitoring sites. These funds will be allocated as follows:

\$251,000 for replacement of out-dated Data Collection Platforms (DCP) and associated satellite telemetry equipment and upgrading of satellite transmission components. The rate of replacement of DCPs is based on a life expectancy from normal wear and tear and software life cycle issues of 10-12 years.

\$78,822 for refurbishing existing stream gages as needed to maintain operational reliability of stream flow data collection infrastructure and equipment. This is a recurring annual request to cover refurbishment and repair costs that arise due to deterioration of the physical stream gage infrastructure. In addition, these funds will be used as necessary to purchase measurement equipment that can minimize or eliminate the need for future capital improvements such as personnel cableways. In addition, a portion of the funds will be used for system application development support.

\$50,178 for annual maintenance support for the Lysimeter Research Project in the Arkansas River Basin.

Staff Recommendation

Staff recommends the Committee's approval of this project for consideration by the Board in November to authorize \$380,000 from the Construction Fund to the Department of Natural Resources for allocation to the Division of Water Resources (DWR) to replace out-dated Data Collection Platforms and associated satellite telemetry equipment in the existing satellite monitoring system; to refurbish existing stream gages; and to continue the Arkansas River Compact Lysimeter Research Project.

The attached memo from Matthew Hardesty dated July 26, 2019 provides more in-depth information regarding this request.





MEMORANDUM

To: Rebecca Mitchell, Director, Colorado Water Conservation Board
From: Matthew Hardesty, Chief of Hydrography, Colorado Division of Water Resources
Date: July 26, 2019
Subject: Division of Water Resources Satellite-linked Monitoring System and Stream Gage Refurbishment Construction Fund Request for FY 2020-21

ec: Rob Viehl, Colorado Water Conservation Board
Brandy Logan, Colorado Water Conservation Board
Scott Cuthbertson, Colorado Division of Water Resources

Summary

The Division of Water Resources (DWR) requests a total of **\$380,000** from the CWCB Construction Fund for FY 2020-21. The requested funds will support the Arkansas compact lysimeter research project and maintain the operational viability of water resources streamflow monitoring network that includes over 600 satellite-linked water resources monitoring sites, including replacement of out-dated data collection platforms and satellite telemetry transmission components and refurbishment/renovation of gaging stations. The specific distribution of the funds requested is as follows:

1. Approximately \$251,000 will be used to replace out-dated Data Collection Platforms (DCP) and associated satellite telemetry equipment and upgrading satellite transmission components. The rate of replacement of DCPs is based on a life expectancy from normal wear, tear and software life cycle issues of approximately 10-12 years.
2. The remainder of approximately \$79,000 will maintain operational reliability of streamflow data collection and measurement infrastructure. This is a recurring annual request to cover refurbishment and repair costs which arise due to deterioration of the physical stream gage infrastructure. In addition to refurbishing existing stream gages as requested in the past, we also intend to use this money, if necessary, to purchase measurement equipment that can minimize or eliminate the need for future capital improvements such as personnel cableways. A portion of these funds may be utilized as necessary for system application development support.
3. CSU project support for the Arkansas River compact lysimeter research project is budgeted at \$50,178.



Introduction

CWCB and DWR, consistent with Section 37-60-121 and Section 37-80-102 C.R.S., maintain the stream gaging program to support multi-agency and water user needs such as water rights administration, compact protection, flood forecasting and warning and Decision Support System implementation and use. DWR must:

- maintain the electronic equipment in satellite-linked data collection stations;
- refurbish deteriorating gage station infrastructure and non-electronic station hardware;
- refurbish/replace cableways used for high flow measurements or implement alternate means of high flow measurement (for calibration of the upper end of stage-discharge relationships);
- rebuild gage sections damaged by high flows;
- flood harden, when possible, critical gages; and,
- continue, as necessary, the operation of vital gages operated by the United States Geological Survey (USGS) when that program can no longer provide the required support.

Background

The Satellite-linked Monitoring System (SMS) has been operating since 1985, starting with 82 linked gaging stations. As the need for the data has increased, the SMS has expanded. Since inception, in excess of 8 million dollars has been invested in the development of the SMS infrastructure. Currently, DWR operates and maintains over 625 data collection platforms (DCPs) on rivers, streams, reservoirs, ditches and canals to collect and transmit basic streamflow and water elevation data to support the Division's primary mission of water rights and compact administration. Additional benefits of the system include flow alerts based on parameter thresholds, such as: low flow alerts in support of CWCB ISF programs; high flow alerts in support of flood protection decision making and flood warning; and, rate of change alerts below dams and reservoirs.

Collectively, these platforms and the computer equipment in Denver are the Satellite-linked Monitoring System (SMS). The USGS and other entities operate an additional 330+ sites in Colorado. The USGS and DWR are working to improve data availability and avoid duplication through improved gaging station effectiveness. The SMS provides basic water flow data to the staffs of DWR and CWCB as well as a number of public and private entities, such as: the Cities of Colorado Springs and Aurora, the Denver Water Board, the Arkansas River Compact Commission, Emergency Coordinators for most Colorado counties, water rights owners, recreationists such as fishermen and rafters, and conservation groups. Many programs of the DWR, such as various river operations analysis spreadsheets used in each of the seven DWR Division offices for water administration, and the DWR Dam Safety Program rely upon the real-time data acquired through the SMS. Water resources accounting programs utilizing the SMS include the Dolores Project, the Colorado-Big Thompson Project and the Fryingpan-Arkansas River Project. CWCB programs, such as Stream and Lake Protection, Flood Protection and Water Supply Protection also utilize the real-time data.

FY 2020-21 Funding Request

In order to maintain the system, DWR projects that electronic equipment will be replaced, on average, every 10 years. Based on our latest tabulation of gages, DWR is responsible for maintenance of about 460 total sets of electronic (DCP and stage sensor) equipment out of the 600+ gages it operates. At current equipment costs, the cost of DCP replacement with newest generation satellite transceivers as well as replacement of gage height sensors ranges from \$4,000 to \$8,000 per gage, depending on the type of gage height sensor needed (shaft encoder, constant flow bubbler or radar sensor).

Based on a review of electronic equipment replacement needs, we are now utilizing a system-wide mean gage annual maintenance cost of \$470 per station based on the current mix of conventional and radar sensors. Based on that estimate, the total annual projected equipment cost to simply maintain operable electronics and ancillary equipment is approximately \$216,000. Travel (vehicle mileage, per diem, etc.) and overtime support to perform this work around the State is projected at \$35,000. Therefore, the amount requested for gage equipment replacement is \$251,000.

Existing Stream Gage Construction and Measurement. Approximately 60% of Colorado's satellite-linked gaging stations are located in the rivers and streams. The others are located in reservoirs, ditches, and canals. Gaging station physical infrastructure (shelters, stream controls, independent reference gages, etc.) must be properly maintained and periodically refurbished in order to collect accurate data.

In addition to control and stream work, recent gage maintenance and replacement construction projects have been leaning more heavily upon radar sensors. Though these sensors are more expensive initially than the historic stilling well equipment, they are a more effective long-term solution for several reasons. First, they eliminate the need for expensive stilling well and shelter installations that have been the norm historically. Reduction of the number of stilling wells in the DWR gage network reduces the confined space safety issues associated with operation of the gage. The radar sensor also have a longer life expectancy than other stage sensors, which means the higher upfront cost will eventually be offset by a reduction in maintenance costs. Additionally, our staff have had great success in utilizing existing infrastructure such as bridges or bank-mounted cantilevers to mount the radar equipment. Both of these installation types are much less prone to flooding damage and result in additional flood hardening of our system.

At the projected pace, DWR will replace stage measurement equipment with radar sensor at a rate of approximately 6-12 annually. Based on a differential equipment cost of \$4,000 for six radar conversion, this results in \$24,000 that DWR requests in addition to \$55,000 for refurbishing existing stream gage controls and stream channels in the vicinity of stream gages and/or ADCP measurement equipment purchases for a total of \$79,000.

FY 2018-19 Accomplishments

The CWCB provided \$329,822 in FY 2018-19 for satellite telemetry equipment upgrade/replacement and stream gage refurbishment. CWCB also provide \$50,178 for operational support of the CSU Arkansas Valley Lysimeter near Rocky Ford, Colorado for a total of \$380,000.

In total, DWR expended and committed a total of \$379,632 or 99.9% of project funding.

Satellite Telemetry Upgrade Program. The procurement and installation of satellite-linked monitoring equipment and associated components including radar stage sensors totaled \$305,850. High data rate DCP upgrades have now been completed at all DWR gage stations. However, as discussed earlier, the normal wear, tear and software life cycle anticipates replacing all equipment approximately every ten to twelve years.

Streamgage Refurbishment. Streamgage refurbishment projects and miscellaneous expenditures for system maintenance totaled \$23,604. Refurbishment projects and miscellaneous expenditures were completed at the stream gages listed in the YTD Report, below. Photos from some of these gage installations are also included.

Arkansas River Compact Lysimeter Support. A total of \$50,178 was spent on CSU project support for the ongoing Arkansas compact lysimeter research project.

2018-2019 Spending Summary

DIV1 Gage Refurbishment	\$4,282
DIV2 Gage Refurbishment	\$1,818
DIV3 Gage Refurbishment	\$15,927
DIV4 Gage Refurbishment	\$46
DIV5 Gage Refurbishment	\$398
DIV7 Gage Refurbishment	\$1,133
Statewide Electronics Replacement	\$305,850
CSU Lysimeter	\$50,178
Grand Total	\$379,632

South Platte at Kersey-Replacement of Stilling Well and Shelter with Radar (Division
1)





Chicago Creek below Devil's Canyon Control Feature Installation (Division 1)



Trinchera Creek Below Smith Reservoir Cantilever and Radar Installation (Division 3)





Satellite Monitoring/Maintenance Program

Colorado Water Conservation Board

September 2019 Finance Committee

This project entails the continued, long-term operational viability of the State Satellite Linked Monitoring System and Stream Gage Refurbishment Program, which is administered by the Division of Water Resources (DWR). This program currently encompasses 600 satellite stream gaging stations that require continued replacement of outdated data collection platforms, upgrades to transmission components, and refurbishment of the associated infrastructure. In addition, many existing gaging stations need to be modified to provide critical stream flow data for both flood and low flow monitoring. Changes in technology, which will ultimately increase reliability and real time data transmission rates, will require the DWR to continue to upgrade the system in the future. In addition, this project provides annual maintenance for the Arkansas River Basin Compact Lysimeter Research Project. The costs associated with the continued refurbishment and operational viability of the Satellite Monitoring System is currently approximately \$330,000 per year. The cost associated with the Lysimeter Project is approximately \$50,000 per year. The total project cost is \$380,000.

P R O J E C T D E T A I L S	
<i>Project Cost:</i>	\$380,000
<i>NRI Funding Request:</i>	\$380,000
<i>Funding Source:</i>	Construction Fund
<i>Project Type:</i>	DWR Streamgaging
<i>Type of Grantee:</i>	State Agency

L O C A T I O N	
<i>Benefits:</i>	Statewide
<i>Water Source:</i>	Various
<i>Drainage Basin:</i>	All Basins



Trinchera Creek Below Smith Reservoir - Cantilever and Radar Installation (Note these installations are more cost efficient as they require significantly less infrastructure than a typical stilling well and shelter)



COLORADO

**Colorado Water
Conservation Board**

Department of Natural Resources

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Jared Polis, Governor

Dan Gibbs, DNR Executive Director

Rebecca Mitchell, CWCB Director

TO: Finance Committee

FROM: Thuy Patton, Floodplain Mapping Coordinator,
Watershed Protection and Flood Mitigation Section

DATE: September 17, 2019 Finance Committee Meeting

ITEM: 2. Non-Reimbursable Project Investment Applications
NRI (2) Colorado Floodplain Map Modernization Program

Introduction & Discussion

In early 2003, Congress approved a substantial funding package to provide updated floodplain mapping nationwide. Similar funding levels have been allocated by Congress in subsequent years. The CWCB approved and the General Assembly authorized a non-reimbursable investment of \$500,000 in the 2003 Construction Fund Bill with annual funding amounts in all subsequent Bills. Staff is now requesting a total of \$500,000 for program funding.

Colorado has received almost \$29 million in federal grant dollars for floodplain mapping related activities since 2003 as part of the floodplain Map Modernization program initiated by FEMA. The FEMA funds are being matched by CWCB and local cost-share dollars to implement the map update work that includes engineering and GIS to create updated countywide floodplain maps. The funds authorized in the 2003 and all subsequent Construction Fund Bills have provided the required non-federal matching dollars. The State funds are further leveraged by local cost share dollars and in-kind services from many communities thus far.

Staff Recommendation

Staff recommends the Committee's approval of item for consideration by the Board in November to authorize the Department of Natural Resources for allocation to the Colorado Water Conservation Board, the sum of \$500,000 or so much as may be necessary in order to restore the unencumbered balance up to \$500,000 for the Board to continue to assist with the preparation of revised and improved floodplain studies and maps for communities throughout Colorado and to participate in federally sponsored floodplain map modernization activities.



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Department of Natural Resources

Colorado Floodplain Map Modernization

Colorado Water Conservation Board

September 2019 Finance Committee

Colorado has received approximately \$29.32 million in federal grant dollars for floodplain mapping activities as part of the floodplain Map Modernization/Risk Map Program (Program) initiated by FEMA in 2003. The FEMA funds are being matched by CWCB and local cost-share dollars to implement the map update work to create updated digital floodplain maps and flood risk tools. The initial Program funds authorized in the 2003 and all subsequent Construction Fund Bills have provided the required non-federal matching dollars (80/20 cost share program). The State funds are further leveraged by local cost share dollars and in-kind services from many communities thus far. The total funding amounts have been instrumental in keeping Colorado as a lead state within FEMA Region 8 and will continue to benefit Colorado communities in the future. It is expected that significant FEMA funding will continue as long as the Program exists. Program deliverables will become part of the Flood DSS system to increase data capture and enhance Colorado's decision support tools.

P R O J E C T D E T A I L S	
<i>Project Cost:</i>	\$5,600,000
<i>NRI Funding Request:</i>	\$500,000
<i>Funding Source:</i>	Construction Fund
<i>Project Type:</i>	Matching Funds for Grants
<i>Type of Grantee:</i>	State Government

L O C A T I O N	
<i>Benefits:</i>	Statewide
<i>Water Source:</i>	Various
<i>Drainage Basin:</i>	All Basins

The Program will eventually impact the entire state, and the objective is to develop updated watershed-based and/or countywide floodplain maps using current base map information within a digital environment. The use of GIS technology will be employed for all new countywide studies for ease of distribution, updating and viewing. The table below summarizes funding approved by FEMA for Federal Fiscal Year 2019, which starts October 1st and ends September 30, 2020.

Grant Description	FEMA Funding	Grant Description	FEMA Funding
FY19 CTP Grant	\$352,409	Moffat County Phase 3	\$480,005
FY19 Communications/Outreach Grant	\$256,183	Las Animas Levee Pre-Analysis	\$84,702
Delta County Risk Map Phase 3	\$354,295	Prowers County Levee Pre-Analysis	\$84,702
El Paso County Phase 2 Flood Risk Study	\$536,651	Grand Junction Levee Pre-Analysis	\$45,289
Teller County Phase 2	\$206,876	SW BLE	\$457,138
Bent/Otero Countywide Phase 2	\$77,977	Lake County BLE	\$111,078
Eagle County Phase 3	\$120,821	Custer Fremont BLE	\$183,150
Costilla Countywide Phase 3	\$90,195	Bent/Otero BLE	\$177,936
Phillips County Phase 3	\$147,936	Prowers County BLE	\$155,034
Lincoln County Phase 3	\$56,835	Huerfano County BLE	\$118,918
Mesa County Flood Risk Study Phase 2	\$287,000	Park County BLE	\$139,364
Lake County Phase 3	\$187,190	Las Animas BLE	\$208,164
Ouray County Phase 3	\$145,984	Elbert County BLE	\$134,551
San Miguel County Phase 3	\$179,083	Gunnison County Phase 3	\$242,846
Total FEMA Funding for FY 2019		\$5,622,312	



COLORADO

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Jared Polis, Governor

Dan Gibbs, DNR Executive Director

Rebecca Mitchell, CWCB Director

TO: Finance Committee

FROM: Andrew Rickert, Weather Modification Program Coordinator,
Watershed Protection and Flood Mitigation Section

DATE: September 17, 2019 Finance Committee Meeting

ITEM: 2. Non-Reimbursable Project Investment Applications
NRI (3) Weather Modification Permitting Program

Introduction

The CWCB has had grants for winter cloud seeding since 2004. Colorado River downstream water users have been matching CWCB funding since 2007. Weather modification is one of the three legs of the stool for the Colorado River drought contingency plan. Currently, there are over 40 program sponsors of the eight permitted programs in Colorado.

Staff is requesting an increase of \$175,000 in funding for grants for operations, new equipment, extensions of time of operations, and to fund evaluations and studies per the 2012 Colorado Weather Modification Rules and Regulations. An important part of this work is state funding to help Idaho Power Company and the Desert Research Institute site and install remote operated high output ice nucleus generators.

Colorado has over 100 low elevation manually operated seeders that need replacement. A 2015 particle dispersion modeling study for the Blue River Basin showed that only 20% of the time do valley bottom seeders reach the super cooled liquid water region of clouds necessary for precipitation. The CWCB has purchased a radiometer to collect cloud data that is being shared and moved around among the eight permitted programs to collect liquid water data which is the fuel for effective seeding. This year the radiometer will be in the Gunnison basin to provide data which will be compared to the icing meter data at Crested Butte.

