

# COLORADO

# Colorado Water Conservation Board

Department of Natural Resources

# **DIRECTOR'S REPORT**

# **March 2019**

Interstate Compact Compliance • Watershed Protection • Flood Planning & Mitigation • Stream & Lake Protection Water Project Loans & Grants • Water Modeling • Conservation & Drought Planning • Water Supply Planning

	Colorado Water Conservation Board Department of Natural Resources
TO:	Colorado Water Conservation Board Members
FROM:	Rebecca Mitchell Andrew Rickert
DATE:	March 20-21, 2019
SUBJECT:	Agenda Item 5d, March 2019 CWCB Board Meeting Director's Report

#### ~TABLE OF CONTENTS~

#### Pg. 3 – STATEWIDE

• CWCB Small Feasibility Grant Fund Update

#### Pg. 3 - COLORADO RIVER BASIN

- Funding for the Colorado River Endangered Fish Recovery Programs
- Colorado River Water Use
- Implementation of River District Lease of Ruedi Water for ISF use on Fryingpan River
- Pg. 4 SAN MIGUEL/SAN JUAN/DOLORES RIVER BASIN
  - Lower Dolores Working Group Update

#### Pg. 5 – WATER CONSERVATION AND DROUGHT PLANNING UPDATES

- CWCB Water Efficiency Grant Fund Program (WEGP) Update
- Water Efficiency & Drought Plans Update
- Governor's Water Availability Task Force
- Drought Update
- Drought Economic Impact Assessment 2018
- CO Water Loss Initiative
- Land/Water Planning Nexus
- Direct Potable Reuse

#### Pg. 7 – WATERSHED AND FLOOD UPDATES

- Mapping Update
- Fluvial Hazard Mapping Update
- Floodplain Rules and Regulations Update
- Aerial Seeding in the Never Summer Mountain Range

- Water Forecasting Partnership Program
- 2018 Fire Recovery NRCS Emergency Watershed Protection and CWCB Colorado Watershed Restoration Program
- Colorado Watershed Restoration Program
- Watershed and Flood Protection Section Invited to Louisiana to Share Success Stories of Coalition Building

#### Pg. 15 – AGENCY UPDATES

- Presentation on ISF Program to Water Literate Leaders Class
- Ground Water Commission Meeting

#### Pg. 15 – INSTREAM FLOW ATTACHMENTS

- 01 Instream Flow and Natural Lake Level Program Summary of Resolved Opposition Cases
- 02 Stream and Lake Protection Section De Minimis Cases

#### Pg. 16 - LOAN PROGRAM ATTACHMENTS

- 01 Water Project Loan Program Interest Rates
- 02 Prequalified Project List and Loan Prospect Summary
- 03 Design and Construction Status Report
- 04 Loan Repayment Delinquency Report

#### ~STATEWIDE~

#### **CWCB SMALL FEASIBILITY STUDY GRANT FUND UPDATE**— New grant applications approved: N/A

Previously approved grants in FY18/19:

- 1. Logan Irrigation District Prewitt Reservoir Rehabilitation (\$29,512)
- 2. Town of Oak Creek Sheriff Dam Rehabilitation (\$50,000)
- 3. Silt Water Conservancy District Harvey Gap Reservoir Upgrades (\$13,400)
- 4. Evergreen Metro District Evergreen Dam Evaluation (\$50,000)
- 5. Little Thompson Water District Dry Creek Reservoir Expansion (\$25,500)
- 6. Lower Arkansas Water Management Association West Farm Gravel Pit (\$9,500)

Total funds approved for feasibility study grants in FY18/19: \$177,912. (Anna Mauss)

#### **~COLORADO RIVER BASIN~**

**FUNDING FOR THE COLORADO RIVER ENDANGERED FISH RECOVERY PROGRAMS** — The Upper Colorado River Endangered Fish and San Juan River Basin Recovery Programs have met a major milestone through the passing of Senate Bill 47, which reauthorizes the recovery programs and secures annual appropriations through 2023. A reauthorization bill (S.38) was introduced in early January by Senator Gardner and incorporated into the Natural Resources Management Act (S.47). Senate Bill 47 has passed the Senate and the House and is expected to be signed by the President. (*Jojo La*)

