



COLORADO

**Colorado Water
Conservation Board**

Department of Natural Resources

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TO: Colorado Water Conservation Board Members

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

DATE: March 20-21, 2019 Board Meeting

AGENDA ITEM: 12. 2019 Projects Bill Update

Introduction (This is for information only and no action is necessary)

Attached is the summary of the proposed 2019 CWCB Projects Bill for review and discussion.

This Bill has not been drafted but it is anticipated it will start in the Senate.

This is a list of highlighted items to be included in the Bill:

1. \$20 million dedicated to Water Plan Implementation
2. \$15.5 million loan to Central Water Conservancy District - Walker Recharge Project
3. Provides funding and changes the Flood & drought Response Fund and the Feasibility Study Grant Fund statute to allow automatic annual refresh funding.
4. Modifies the 2018 Projects Bill language to allow the Republican River Matters Appropriation (\$8 million) to "remain available for the designated purpose until the funds are fully expended"



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SENATE BILL SB19-.... 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



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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.

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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 X. 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 X. 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 X. 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 X. 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 X. 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 X. Lidar Acquisition	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 X. 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 X. Colorado Water Plan Implementation Funding (Continuation)	<p>Appropriates \$20M 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"> • \$2.5M transfer from Construction Fund to the Water Supply Reserve Fund on June 30, 2019 for supplemental funding (Section X); • \$4M for the Watershed Restoration program funding (Section X); • \$1.5M for Environmental, and Recreational projects; (Section X) • \$1.0M to provide technical assistance, project, or program funding for agricultural projects. (Section X) • \$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. (Section X) • \$0.5M for grants for Water Education, Outreach, and Innovation efforts; (Section X) • \$1.0M for grant funding to implement long-term strategies for conservation, land use, and drought planning; (Section X) • \$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. (Section X) • \$5.5M to update Basin Implementation Plans and Colorado's Water Plan (CWP). As outlined in the CWP updating includes: Updating the Statewide Water Supply Initiative (SWSI), Incorporating SWSI outputs into Basin Implementation Plan (BIP) updates and then, Using both the SWSI and BIP updates in the development of the next CWP. (Section X) 	Statewide	\$20,000,000
Section X. Restoration of Flood and Drought Response Fund Balance	Refreshes the fund created to respond to flood and drought events through documentation, forecasting, post flood mapping, hazard area identification, mitigation plans, and recovery activities up to \$500,000.	Statewide	\$500,000
Section X. 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	\$2,000,000
Section X. Restoration of Feasibility Study Small Grant Fund Balance	This will restore the Feasibility Study Small Grant Fund to \$500,000 to encourage and support reconnaissance and feasibility planning of water projects by local water providers with an emphasis on water storage projects.	Statewide	\$500,000
Large Water Project Loan Authorizations (> \$10 million)			
Section X. Walker Recharge Project	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	South Platte	\$15,150,000 (Sev Tax)

	<p>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) \$2,250,000 • Well Augmentation Subdistrict of Central Colorado Water Conservancy District (WAS) \$3,000,000 • Groundwater Management Subdistrict of Central Colorado Water Conservancy District (GMS) \$9,750,000 		
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Other Provisions

Session Law Revision: Proposed revisions to **SB18-218(Section 18) Republican river matters - appropriation.** (1) For the 2018-19 state fiscal year, \$8,000,000 is appropriated to the department of natural resources for use by the department of natural 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 department of natural resources may use this appropriation for Republican river matters.

(2) The money appropriated in subsection (1) of this section remains available for the designated purposes ~~through June 30, 2019~~ UNTIL THEY ARE FULLY EXPENDED.

Statutory Revision: Proposed revisions to the Colorado Revised Statutes **CRS 37-60-122.7 - Feasibility study small grant fund (Section X)**

(b) 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 UP TO FIVE ~~two~~ 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 FUND UP TO FIVE HUNDRED THOUSAND DOLLARS. The moneys in the feasibility study small grant fund are hereby continuously appropriated to the board for grants in compliance with this subsection (5). All interest derived from the investment of moneys 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.