A new, eight year agreement with the Colorado River Basin States was signed in 2018 that will budget up to \$500K per Upper Basin state per year to be matched with the Upper Basin State funds. This successful multi-state program serves as model for local, state, and interstate collaboration. In 2019, the Wyoming Water Development Office partnered on a cloud seeding program with water users in the North Platte Basin and the CWCB. The partnership helped to create Colorado's first permitted aerial cloud seeding program. Moving forward, the CWCB will continue to pursue other opportunities for collaboration between basins to benefit multiple watersheds.

Staff Recommendation

Staff recommends the Committee's approval of item for consideration by the Board in November to authorize \$350,000 from the Construction Fund to be appropriated to the Department of Natural Resources for allocation to the CWCB for the Weather Modification Program.





The CWCB has had grants since 2004 for water district sponsored cloud seeding programs developed after the early 2000s drought. In 2007, State-to-state agreements were signed to provide grants in Colorado. CWCB distributes grants from the CWCB, New Mexico Interstate Stream Commission, Southern Nevada Water Authority, Central Arizona WCD, and California Six Agency Committee. CWCB funding helps staff leverage pledged match funding from Lower Basin States water users. The CWCB goals are industry standard equipment in operation for efficient and effective programs.

P R O J E C T D E T A I L S	
<i>Project Cost:</i>	\$1.3M (matching from Lower Basin States and local sponsors)
<i>NRI Funding Request:</i>	\$350,000
<i>Funding Source:</i>	Construction Fund
<i>Project Type:</i>	Snowpack augmentation
<i>Type of Grantee:</i>	Local Water Districts
L O C A T I O N	
<i>Benefits:</i>	Statewide
<i>Water Source:</i>	Various
<i>Drainage Basin:</i>	All Basins

Last year the State of Wyoming partnered with the CWCB and the Jackson Water Conservancy District helping to launch Colorado's first permitted aerial cloud seeding program. Some of the requested funding increase will help to continue this new state-to-state collaboration in the North Platte Basin. A 2015 National Center for Atmospheric Research Climatology of seeding potential study showed high seeding potential in the North Platte. The local goals are to augment snowpack in the southeastern part of the basin. Potential programs for this upcoming water year aim at siting new remote generators in locations that will provide an increase in snowpack to multiple watersheds.

Since 2007 the Lower Basin Water Users in the Colorado River (Southern Nevada Water Authority, California Six Agency Committee, and Central Arizona WCD) have donated \$2.8M to match the CWCB's \$2.6M to bolster locally sponsored cloud seeding in Colorado. Each year about \$1M is spent with \$175,000 or 18% from the CWCB and \$175,000 or 17% from the Lower Basin and New Mexico. The other 65% of the funding comes from ski areas, water districts, towns and counties.



Effective cloud seeding requires siting cloud seeders high onto ridges in areas of good airflow to ensure the silver iodide particles are regularly transported into clouds. We have had success at helping upgrade programs with new high elevation seeders at: Winter Park, Grand Mesa, Crested Butte, above McPhee Reservoir, near Mancos, and Telluride. These seeders are now owned by water districts. It has been clearly demonstrated that low elevation manually operated seeders are not particularly effective at getting seeding material in cloud. High elevation seeding equipment is needed. Colorado has high elevation terrain and siting remote generators at high altitudes is vital for effective seeding.

The CWCB has ten years of facilitating successful multi-state collaborations to work on a watershed basin to benefit local water supplies and downstream river compact obligations. In 2015, a ten year \$15M winter research experiment in Wyoming concluded that 5-15% increases in snowpack can be expected but only from about 30% of the storms appropriate for seeding. Therefore, a 1-5% increase in snowpack was demonstrated and can be expected in well designed and executed programs. As we move forward, Colorado must continue to investigate and pursue opportunities for collaboration between basins to benefit multiple watersheds and thus the entire state as a whole.



COLORADO

Colorado Water
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Department of Natural Resources

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Jared Polis, Governor

Dan Gibbs, DNR Executive Director

Rebecca Mitchell, CWCB Director

TO: Finance Committee

FROM: Ben Wade, Water Supply Planning

DATE: September 17, 2019 Finance Committee Meeting

ITEM: 2. Non- Reimbursable Project Investment Applications
NRI (4) Colorado Mesonet Project

Introduction

Weather and climate monitoring in Colorado over the last decade existed as a patchwork of networks operated by multiple federal, state, local and private entities, rather than a single mesonet or spatially coherent network of weather stations reporting in near real-time via major data portals. Colorado Climate Center has been working to overcome this because, each network was built for a specific purpose resulting in a lack of spatial coherency to where stations are located. Collectively, the data are critical for long term climate monitoring, agriculture, fire weather, flood warning, water supply forecasting and drought monitoring.

Over the last four years CoAgMET has rapidly improved and is quickly becoming Colorado's MesoNet -- providing high quality weather data targeted for use in water planning, management, conservation and education. Now that most stations in the network are transmitting data every 5 minutes and the network covers and reasonably represents the weather conditions of the majority of state, its weather surveillance capabilities have even more value and broader applications. With current network expansion and upgrades currently underway (improved monitoring and display of evaporative demand and soil moisture), and a refurbished website for data display and delivery in process, the opportunity exists to provide real time current conditions in historical perspective to a wide audience of planners and decision makers.

High quality weather data for water resources application is greatly taken for granted and receives little financial support. It is a statewide effort benefiting many users from agricultural producers to municipal water providers and many others. Federal data collection efforts have provided useful long-term temperature and precipitation data but not the extensive measurements of humidity, wind and solar radiation needed for computing reference evaporation and crop consumptive use. Funds will allow effective enhancements to the CoAgMET network, improved delivery of data and new products for water use planning and climate change monitoring. They will improve real-time monitoring capabilities to improve severe weather warnings and emergency management applications. Importantly, this grant funding will be used to qualify for federal matching funds through the National Mesonet to support critical operations and maintenance needs.

Staff Recommendation

Staff recommends the Committee's approval of item for consideration by the Board in November to authorize from the Construction Fund to fund up to \$150,000 for the Colorado Mesonet Project.



The Colorado Mesonet Enhancements

Russ Schumacher and Zach Schwalbe
Colorado Climate Center

The Colorado Climate Center runs the Colorado Agricultural Meteorological (CoAgMET) network consisting of 75 stations statewide tracking agricultural weather, climate and drought. The Center also manages the Colorado Regional Climate Reference Network (CO-RCRN) which consists of 17 high-quality precipitation and temperature monitoring stations located in pristine environments. These sites, started by NOAA, were intended to monitor the climate over long periods of time in areas free of urbanization and with datasets free of station moves, changes in observation time and other factors that create inhomogeneity in climate datasets. Base funding for these networks does not allow for them to be run at high quality levels and develop products to enhance the data. The CoAgMET network, in order to be run as a reliable mesonet for real-time weather monitoring, drought monitoring, and calculations of consumptive use needs close attention paid to quality control and making sure all sensors are functioning properly. If they aren't, issues need to be resolved as soon as possible, usually requiring a trip to the station (particularly during the growing season). Due to budget and staff constraints, products cannot be developed while providing the close attention needed for quality data.

For the past 4 years, CoAgMET has received funding from the state to begin moving towards a multipurpose state "Mesonet" focusing on agricultural and water resources as well as long-term climate monitoring and short term real-time weather tracking to aid weather prediction, emergency management and other diverse uses. With this funding, we have been able to upgrade stations to include real-time data collection and dissemination and develop products and tools greatly needed to enhance the network. With these enhancements, we have identified additional tools and products that are needed to further the network.

In order to continue enhancing the Colorado Mesonet, continuation of the state funding is needed. With this funding we will continue expanding on soil moisture monitoring with additional soil monitoring stations and tool development to assist with drought monitoring and water supply forecasts. Additionally, we will develop automated evaporative demand tools from CoAgMET reference ET and incorporate these into drought monitoring efforts. We will continue upgrading the CO-RCRN stations to include reference ET measurements. To further the MesoNet's usefulness in real-time weather monitoring, we will add all weather precipitation gauges and 10 meter instrument towers to up to two stations. To expand the Colorado MesoNet's reach, we will engage broader audiences to showcase our data, products and services to Colorado's clean energy innovators and work with them to tailor products to benefits this industry. We will continue to attend conferences to promote these new tools and demonstrate their use for decision making processes. Finally, we will continue updating climate summaries for long term stations and develop monthly summaries to monitor climate anomalies.

Grant funds will allow continued enhancements to the CoAgMet network, improved data and products for water use planning, climate change monitoring and engagement with broader audiences, such as the clean energy innovators. Real-time monitoring capabilities will be enhanced to improve severe weather warnings and emergency management applications. ***Importantly, this grant funding is used to qualify for federal funds through the National Mesonet to support critical operations and maintenance needs.***



COLORADO

Colorado Water
Conservation Board

Department of Natural Resources

Colorado Mesonet Project Colorado Water Conservation Board September 2019 Finance Committee

The Colorado Climate Center runs the Colorado Agricultural Meteorological (CoAgMet) network consisting of 75 stations statewide tracking agricultural weather, climate and drought. The Center also manages the Colorado Regional Climate Reference Network (CO-RCRN) which consists of 17 high-quality precipitation and temperature monitoring stations located in pristine environments. These sites, started by NOAA, were intended to monitor the climate over long periods of time in areas free of urbanization and with datasets free of station moves, changes in observation time and other factors that create inhomogeneity in climate datasets. Current base funding for these networks does not allow for them to be run at high quality levels and still develop products to enhance the data. CO-RCRN needs multiple station visits per year to add and remove fluids from rain gauges. The CoAgMet network, in order to be run as a reliable mesonet for real-time weather monitoring, drought monitoring, and calculations of consumptive use needs close attention paid to quality control and making sure all sensors are functioning properly. If they aren't, a technician should be deployed as soon as possible to resolve issues (particularly during the growing season). Due to budget and staff constraints, products cannot be developed while providing the close attention needed for quality data.

July 2015, CoAgMet received the first funding from the state to begin moving towards a multipurpose state "Mesonet" focusing on agricultural and water resources as well as long-term climate monitoring and short term real-time weather tracking to aid weather prediction, emergency management and other diverse uses. With this funding, we have been able to develop products and tools greatly needed to enhance data, identify and implement areas for expansion and upgrading to newer technology in order to provide beneficial real-time weather data. Stations in the network are now transmitting data every 5 minutes and the network covers and reasonably represents the weather conditions of the majority of state, resulting in and broader application and surveillance capabilities.

In order to continue expanding and improving the Colorado Mesonet data and products, and track long term climate conditions that could impact our water resources, continuation of the state funding is needed. Funds will allow effective enhancements to the CoAgMET network, improved delivery of data and new products for water use planning and climate change monitoring. They will improve real-time monitoring capabilities to improve severe weather warnings and emergency management applications.

Importantly, this grant funding will be used to qualify for federal matching funds through the National Mesonet to support critical operations and maintenance needs.

P R O J E C T D E T A I L S	
Project Cost:	\$150,000
NRI Funding Request:	\$150,000
Funding Source:	Construction Fund
Project Type:	Data Collection/Maint.
Type of Grantee:	State Government

L O C A T I O N	
Benefits:	Statewide
Water Source:	Various
Drainage Basin:	All Basins



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Colorado Water
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Jared Polis, Governor

Dan Gibbs, DNR Executive Director

Rebecca Mitchell, CWCB Director

TO: Finance Committee

FROM: Thuy Patton, Floodplain Mapping Coordinator,
Watershed Protection and Flood Mitigation Section

DATE: September 17, 2019 Finance Committee Meeting

ITEM: 2. Non-Reimbursable Project Investment Applications
NRI (5) Colorado Lidar Data Acquisition Program

Introduction & Discussion

Colorado has received approximately \$5.6 million in federal grant dollars for elevation data acquisition activities to support the Floodplain Map Modernization/Risk Map Program in Colorado. High quality topographic data is necessary to develop accurate FEMA flood hazard mapping. The 3D Elevation Program (3DEP) was developed to respond to a growing need for high quality topographic data nationwide. The primary goal of 3DEP is to systematically collect 3D elevation data in the form of light detection and ranging (lidar) across the U.S over an 8-year period. Lidar technology has many uses and is utilized across many different industries. The CWCB can leverage FEMA and State funds to obtain additional USGS funding through 3DEP. This Program requires a 25% non federal cost share for acquisition projects in order to receive USGS matching funds up to 50% of the total cost of the projects.

Staff Recommendation

Staff recommends the Committee's approval of item for consideration by the Board in November to authorize the Department of Natural Resources for allocation to the Colorado Water Conservation Board, the sum of \$200,000. Similar to the FEMA Map Modernization Program where the CWCB has leveraged millions of federal dollars for floodplain mapping Colorado, this is a rare opportunity to leverage additional federal funds with State dollars and provide communities across the State with up to date, accurate elevation data that can be utilized for a multitude of purposes.





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Colorado Water
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Department of Natural Resources

Colorado Lidar Data Acquisition Program

Colorado Water Conservation Board

September 2019 Finance Committee

Colorado has received approximately \$5.6 million in federal grant dollars for elevation data acquisition activities to support the floodplain Map Modernization/Risk Map Program in Colorado. High quality topographic data is necessary to develop accurate FEMA flood hazard mapping. Additionally, the Colorado Hazard Mapping program relies on high quality elevation data for debris flow mapping and fluvial hazard mapping. The FEMA funds can be leveraged through the U.S. Geological Survey (USGS) 3DEP Program (3D Elevation Program).

The 3DEP Program (Program) was developed to respond to a growing need for high quality topographic data nationwide. The primary goal of this Program is to systematically collect 3D elevation data in the form of light detection and ranging (lidar) across the U.S over an 8-year period. Lidar technology has many uses and is utilized across many different industries. In addition to floodplain mapping, other examples of lidar uses include determining forest biomass, measuring snow pack, transportation planning, identification of reclamation mining sites, and geohazard mapping.

The Program is a unique opportunity for collaboration between all levels of government and to leverage services and expertise of private sector mapping firms to acquire the data. The CWCB has been contacted by several local, State, and Federal organizations, including the Colorado Department of Transportation (CDOT), Colorado Geological Survey (CGS), Division of Reclamation and Mining Services (DRMS), and the U.S. Forest service, with great interest in partnering on future lidar acquisitions in Colorado. The CWCB can leverage FEMA and State funds to obtain USGS funding through the 3DEP Program. This Program requires a 25% non federal cost share for acquisition projects in order to receive USGS matching funds up to 50% of the total cost of the projects.

Similar to the FEMA Map Modernization Program where the CWCB has leveraged millions of federal dollars for floodplain mapping Colorado, this is a rare opportunity to leverage additional federal funds with State dollars and provide communities across the State with up to date, accurate elevation data that can be utilized for a multitude of purposes.

P R O J E C T D E T A I L S	
<i>Project Cost:</i>	\$2,200,000
<i>NRI Funding Request:</i>	\$200,000
<i>Funding Source:</i>	Construction Fund
<i>Project Type:</i>	Matching Funds for Grants
<i>Type of Grantee:</i>	State Government

L O C A T I O N	
<i>Benefits:</i>	Statewide
<i>Water Source:</i>	Various
<i>Drainage Basin:</i>	All Basins



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Jared Polis, Governor

Dan Gibbs, DNR Executive Director

Rebecca Mitchell, CWCB Director

TO: Finance Committee

FROM: Andrew Rickert
Interstate, Federal, and Water Information Section

DATE: September 17, 2019 Finance Committee Meeting

ITEM: 2. Non-Reimbursable Project Investment Applications
NRI (6) Litigation Fund - Refresh

Introduction

Section 37-60-121(2.5) provides that the Colorado Water Conservation Board is authorized "to expend, pursuant to continuous appropriation and subject to the requirements of paragraph (b) of this subsection (2.5), a total sum not to exceed the balance of the litigation fund, which is created, for the purpose of engaging in litigation...to defend and protect Colorado's allocations of water in interstate streams and rivers..." Paragraph (b) of section 121(2.5) provides: "pursuant to the spending authority set forth in paragraph (a) of this subsection (2.5), moneys may be expended from the litigation fund at the discretion of the board if (l) with respect to litigation, the Colorado Attorney General requests that the Board authorize the expenditure of moneys in a specified amount not to exceed the balance of the fund for the costs of litigation associated with one or more specifically identified lawsuits meeting the criteria set forth in paragraph (a) of this subsection (2.5)."

This request is to refresh the Fund up to \$2,000,000 for FY 2020-21. Increased activity on the interstate streams, especially the Rio Grande, the Republican, and the Colorado Rivers, has been increasing annually. With many ongoing processes and controversies ahead, the IFWI section and Office of the Attorney General requested in May 2019 that \$1,452,700 in expenses in FY 2019/20 are needed.

Staff Recommendation

Staff recommends the Committee's approval of the item for consideration by the Board in November to authorize the Department of Natural Resources for allocation to the Colorado Water Conservation Board, the sum of \$2,000,000 or so much as may be necessary in order to restore the balance up to \$2,000,000 in the Litigation Fund to allow the Attorneys General Office to prepare and participate in ongoing legal matters on behalf of the Colorado Water Conservation Board.