#### COLORADO RIVER WATER USE-

2018 Colorado River Sto	orage as of January 14	th, 2019	
	Elevation (feet above mean sea level)	Storage (MAF)	Percent of Capacity
Lake Mead	1,088.20	10.702	41%
Lake Powell	3,571.54	9.232	38%
Total System Active Storage		26.724	45%
2018 Total Active Storage		31.538	53%
		Flow (MAF)	Percent of Average
Forecasted Unregulated Inflow into Powell (Forecasted Water Year 2019)		9.751	90%

Forecasted CY 2019 Lower Basin Consumptive Use				
State	Us	e (MAF)	Total (MAF)	
Arizona		2.744		
California				
California Agricultural	3.450	4 250	7.214	
Metro. Water District	0.714	4.259	7.214	
Other	0.016			
Nevada		0.256		

\*Note MAF = million acre-feet

**IMPLEMENTATION OF RIVER DISTRICT LEASE OF RUEDI WATER FOR ISF USE ON FRYINGPAN RIVER BASIN** — The CWCB's Water Lease Agreement with the Colorado River Water Conservation District (River District) was finalized and became effective on December 14, 2018. Coordination among the CWCB, Colorado Parks and Wildlife (CPW), Roaring Fork Conservancy (RFC), River District, and Bureau of Reclamation on the timing and rate of releases of leased water commenced on December 17, 2018 in response to observations of anchor ice formation on the lower Fryingpan River. On December 27, RFC and CPW staff conducted a site visit and based upon their observations, recommended starting releases of leased water on December 28 based upon river conditions and forecasted low temperatures. The Bureau of Reclamation began releases of leased water at a rate of 23 cfs on December 28, 2018, bringing Fryingpan River flows up to 62 cfs. Since January 1, 2019, releases have averaged at approximately 25 cfs. RFC and CPW have monitored conditions on the River and observed that since these releases began, there has been less anchor ice and significantly fewer locations where the Fryingpan River has been jammed with ice, despite low temperatures. On March 2, at the request of the RFC in consultation with CPW, the Bureau of Reclamation reduced releases of leased water to approximately 10 cfs, with potential further adjustments ahead to ensure that Ruedi Reservoir fills.

#### ~ SAN MIGUEL/SAN JUAN/DOLORES RIVER BASIN ~

**LOWER DOLORES WORKING GROUP UPDATE** — The Lower Dolores Plan Working Group's Drafting Team, appointed by the Group's Legislative Subcommittee, completed the latest version of the draft National Conservation Area (NCA) legislation in December 2017. The Group continues to conduct outreach and education on the proposal, which currently is supported by Dolores and San Miguel Counties. On March 11, there will be a briefing with the San Miguel County Commissioners in Telluride as that Commission has two new Commissioners who are interested in learning the background of and details on the current proposal.

In late 2018, the Dolores River Native Fish Monitoring and Recommendation Team held a technical committee meeting that focused on forecasting in the Dolores River Basin. Greg Smith from the Colorado River Basin Forecast Center presented to the group, and a robust discussion was held about forecasting in the region. It is anticipated that the Team will be meeting in the next months as the spring runoff season starts.