Statutory Revision: Proposed revisions to the Colorado Revised Statutes **CRS 37-60-123.2 - Flood and drought response fund (Section X)**

(1) There is hereby created in the state treasury the flood and drought response fund, referred to in this section as the "response fund". 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 UP TO FIVE HUNDRED THOUSAND DOLLARS FROM COLORDO WATER CONSERVATION BOARD CONSTRUCITON FUND TO THE RESPOSNSE FUND TO RESTORE THE UNENCUMBERED BALANCE IN THE FUND UP 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 in the response fund are 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 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.



Satellite Monitoring/Maintenance Program

Colorado Water Conservation Board

November 2018 Board Meeting

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>	<i>Construction Fund</i>
<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



North Fork Gunnison River - New Radar Sensor Installation (Note these installations are more cost efficient as they require significantly less infrastructure than a typical stilling well and shelter)



Colorado Floodplain Map Modernization

Colorado Water Conservation Board

November 2018 Board Meeting

Colorado has received approximately \$23.6 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>	\$1,900,000
<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 provided by the CWCB and FEMA/Local governments for CWCB managed projects (in progress or completed).

<u>COUNTY/WATERSHED</u>	<u>CWCB Funds</u>	<u>FEMA/Local Funds</u>	<u>COUNTY/WATERSHED</u>	<u>CWCB Funds</u>	<u>FEMA/Local Funds</u>
Archuleta	\$71,000	\$228,760	Mesa	\$33,960	\$435,780
Boulder	\$17,807	\$524,709	Montrose	\$60,376	\$241,503
Clear Creek	\$2,950	\$158,605	Montezuma	\$53,000	\$452,735
Chaffee	\$44,000	\$399,290	Morgan	\$25,000	\$270,700
Delta	\$21,630	\$277,763	Park	\$18,800	\$165,200
El Paso	\$75,635	\$1,472,030	Pitkin	\$20,772	\$466,388
Elbert	\$141,548	\$301,982	Prowers	\$76,605	\$691,024
Fremont	\$23,294	\$146,240	Pueblo	\$71,768	\$1,115,902
Garfield	\$29,912	\$325,000	Rio Grande	\$58,300	\$152,810
Gunnison	\$79,250	\$272,422	Summit	\$21,098	\$189,876
La Plata	\$74,200	\$391,910	Teller	\$23,100	\$207,900
Logan	\$30,550	\$271,050	Weld	\$112,419	\$658,530
St. Vrain Wtsd	\$88,580	\$354,320	Purgatoire	\$140,137	\$347,963
Clear Creek Wtsd	\$114,060	\$456,240	Cache La Poudre Ph 1 & 2	\$718,834	\$150,000
Upper White Wtsd	\$0	\$353,756	El Paso Approximate Mapping	\$0	\$129,860
Middle South Platte Approximate Mapping	\$0	\$80,000	Cache La Poudre Phase 3 IFSAR (Moffat, Lincoln, Yuma, Phillips, Middle South Platte)	\$100,000	\$250,000
Upper Gunnison 2 Phase	\$38,935	\$126,815	CHAMP PMR's		\$929,729
Animas Wtshd Phase 2		\$654,717	Animas Watershed Phase 2		\$654,717
Garfield County Risk Map Phase 2		\$212,558	Animas Watershed Phase 3		\$295,000
Garfield County Risk Map Phase 3		\$346,752	Delta County Phase 2		\$350,000
Delta County Discovery	\$98,818		Cache La Poudre Additional Studies		\$195,000
Rio Blanco County Additional Studies		\$70,000	Upper Yampa Discovery		\$253,085
El Paso & Teller pre levee work		\$275,000	Arkansas River Phase 2		\$340,000
CHAMP Work Phase 2 & 3		\$620,000	Colorado River Hydrology Update	\$139,992.00	
FEMA FY 2018 LiDAR grant		\$2,200,000			
Arkansas River Hydrology Update	\$195,585.00				