PHIL WEISER
Attorney General

NATALIE HANLON LEH
Chief Deputy Attorney General

JUNE TAYLOR
Chief Operating Officer

ERIC R. OLSON
Solicitor General



RALPH L. CARR
COLORADO JUDICIAL CENTER
1300 Broadway, 10th Floor
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**STATE OF COLORADO
DEPARTMENT OF LAW**

May 15, 2019

**Request for Expenditure from Litigation Fund for FY20
Federal and Interstate Water Unit Legal Expenses**

Dear Colorado Water Conservation Board Members:

Section 37-60-121(2.5)(a)(III), C.R.S., authorizes the Colorado Water Conservation Board ("CWCB" or "Board") to expend money from its Litigation Fund, at the request of the Attorney General, for the costs to defend and protect Colorado's allocations of water in interstate streams and rivers. Pursuant to that authorization, I request you approve the expenditure of specific funds from the Litigation Fund for Fiscal Year 20 ("FY20") to continue our efforts to effectively protect Colorado's interests in the Colorado, Republican, Rio Grande, and Arkansas River Basins in the upcoming year. I believe these expenditures, as itemized below, are necessary to participate fully in all processes, including negotiation and litigation, where Colorado's interests in these interstate rivers could be affected.

Previous years' funding requests for work to defend and protect Colorado's interests in these river basins were based on our then-current best estimates of the work required in the upcoming year. Because such work is heavily dependent on court decisions and case and project management practices beyond the control of the attorneys, it is difficult to accurately project the timing of litigation related costs for the entire year. As a result, certain funds authorized for expenditure in a basin in a given year are not always fully expended by the close of that year. This is the case for the Colorado, Republican, and Rio Grande Basins this year, as it is anticipated that the funds you authorized for Fiscal Year 19 ("FY19") will not be fully expended by June 30, 2019.

In an attempt to provide some clarity between accounting divisions at the Department of Natural Resources and Department of Law, we "zero out" the remaining FY19 authorizations and make new requests for each basin for the funds needed in FY20. Below is the estimated reconciliation between funding authorizations and actual expenditures for each basin for FY19, and a discrete funding authorization request for each basin for FY20. Attached to this letter is a summary table of the basins which reflects the FY19 authorization, actual expenditures through March 31, 2019 for personnel expenses on the Colorado River, and for operating, travel and contractor expenses in each of the basins. The Table also includes *estimated* expenditures through June 30, 2019, and a separate

summary of the funding request for FY20. As the table shows, the FY20 authorizations as outlined in this letter are partially offset by the unexpended funds authorized for FY19.

Request for approval of expenditure for the Colorado River Basin

The Colorado River remains the only river basin originating in Colorado that is not over-appropriated in some parts of the basin. Colorado continues to be involved in basin planning investigations, National Environmental Policy Act and Endangered Species Act processes, 7-State and federal negotiations for coordinated reservoir operations, drought contingency plans, demand management, international negotiations, Animas La-Plata negotiations, and generally defending the state's allocations of water in the Colorado River system. Such activities require sound legal analysis and detailed technical knowledge to inform decision making.

In May 2018, the Board approved \$428,000 to support legal staff (2 1/2 FTE Attorneys and 1 FTE Paralegal) at the Department of Law ("DOL"). Additionally, the Board authorized an expenditure of \$150,000 for expert consulting work to coordinate ongoing efforts on the Glen Canyon Dam Long Term Experimental and Management Plan (LTEMP), and to inform ongoing legal positions regarding reservoir guideline negotiations, compact compliance investigations, and interstate negotiations. Finally, the Board approved an additional \$65,000 for travel and operating expenses, including the potential to purchase database software as needed to maintain consistency in managing the Colorado River databases. Actual FY19 expenditures for DOL were influenced by limited expenditures for consultants and operating costs. FY19 expenditures for DOL legal staff are estimated to be approximately \$417,367. Contract expenditures are estimated to be closer to \$36,000 due to pauses in studies as the seven Colorado River Basin States worked to finalize the Drought Contingency Plan. Operating and travel costs are estimated to be approximately \$26,025.

For FY20, we anticipate maintaining a full staff of 2 1/2 FTE attorneys and 1 FTE paralegal to address the issues arising in the Colorado River basin, including but not limited to: (1) participating in intra- and inter-state demand management investigations; (2) implementing the Upper Basin and Lower Basin Drought Contingency Plans; (3) preparing for Renegotiating the 2007 Interim Guidelines; (4) implementing the Glen Canyon Dam Long Term Experimental Plan; (5) operating of the Aspinall Unit consistent with the 2012 Record of Decision; (6) operating the Animas-La Plata Project; (5) Endangered Species Act and Salinity Control Act considerations; (7) implementing the Upper Colorado River Basin Fund MOA; (8) serving as legal members of the Upper Colorado River Commission legal committee; (9) water rights administration throughout the basin as it relates to the compacts; and (10) any ongoing or upcoming litigation that could implicate Colorado's interests in the Colorado River system. This is a significant amount of work and thus will entail an increase in funds to accommodate possible increases in state

benefit requirements and salaries. Moreover, we anticipate continuing the contracting work associated with implementation of the Glen Canyon Dam LTEMP and Upper Basin Drought Contingency Plans, consideration of demand management and compact compliance matters within Colorado, and preparation for renegotiation of the 2007 Interim Guidelines. Finally, DOL remains in the process of evaluating whether it needs to secure additional software to manage the Colorado River Database. As such, the request for operating expenses again includes consideration for software, if needed. For these reasons, we estimate the need to expend \$450,000 for DOL legal staff, \$180,000 for contract costs, and \$65,000 for travel and operating costs. **We request the Board authorize the expenditure of \$695,000 for FY20 for the Colorado River Basin.**

Request for approval of expenditure for the Republican River Basin

In May 2018, the Board approved requests for expenditure of \$104,500 from the Litigation Fund to “continue to defend Colorado’s use and allocation of water under the Republican River Compact.” These funds have paid for negotiation meetings, travel, and other expenses related to compact administration among Nebraska, Kansas, and Colorado. They have also paid for consultant fees that were less than anticipated as compact administration modeling becomes more routine following resolution of key issues among the compacting states.

The Board authorized an additional \$38,500 to assist the State Engineer’s Office in developing, evaluating, and defending compact compliance rules for the entire basin. Because such rules did not come to fruition until midway through FY19, the majority of those funds were left unexpended. Contract expenditures for Republican River Basin work for FY19 are estimated to be approximately \$47,000.00, and operating and travel costs are estimated to be approximately \$1,700.00, for a maximum total of \$48,700.

For FY20, continued case work and work of expert consultants to implement the accounting consistent with settlements and court decisions will be necessary. Moreover, the DOL will require funds for additional consultant contracts and travel expenses over and above that contemplated for ongoing interstate discussions continue to defend the proposed compact compliance rules as they make their way through the water court process for consideration and approval. **To pay for these efforts, we request the Board authorize the expenditure of \$110,000 for FY20 for the Republican River Basin.**

Request for approval of expenditure for the Rio Grande Basin

In May 2018, the Board approved a request for expenditure of \$533,300 for retaining expert consultants, providing for travel and operating expenses associated with Rio Grande litigation and settlement negotiation among Texas, New Mexico, Colorado and the United States. Progress on this original action was initially slow, but has accelerated as the case has been set for trial and is currently in the middle

of the discovery process. The litigation team has contracted with expert consultants in ground water, hydrogeology, Rio Grande administration, and agricultural engineering to inform the claims at issue in the case. They have begun initial investigations but did not expend as much time and effort as initially anticipated due to delays in deciding the outcome from pending briefings and oral arguments. Overall expenses in FY19 for interstate litigation work in the Rio Grande Basin is estimated to total approximately \$115,200 for contract consulting work, and \$19,150.00 for operating and travel expenses, for a total estimated FY19 expenditure of almost \$135,000.

Also in May 2018, the Board authorized expenditure of \$140,000 related to modeling the Upper Rio Grande. The Rio Grande Basin requires modeling updates to evaluate and improve the state's general understanding of ground water flow in the Upper Rio Grande between Del Norte and South Fork, and to further assure compliance with the pending rules. At that time, the Rules Governing the Withdrawal of Ground Water in the Rio Grande Basin were pending before the Division 3 Water Court. These rules were necessitated in part to promote effective and efficient compliance with the Rio Grande Compact and state water law. Due to initial delays in contracting and commencing the modeling work, not all requested funds have been expended in FY19. Expenses in FY19 are estimated to total approximately \$45,000.

For FY20, we expect the interstate litigation to continue at a faster pace in time and activity. Trial is set for the fall of 2020, with briefings and motions practice likely to be a significant activity throughout. Additionally, the parties are in the middle of discovery processes, and are expected to review and evaluate various models by the end of the calendar year. We therefore anticipate the need for travel/operating costs to manage documents, conduct discovery, prepare briefs, and attend arguments before the Special Master and potentially the U.S. Supreme Court. We also anticipate the need to provide a portion of the funding for the Special Master costs (unrelated to fees), and to participate in on-going settlement and litigation planning meetings among the parties. Moreover, Colorado will continue to retain the expert consultants pursuant to current contracts for the upcoming year. **We estimate Rio Grande litigation and settlement negotiation costs to total up to \$569,500 for FY20.**

For FY20, we also estimate the Upper Rio Grande Ground Water flow work to continue for both hydrogeological and ground water modeling expertise with a cost of approximately \$78,200.

Considering the interstate litigation and the depletion modeling, we request the Board authorize a total FY20 expenditure for the Rio Grande Basin of \$647,700.

No Request for the Arkansas River Basin

At this time, we do not anticipate any need for litigation fund expenditures for the Arkansas River Basin.

Conclusion

The efforts highlighted above are essential to accomplish the work at DOL in support of the CWCB, the Division of Water Resources, the Department of Natural Resources, and Colorado's Compact Commissioners in ongoing negotiations, investigations, and litigation to protect Colorado's rights to and interests in interstate streams and rivers. We therefore request and recommend that CWCB authorize the above-identified expenditures for FY20.

We further recommend that the CWCB's authorizations allow the funds to be used in FY20 if not expended in FY19, and allow the Board Director, in consultation with the State Engineer and DOL staff, to allocate funds between these activities based on actual costs and litigation necessities.

Thank you for your consideration.

Sincerely,

A handwritten signature in black ink, appearing to read "Phil Weiser", with a long horizontal flourish extending to the right.

Phil Weiser
Colorado Attorney General



COLORADO

Colorado Water
Conservation Board

Department of Natural Resources

Litigation Fund

Colorado Water Conservation Board

September 2019 Finance Committee

Section 37-60-121(2.5) provides that the Colorado Water Conservation Board is authorized “to expend, pursuant to continuous appropriation and subject to the requirements of paragraph (b) of this subsection (2.5), a total sum not to exceed the balance of the litigation fund, which is created, for the purpose of engaging in litigation...to defend and protect Colorado’s allocations of water in interstate streams and rivers...” Paragraph (b) of section 121(2.5) provides: “pursuant to the spending authority set forth in paragraph (a) of this subsection (2.5), moneys may be expended from the litigation fund at the discretion of the board if (l) with respect to litigation, the Colorado Attorney General requests that the Board authorize the expenditure of moneys in a specified amount not to exceed the balance of the fund for the costs of litigation associated with one or more specifically identified lawsuits meeting the criteria set forth in paragraph (a) of this subsection (2.5).”

P R O J E C T D E T A I L S	
<i>Project Cost:</i>	\$1,452,700
<i>NRI Funding Request:</i>	Up to \$2,000,000
<i>Funding Source:</i>	Construction Fund
<i>Project Type:</i>	Legal Support
<i>Type of Grantee:</i>	State Government

L O C A T I O N	
<i>Benefits:</i>	Statewide
<i>Water Source:</i>	N/A
<i>Drainage Basin:</i>	All Basins

The CWCB has received a letter from Attorney General Phil Weiser stating that a total of \$1,452,700 will be needed in FY19/20 to adequately: defend in negotiations; litigation; and other processes the State's apportionments under the Compacts. The funds will be allocated as follows:

- 1) Colorado River Basin: \$695,000 for FY19/20
- 2) Republican River Basin: \$110,000 for FY19/20
- 3) Rio Grande Basin: \$647,700 for FY19/20

The CWCB will request a refresh of the Litigation Fund up to \$2,000,000 each year through annual appropriations in order for the Board to respond to unforeseen legal challenges.



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**Colorado Water
Conservation Board**

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Jared Polis, Governor

Dan Gibbs, DNR Executive Director

Rebecca Mitchell, CWCB Director

TO: Finance Committee

FROM: Brian Macpherson, P.E., Water Resources Engineer
Interstate, Federal and Water Information Section

DATE: September 17, 2019 Finance Committee Meeting

ITEM: 2. Non-Reimbursable Project Investment Applications NRI -
NRI (7) Arkansas River Decision Support Systems (ArkDSS)

Introduction

Colorado's Decision Support Systems (CDSS) are a joint effort of CWCB and DWR, with the purpose of providing data and analytical tools to aid in water resources planning and management in the State. Basin DSSs take a deep-dive into each major river basin in Colorado and add information, data, and models for that Basin to the statewide sets. Currently there are Basin DSSs in place for the Colorado River, Rio Grande, and South Platte Basins.

The Arkansas River Decision Support System (ArkDSS) is the last DSS to be developed for CDSS. The feasibility study was completed in December 2011, resulting in an estimated total cost of \$7,590,000. \$2,750,000 has previously been approved by the Board. Work will conclude in 2020 on the first phase of ArkDSS, which includes three major components of ArkDSS: spatial system integration (GIS); consumptive use analysis and surface water planning model development; and administration and accounting tool development.

The funding requested herein will be used to continue the ArkDSS implementation (Phase II). Phase II priorities include:

- Additional surface water modeling in support of the Trinidad Reservoir 10-year review process. This joint review process is required by the Arkansas River Compact and will be performed in conjunction with the Bureau of Reclamation, Kansas, and the Purgatoire River Water Conservancy District.
- Additional administration tools for DWR Division 2. With the interest in the Division 2 Colors of Water Tool, ArkDSS Phase II will increase the geographic and temporal resolution of the tool using modeling and forecasting and provide a platform for statewide adoption of the tool. It will also provide additional support for administrative decision-making along with use as a communication tool.
- Update of the StateCU graphical user interface (GUI) to incorporate the latest command files, update the developer tools to a modern toolset, and possibly convert the tool to a web-based application.
- Compilation of all existing aquifer information into full gridded datasets for the Basin including data such as transmissivity, hydraulic conductivity, saturated thickness, and bedrock elevation. This data will be derived from previous studies by CSU, USGS, and well log information that exists in HydroBase.



- Continuation of installation and maintenance of streamflow gages, monitoring wells, and telemetry equipment as required for surface water modeling and groundwater data collection needs.

Staff Recommendation

Staff recommends that the Board request the General Assembly to authorize \$500,000 from the Construction Fund to be appropriated to the Department of Natural Resources for allocation to the CWCB to continue implementation of the ArkDSS.



Colorado's Decision Support Systems (CDSS) are a joint effort of CWCB and DWR, with the purpose of providing data and analytical tools to aid in water resources planning and management in the State. Basin DSSs take a deep-dive into each major river basin in Colorado and add information, data, and models for that Basin to the statewide sets. Currently there are Basin DSSs in place for the Colorado River, Rio Grande, and South Platte Basins.

The Arkansas River Decision Support System (ArkDSS) is the last DSS to be developed for CDSS. The feasibility study was completed in December 2011, resulting in an estimated total cost of \$7,590,000. \$2,750,000 has previously been approved by the Board. Work will conclude in 2020 on the first phase of ArkDSS, which includes three major components of ArkDSS: spatial system integration (GIS); consumptive use analysis and surface water planning model development; and administration and accounting tool development.

The funding requested herein will be used to continue the ArkDSS implementation (Phase II). Phase II priorities include additional surface water modeling in support of the Trinidad Reservoir 10-year review, additional administration tools, an update of the StateCU graphical user interface (GUI), compilation of groundwater data into full gridded datasets, and installation and maintenance of streamflow gages, monitoring wells, and telemetry equipment.

P R O J E C T D E T A I L S	
<i>Project Cost:</i>	\$7,590,000
<i>NRI Funding Request:</i>	\$500,000
<i>Funding Source:</i>	Construction Fund
<i>Project Type:</i>	Other
<i>Type of Grantee:</i>	State Government

L O C A T I O N	
<i>Benefits:</i>	Statewide
<i>Water Source:</i>	N/A
<i>Drainage Basin:</i>	Arkansas



COLORADO

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Jared Polis, Governor

Dan Gibbs, DNR Executive Director

Rebecca Mitchell, CWCB Director

TO: Finance Committee

FROM: Brian Macpherson, P.E., DSS Specialist
Interstate, Federal and Water Information Section

DATE: September 17, 2019 Finance Committee Meeting

ITEM: 2. Non-Reimbursable Project Investment Applications NRI -
NRI (8) Colorado's Decision Support Systems (CDSS) Operation & Maintenance

Introduction

This funding request is for ongoing operation and maintenance of Colorado's Decision Support Systems (CDSS), a joint effort of CWCB and DWR to provide data and modeling tools to assist in water resource planning and management in Colorado. Over the last 25 years, the HydroBase database, GIS databases, analytical tools, and consumptive use, surface water allocation, and groundwater models have been developed and implemented for most of the State, with development of the Arkansas River DSS finishing its first phase in 2020. These CDSS components need periodic maintenance and operational revisions to protect the State's investment and keep the tools viable as water resource planning becomes more technical and data-driven in the future. CDSS data and tools are crucial in State planning, including the Water Plan Technical Update and studies involving the Compacts, water court engineering analysis, federal water accounting for endangered fish flow, and protection of the State's interests when it comes to Compact allotment and negotiations of agreements such as the upcoming Colorado River Interim Guidelines. The Colorado Water Plan Technical Update performed modeling and data analysis for several possible future scenarios using CDSS surface water allocation models, consumptive use models, and the CDSS database, HydroBase.