#### ~ WATER CONSERVATION AND DROUGHT PLANNING UPDATES ~

#### CWCB WATER EFFICIENCY GRANT FUND PROGRAM (WEGP) UPDATE—

Two grant applications have been received since the November 2018 Director's Report

- Copper Mountain Consolidated Metropolitan District Water Meters Upgrade
- City of Steamboat Springs Regional Water Efficiency Plan Update

Two grants were approved since the November 2018 Director's Report:

- **Town of Eagle** Water Efficiency Plan Update (\$29,962)
- **Copper Mountain Consolidated Metropolitan District** Water Meters Upgrade (\$34,551)

The following are deliverables sent to the CWCB since the last Director's Report:

- Town of Wellington Water Efficiency Plan 50% & 75% Progress Report
- Town of Olathe Water Efficiency Plan 75% Progress Report
- Town of Eaton Water Efficiency Plan Update 75% Progress Report
- City of Fort Lupton Water Efficiency Plan Update 50% Progress Report
- City of Durango Drought Management Plan 25% Progress Report
- City of Thornton Drought Management Plan 95% Progress Report
- Central Weld County Weld District Water Efficiency Plan 75% Progress Report
- **St Charles Mesa Water District** Zinno Subdivision Water Meter Replacement 75% & Final Report (Ben Wade)

**WATER EFFICIENCY & DROUGHT PLANS UPDATE** — The Office of Water Conservation & Drought Planning (OWCDP) continues to work with the following providers to approve their Water Efficiency and Drought Management Plans:

**Colorado Drought Mitigation and Response Plan:** Per FEMA requirements this updated plan was approved by the CWCB Board at the September 2018 meeting and has been integrated into the State's All Hazard Mitigation Plan, the All Hazard Mitigation Plan will be sent to the Governor for approval in the fall and to FEMA following that.

#### DROUGHT MANAGEMENT PLANS:

Approved Plans

• No Drought Management Plans have been approved since the September Board Meeting

#### Drought Management Plans In Review:

• No Drought Management Plans are currently under review; however, staff continue to work with a number of municipalities and providers who are not seeking financial support from CWCB for their drought response efforts but that are seeking technical assistance and expertise.

#### WATER EFFICIENCY PLANS:

#### Approved Plans:

- St. Charles Mesa Water District
- Pinery

The following plans have been given conditional approval. CWCB staff will continue to work with these entities until their respective Water Efficiency Plans achieve approval status.

- Lafayette
- East Cherry Creek Valley Water & Sanitation District

#### Water Efficiency Plans in Review:

- Widefield Water & Sanitation District
- North Weld County Water District
- Cortez
- Rifle

(Kevin Reidy & Ben Wade)

**GOVERNOR'S WATER AVAILABILITY TASK FORCE**— There will be a Joint Water Availability & Flood Task Force meeting will be on March 19 from 9:00am-12:00pm at the Colorado Parks & Wildlife Headquarters 6060 Broadway, Denver, CO. Please check the website (<u>http://cwcb.state.co.us/public-information/flood-water-availability-task-forces/Pages/main.aspx</u>) for additional information. (*Ben Wade*)

**DROUGHT UPDATE**— As a result of the persistent drought conditions throughout parts of Colorado, <u>Governor</u> <u>Hickenlooper activated the State Drought Response Plan for the agricultural sector in 40 Colorado Counties.</u> This activation remains in effect for Montezuma, La Plata, Archuleta, Conejos, Costilla, Las Animas, Baca, Prowers, Bent, Otero, Huerfano, Alamosa, Rio Grande, Mineral, Hinsdale, San Juan, Dolores, San Miguel, Ouray, Montrose, Saguache, Custer, Pueblo, Crowley, Kiowa, Cheyenne, Lincoln, El Paso, Elbert, Gunnison, Mesa, Delta, Garfield, Rio Blanco, Pitkin, Eagle, Summit, Grand, Moffat & Routt counties until deactivated by now Governor Polis. The Drought Task Force has met and new cabinet members have been briefed on its purpose and role. Support for this group continues to be strong.

Snowpack, as of February 28th is 114 percent of normal, and the areas of the state most heavily impacted by persistent drought have received significant and frequent storms overs the last two months that have helped to alleviate drought conditions. The San Miguel, Dolores, Animas & San Juan combined basins as well as the Arkansas basin both have 122 percent of normal SNOTEL Snow Water Equivalent (SWE) - the highest in the state. Neighboring basins of the Upper Rio Grande and the Gunnison are both at 119 percent respectively. The northern basins are all near normal ranging from 106 percent in the North Platte to 112 percent in main stem of the Colorado.