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>	\$175,000
<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

There is interest in both the North Platte and Rio Grande in developing cloud seeding programs. The State of Wyoming has stated interest in partnering with the CWCB and the Jackson Water Conservancy District. Some of the requested funding increase will help facilitate 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. A 1990 U.S. Bureau of Reclamation Study concluded the same for the North Platte. The local goals would be to augment snowpack in the southeastern part of the basin. The program can be designed to benefit the North Platte and South Platte.

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 \$2.5M to match the CWCB's \$2.5M 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. Based on success from 2007-2017 the Lower Basin has developed a new nine year agreement that will \$500K per state per year for Upper Basin States as match for upper basin expenditures on cloud seeding programs.



Effective cloud seeding is getting cloud seeders high onto ridges in areas of good airflow to have the silver iodide particles regularly transported into cloud. 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 for effective seeding.

The CWCB has ten years of facilitating successful multi-state collaborations to work on a watershed basis 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. The ranges in the Wyoming experiment were the Sierra Madre and Medicine Bow Ranges just across the border. They also need northwest flow for good winter storms. This is also the case in the North Platte Basin.



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



This project is for the continued implementation of the CWCB's long range engineering and technical support services program. This program has been in place since 2005 to provide support services to address specific agency needs related to protecting the Board's existing instream flow (ISF) water rights, providing sound science and engineering for ISF recommendations, and until 2008, providing technical analyses for the transfer of acquired water rights to instream flow use. The use of these funds is on an as-needed basis and often cannot be anticipated in advance or addressed through Severance Tax projects that are limited to one-year time frames.

P R O J E C T D E T A I L S	
<i>Project Cost:</i>	\$250,000
<i>NRI Funding Request:</i>	\$250,000
<i>Funding Source:</i>	Construction Fund
<i>Project Type:</i>	Study
<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

Potential uses of this fund include science and engineering investigations necessary to provide the Board with scientifically rigorous information necessary for its statutory determinations. This could include more complex water availability studies, development of science to improve quantification, or site specific studies. Others uses include expert testimony necessary to provide the board additional expertise during administrative hearings or complex court cases. Technical support can include database development, small annual fees associated with housing the updated R2Cross model on the Colorado State University eRAMS platform, as well as imaging, retrieval, and research of ISF documents. Furthermore, technical support is required on a seasonal basis to augment staff resources in the collection and analysis of field data.



Colorado Lidar Data Acquisition Program

Colorado Water Conservation Board

November 2018 Board Meeting

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).

P R O J E C T D E T A I L S	
<i>Project Cost:</i>	\$3,400,000
<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

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.



Technical Assistance for Implementation of the Memorandum of Agreement Concerning the Upper Colorado River Basin Fund

Colorado Water Conservation Board
November 2018 Board Meeting

In 2011, the Upper Colorado River Division States (Colorado, Wyoming, Utah, and New Mexico), the United States Bureau of Reclamation (Reclamation), the United States Department of Energy Western Area Power Administration, and the Colorado River Energy Distributors Association (CREDA) signed a Memorandum of Agreement (MOA) that authorizes the use of the Upper Colorado River Basin Fund (Basin Fund) to further the purposes of the 1956 Colorado River Storage Project (CRSP) Act (Public Law 485) and to reduce the impact on the CRSP firm power rate by eliminating the collection of power revenues beyond that amount needed to repay the costs of the existing projects through Fiscal Year (FY) 2025.