Discussion

An O&M-oriented approach to CDSS funding has been used since 2007 and in 2017 a \$200,000 allocation was made in the Projects Bill. That funding has been fully encumbered in an ongoing project which will allow CDSS software to move to an open source platform. Making CDSS "open" will provide the technical and legal framework for non-state programmers to contribute to the CDSS software while still maintaining State control of the software's code and direction. This approach is imperative to the longevity and resilience of the CDSS software and is increasingly common in modern state and federal software. This funding has also supported ongoing software maintenance, including updates to ensure that CDSS functions properly on Windows 10 operating systems, and to connect CDSS tools to the Division of Water Resource's HydroBase web interface. The funds requested herein will address a backlog of needs including code enhancements to CDSS software, irrigated parcel work in GIS, improvement of municipal representation and other needs in StateMod models, and study of evapotranspiration (ET) methodologies related to statewide consumptive use and a gridded reference ET dataset.

Staff Recommendation

Staff recommends the Committee's approval of item for consideration by the Board in November to authorize from the Construction Fund up to \$500,000 to the Colorado's Decision Support System for continued Operation and Maintenance.





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Colorado Water
Conservation Board

Department of Natural Resources

Colorado's Decision Support System (CDSS) Operation & Maintenance

Colorado Water Conservation Board

September 2019 Finance Committee

This funding request is for ongoing operation and maintenance of Colorado's Decision Support Systems (CDSS), a joint effort between CWCB and DWR to provide data and modeling tools to assist in water resource planning and management in Colorado. Over the last 25 years, HydroBase databases, GIS databases, analytical tools, and consumptive use, surface water allocation, and groundwater models have been developed and implemented for most of the State, with development of the Arkansas River DSS finishing its first phase in 2020. These CDSS components require maintenance and operational revisions to protect the State's investment and keep the tools viable as water resource planning becomes more technical and data-driven in the future.

CDSS data and tools are crucial in State planning, including the Water Plan Technical Update and studies involving the Compacts, water court engineering analysis, federal water accounting for endangered fish flow, and protection of the State's interests when it comes to Compact allotment and negotiations of agreements such as the upcoming Colorado River Interim Guidelines.

P R O J E C T D E T A I L S	
<i>Project Cost:</i>	\$500,000
<i>NRI Funding Request:</i>	\$500,000
<i>Funding Source:</i>	<i>Construction Fund</i>
<i>Project Type:</i>	Operations & Maintenance
<i>Type of Grantee:</i>	State Government
L O C A T I O N	
<i>Benefits:</i>	Statewide
<i>Water Source:</i>	N/A
<i>Drainage Basin:</i>	All CDSS Basins



COLORADO

Colorado Water Conservation Board

Department of Natural Resources

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Jared Polis, Governor

Dan Gibbs, DNR Executive Director

Rebecca Mitchell, CWCB Director

TO: Finance Committee

FROM: Joe Busto, Watershed Protection and Flood Mitigation Section
Andrew Rickert, Interstate, Federal, and Water Information Section
Erik Skeie, Interstate, Federal, and Water Information Section

DATE: September 17, 2019 Finance Committee Meeting

ITEM: 2. Non-Reimbursable Project Investment Applications
(9) Water Forecasting Partnerships Project

Introduction

There is a recognized need for better water forecasting statewide. CWCB staff has been working to acquire gap filling data for existing and emerging modeling techniques to refine water forecasting and administration in Colorado and to help with new data and modeling for equitable apportionment of water in state and to meet compact obligations.

In 2015, CWCB Staff, the National Center for Atmospheric Research (NCAR), the Conejos Water Conservancy District, NRCS Snow Survey, and NOAA conducted a watershed sized field experiment in the Conejos and Rio Grande Basins. This project resulted in the installation of 6 snow data stations in the Conejos Basin, a weather radar in Alamosa, as well as three years of LiDAR aerial flights in the Rio Grande and Gunnison Basins. NCAR incorporated these new data sources along with aerial snowpack data collected by NASA into the National Water Model. The [Upper Rio Grande Basin Snowfall Measurement and Streamflow Forecasting Improvement Project](#) report concludes that combining all of these resources is feasible and can yield a more accurate water supply forecast than the River Basin Forecast. In the Rio Grande, water supply forecasts are now utilized in surface, ground, and compact administration.

Then staff funding and technical assistance moved to the Gunnison Basin, with four new SNO-Lites in the Taylor River Basin to triple the data used in modeling and forecasting the spill fill at the Taylor Reservoir.

If the request is approved the CWCB will work to implement the itemized projects on the project data sheet. Projects include; SNO-Lite stations modified for summer rain and winter snow data, assistance with O&M of new snow data stations, continued snowpack mapping in the Gunnison basin, and maintaining the official federal snowpack model (SNODAS) downscaled and tailored to Colorado.

Staff Recommendation

Staff recommends the Board approve \$350,000 from the Construction fund to the CWCB for the Water Forecasting Partnerships Project.





Water Forecasting Partnership Project

Colorado Water Conservation Board

September 2019 Finance Committee

The water forecasting partnership project began in the FY2016/2017 under SB 16-174. This original authorization appropriated \$300,000, and was reauthorized for in both HB17-1248 and SB18-218 for \$800,000 each fiscal year. Of those original appropriations, \$200,000 remains unencumbered. Staff requests \$350,000 be appropriated for continuation of this work in FY 2020/2021. The new funds will be used to complete the projects described in the table below. The goal of this program is to acquire new data and refine water supply forecasting. Matching funds will be sought from partners.

A highlight from previous funding years is [the RIO-SNO-FLOW project](#); a multi-year scientific collaboration between CWCB, Conejos Water Conservancy District, NCAR, NASA, and NRCS to refine water supply forecasting in the Conejos Basin.

P R O J E C T D E T A I L S	
<i>Project Cost:</i>	\$550,000
<i>NRI Funding Request:</i>	\$350,000
<i>Funding Source:</i>	Construction Fund
<i>Project Type:</i>	Data and Modeling Upgrades
<i>Type of Grantee:</i>	Funding for Partnerships

L O C A T I O N	
<i>Benefits:</i>	Statewide
<i>Water Source:</i>	Various
<i>Drainage Basin:</i>	All Basins

FY 2020-21 Proposed Funding			
Location	Item	Cost	Notes
Gunnison	NASA ASO Flight	\$250,000	One peak snow flight for Ohio, Taylor, and East River Basin for winter 2020-2021. These flights are meant to help forecast inflows into Taylor and also compliment Crested Butte in a large multi-year research project funded by Department of Energy conducted by the Lawrence Berkeley National Lab (LBNL). LBNL has also funded proposals to evaluate the NASA datasets in the Gunnison Basin.
Rio Grande	NCAR	\$40,000	Maintain 6 stations in Conejos Gunnison basin in partnership with Conejos WCD. Provide forecasts using NOAA's multi-radar multi sensor method from the new radar into the national water model.
Statewide	SNODAS DSS Work	\$40,000	Maintain (SNODAS) daily snowpack data in the DSS and on the Open Water Foundation website.
Southwest	NCAR	\$85,000	Provide experimental forecasting using multi-radar multi-sensor methods to calibrate the radar. This includes 3 new SNOTEL-Lite stations for snowpack runoff and flash flood forecasting.
Continuing Projects			
Statewide	Soil & solar radiation sensors	\$35,000	Soil moisture and solar radiation sensors will be installed on SNOTEL Stations.
Statewide	NRCS SNOTEL Stations	\$60,000	Upper Gunnison River WCD requested one NRCS SNOTEL Station, Upper Arkansas River WCD requested two SNOTEL Stations.
Western Slope	CSAS Database	\$40,000	Develop online database for Center for Snow and Avalanche Studies.

Total:	\$550,000
Available	
Balance	\$200,000
New Request	\$350,000



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**Colorado Water
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Department of Natural Resources

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Jared Polis, Governor

Dan Gibbs, DNR Executive Director

Rebecca Mitchell, CWCB Director

TO: Finance Committee

FROM: Jojo La, Endangered Species Policy Specialist
Interstate, Federal, and Water Information Section

DATE: September 17, 2019 Finance Committee Meeting

ITEM: 2. Non-Reimbursable Project Investment Applications
NRI (10) Fish and Wildlife Resources Fund (122.2) - Refresh

The Fish and Wildlife Resources Fund (Fish and Wildlife Mitigation Fund) was established by the Legislature in 1987 with a base of \$5 million to help mitigate the impacts to fish and wildlife resources that are affected by the construction, operation, or maintenance of water diversion, delivery, or storage facilities, pursuant to C.R.S. Section 37-60-122.2 and Financial Policy 15 and 20. The statute was amended in 2002 to recognize the role of instream flows in mitigating impacts and authorized the Colorado Water Conservation Board as well as sponsors of existing facilities to use these funds. The purpose of the Financial Policy is for the consideration and approval of Fish and Wildlife Resources Fund grant applications pursuant to sub-sections 2-4 of 37-60-122.2, C.R.S.

The Board accepts applications throughout the year for grants from this Fund for design plans, engineering, and construction projects to: (1) address impacts from construction of water diversion, delivery, and storage facilities that require a permit, license, or other approvals, and (2) respond to the needs of declining native species and to the species protected under federal law.

Staff Recommendation

Staff recommends the Finance Committee's approval of this item for consideration by the Board in November to authorize a transfer from the Construction Fund of \$1,000,000 to the Fish and Wildlife Resources Fund.





The Fish and Wildlife Resources Fund (Fish and Wildlife Mitigation Fund) was established by the Legislature in 1987 with a base of \$5 million to help mitigate the impacts to fish and wildlife resources that are affected by the construction, operation, or maintenance of water diversion, delivery, or storage facilities, pursuant to C.R.S. Section 37-60-122.2 and Financial Policy 15 and 20. The statute was amended in 2002 to recognize the role instream flows in mitigating impacts, and authorized the Colorado Water Conservation Board as well as sponsors of existing facilities to use these funds. The purpose of the Financial Policy is for the consideration and approval of Fish and Wildlife Resources Fund grant applications pursuant to sub-sections 2-4 of 37-60-122.2, C.R.S.

P R O J E C T D E T A I L S	
<i>Project Cost:</i>	\$1 million
<i>NRI Funding Request:</i>	\$1 million
<i>Funding Source:</i>	Construction Fund
<i>Project Type:</i>	Mitigation Grants
<i>Type of Grantee:</i>	Varies

L O C A T I O N	
<i>Benefits:</i>	Statewide
<i>Water Source:</i>	Various
<i>Drainage Basin:</i>	All Basins

The following projects have received approval for use of these funds over the years:

- 2008: \$30,000: Rio Blanco River Restoration Phase III, Lower Blanco Property Owners Association
- 2009: \$132,000: Rio Blanco River Restoration Phase IV, Lower Blanco Property Owners Association
- 2009: \$70,000: Clear Springs Ranch Fish Passage, Colorado Springs Utilities
- 2010: \$560,000: Reconstruction of the Hartland Diversion Dam, Painted Sky R C and D Council
- 2011: \$75,000: Upper South Platte Diversion Reconstruction Project, Coalition for the Upper South Platte
- 2012: \$50,000: Stream Mitigation Banking Protocols, Colorado State University
- 2014: \$100,000: Platte River Enhancement Phase II, South Suburban Park and Recreation District
- 2015: \$50,000: Stream Mitigation Protocol and Aquatic Habitat Mapping, Colorado State University
- 2017: \$450,000: South Platte Flood Hazard Mitigation, Urban Drainage and Flood Control District
- 2017: \$814,270: Chatfield Reservoir Mitigation Company, Plum Creek Restoration
- 2017: \$550,000: Buckhorn Valley Metropolitan District, Abrams Creek Ditch Lining Project



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Jared Polis, Governor

Dan Gibb, DNR Executive Director

Rebecca Mitchell, CWCB Director

TO: Finance Committee

FROM: Kevin Reidy, Water Conservation Technical Specialist

DATE: September 17, 2019 Finance Committee Meeting

ITEM: 2. Non-Reimbursable Project Investment Applications
NRI (11) Colorado Water Loss Control Initiative- Phase II

Introduction

This initial scope outlines a comprehensive program of basic and advanced training in the AWWA methodology for water loss control and management, ranked and prioritized technical review for all participants, and finally, technical assistance for roughly 50 water providers in the program. Phase II will build on the very successful Phase I, where approximately 100 water providers have completed water audits, culminating in direct technical assistance based on the water provider's needs. Phase II will also focus more efforts on smaller, more rural water providers, in order to train these providers on this methodology.

The draft scope of work includes:

Task 1: Water Audit 101 Workshops and Level 1 Validation

This task will serve as a refresher for Phase 1 participants and any new employees they have. It will also introduce all necessary content for utilities that did not participate in Phase 1, including Level 1 validation. Additionally, it will introduce participants to the most updated AWWA software (v.6).

- a. Webinar
- b. 6 workshops
- c. Level 1 Validation of audits

Task 2: Level II and III Workshops

This task will focus on more advanced techniques and concepts beyond what was covered in Phase I. This task would include mostly participants from Phase I. These include input meter testing, customer meter testing, billing data analysis, real loss component analysis, and economic level of leakage.

- a. Webinar
- b. 10 workshops

Task 3: Ranking and Prioritization for Technical Assistance

This task will identify and prioritize the best hands-on technical assistance area for each participating utility. This prioritization is based on audit results, data validity grades and validation documentation.

- a. Review of all Level 1 validated audits

Task 4: Technical Assistance

This task carries out the technical assistance identified in Task 3. Depending on the water provider, there could be TA in the areas of input meter testing, billing data analysis and prorating, customer meter test design and result analysis, real loss component analysis, and leak detection.

Staff Recommendation

Staff recommends the Committee's approval of item for consideration by the Board in November to authorize from the Construction Fund up to \$1,000,000 for the Colorado Water Loss Initiative: Phase II.





This initial scope outlines a comprehensive program of basic and advanced training in water loss management, ranked and prioritized technical review for all participants, and finally, technical assistance for roughly 50 water providers in the program. Phase II will build on the very successful Phase I where 120 water providers have registered with the program. Phase II will span 24-30 months and includes multiple “touch points” for establishing principles & practice and reinforced understanding, culminating in direct technical assistance based on the water provider’s needs.

P R O J E C T D E T A I L S	
Project Cost:	\$1,000,000
NRI Funding Request:	\$1,000,000
Funding Source:	Construction Fund
Project Type:	Grant Program
Type of Grantee:	State Government

L O C A T I O N	
Benefits:	Statewide
Water Source:	Various
Drainage Basin:	All Basins

The AWWA methodology is considered the industry standard for water loss control and management. The goal for the Colorado Water Loss Control Initiative is for participating water utilities to learn how to apply the methodology to their water system and to achieve a complete and transparent (as measured by Level 1 validated scores) water loss audit. This phase goes beyond audits and assists the water providers in targeting interventions. Water loss was identified in the Water Plan technical update as a significant factor in the M&I gap and, as outlined in Colorado’s Water Plan, the CWCB will:

Support water management activities for all water providers: The CWCB will continue to provide funding, technical support, and training workshops to assist water providers in improving the management of their water systems. This will include the use of techniques such as water budgets, smart-metering, comprehensive water loss management programs, savings tracking and estimating tools, and improved data collection on customer water uses. For example, in the next year, the CWCB will fund several regional training workshops about using the American Water Works Association M36 Methodology for Water Audits and Loss Control.

As part of the coordinated Phase II statewide water loss control training program, the CWCB will reconvene a steering committee which will include (but not limited to) representation from water utility personnel, AWWA, and the Water Research Foundation (WRF). This steering committee will assist in creating and reviewing the RFP for the project and assist with the management of the training process as it moves forward. The steering committee for Phase I has been indispensable with recruitment of participants and the members will be asked to continue into Phase II. Phase II will also focus more efforts on smaller, more rural water providers, in order to train these providers on this methodology.

Water loss control has been identified by the drinking water industry as a major topic of interest. With multiple states providing statewide water loss control training and having identified the AWWA M36 methodology in Colorado’s Water Plan, the time is right to continue statewide training on the industry standard for water loss control and move onto prioritized interventions.



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Colorado Water Conservancy Board

Department of Natural Resources

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Jared Polis, Governor

Dan Gibbs, DNR Executive Director

Rebecca Mitchell, CWCB Director

TO: Finance Committee

FROM: Kirk Russell, P.E., Finance Section Chief
Finance Section

DATE: September 17, 2019 Finance Committee Meeting

ITEM: 2. Non-Reimbursable Project Investment Applications
(12) Southeast Colorado Water Conservancy District - Arkansas Valley Conduit

Background

The Southeastern Colorado Water Conservancy District (District), acting by and through its Water Activity Enterprise, was approved for a \$60,600,000 loan in November of 2006 and subsequently approved by legislature in Senate Bill 2007-122. The loan provides financing for the local match for the design and construction of the Arkansas Valley Conduit Project (AVC). The Conduit is a 138 mile water supply pipeline extending from Pueblo Reservoir to the City of Lamar. The SECWCD is requesting a reauthorization of the funding at an increased funding level of \$100,000,000 (See Attached Letter). The estimated total cost of the project is currently \$450,000,000.