As of February 26th, exceptional drought, D4, has been completely removed from the state and only small slivers of D3, extreme drought, remains along the southern border. Severe drought, D2, represents the largest classification in the state with 35 percent, while 27 percent is classified as moderate drought. An additional 27 percent of the state is currently experiencing abnormally dry conditions. In some of the mostly heavily impacted areas of the state we have seen two category improvements in the last two months.

March through May is historically an important period for annual average precipitation in Colorado, many regions receive a large portion of total precipitation during these spring months. However, outlooks for the spring season do not show a clear direction. There is a slightly increased chance of above-normal precipitation for the spring across Colorado, and equal chances of above, below, and near-normal temperature. El Niño conditions currently exist, however, its late development and weak strength mean that impacts to Colorado remain uncertain.

The Drought Task Force and the Agricultural Impact Task Force will continue to monitor conditions and respond accordingly. (*Taryn Finnessey*)

**DROUGHT ECONOMIC IMPACTS ASSESMENT 2018**— A multi-agency (DNR, CDA, OEDIT, DOLA) study is currently underway examining the economic impacts of the 2018 drought to agriculture and tourism and recreation. Results will be available later this year and should provide more insight into the community level impacts of the drought.

**CO WATER LOSS INITIATIVE**— Kevin Reidy has started the CO Water Loss Initiative which will culminate in a 2-year training and technical assistance water loss control program for water providers across Colorado. Kevin convened a small advisory group to weigh in on the scope of work and to assist with the development of the programming. Approximately 102 water providers have signed up so far for the training that will begin in Spring 2019. The first round of 6 workshops have been scheduled for April is 5 different locations across the state. *(Kevin Reidy)* 

**LAND/WATER PLANNING NEXUS**— Kevin Reidy is working with counterparts from DOLA to create trainings and other related projects specified in SB 15-008 (AKA the land use bill). This bill stated that the CWCB and DOLA would create trainings for land use and water planning professionals in order to incorporate water conservation and demand management best practices into land use planning. Additional work is as follows:

- CWCB and DOLA have worked to hire a full-time short term (2 year) staff position (1/2 funded by the Babbitt Water Center) to staff the Water and Land Use Planning Alliance. This person started in early January and has planned the next Alliance meeting for March 6, 2019.
- Sonoran Institute, through a CWCB water plan grant, has extended their Colorado Growing Smart initiative to carry out 3 more additional workshops over the nest 18-24 months. Kevin is on the advisory group for these trainings. Next trainings will take place April 23-25, 2019. As part of the same water plan grant, the Sonoran Institute has also issued an RFP for designing a stakeholder process that will evaluate and ultimately select a set of metrics that community and state officials can use to track their progress in meeting the state water plan goal. A contractor has been chosen for the work and the first meeting is taking place March 27, 2019. (*Kevin Reidy*)

**DIRECT POTABLE REUSE**— Through a water plan grant, Reuse Colorado has convened stakeholders along with CDPHE and CWCB to create a regulatory framework for direct potable reuse in Colorado. This project has also enlisted a panel of experts from across the nation to weigh in on the discussions and make recommendations on how to create the regulations and what should be in them. The third panel meeting will take place on April 19, 2019. (Kevin Reidy)

#### ~WATERSHED AND FLOOD UPDATES~

#### MAPPING UPDATE—

**FY18 Activities:** The CWCB was awarded the FY18 FEMA grant funding for Risk Map projects. In total, the CWCB will receive \$5.5 million for the Risk Map program for all projects starting this year. The following is a list of the FY18 Risk Map projects:

The CWCB received a \$231,823 from FEMA for Project management tasks. This also includes \$80,000 allocated to the Division of Water Resources Dam Safety office for a pilot project.