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

L O C A T I O N	
<i>Benefits:</i>	Colorado, Gunnison, SW
<i>Water Source:</i>	Various
<i>Drainage Basin:</i>	Colorado, Gunnison, SW

The Basin Funds that are the subject of the MOA are from excess CRSP power revenues allocated to the Upper Basin States. An average of \$11.5 million is to be collected each year, up to \$161 million total over the term of the MOA. Forty-six percent of the total funds collected are to be allocated to Colorado (roughly \$73 million after setting aside funds for Basinwide projects) through 2025. MOA funds can be utilized for specific types of operations, maintenance, and replacement (OM&R) projects—not including completely new construction. The MOA funds are available to CRSP Participating Projects.

In the MOA process, CWCB selects projects for MOA funding and Reclamation is tasked with implementing those projects from design to completion. Several MOA projects have gone over budget in recent years. This is largely due to Reclamation's non-contract costs, particularly in the design stage. The high costs are often coupled with delays—a matter expected to worsen as Reclamation anticipates large, high-priority projects in California to overtake its Technical Service Center's task list in the next several years.

This new CWCB fund would be made available to MOA Project Beneficiaries (PBs) that have already received approval for a MOA project but have not yet entered the design stage. The PB would work with an engineering firm to complete the project design, which Reclamation would then use for the construction phase of the project. CWCB staff believes this will lead to significant efficiencies in time and cost.

This project will help implement Colorado's Water Plan, which places high value on efficient and effective water infrastructure. The funding requested herein will be used to provide technical assistance for the design stage of MOA projects, which will ensure the MOA funds remain available for the construction phase of the projects.



A \$150,000 Flood Response Program was authorized in the 2001 Construction Fund Bill (SB 01-157) and enacted by the Colorado General Assembly. This amount was increased in the 2007 Construction Fund Bill (SB 07-122) to \$300,000 to reflect the additional cost of performing existing program functions and the addition of valuable services under the program. In FY 2013 the scope of the fund was expanded to include drought response activities, which continue to be included. The original expansion of the scope did not include any increase in funds; however in fiscal year 2014 the fund was increased to \$500,000 to reflect activities associated with Drought Response and to address the increasing threat of wildfires and post-wildfire activities.

P R O J E C T D E T A I L S	
<i>Project Cost:</i>	\$500,000 annually
<i>NRI Funding Request:</i>	\$500,000
<i>Funding Source:</i>	Construction Fund
<i>Project Type:</i>	Program Funds
<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 Flood and Drought Response Fund (Fund) exists to give the CWCB an ability to quickly respond to events and have program funds in the areas of: 1) flood & drought documentation, 2) flood & drought forecasting and outlooks, 3) post-event floodplain mapping, 4) aerial photography, and 5) flood & drought mitigation. Funds from this account may be used for projects and studies in support of the efforts of the Colorado Resiliency Working Group (CRWG), especially the Watersheds and Natural Resources Sector, a subgroup headed by CWCB staff as well as climate change activities that involve the CRWG. The CRWG is committed to improving state processes to incorporate resiliency into Colorado public health, safety, and welfare.

The current request is to refresh the account up to \$500,000 for FY 2019/20 for flood and drought response purposes, including post-wildfire activities. Use of this fund to address both flood and drought increases the efficiency and effectiveness of the CWCB to adequately respond to natural hazards affecting Colorado while also recognizing the current fiscal constraints by utilizing existing resources. Staff clearly recognizes that there will be years in the future when both flood conditions and drought conditions exist during the same year, as was the case in 2013. In those situations, the Fund could be stressed by needs from the two extreme conditions, and Staff will prioritize expenditures.



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)."

The CWCB has received a letter from Attorney General Cynthia Coffman stating that a total of \$1,294,300 will be needed in FY18/19 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: \$643,000 for FY18/19
- 2) Republican River Basin: \$118,000 for FY18/19
- 3) Rio Grande Basin: \$533,300 for FY18/19

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.