The Arkansas Valley Conduit was authorized by Congress in 1962 as part of the Fryingpan-Arkansas Project (Project), but was never built because local communities could not afford the cost. In 2000, the Southeastern Colorado Water Conservancy District, working with people in six Lower Arkansas Valley counties, renewed planning efforts for the AVC. In 2009, new federal legislation (PL 111-11) reauthorized construction of the AVC, with a 65 percent federal share, and 35 percent local share. The legislation also allows miscellaneous revenues from the Project to fund and repay construction costs. The Bureau of Reclamation issued an Environmental Impact Statement in 2013, and a Record of Decision in 2014.

The project will deliver clean drinking water to 50,000 people in 40 communities in southeastern Colorado. Domestic wells in the Arkansas River watershed east of Pueblo are contaminated by naturally occurring radioactive materials and high levels of salinity, nitrates and selenium. Both the primary treatment of water, and the disposal of bi-products such as brine are driving up costs for water providers, and some communities are unable to meet basic water-quality standards.

Staff Recommendation

Staff recommends the Committee consider a \$100 million funding package (\$90 million loan and a \$10 million grant) to the Southeastern Colorado Water Conservancy District, to provide the local cost share match for the design and construction of the Arkansas Valley Conduit Project.

The loan terms and additional requirements will be reviewed and presented at the November 2019 CWCB Board meeting.





COLORADO

Governor Jared Polis

August 30, 2019

Larry Crowder
State Senator
200 East Colfax Avenue
Denver, CO 80203


Dear Senator Crowder:

Thank you for contacting our office in regards to the Arkansas Valley Conduit, a critical component of the Fryingpan-Arkansas Project that is awaiting construction in southeastern Colorado. We share a desire to ensure the citizens of Pueblo, Otero, Bent, Crowley, Kiowa, and Prowers counties have access to clean drinking water supplies and understand the importance of the Arkansas Valley Conduit as a long-term solution. It is a priority for our administration to create a Colorado for all, which includes assisting our rural communities to advance locally driven solutions.

The Arkansas Valley Conduit is an important project that will dramatically improve water quality and provide reliable water supplies to 40 communities. I agree that it is critical for our federal partners to commit dedicated funding to contribute to the construction of this project per a cost-sharing plan approved by Congress in 2009. To demonstrate the seriousness of local funding and support, the Colorado Water Conservation Board authorized a \$60.6 million low-interest loan for the design and construction of the pipeline, and approved approximately \$18 million of the loan funds for the Pueblo Hydroelectric Dam Project to create a needed revenue source for the project. In addition to securing local funding, I am pleased to hear that collaborative discussions continue between Southeastern Colorado Water Conservancy District, the Bureau of Reclamation, and Pueblo Board of Water Works to route the pipeline through Pueblo, saving time and money. These commitments to refine costs and identify efficiencies signal that it is time for Congress to fulfill its commitment to begin providing its federal cost share for the project.

I will continue to support efforts to work with our Departments on opportunities to seek state financing and grant opportunities to advance this project. Further, my administration will continue to identify opportunities to secure federal funding by acknowledging the local momentum and long-standing efforts to bring this project to fruition.

Sincerely,



Jared Polis
Governor





SOUTHEASTERN COLORADO

Water Conservancy District

"Your investment in water"

September 3, 2019

Becky Mitchell
Executive Director
Colorado Water Conservation Board
1313 Sherman Street
Denver, Colorado 80203

Dear Ms. Mitchell:

We are asking the Colorado Water Conservation Board (CWCB) to renew loan authorization to begin construction on the Arkansas Valley Conduit (AVC). We would appreciate consideration at the September Finance Committee meeting. We will be making an official request to be included in the 2020 projects bill at the November meeting of the CWCB.

The AVC is a 130-mile pipeline from Pueblo Dam to Lamar, with connections to 40 communities east of Pueblo who desperately need a new source of fresh drinking water. Those communities serve 50,000 people, and most are relying on wells which have elevated levels of contaminants such as radium, uranium, selenium, nitrates, and total dissolved solids. A total of 17 of the communities in the AVC are under state drinking water enforcement orders at this time.

The AVC is the most cost-effective solution for delivering clean drinking water to the affected communities. Other solutions involve both costly installation of filter, ion exchange, and reverse osmosis processes, as well as an equal or greater cost for waste disposal. The AVC reduces impacts on the environment by reducing the waste stream.

The CWCB has supported the AVC in November 2006, with a \$60.6 million loan authorization for the Southeastern Colorado Water Conservancy District (District) to build what was then believed to be a \$300 million project. The \$60.6 million represented contributions toward the local portion of construction costs for AVC. During the ensuing years, significant progress was made on the AVC:

- 2007-10: The Bureau of Reclamation (Reclamation) completed Appraisal level costs of the AVC, concluding it was a \$400 million project.
- 2009-15: Baseline surveys of all AVC participants' systems and needs were completed. These reports identified water conservation efficiencies within local systems.
- 2009: Public Law 111-11 was passed by Congress, allowing miscellaneous revenues from the Fryingpan-Arkansas Project to be used to construct the AVC, and to pay debt on the AVC in future years. The state and local cost share is identified as 35 percent in the legislation.
- 2013: Reclamation completed the Environmental Impact Statement for AVC, identifying a Preferred Alternative.
- 2014: Reclamation issues a Record of Decision for the Preferred Alternative.
- 2017: Reclamation completed a Feasibility level report which

- 2017: The District accessed \$17.39 million of the CWCB loan for construction of a hydroelectric generation plant at Pueblo Dam. The James W. Broderick Hydropower Plant was completed in May 2019, and is envisioned as a source of revenues to defray operating costs for the AVC when is built.

As you can see, we have made steady progress on the AVC in the years since the first loan was approved. State support for the AVC has been a major driver in making progress. To date, Reclamation has spent more than \$30 million in study and planning activities that will help make the AVC a reality.

Federal support is needed because this is an economically disadvantaged area where public budgets already are stretched in obtaining compliance with federal water quality standards.

The AVC is in a competitive environment for federal funding, and continuing state support is fundamental to the process. The AVC was listed as the top priority for the Arkansas River basin under the Arkansas Basin Roundtable Basin Implementation Plan. In terms of the State Water Plan, the AVC meets several objectives, to include filling the municipal supply gap, conservation by improving water efficiency, and supporting agricultural communities.

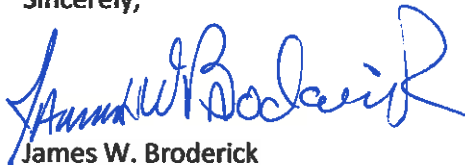
The District has been working with Reclamation on ways to construct the AVC more efficiently in order to save time, reduce costs, and provide service more quickly to the communities most impacted by drinking water quality enforcement. As a result, the capital outlay of the AVC could be reduced by as much as \$100 million. This also will reduce the eventual costs to taxpayers, because the sooner AVC is built, the less money will be spent on less effective, stopgap solutions.

Additionally, Reclamation is contemplating partnerships with other federal agencies, as part of a cabinet-level program to advance water programs such as AVC. The District believes AVC will be the ideal test case for this endeavor.

We plan to ask for \$100 million as a package, with at least 80 percent in loans and up to 20 percent as grants. The money would be used for the pipeline construction of the project over a period of several years.

Thank you for your consideration of this necessary and worthwhile project.

Sincerely,



James W. Broderick

Executive Director

Southeastern Colorado Water Conservancy District



SOUTHEASTERN COLORADO WATER CONSERVANCY DISTRICT

Arkansas Valley Conduit

The Colorado Water Conservation Board (CWCB) approved a \$60.6 million loan for the Arkansas Valley Conduit (AVC) in November, 2006, when it was believed the AVC construction would be imminent and the cost roughly \$300 million. This amount was included in the 2007 Water Projects Bill by the state General Assembly.

Subsequent to that approval, the AVC has progressed, albeit more slowly than anticipated. The Southeastern District (District) accessed \$17,392,300 of the loan capacity for the Pueblo Dam Hydropower Project. This loan was approved in 2016, and finalized in 2017.

The District has been working diligently to make the AVC a reality since the initial approval of the \$60.6 million loan.

For the past three years, Reclamation has been completing further investigations toward the time when construction of the AVC can begin.

New Concept

In early 2017, the District approached Reclamation with what we are calling the “New Concept,” which makes use of more of Pueblo Water’s infrastructure in order to begin distribution through the AVC more quickly. In the Comanche North alternative, a Joint Use Pipeline and some of the capacity of the Whitlock Treatment Plant would be used to avoid duplication of delivery points from Pueblo Dam.

The New Concept expands on this idea by using the capacity of the entire Pueblo Water system to deliver water to multiple points on Pueblo’s east side. The District believes this will save at least 10 years of construction time if Reclamation adapts the change in plans.

In this way, water deliveries would begin sooner for the 17 communities that are facing state enforcement

AVC MILESTONES

♦ **2009** — P.L. 111-11 passed, allowing miscellaneous revenues (excess-capacity contract payments) from the Fryingpan-Arkansas Project to be applied to AVC construction and repayment. These payments will total about \$3 million annually, increasing in future years as contract payments rise.

♦ **2013** — The Bureau of Reclamation (Reclamation) completed a Final Environmental Impact Statement for the AVC.’

♦ **2014** — Reclamation issued a Record of Decision for the AVC, which established a route (Comanche North) and scope of work for the project.

action for contamination of water supplies by radioactive materials. These water districts and towns are clustered in Otero County, and their need for a clean supply of water is greatest among the 40 communities that would be served by the AVC.

Assuring Funding

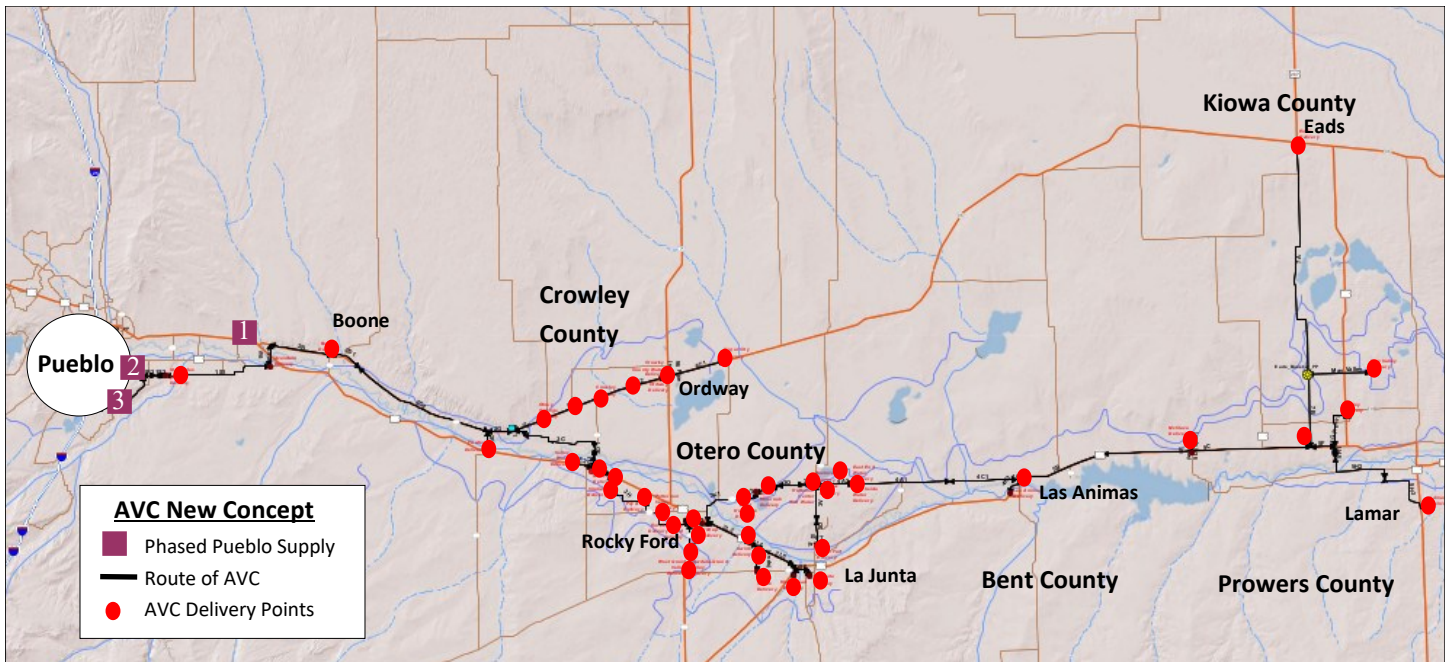
The major challenge to date for the AVC has been obtaining federal appropriations in a tight budget climate.

To date, roughly \$25 million has been spent on the AVC. The District would like to see the pace of this funding increased.

As time goes by, the costs of the AVC have increased. In 2006, the cost was put at \$300 million. The appraisal level cost estimate increased to \$400 million, and is expected to climb again.

One way to improve funding prospects would be to use CWCB loan installments in successive years, rather than as a lump sum.

In order to build the AVC, the full \$60 million available should be re-established.



The Southeastern District and Reclamation are working on a plan to get clean drinking water to Otero County more quickly.

Economic benefits

- ◆ Reduced costs from pumping and treating groundwater.
- ◆ Reduced plant maintenance costs and increase efficiency among small water systems.
- ◆ Reduced costs to treat return flows from desalinization processes.
- ◆ Less need to purchase new sources of water to augment wells.
- ◆ Job creation during construction.
- ◆ Improved infrastructure for homes and businesses.

Environmental benefits

- ◆ More efficient use of water.
- ◆ Cleaner source water toward meeting standards for both drinking water and effluent.
- ◆ Reduced dry-up of farm ground.
- ◆ Fewer health issues associated with poor-quality drinking water.

Arkansas Valley Conduit: Key elements

- ◆ 40 communities from Pueblo to Lamar and Eads served by 270 miles of pipelines.
- ◆ Phased delivery using Pueblo Water infrastructure.
- ◆ Gravity-fed pipeline, with some pumping required.
- ◆ Interconnect on Pueblo Dam between South and North Outlets.
- ◆ Pipeline and spurs connecting 40 communities.

State Water Plan nexus

- ◆ Closes the municipal gap.
- ◆ Improves water supply.
- ◆ Reduces demand for water
- ◆ Better water management
- ◆ Conserves water by reducing waste

AVC Participants

Pueblo County

Boone
St. Charles Mesa Water

Crowley County

96 Pipeline Company
Crowley County Water Association
Crowley
Olney Springs
Ordway
Sugar City

Bent County

Hasty Water Company
Las Animas
McClave Water Assn.

Prowers County

Lamar
May Valley Water Assn.
Wiley

Kiowa County

Eads

Otero County

Beehive Water Assn.
Bents Fort Water Co.
Town of Cheraw
East End Water Assn.
Eureka Water Co.
Fayette Water Assn.
Fowler
Hancock Inc.
Hilltop Water Co.
Holbrook Center Soft Water
Homestead Improvement
La Junta
Manzanola
Newdale-Grand Valley
North Holbrook Water
Patterson Valley
Riverside Water Co.*
Rocky Ford
South Side Water Assn.
South Swink Water Co.
Swink
Valley Water Co.
Vroman
West Grand Valley Water
West Holbrook Water

RED: Enforcement action from CDPHE Colorado Water Quality Division for radionuclides.

GREEN: Non-Enforceable radionuclide contamination.

*** New to AVC**

(As of 2017)

**COLORADO****Colorado Water
Conservation Board**

Department of Natural Resources

1313 Sherman Street
Denver, CO 80203P (303) 866-3441
F (303) 866-4474

Jared Polis, Governor

Dan Gibbs, DNR Executive Director

Rebecca Mitchell, CWCB Director

TO: Finance Committee

FROM: Lauren Ris, Deputy Director

DATE: September 17, 2019 Finance Committee Meeting

ITEM: 2. Non-Reimbursable Project Investment Applications
NRI (13) Water Plan Implementation Funding

At the May 2016 Board Meeting, staff indicated that the CWCB had received revenue above the agency's average annual amount. At that time, staff's recommendation was to put \$75 million toward the Colorado Water Plan Implementation effort over a 3 to 5-year period. This memo is in preparation of year 4. In FY17/18, FY18/19 and FY19/20, the Board received legislative approval for \$25M, \$11M, and \$20M respectively for this purpose, summarized in the table below.

Table. Water Plan Implementation Funding Summary (Past and Proposed)

	FY17/18 HB17-1248	FY18/19 SB18-218	FY19/20 SB19-221	Proposed FY20/21 HB20-xxxx
WSRF Supplemental Funding	\$10M	\$2M	\$2.5M	\$0M ⁽¹⁾
Watershed & Stream Restoration Prog.	\$5M	\$2M	\$4M	\$4M
Environment & Recreation WPGGrants	\$1M	\$1.5M	\$1.5M	\$1.5M
Agricultural Transfer Methods (ATM) Grants	\$1M	-	\$1M	-
Agricultural Projects WPGGrants	\$1M	\$1M	\$1M	\$1.5M
Storage & Supply Gap WPGGrants	\$5M	\$3M	\$3M	\$5M ⁽²⁾
Conservation & Drought Planning WPGGrants	\$1M	\$1M	\$1M	\$1M
Innovation/Outreach/Education WPGGrants	\$1M	\$0.5M	\$0.5M	\$0.5M
Water Plan Updating Efforts	\$1M		\$5.5M	
	\$25M	\$11M	\$20M	\$13.5M

(1) Supplemental WSRF funding from the Construction Fund is not recommended due to current year high revenues.