\$350,000 was awarded to fund Delta County Risk Map Phase 2, which will include data development tasks such as hydrology, hydraulics, and floodplain mapping throughout Delta County. The CWCB previously funded

a scoping project, which includes a high level countywide analysis of flood risk throughout most of the stream reaches within Delta County. The scoping meeting is set to take place in mid-November with local community officials. Delta County Risk Map Phase 2 includes 41.5 river miles of enhanced flood study, post-fire flooding analysis, and an evaluation of sediment-bulked flooding. The State Task order for this project has been completed and a kick off meeting with communities will be held this spring 2019.

The Upper White Watershed Risk Map project will receive an additional \$70,000 from FEMA to conduct analysis on two levees that were discovered within Rio Blanco County during the routine hydraulic analysis. The updated mapping results in a significant amount of shallow flooding in Rangely.

The Cache La Poudre Risk Map project is also receiving additional funds to address local community comments. A total of \$195,000 of FEMA funding is awarded to resolve the comments and complete the Risk Map project for Cache La Poudre. The CWCB mapping contractor has addressed comments and submitted to FEMA for their review. This project is anticipated to go preliminary sometime later this year.

Analyzing levees continue to be a challenge for the Risk Map program. Fortunately, FEMA provides funding and resources to help Cooperating Technical Partners (CTPs), such as the CWCB to assess levee precertification options. The CWCB will receive \$275,000 from FEMA to evaluate the Templeton Gap levee in Colorado Springs. A portion of this funding will also be used to conduct a high level base level engineering analysis for Teller County. This grant covers both Colorado Springs, El Paso and Teller Counties. The State Task Order has been completed and preliminary engineering work has begun.

The CWCB previously funded a Discovery project in the Animas River Watershed. From that effort, the local communities were able to identify several mapping needs. FEMA has awarded CWCB \$654,717 to fund Phase 2 in 2017. This year, FEMA has awarded \$295,000 to complete this project through effective mapping. The State Task order has been completed.

This year, FEMA has awarded the CWCB \$620,000 to complete CHAMP Phase 3 projects through data development tasks. The remaining counties from CHAMP Phase 3 that are not updated will remain on the priority list until updated, high quality topographic data becomes available. The State Task order for this project has been completed and work is under way.

The CWCB funded regional hydrology updates for the Arkansas River from the headwaters near Leadville, Colorado to the Kansas State line as well as the Colorado River from Granby to the western border of Mesa County. The CWCB leveraged this work to obtain funds from FEMA this year to study the Arkansas River hydraulics and floodplain mapping. \$340,000 was awarded for this effort. Garfield County Phase 3 will receive \$346,752 from FEMA and this effort will include completing this Risk Map project through effective maps.

The CWCB will be funding a hydrology update for the Yampa River basin. The scope of work has been approved and we are currently working on the task order.

As the project list continues to expand, the engagement and outreach needs also increase. FEMA is awarding \$315,000 to the CWCB for outreach and community engagement activities for ongoing and new projects.

**FY17 Activities:** The CWCB received a \$212,558 grant from FEMA to provide an updated hydrologic and hydraulic engineering and floodplain mapping for the Roaring Fork River and floodplain mapping services for the Colorado River within Garfield County (Phase 2). A kick off meeting was held on April 5, 2018 and survey data has been collected. The hydrology analysis has been approved by FEMA and Wood is currently working on the hydraulic analysis. FEMA has awarded the CWCB funds for Phase 3 of this project in FY 2018.

The CWCB was able to leverage \$929,729 from FEMA to continue CHAMP through the FEMA regulatory process. This study involves analyzing streams across seven counties in northeast Colorado and will include 233 FIRM panel updates. The counties include Boulder, Logan, Larimer, Morgan, Weld, Washington, and Sedgwick Counties. A Flood Risk Review meeting was scheduled with Larimer County in mid-November and the preliminary distribution is scheduled for this early spring. The Jefferson County PMR was the first one to go preliminary at the end of 2018. A final meeting with community officials was held on February 13, 2019. A public meeting will be scheduled sometime in March 2019.