P R O J E C T D E T A I L S	
<i>Project Cost:</i>	\$1,294,300
<i>NRI Funding Request:</i>	Up to \$2,000,000
<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>	All Basins



Feasibility Study Small Grant Fund

Colorado Water Conservation Board
November 2018 Board Meeting

In 1999 through SB 99-173, the Legislature authorized the Board to set aside \$200,000 of Construction Fund money in a special fund reserved for feasibility studies for water resources infrastructure systems projects. The money in the fund is continuously appropriated to the Board for immediate availability for making small grants to water users to help pay for the costs of preparing feasibility studies in conformance with the CWCB Water Project Loan Program Guidelines. The fund is intended to encourage planning by local water supply entities and to evaluate technical feasibility and the financial aspects of projects if funded through Water Project Loan Program.

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>	Construction Fund
<i>Project Type:</i>	Grant Fund Refresh
<i>Type of Grantee:</i>	CWCB

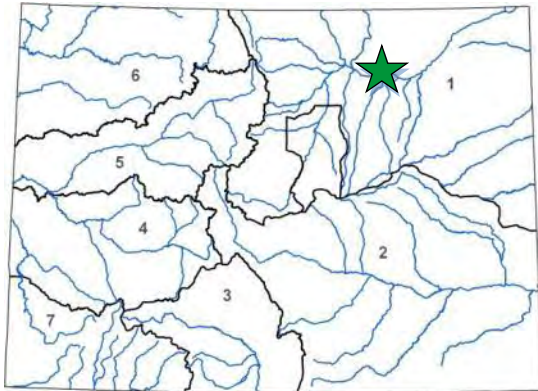
L O C A T I O N	
<i>Benefits:</i>	Statewide
<i>Water Source:</i>	Various
<i>Drainage Basin:</i>	All Basins

In an effort to align with the goals of the Colorado Water Plan, staff is asking the board to support a statute change in Section 37-60-122.7(5) to increase the appropriation to \$500,000. The intent of the increase is to encourage and support reconnaissance and feasibility planning by local water providers.

A transfer of approximately \$500,000 from the Construction Fund's unreserved cash into the fund is requested to fund the Feasibility Study Small Grant Fund.



L O A N D E T A I L S	
Project Cost:	\$18,164,000
CWCB Loan (with Service Fee):	\$2,272,500
Loan Term and Interest Rate:	30 years @ 1.75%
Funding Source:	Severance Tax PBF
B O R R O W E R T Y P E	
Agriculture	Municipal
100%	0 % Low - 0% Mid -0% High
	Commercial
	0%
P R O J E C T D E T A I L S	
Project Type:	Augmentation Facility
Annual Yield:	2,100 AF



L O C A T I O N	
County:	Weld & Morgan
Water Source:	South Platte River
Drainage Basin:	South Platte
Division:	1
District:	1

The Central Colorado Water Conservancy District (CCWCD) was formed in 1965 to develop, manage, and protect water resources in northeast Colorado. CCWCD includes approximately 210,000 acres of irrigated agricultural lands. CCWCD has two subdistrict each with its own augmentation plan: The Groundwater

Management Subdistrict (GMS), formed in 1973, and the Well Augmentation Subdistrict (WAS), formed in 2004. CCWCD, GMS, & WAS have partnered together to build and the Walker Recharge Project.

The Walker Recharge Project will be located in Weld and Morgan Counties between the towns of Orchard and Wiggins. CCWCD, GMS, & WAS jointly filed an application for water rights and for approval of plan of augmentation for the Walker Recharge site (Division 1 Water Court Case No. 16CW3202) on December 30, 2016. The court application includes surface water rights for three diversions, groundwater rights for four well fields and one existing well, numerous recharge structures, and a plan for augmentation. The plan for augmentation would allow diversions from the included water rights as well as other water rights owned or otherwise controlled by CCWCD, GMS, or WAS to be delivered to the recharge ponds to generate accretions to the South Platte River.

Construction is expected to generally occur in two phases, each taking three to four years. When finished, recharge credits will be used by GMS and WAS to increase the well pumping quota issued under the respective augmentation plans. CCWCD will use its recharge credits to increase the amount of water leased to GMS, WAS, and other water users within the CCWCD boundaries.