(2) Includes funding for rehabilitating river diversions that are safer and provide environmental benefits

The CWCB makes financial commitments on an annual basis and on an unreserved cash balance available. Although the FY19/20 and FY20/21 Severance Tax revenue projections are relatively low, the CWCB is able to support a \$13.5M Water Plan Implementation funding commitment.

Staff Recommendation

Staff recommends the Committee's approval of the \$13.5 million Water Plan Implementation funding plan for consideration by the Board in November.





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

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Jared Polis, Governor

Dan Gibbs, DNR Executive Director

Rebecca Mitchell, CWCB Director

TO: Finance Committee

FROM: Kirk Russell, P.E., Finance Section Chief
Finance Section

DATE: September 17, 2019 Finance Committee Meeting

ITEM: 3. Large Project Loans
(1) Southeast Colorado Water Conservancy District – Arkansas Valley Conduit

See Finance Committee Agenda Item 2 (12).

The Southeast Colorado Water Conservancy District is requesting a funding package up to \$100 million for the Arkansas Valley Conduit design and construction.

Staff Recommendation

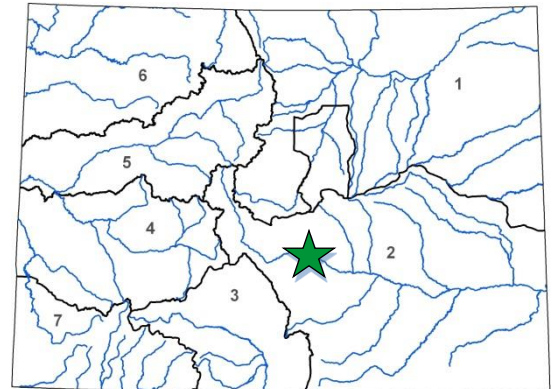
Staff recommends the Committee consider a \$100 million (\$90 million loan and a \$10 million grant) funding package to the Southeastern Colorado Water Conservancy District, to provide the local cost share match for the design and construction of the Arkansas Valley Conduit Project.

The loan terms and additional requirements will be reviewed and presented at the November 2019 CWCB Board meeting.





L O A N D E T A I L S	
Project Cost:	\$450,000,000
CWCB Loan-Grant Package:	\$100,000,000
Loan Term and Interest Rate:	TBD
Funding Source:	Severance Tax Perpetual Base Fund
B O R R O W E R T Y P E	
Agriculture	Municipal
0%	100% Low - TBD% Mid -0% High
Commercial	0%
P R O J E C T D E T A I L S	
Project Type:	Water Supply System
Average Annual Diversions:	N/A

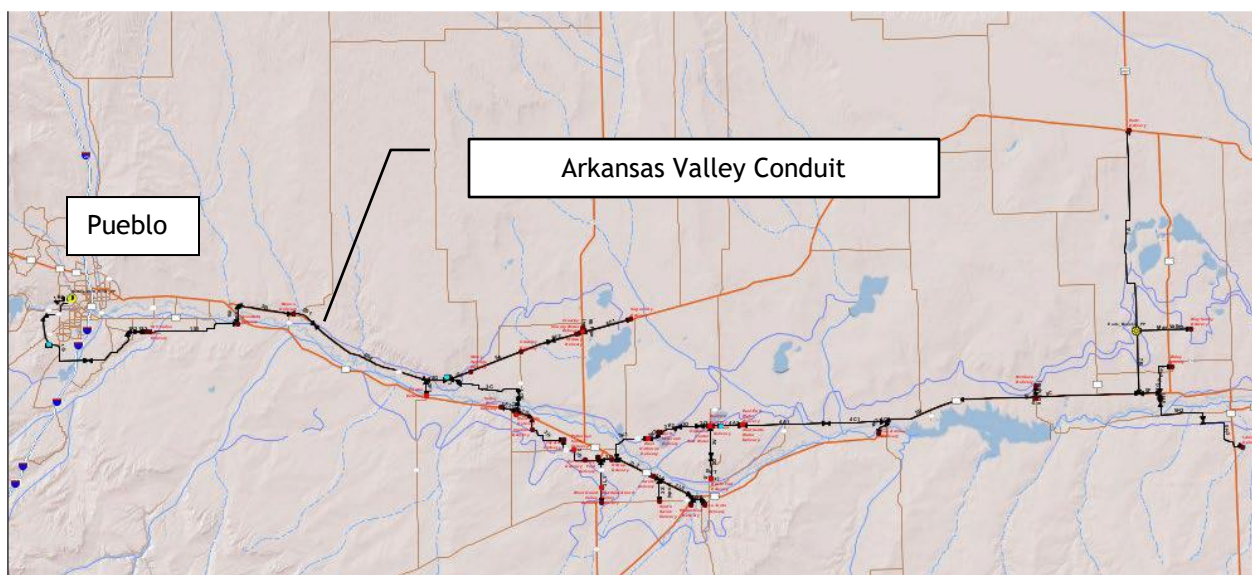


The Arkansas Valley Conduit was authorized by Congress in 1962 as part of the Fryingpan-Arkansas Project (Project), but was never built because local communities could not afford the cost. In 2000, the Southeastern Colorado Water Conservancy District, working with people in six Lower Arkansas Valley counties, renewed planning efforts for the AVC. In 2009, new federal legislation (PL 111-11) reauthorized construction of the AVC, with a 65 percent federal share, and 35 percent local share. The legislation also allows miscellaneous revenues from the Project to fund and repay construction costs. The Bureau of Reclamation issued an Environmental Impact Statement in 2013, and a Record of Decision in 2014.

L O C A T I O N	
County:	Pueblo, Crowley, Otero, Bent, Prowers
Water Source:	Arkansas River
Drainage Basin:	Arkansas
Division:	2
District:	14

The project will deliver clean drinking water to 50,000 people in 40 communities in southeastern Colorado. Domestic wells in the Arkansas River watershed east of Pueblo are contaminated by naturally occurring radioactive materials and high levels of salinity, nitrates and selenium. Both the primary treatment of water, and the disposal of bi-products such as brine are driving up costs for water providers, and some communities are unable to meet basic water-quality standards.

The project will deliver clean drinking water to 50,000 people in 40 communities in southeastern Colorado. Domestic wells in the Arkansas River watershed east of Pueblo are contaminated by naturally occurring radioactive materials and high levels of salinity, nitrates and selenium. Both the primary treatment of water, and the disposal of bi-products such as brine are driving up costs for water providers, and some communities are unable to meet basic water-quality standards.





COLORADO

Colorado Water Conservation Board

Department of Natural Resources

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Denver, CO 80203

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F (303) 866-4474

Jared Polis, Governor

Dan Gibbs, DNR Executive Director

Rebecca Mitchell, CWCB Director

TO: Finance Committee

FROM: Rachel Pittinger, P.E., Project Manager
Finance Section

DATE: September 17, 2019 Finance Committee Meeting

ITEM: 3. Large Project Loans
(2) Pueblo Conservancy District - Arkansas River and Wildhorse Creek Levee Loan Increase

Introduction

The Pueblo Conservancy District (District) Arkansas River and Wildhorse Creek Levees (Project) purpose is to repair the levees within the City of Pueblo, to comply with requirements of the Federal Emergency Management Agency (FEMA) standards, and to provide flood protection to the City. The original levee construction was completed in 1926. In 1976, Pueblo Dam was constructed and significantly reduced the flood hazard to the City of Pueblo, however without the Project, essential public health and safety facilities are at risk from flooding during a 100-year storm. The District completed repair, reconstruction and stabilization of approximately 13,000 lineal feet of the Arkansas River Levee and the top 12-feet of another 4,400 feet of embankment has been removed. Additionally, the District constructed approximately 3,000 lineal feet of the Wildhorse Creek Levee. These improvements comply with FEMA standards. See the attached Project Data Sheet for a location map and Project summary.

Discussion

The Project was approved and signed in the General Assembly, Senate Bill 18-218, Section 14 on September 18, 2018. The original loan for \$17,170,000 and has been completely funded as of this date although the Project, which was of necessity constructed in phases, has one more phase to be completed. The \$17,170,000 loan is a fixed rate loan at 2.45% amortized over 30 years.

The District requests loan increase approval from the General Assembly to be applied toward this last Project phase. Since the total loan amount requested, \$23,230,000, is above the \$10,000,000 maximum the CWCB is authorized to approve as stated in CRS 37-60-122.1(b). As stated in the bill, costs associated with engineering cost indices fluctuations, change in plans for unforeseen site conditions, errors or omissions, regulatory changes or changes in material quantities justify changing the approved amount.

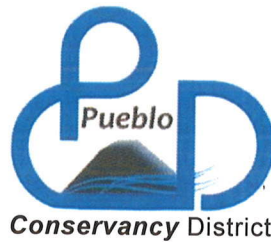
Currently, funds for the last phase of this Project are secured with a private bank. The District requests CWCB approve a loan increase to allow construction to be completed with long term financing from a single source.

Staff Recommendation

Staff recommends the Board request the General Assembly authorize a loan increase of \$6,060,000 for a total loan of \$23,230,000 to the Pueblo Conservancy District in the 2020 CWCB Projects Bill.

The \$23,230,000 (\$23,000,000 for Project costs and \$230,000 for the 1% service fee) loan to the Pueblo Conservancy District is for costs related to the Arkansas River and Wildhorse Creek Levees Project, from the Severance Tax Perpetual Base Fund. The loan term shall be 30 years at the low-income municipal interest rate of 2.45% per annum. The attached letter from Donald Banner dated June 4, 2019 provides more in-depth information regarding this request.





P.O. BOX 234, PUEBLO, CO 81002
www.pueblolevee.org

BOARD OFFICERS:

CORINNE KOEHLER, PRESIDENT
BARB BERNARD, VICE PRESIDENT
PAUL WILLUMSTAD, TREASURER
JERRY MARTIN, SECRETARY

ADMINISTRATOR / ENGINEER:

RICK KIDD, PE
(719)544-5239

LEGAL COUNSEL:
DONALD J. BANNER

June 4, 2019

Rachel Pittinger, PE
Colorado Water Conservation Board
1313 Sherman Street, Room 718
Denver, CO 80203

In re: Pueblo Conservancy District Request for Increase in Existing Loan

Dear Ms. Pittinger:

In May of 2017 the Pueblo Conservancy District filed a Water Project Loan Program application addressed to Anna Mauss. As a result of that application and various documents presented to CWCB, a Colorado Loan Contract was entered into under Contract Numbers CMS 110587 and CT2019-366 signed by CWCB on September 13, 2018 and by the State on September 18, 2018. That Loan was for \$17,170,000.00 and has been completely funded as of this date although the Project, which was of necessity constructed in phases, has one more phase to be completed. The \$17.17 M loan is a fixed rate loan amortized over 30 years commencing on substantial completion of the project. With this letter the Pueblo Conservancy District is requesting the CWCB to consider an increase in our loan of an additional \$6,000,000.00 to allow us to complete the Project with long term financing from a single source. We would ask that this be considered at the November, 2019 meeting of the CWCB Board with funding, if approved through the Projects Bill, in July of 2020. We understand that this request would require approval by both your Board and then the Legislature.

First let me offer some background information about the Pueblo Conservancy District and the Project which was to repair the Arkansas River Levee and Wildhorse Creek Levee within the City of Pueblo in order to comply with the requirements of the Federal Emergency Management Agency (FEMA) standards to protect the City of Pueblo from flooding.

The Pueblo Conservancy District is a district created under the Conservancy Law of Colorado found in CRS 37-1-101 et.seq. The law was created in direct response to the 1921 flood in the

City of Pueblo that did millions of dollars of damage and caused the death of hundreds of citizens. Pursuant to that law the Pueblo Conservancy District was formed for the purpose of flood protection in the City of Pueblo. In the 1920's the District constructed a concrete levee through the heart of the City to carry the Arkansas River and Wildhorse Creek waters in such a manner as to prevent another flood in the City. Construction was completed in March of 1926. The Arkansas River Levee is approximately 13,000 linear feet (2.46 miles) long. The Wildhorse Creek Levee is located on the east side of Wildhorse Creek between 11th and 18th Streets in Pueblo and is approximately 3000 linear feet (.57 miles) long. I'm attaching a Vicinity Map that was included with the original loan application as Exhibit A and a brief History of the District. In 2012 the District requested the supervising Court to expand the boundaries of the District to include all of Pueblo County. After Notice and hearing, on January 26, 2013 the Court issued an order expanding the District to include all of Pueblo County.

As a result of the 2005 Hurricane Katrina, FEMA issued a ruling that all existing levees in the United States be certified to FEMA to comply with specific flood control standards as established by FEMA. The levees in Pueblo, built in the 1920's, could not be so certified and as a result, if not repaired to a condition that would allow certification, significant portions of the City of Pueblo would be classified by FEMA as being in a flood plain. Such classification would have dire economic consequences for the City in that no residential or commercial loan could be obtained without providing prohibitively expensive flood insurance. Notwithstanding the completion of the construction of the Pueblo Dam in 1976, a 2006 study by FEMA showed that if the levees through Pueblo were not repaired and certified to FEMA standards, virtually all of the downtown area, plus an area to the northwest of downtown would be flooded from a 100 year storm if the levees failed. Located in the area that would flood are a significant number of properties owned by the City of Pueblo and the County of Pueblo which provide essential public health, safety and welfare functions including but not limited to the Pueblo Police Department, the Pueblo Transportation Department, Pueblo City Hall (housing the Pueblo City Government), the 10th Judicial District Court newly constructed Judicial Building, the Pueblo County Sheriff's office, the Pueblo County Jail, the Pueblo City-County Health Department and the Pueblo Emergency Response Dispatch Center. Repairing the levees was not an option for the City and County of Pueblo; it had to be done.

The work that needed to be done to repair the Arkansas River levee included removing the top 12 feet of the entire 13,000+ linear feet of the levee to enable heavy construction equipment to access the face of the levee. The face of the levee is concrete poured at a 33 degree angle. The face of the levee has its toe approximately 5' to 8' below the bottom of the water level and rises between 18' and 30' above the water level. The river has to be diverted away from the toe of the levee during the construction period to allow for pouring new concrete for the toe. During the construction that has been accomplished to date many voids were discovered throughout the old levee as well as abandoned sewer and storm water piping which had never been properly abandoned by the City. Preparing the levee foundation, pouring and finishing concrete at this angle and for this height and depth is sophisticated work that requires a level of skill that few contractors have.

Because repair of the Arkansas River levee could only be done when the water level flowing through it was low, construction has generally been limited to occurring between November of

one year and March of the next year. It was estimated from the very beginning that the repairs would have to be made in phases. Phase 1 of the repair project was advertised for qualifications in September of 2013 and in November of 2014 a contract was entered into between ASI Constructors, Inc. and the District. Since then there have been five phases of repairs contracted for and Phase 5 is all but complete at this writing. A contract for construction of the final phase, Phase 6, was awarded to K.R. Swerdfeger Construction, Inc. at the District's Board meeting on April 24, 2019. It is believed that the construction of Phase 6, the final phase, will be completed by May of 2020 and we anticipate a project completion date of August 31, 2020.

There have been three different contractors who have worked on one or more of the previous five phases of levee repair: ASI Constructors, Inc., ASI Construction, LLC (a different contractor than ASI Constructors, Inc.) and K.R. Swerdfeger Construction, Inc. The District issued Requests for Qualifications from perspective contractors for the work required in Phases 1 through 5 of the project. Those responding to the RFQ who were deemed by the District's Board to be qualified had their sealed bids opened and an award was made to the lowest bidder.

The RFQ for Phase 4 included the following language in bold print: "Notice is hereby given that the Pueblo Conservancy District may negotiate with the successful Contractor for this Phase 4 of the Arkansas River Levee Project to complete future phases of the Arkansas River Levee Project." The published notice for Phase 4, published September 12, 19, 26 and October 2, 2017 included the exact same language. ASI Construction, LLC was awarded part of the Phase 4 contract and K.R. Swerdfeger Construction, Inc. was awarded another part of the contract. When the response to the RFQ for Phase 5 was received by the District, it was clear that ASI Construction, LLC was more than a million dollars higher than the bid of K.R. Swerdfeger Construction, Inc. and on October 21, 2018 a contract was entered into with K.R. Swerdfeger Construction, Inc. for construction of Phase 5. K. R. Swerdfeger Construction, Inc.'s work on Phase 5 was, from the District's perspective, outstanding. Difficulties that occurred during construction that were not the fault of the contractor were quickly and effectively resolved to the satisfaction of the District.

The District's independent engineering consultant, NorthStar Engineering and Surveying, Inc. has kept a close tab on the material costs for each of the phases of the project. NorthStar advised the District that informal communications with K.R. Swerdfeger Construction, Inc. indicated that the District could save a significant amount of money if the District opted to negotiate a contract for Phase 6 with the Swerdfeger firm and thereby, locking in material and equipment costs early in the year. An analysis of the material costs of the repairs since the project commenced was considered by the District along with cost proposals submitted by the Swerdfeger firm for Phase 6. The most significant cost involved in all phases of the repair work on the levee involved the cost for new concrete levee facing panel placement, which accounts for approximately 60% of the cost of each phase. No other work item in the project amounts to 10% of the cost of the project. In negotiating unit cost prices for Phase 6, the District was able to limit the unit cost for concrete to a 5.2% increase over the Phase 5 cost. The District determined that it was in the best interest of the District (and the taxpayers who fund the District) to negotiate directly with the Swerdfeger firm, which it has done.