The CWCB previously funded a Discovery project in the Animas River Watershed. From that effort, the local communities were able to identify several mapping needs. FEMA has awarded CWCB \$654,717 to fund the proposed projects that identified from the Discovery effort. This is Phase 2 and includes updated hydrologic and hydraulic engineering, (including post-fire conditions for Junction Creek), updated floodplain mapping, and sediment-bulked flooding along the Animas River, and an evaluation of ice jamming conditions in Silverton. Field survey work has been completed and additional coordination with local communities has taken place to determine if additional work to include impacts from the wild fires is needed. FEMA has awarded the CWCB funds for Phase 3 of this project, which will cover tasks through effective mapping.

The CWCB is funding a regional hydrology update for the Arkansas River from the headwaters near Leadville, Colorado to the Kansas State line. The CWCB is working with Wood (formerly Amec Foster Wheeler) on this analysis. The final report has been approved by FEMA. The final report is available on the CWCB website.

**FY16 Activities:** Upper White Watershed Risk Map Phase II preliminary map issuance will be delayed. A revised scope of work was submitted and approved by FEMA to conduct additional analysis, including a levee study, in Rio Blanco County and the Town of Rangely. St. Vrain Risk Map Phase III is also well under way. FEMA has approved the hydraulic and floodplain mapping tasks. A non-levee embankment was modeled incorrectly through the Town of Rangely and the updated analysis shows most of the town inundated with shallow flooding. A meeting with the community officials took place in mid-December 2018.

CWCB received \$3.4 million FEMA grant for LiDAR acquisition in Colorado for future floodplain mapping projects. This money was used to leverage an additional \$1 million from the USGS to supplement a late spring 2018 LiDAR acquisition in Eastern Colorado. This data has been collected and is now in the post-processing phase. Blocks 1-4 have been completed and are available by request on the Colorado Hazard Mapping website.

#### (www.coloradohazardmapping.com)

A regional hydrology study update on the Colorado River near Granby to the border with Utah has been completed and the results have been approved by FEMA. The CWCB has met with nearly every local community affected by this update. Final results are available for viewing on the Colorado Hazard Mapping website and on the CWCB website. A CLOMR process is underway to conditionally accept the hydrology results with FEMA.

**FY15** Activities: The Cache La Poudre Phase III project funds will be re-scoped to address comments from Fort Collins, City of Greeley, and the City of Windsor. Comments are now being addressed and an updated schedule for this project will be provided this Fall 2018. FEMA provided additional funds for this effort in FY 2018.

Upper Gunnison Risk Map Project Phase 2 hydraulic tasks were recently submitted to FEMA for review. Draft results show increased flood risk throughout the Town of Crested Butte. The model was done in HEC-RAS 2D and the mapping contractor is working on refining the results. A Flood Risk Review with local community officials took place on February 11, 2019.

**FY14 Activities:** The erosion zone study for the Salt Creek Wash near the Town of Collbran in Mesa County was approved by FEMA. This report is now available on the Risk Map website.

FEMA has provided funding to conduct a countywide approximate floodplain mapping for El Paso County, referred to as a Base Level Engineering (BLE) study. A part of this grant funding will be rescoped to fund the revised preliminary project for the El Paso County DFIRM project, which became effective on December 7, 2018.

Other non-mapping projects funded by FEMA this year included an inventory of the ongoing studies and other data in the post flood areas, developing a technical evaluation of flood forecasting methods using Risk Map products, and developing a model management system to store all available hydrologic and hydraulic models in the post-flood areas. All of these projects are complete and have been approved by FEMA.

**FY13 Activities:** The El Paso County as a partial Countywide DFIRM project is now in the final compliance period and the effective date of the maps will be December 7, 2018.

Purgatoire Watershed Risk Map project is now in the post appeal period. An additional scope of work was submitted and approved to resolve tie in issues. This project includes Las Animas County, City of Trinidad, as well as a few other incorporated towns in Las Animas County. The Task Order was approved and a Letter of Map Revision (LOMR) will be completed to move this project forward to completion. The LOMR has been submitted to FEMA for review and a Letter of Final Determination (LFD) was on February 28, 2019 with an anticipated effective date of August 28, 2019.