All repair work on the Wildhorse Creek levee was completed in Phase 2 of the project. Attached as Exhibit A is a cost estimate of the remaining costs the District will incur to complete the repairs through Phase 6, the final phase of the Project, and submit to FEMA the required certification documentation of the levee system through Pueblo. The District will complete the Kayak Course Safety Ledge and the River Side Handrail/Fence, both for safety purposes. Total cost shown on the attached Remaining Cost Exhibit is \$5,621,562.00. The District desires to increase its loan from CWCB by \$6,000,000.00. This sum is in line with the estimated cost of the entire project originally estimated at \$23,000,000.00.

The current funding for the remaining construction costs is through a short term bond issued by the District and purchased by the Bank of the San Juans. While it is believed that the bank would be willing to refinance this bond at the then current bank interest rates, it is greatly advantageous to deal with one lender, CWCB, on one long term fixed rate loan if the CWCB Board would consider an increase in the existing loan. An advantage of such an arrangement is that there would be no parity analysis needed as the District would have only one lender. The District's cash flow for 2019 is estimated to be approximately \$1,700,000.00 for the year which funds are received through a Maintenance Fund Assessment approved by the supervising District Court and collected along with property taxes by the Treasurer of Pueblo County, Colorado. The annual payment of a loan in the amount of \$23,230,000.00 over a 30 year period assuming a 2.45% interest rate would be \$1,102,489. The District's annual operating costs are under \$200,000.00/year making debt service and operating costs \$1,302,489.00 and leaving approximately \$397,511.00 in additional Maintenance Fund Assessment receipts annually. Please note, the District is making no assumption that an increase in its loan will be granted as we are completely aware of the fact that any decision concerning this matter is in the exclusive province of your Board and then the legislature.

In support of this request for an increase in our loan, I would refer you to the following documents which were submitted to CWCB in support of the original loan application:

Exhibit B-Downtown flood plain map
Loan Feasibility Study

Should you wish a copy of these documents please let me know and I'll forward them to you. Additionally, I'm submitting with this letter the following documents in support of this request:

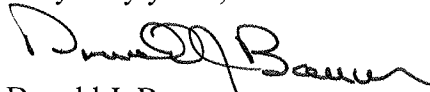
2017 Audit of the District
2016 Audit of the District
2015 Audit of the District
Accountants Compilation Report showing the 12/31/18 financial information for the District.

You will note that the 2017 audit showed Maintenance fund assessment income of \$1,185,441. In 2017 the District requested the supervising District Court to authorize an increase of the Maintenance Fund Assessment the District could assess all property owners in Pueblo County. After public notice and hearing, on April 28, 2017 the Court entered an Order approving an increase in the assessment. The increase was implemented for the assessment in 2018 and resulted in income of \$1,762,392. The District is in the process of having its 2018 Audit

conducted and will submit that Audit as soon as it is completed. Should the income from the Maintenance Fund Assessment fall short, the District has the right to ask the supervising District Court for an increase in the Maintenance Fund Assessment should that ever be necessary. I'm also submitting with this letter a copy of the Motion to Approve the District's 2019 Budget and the Court Order approving the 2019 Budget.

If there is any additional information that would assist the CWCB Board in considering this request for an increase in our loan, please let me know. On behalf of the entire Board of the Pueblo Conservancy District, thank you for your consideration of this request.

Very truly yours,

A handwritten signature in black ink, appearing to read "Donald J. Banner". The signature is fluid and cursive, with the last name "Banner" being more prominent.

Donald J. Banner
Attorney for the District

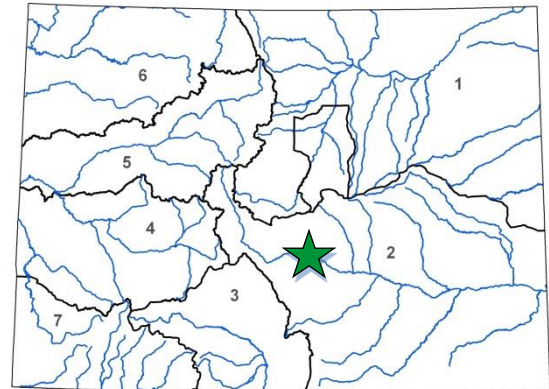


Arkansas River and Wildhorse Creek Levee Rehabilitation

Pueblo Conservancy District
2019 Finance Committee

(loan increase)

L O A N D E T A I L S	
Project Cost:	\$23,000,000
CWCB Loan (with Service Fee):	\$23,230,000
Loan Term and Interest Rate:	30 years at 2.45%
Funding Source:	Severance Tax Perpetual Base Fund
B O R R O W E R T Y P E	
Agriculture	Municipal
0%	100% Low - TBD% Mid -0% High
Commercial	0%
P R O J E C T D E T A I L S	
Project Type:	Flood Control
Average Annual Diversions:	N/A

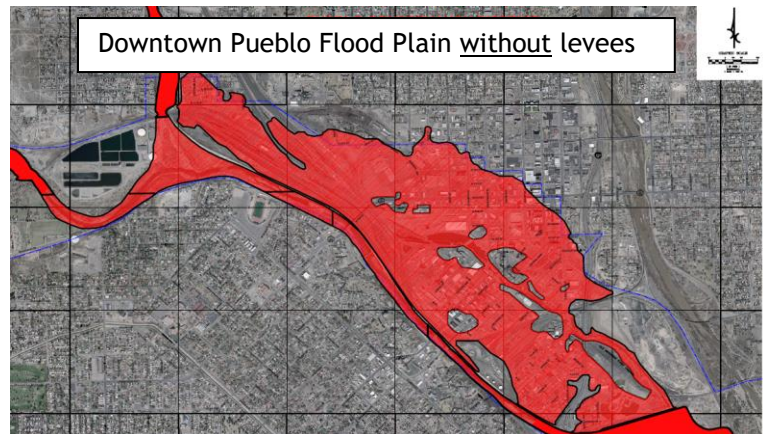


The District was formed in response to the 1921 flood in Pueblo. Its primary function is flood protection within its designated boundaries. In 2006, the District was advised that unless the Arkansas and Wildhorse Creek levees were accredited by the Federal Emergency Management Agency (FEMA), the City would lose its protected status which ensures that flood insurance can be provided at affordable rates. To date, the District has completed the reconstruction and stabilization of 13,000 feet of the Arkansas River Levee, the top 12-feet of an additional 4,400 feet of the Arkansas Levee embankment has been removed, and 3,000 feet of Wildhorse Creek Levee has been constructed and complies with FEMA standards. Construction is limited to November to March when river flows are the lowest. The entire project is expected to be complete by 2021.

L O C A T I O N			
County:	Pueblo		
Water Source:	Arkansas River		
Drainage Basin:	Arkansas		
Division:	2	District:	14



Wildhorse Creek Levee



Downtown Pueblo Flood Plain without levees



Arkansas River Levee



Arkansas River Levee repair and reconstruction 12/2017



COLORADO

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Jared Polis, Governor

Dan Gibbs, DNR Executive Director

Rebecca Mitchell, CWCB Director

TO: Finance Committee

FROM: Anna Mauss, PE, Chief of Operations
Kirk Russell, PE, Finance Section Chief

DATE: September 17, 2019 Finance Committee Meeting

ITEM: 4. Changes to Statutes, Policies, and Procedures of CWCB
(1) Disbursement of Grant Funds (New Policy Consideration)

Introduction and Background (Staff welcomes the Board's feedback)

This Policy attempts to standardize the distribution of CWCB and non-CWCB funds in a prorated amount and as identified by the Board in its approved form.

Over the last 10 years or so, the CWCB has significantly increased the amount of grant funds made available for water activities and projects around the state. This has also increased the number of CWCB Project Managers (PMs) tasked to manage the disbursement of CWCB funds. Nearly all of the CWCB grants require a match from the grantee per an approved criteria and guidelines. This is subsequently included in the Board's approval. This match is in the form of cash and/or in-kind contributions from the applicant, local, other state, federal funding sources, and CWCB's Loan Program.

It has become apparent that the variations in techniques used by CWCB PMs for disbursement of these grant funds has created confusion for grantees. Some PMs distribute the CWCB grant funds upfront and anticipate the applicant will secure and apply the matching contributions later in the process. Others require a prorated disbursement of CWCB funds to matching funds throughout the duration of the project.

Complications can arise when CWCB grant funds are fully disbursed and matching funds are no longer needed due to a change in the final project scope and cost.

The defined "Project" or "Activity" to receive CWCB Grant funding is a critical component in the process of the review and funding approval. This includes a detailed project scope, cost estimate and schedule for the Board to evaluate and establish an approved level of grant funding. A project that is overstated in price and receives all of its grant disbursements early in the project will receive a disproportionate amount of grant funding when compared to the Board's match approval percentage. This has a direct impact on other projects that may have been denied funding due to CWCB's limited funds.

Staff Recommendation

Staff recommends the Committee support advancing this Policy towards approval.

DRAFT POLICY LANGUAGE

Policy

Under the statutory authority of Article 60 Title 37 and Article 39 Title 29 CRS the Colorado Water Conservation Board (CWCB) may, after legislative appropriation and grant contract execution,



distribute qualifying grant funds to grant recipients as reimbursement for actual project costs.

Purpose

To establish and maintain a uniform process for the distribution of CWCB grant funds.

Applicability

This policy and procedure applies to all grants approved by the CWCB that indicate matching funds will be provided. This includes all CWCB programs and funds including but not limited to Construction Fund, Severance Tax Operational Fund, Water Supply Reserve Fund, Water Plan Grant Fund.

Procedure

All applicants will be required to define the Project or Activity used to achieve the Final Deliverable. The applicant will be required to establish a detailed project scope of work and a detailed estimate of probable cost for the Project or Activity in the application. The final Board approved CWCB grant amount will establish the grantee's required matching proportion. This proportion will be used for disbursement of CWCB's grant funds either by total project or by identified individual task in the project scope.

Grantees will submit disbursement requests that are limited by the proportionate grant/match percentage of overall project. CWCB Project Managers may use discretion when situations arise that require out of proportion disbursements. However, in all cases PMs shall avoid exceeding the Board's approved proportional funding level when the project is complete. PMs will provide documentation to support the allowance of disproportionate disbursement of grant funds that occur during the project or activity.

If a grantee is utilizing In-kind services, in lieu of cash, these services will be identified in the disbursement request in order to document the matching effort compared to the CWCB funds being requested.



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Jared Polis, Governor

Dan Gibbs, DNR Executive Director

Rebecca Mitchell, CWCB Director

TO: Finance Committee

FROM: Lauren Ris, Deputy director

DATE: September 17, 2019 Finance Committee Meeting

ITEM: 4. Changes to Statutes, Policies, and Procedures of CWCB
(2) Funding Approval Levels (New Policy Consideration)

Introduction and Background (Staff welcomes the Board's feedback)

This is a discussion item on a potential policy to standardize the Board's approval process for CWCB grants.

Over the last several years, the number of grant programs managed by the CWCB has grown to a current total of 16. Each grant program was developed independently, with different criteria and guidelines, application requirements, and Board approval processes. While these grant programs meet the unique needs of a variety of different types of projects and grantees and therefore necessitate some variation, staff is attempting to standardize the application and approval processes, where possible.

CWCB's grant programs currently each have a different application with different requirements. This can create confusion for applicants, many of whom apply to a number of different grant programs across the agency. To address this, CWCB staff is currently in the process of developing a standard, online grant application portal, with the goal of making the grant application process more consistent across grant programs and easier to navigate for applicants.

There is also significant variability in the Board's grant approval process. Some grant programs (e.g. Colorado Watershed Restoration Grants and Water Efficiency Grants) only bring grants over a certain amount to the Board for approval while those grants under that threshold are approved by staff. Other grant programs (e.g. Water Plan Grants) are reviewed by staff and brought to the Board for approval, regardless of funding level. As the number of grant programs have grown over the years, an increasing amount of time is spent at Board meetings approving grants.

In order to streamline the approval process to make more Board meetings more efficient and to reduce confusion for grant applicants, staff recommends that the Board consider a standard approval process for all CWCB grant programs.

Staff Recommendation

Staff recommends the Committee support advancing this Policy towards approval based on Board feedback.

DRAFT POLICY LANGUAGE OUTLINE

Policy

Grant Approval Process



Purpose

To establish and maintain a uniform approval process for CWCB grant awards.

Applicability

This policy and procedure applies to all current and future CWCB grant programs.

Procedure

The CWCB Board will approve grant awards on the consent agenda that require a contract (greater than \$150,000 in 2019).

The CWCB staff will approve grants that may be awarded through a purchase order (less than \$150,000 in 2019). A summary of all staff approved grant awards will be included in the Director's Report in each Board meeting packet.

All grant program managers will consult with the Board Directors in the basin of each grant application prior to grant approval.

The Board will be provided an annual presentation summarizing grants approved for each CWCB grant program.

Exceptions:

Any grant, regardless of award level, that receives a letter of opposition will be brought to the Board in public session for consideration and action.

The Basin Director may request any grant application in their basin, regardless of award level, be brought to the Board in public session for consideration and action.

Any CWCB Board Director may request any grant recommendation on the consent agenda be removed from the consent agenda for consideration and action during public session.



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Jared Polis, Governor

Dan Gibbs, DNR Executive Director

Rebecca Mitchell, CWCB Director

TO: Finance Committee

FROM: Greg Johnson, Water Supply Planning Section Chief

DATE: September 17, 2019 Finance Committee Meeting

ITEM: 4. Changes to Statutes, Policies, and Procedures of CWCB
(3) WSRF Criteria & Guidelines

Introduction & Discussion

Staff will review the current Criteria & Guidelines and talk through possible changes to improve the effectiveness of the program.

Attached is the latest version of the WSRF Criteria & Guidelines





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2nd Rev: 5-5-2017

3rd Rev: 10-24-2017

WATER SUPPLY RESERVE FUND

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Introduction

Senate Bill 06-179, adopted by the 2006 General Assembly, created the Water Supply Reserve Account, now called the Water Supply Reserve Fund (per SB13-181) (WSRF). The legislation, codified at 39-29-109(1)(a)(III), C.R.S., directs the State Treasurer to annually transfer ten million dollars from the Operational Account of the Severance Tax Trust Fund to WSRF. Any balance remaining in the Fund at the end of any fiscal year shall remain in the Fund. Senate Bill 09-106 removed a sunset provision and provides for continuous appropriation of \$10 million (subject to availability).

Monies in the Fund are continuously appropriated to the CWCB for loans or grants for water activities approved by the Basin Roundtable in which the water activity would occur. The legislation requires the CWCB, in consultation with the Interbasin Compact Committee (IBCC) to jointly establish criteria and guidelines for allocating moneys from the WSRF. This document establishes the required criteria and guidelines developed jointly by the IBCC and the CWCB. In approving loans or grants from the WSRF, the CWCB will apply the criteria and guidelines described in this document.

To help ensure opportunities for roundtables to seek funding in an orderly fashion and at the same time to encourage competitive water activities from every river basin, the CWCB will administer two accounts in the WSRF. A Statewide Account will be used to fund water activities from any roundtable on a competitive basis, based on the eligibility requirements in this section and the evaluation criteria outlined in this document. Basin Accounts will be established for each of the 9 roundtables to be used to fund water activities within any designated roundtable on a competitive basis based on the eligibility requirements in this section and the evaluation criteria outlined in this document.

The Statewide Account will receive 64% of the allocated WSRF funding and the Basin Accounts as a whole will receive 36%. This allocation is subject to revision when circumstances warrant. The WSRF is a Severance Tax “Tier II” Program with 40% of allocated funds distributed on July 1st, 30% on January 1st, and the final 30% on April 1st. All fund distribution is subject to availability based on severance tax revenue collections.

Eligibility Requirements:

In order to receive funding from WSRF, a water activity must satisfy the eligibility requirements described below.



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General Eligibility: The following requirements are established by either SB 06-179 or CWCB/IBCC policy.

- (A) The application for a grant or loan must be approved by the roundtable for the basin in which the water activity would occur before it is submitted to the CWCB.
- (B) The water activity must assist in meeting the basinwide consumptive or nonconsumptive water supply needs identified by the roundtable under 37-75-104(2)(c), C.R.S. in cooperation with ongoing statewide water supply initiatives (SWSI), or needs identified in Basin Implementation Plans (BIPs) or Colorado's Water Plan.
- (C) Both structural and nonstructural projects and methods are eligible for WSRF funding.

Entity Eligibility: Entities that may apply for grants or loans from the Fund include:

- (A) Public (Government) - municipalities, enterprises, counties, and State of Colorado agencies. Federal agencies are eligible entities, but the agency would need to demonstrate why a local non-federal partner should not be the grant recipient. Federal agencies are encouraged to work with local entities.
- (B) Public (Districts) - authorities, Title 32 special districts, conservancy, conservation, and irrigation districts, and water activity enterprises.
- (C) Private Incorporated - mutual ditch companies, homeowners associations, and non-profit corporations.
- (D) Private not incorporated - individuals, partnerships, and sole proprietors are eligible for Basin Funds but not for Statewide Funds.
- (E) Non-governmental organizations are typically non-profit but they may also include for-profit corporations.
- (F) Covered Entities as defined in Section 37-60-126 C.R.S., are eligible for grants or loans if the applicant has adopted an approved water conservation plan.

Water Activity Eligibility: Examples of eligible water activities are listed but expressly not limited by SB 06-179. The following are examples of eligible water activities.

- (A) Competitive grants for environmental compliance and feasibility studies.
- (B) Technical assistance regarding permitting, feasibility studies, and environmental compliance.
- (C) Studies or analysis of structural, nonstructural, consumptive, and nonconsumptive water needs, projects or activities.



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- (D) Structural or nonstructural projects or activities.
- (E) Grants to promote education and outreach, if the proposed activity is consistent with the applicable roundtable's current Education Action Plan, as determined by the roundtable's Public Education, Participation and Outreach (PEPO) liaison or Outreach Committee.

Eligibility Based on Funding Match Requirements:

Requests from Basin Accounts: For requests for funding only from a basin roundtable account, the applicant must demonstrate at least a 25% match. The match may be provided by the applicant or a third party and may consist of any combination of cash, in-kind services or in-kind materials. The following expenses will not qualify as in-kind contributions: general organizational operating costs such as utilities; operating supplies and services; amortization costs or rental costs for buildings and equipment; general property and liability insurance costs; overhead percent charges used to cover such items. Any matching contributions not provided by the applicant must be accompanied by a letter of commitment, or a letter of pending commitment from the contributing entity.

Waivers: The CWCB Board may allow a waiver for the 25% Basin Account match requirement. To obtain a waiver, the applicant must: 1) request a waiver from the Roundtable and CWCB Board; and 2) demonstrate that the matching requirement imposes a significant financial hardship on the applicant; and 3) obtain a written justification from the Roundtable supporting the waiver and recommending the water activity for approval as provided in the Roundtable Recommendation Letter; and lastly 4) obtain approval for the waiver from the CWCB Board.

Requests from the Statewide Account: For requests for funding from the Statewide Account, the applicant must demonstrate at least a 50% match of the Statewide Account grant request. At least of 10% of the required match shall be cash from Basin Account funds; and at least 10% of the required match shall be provided by the applicant or a third party in any combination of cash, in-kind services or in-kind materials. The remaining 30% of the required match may be provided from any other source, including cash from the Basin Account, or any combination of cash, in-kind services, or in-kind materials. If the grant request involves multiple basins, the 10% Basin Account match requirement may be divided among the basins as approved by the respective Roundtables. The following expenses will not qualify as in-kind contributions for the purposes of this match requirement: in-kind services from roundtable members for the purpose of meeting the 10% minimum of the Basin Account requirement; general organizational operating costs



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such as utilities; operating supplies and services; amortization costs or rental costs for buildings and equipment; general property and liability insurance costs; overhead percent charges used to cover such items. Any matching contributions not provided by the applicant must be accompanied by a letter of commitment, or a letter of pending commitment from the contributing entity.

Waivers: The CWCB Board may allow a waiver for one-half of the total Statewide Account match requirement of 50%. To obtain a waiver, the applicant must: 1) request a waiver from the Roundtable and CWCB Board; and 2) demonstrate that the matching requirement imposes a significant financial hardship on the applicant; and 3) obtain a written justification from the Roundtable supporting the waiver and recommending the water activity for approval as provided in the Roundtable Recommendation Letter; and lastly 4) obtain approval for the waiver from the CWCB Board. If a waiver by CWCB is approved, at least 5% of the required match shall be cash from the Basin Account funds, and at least 5% of the required match shall be provided by the applicant or a third party in any combination of cash, in-kind services, or in-kind materials. The remaining 15% of the required match may be provided from any other source, including cash from the Basin Account, or any combination of cash, in-kind services, or in-kind materials.

Recognizing the limited resources of some entities, past expenditures directly related to the water activity may be considered as matching funds if the expenditures occurred within 9 months of the date the contract or purchase order between the applicant and the State of Colorado is executed (this applies to both Basin Account requests and Statewide Account requests).

Requests Related to Basin Implementation Plans: For requests that result directly from Basin Implementation Plans, and are initiated by the respective Roundtable, all funds needed to complete the proposed water activity may be provided from the WSRF with the Statewide Account providing 33.3% of the funding and 66.7% from the Basin Account.

Evaluation Criteria: The proposed water activity shall be evaluated based upon how well the proposal conforms to Colorado's Water Plan criteria for state support, including funding, of projects (Colorado's Water Plan, Section 9.4, pp. 9-43 to 9-44;), and how well the proposed water activity meets the Goals and Measurable Outcomes of their respective Basin Implementation Plan.

The criteria for state support, including funding, are as follows:

Does the project proponent demonstrate a commitment to collaboration? Does the project proponent:



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- address more than one type of need;
- involve multiple participants where appropriate;
- consult with a broad set of local stakeholders and local governments before or early in the regulatory process (examples of stakeholders include relevant basin roundtables, water users, conservation groups, and community groups); or
- provide meaningful opportunities for input

Does the project proponent address an identified water gap? Is the project:

- included in a BIP;
- identified as meeting a defined need in a basin needs assessment;
- identified as meeting a defined need identified in the SWSI; or
- identified as part of the no-and low-regrets scenario planning process?
-

Does the project proponent demonstrate sustainability? Does the project proponent:

- adopt an integrated plan or plans geared toward implementing the conservation best practices at the high customer participation levels, as defined in the SWSI;
- avoid adverse effects to environmental and recreational interests or adopt environmental, watershed health, and recreational mitigation in the planning phase of the project, prior to consideration in the permitting phase of alternatives that minimize or avoid adverse effects (project proponents should consider use of existing tools if available, such as stream management plans that follow state guidance, instream flow water rights, water leasing, restoration, infrastructure upgrades, and consumptive use efficiencies);
- avoid impacts to, mitigate, or enhance water quality, such as exceeding water quality standards or impairment of classified uses;
- mitigate or avoid economic and social impacts on agricultural and rural communities;
- maximize the use of water resources (through reuse, firming the yield of existing supplies, water sharing arrangements, improving or modernizing aging infrastructure, or aquifer storage and recharge projects);
- partner with the local government(s) being served by the water project to incorporate best water use practices into land use planning efforts (these practices are included in water and land use trainings offered by CWCB and DOLA as described in Section 6.3.3); or



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- demonstrate that the project will not unreasonably increase the risk of non-compliance with any interstate compact or the curtailment of existing water rights

Does the project proponent establish the fiscal and technical feasibility of the project? Does the project proponent demonstrate:

- over-all cost-effectiveness;
- local investment or contribution;
- financial capability to repay debt (bonds, loans, or other debt instruments);
- an intent to leverage any state grant or loan with private, local, or federal funding;
- technical and legal availability of water supplies for the project; or
- readiness to proceed upon receipt of necessary funding and permits (i.e. completed preliminary planning and design work, obtained necessary water rights, secured necessary financial commitments)

Application Process

Roundtable Recommendations: Applications for WSRF funding must be evaluated and recommended for approval by the Roundtable where the eligible water activity will occur. Each Roundtable may use an evaluation process which reflects its unique needs, priorities, guidelines, document submittal and time line requirements. However, since the WSRF involves public funds, each Roundtable must have an evaluation process that includes a written conflict of interest policy. The policy must require any Roundtable member who has a direct or indirect financial interest in the funding request to disclose the interest to the Roundtable, abstain from voting on the application, and refrain from attempting to influence the decisions of other members of the Roundtable in voting on the application. If the Roundtable itself is seeking funding from WSRF at or greater than \$100,000, some sort of competitive selection process must be used to select a recommended contractor.

Applicants should contact the applicable Roundtable and CWCB staff early in the process, several months before the applicant would like to begin the project.

A Roundtable must accept and then evaluate the application using the Roundtable's process. The Roundtable must determine if the application meets the eligibility requirements described in this document, including the requirements for matching funding. If the application is recommended for approval, the Roundtable must provide a written recommendation to the CWCB signed by the Roundtable Chair. The letter of recommendation must specify the amount of grant funding



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requested from the Basin Account and/or the Statewide Account and describe how the water activity satisfies the statutory eligibility requirements. The letter should describe the level of agreement among Roundtables members, who opposed the application and why, and any minority opinion. If the applicant is requesting a waiver of either the Basin Account match requirement, or a portion of the Statewide Account match requirement, the letter of recommendation shall reflect the waiver request and shall provide a justification for the request as determined by the Roundtable.

The applicant must ensure delivery of the Roundtable Recommendation Letter to CWCB. If the Roundtable evaluation process requires the applicant to revise the submittal documents, the applicant must provide these revised documents to CWCB by the appropriate submittal date.

Application forms are available on the CWCB website at:

<http://cwcb.state.co.us/LoansGrants/water-supply-reserve-account-grants/Pages/main.aspx>.

CWCB: After recommendation for approval by the Roundtable, the applicant is required to submit to CWCB the following documents:

Required Documents:

- Application
- Exhibit A
 - Statement of Work
 - Budget (Excel and pdf format)
 - Schedule
- Maps (if applicable)
- Letters of (pending) Commitment (matching funds)

Optional Documents

- Photos
- Drawings
- Letters of Support

Financial Documents Required for Contract Execution

- Certificate(s) of Insurance to include general, auto, and workers compensation coverages
- Certificate of Good Standing
- W-9
- Independent Contractor Form (IC Form) – (Only applies for Individual Person)



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After approval by the Roundtable, the Roundtable Chair is required to submit to CWCB the following documents:

- Roundtable Recommendation Letter

The process at the CWCB will include the following steps:

1. CWCB staff will determine if the required documentation has been submitted. The application will be accepted once all documentation has been received.
2. CWCB staff will evaluate the application based on the criteria described in this document.
3. CWCB staff will develop a recommendation to the Board for full or partial funding or for denial of funding.
4. CWCB staff will prepare a *Water Activity Summary Sheet* for the Board that contains the application, the Required Documents and Optional Documents listed above, and an explanation of the staff's recommendation for Board action.
5. CWCB staff will notify the applicant of the staff's recommendation and of the date and time when the Board will consider the application. While CWCB staff has primary responsibility for presenting the application to the Board, the applicant is encouraged to attend the meeting in the event an opportunity to address the Board is provided.
6. The Board will take action on the application during the appropriate Board meeting as described in the Review Schedule below. The Board has the discretion to approve or deny any WSRF application for funding and is the final decision-making authority with regard to WSRF funding.
7. Within 30 days after the Board meeting, CWCB staff will notify the applicant in writing of the Board's decision and proceed to the contracting phase of the process if funding was approved.

CWCB Review Schedule: The CWCB will make decisions for allocation of funds from Roundtable Basin Accounts or for Basin Implementation Plans during any of its scheduled meetings. The CWCB will make decisions for allocation of funds from the Statewide Account at its March and September meetings. The table below lists the submittal deadlines for the respective Board meetings.



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WSRF Submittal Dates and Board Meeting Schedule		
CWCB Meeting	Submittal Date	Type of Request
January	December 1	Basin Account/BIP
March	February 1	Basin/Statewide Account/BIP
May	April 1	Basin Account/BIP
July	June 1	Basin Account/BIP
September	August 1	Basin/Statewide Account/BIP
November	October 1	Basin Account/BIP

Grant Administration

Contracting:

After approval or conditional approval of funding by the Board, CWCB staff will direct the applicant to revise and supplement submitted documents if required for issuance of a purchase order or execution of a contract. Grants less than \$100,000 will be completed by use of a purchase order. Grants for \$100,000 or more will require execution of a contract.

Successful applicants are expected to execute a contract with CWCB within 6 months of award. If a grant is not executed within this timeframe, CWCB staff may revert the funds back to the appropriate accounts, after consulting with the respective Roundtable.

Reporting Requirements:

Progress Reports: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of issuance of a purchase order, or the execution of a contract. The progress report shall describe the status of the tasks identified in the statement of work, including a description of any major issues that have occurred and any corrective action taken to address these issues. Applicants are required to submit Progress Reports to their respective Roundtable (s) and the CWCB. The CWCB may withhold reimbursement until satisfactory progress reports have been submitted.



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Final Report:

At completion of the project, the applicant shall provide their respective Roundtable(s) and the CWCB a final report on the applicant's letterhead that:

- Summarizes the project and how the project was completed.
- Describes any obstacles encountered, and how these obstacles were overcome.
- Explains the Proposed Budget versus the Actual Budget.
- Confirms that all matching commitments have been fulfilled.
- Includes photographs, summaries of meetings and engineering reports/designs, if appropriate.

The CWCB will withhold the last 10% of the entire water activity budget until the Final Report is completed to the satisfaction of CWCB staff. Once the Final Report has been accepted, and final payment has been issued, the grant purchase order or contract will be closed without any further payment. Any entity that fails to complete a satisfactory Final Report and submit to CWCB within 90 days of the expiration of a purchase order or contract may be denied consideration for future funding of any type from CWCB.

Invoice for Services:

Payment will be based on actual expenditures invoiced by the grantee. The request for payment must be transmitted on the grantee's letterhead, and shall include:

- Date of request;
- Grantee's contact name, email address, physical address, and phone number;
- Roundtable that recommended the grant;
- Date of CWCB approval;
- Contract or purchase order number;
- Description of the work accomplished by individual tasks as presented in the approved budget;
- Supporting documentation (vendor invoices) label for items or services billed. Vendor invoices must clearly reflect and identify which Task(s) in the approved Statement of Work, Budget and Schedule the invoice is intended to be debited. Reimbursement of administrative expenses of the applicant or grantee will be limited to 15% of the total grant request;
- Estimate of the percent completion for individual tasks and the entire water activity in relation to the percentage of budget spent; and
- Identification of any major issues, and proposed or implemented corrective actions.



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All payment requests must reflect services within the purchase order/contract terms (effective date/NTP) and completion (expiration date).

Grant Amendments:

Grants may be amended as appropriate, including modifications to Exhibit A, Statement of Work, Budget, and Schedule; purchase order or contract extensions; and Change of Grantee. All amendment requests shall be submitted on the grantee's letterhead, and shall include:

- Date of request;
- Grantee's contact name, email address, physical address, and phone number;
- Roundtable that recommended the grant;
- Date of CWCB approval;
- Contract or purchase order number and current expiration date;
- Rationale for amendment;
- Revised Tasks – CWCB Program Manager approval required; Revised Exhibit A (Statement of Work and Budget/Schedule Table);
- Extension to Terms – Revised Exhibit A, Schedule (B, C, etc.) with desired expiration date;
- Request for Change of Grantee - A signed Letter of Request shall be accompanied by (when applicable): a revised Statement of Work, Budget, and Schedule (proposed new Grantee); a letter drafted by current Grantee requesting the release; a letter drafted by proposed Grantee accepting grant obligations and responsibilities; and an updated Certificate(s) of Insurance for the proposed new Grantee. Requests for Change of Grantee must be presented and approved by the CWCB Board.

Amended documents for grant extension requests shall be delivered to CWCB 30 days prior to current expiration date of purchase orders and 90 days prior to expiration of a contract.

Loan Program

For those applicants seeking a loan, a CWCB standard loan application form and loan feasibility study must be completed. In addition, the applicant should include with its loan application a summary of how the applicant's water activity meets the eligibility requirements and evaluation criteria requirements described in this document. The loan application form and additional information can be found at:

<http://cwcb.state.co.us/LoansGrants/water-project-loan-program/Pages/main.aspx>.



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Jared Polis, Governor

Dan Gibbs, DNR Executive Director

Rebecca Mitchell, CWCB Director

TO: CWCB Finance Committee

FROM: CWCB Staff

DATE: September 17, 2019 Finance Committee Meeting

ITEM: Project Funding Update and Discussion

This agenda item will provide the Committee with an update on large projects that the Board currently owns, has financially supported and new projects that staff has had conversations with project proponents regarding funding. Additional items may be added prior to or at the meeting.

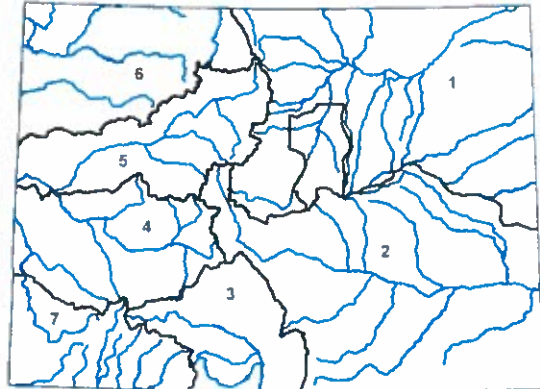
Items which will be discussed:

1. ALP Ownership Status and Sale (Kirk)
2. Chatfield Reservoir Ownership Status and Sale (Lauren)





L O A N D E T A I L S	
Project Cost:	\$300M to \$400M
CWCB Loan:	\$30M
Loan Term and Interest Rate:	TBD
Funding Source:	TBD
B O R R O W E R T Y P E	
Municipal	
P R O J E C T D E T A I L S	
Project Type:	Regional Water Supply



L O C A T I O N			
County:	TBD		
Water Source:	TBD		
Drainage Basin:	TBD		
Division:	TBD	District:	TBD

Creation of a Loan Guarantee Fund - \$30 million

This \$30 million will create a Fund within the DNR/CWCB that will allow regional project participants financial support options for pooled financing. The Fund will homogenize project participant's credit ratings and therefore lower their market lending rates. It is anticipated that this may help leverage \$300 to \$400 million in market funds while lowering the overall cost of a regional water supply project. The CWCB will review all projects for compliance with applicable state statutes and financial policies of the CWCB.