The Pueblo County DFIRM is now in the post-preliminary phase, however, issues were found tying into the effective floodplains. The CWCB is funding a separate LOMR effort to resolve this issue. Field survey work has been completed and work on the LOMR is continuing. The State Task order has been approved and Wood is working on completing this LOMR. The LOMR has been submitted to FEMA for review and a Letter of Final Determination (LFD) was on February 15, 2019 with an anticipated effective date of August 15, 2019.

**FY12 Activities:** The grant for Purgatoire Watershed was funded through floodplain mapping and all tasks have been completed under the 2012 grant. A new grant was approved in 2013 to complete the Purgatoire Risk Map project to effective and the progress report is found under FY 13 Activities. The Cache La Poudre Risk Map project was funded in FY 2012 and the hydraulic and floodplain mapping tasks are almost complete. A new FEMA grant was awarded in FY 2015 to complete the Cache La Poudre Risk Map project under Phase III. A LOMR to complete this project has been submitted to FEMA for review and a Letter of Final Determination (LFD) was on February 28, 2019 with an anticipated effective date of August 28, 2019.

**FY11 Activities:** Hydrology tasks for St. Vrain and Clear Creek watersheds have been completed and approved. The scope of work for the St. Vrain watershed was revised to include areas that were impacted by the flood. All tasks under this grant have been completed through to floodplain mapping. The FEMA grant for this project has expired and a new grant was approved in 2016 to complete additional tasks to finalize the maps as FEMA effective products. Updates for the St. Vrain Risk Map project will be provided under FY 2016 activities. Some streams updated through the Colorado Hazard Mapping Project will be included in the St. Vrain map update.

Clear Creek Risk Map preliminary maps were distributed on February 8, 2017. The community review meeting was held on March 30, 2017. Clear Creek is now in the post appeal period and FEMA will be taking over this project to completion. (Thuy Patton)

FLUVIAL HAZARD MAPPING UPDATE— The floods of September 2013 reminded Coloradans how quickly rivers and streams in their state can change and morph into extreme storm events. Approximately half of the private structure damages and losses experienced in the 2013 flood were located outside of the regulatory floodplain, or Special Flood Hazard Area (SFHA), designated by the Federal Emergency Management Agency (FEMA). These flood-related risks associated with erosion, deposition, degradation, lateral migration, and avulsion created disastrous outcomes in 2013, and those outcomes may occur again in future flood events in Colorado. The identification of fluvial hazard zones has become a high priority as Colorado recovers from the September 2013 floods and transitions toward long-term river corridor planning. Planning for erosion hazards is an essential component of effective river corridor management and the prevention of future flood damages. Broadly defined, the Fluvial Hazard Zone (FHZ) is the area a stream has occupied in recent history, could occupy, or could physically influence as it stores and transports sediment and debris. In early 2015, Colorado's Legislature passed a funding bill for the Colorado Hazard Mapping Program, which aims to provide a mitigation and land use framework in areas likely to be affected by future flooding, erosion, and debris flow events. The fluvial hazard mapping component of the project began in January 2017. The engineering firm Wood. has been contracted to do the work. The program will refine mapping methodology and perform a series of pilot studies on fluvial hazards throughout the State. Communities interested in participating in the pilot studies submitted applications to the CWCB and selections were made in May of 2017. Community selections were based on physio-geographic location, geomorphic setting, existing data availability, and other technical elements, as well as community support, budget, and time constraints. Communities selected include Boulder, Eagle, Saguache, and San Miguel Counties, and the Town of Castle Rock, City of Delta, Town of Estes Park and Town of Nederland. Fluvial/erosion hazard mapping in these communities is current underway, and map products and a model land use code will be available for voluntary adoption by communities by the end of June 2019. (Stephanie DiBetitto)

**FLOODPLAIN RULES AND REGULATIONS UPDATE**— The State of Colorado, through CWCB action in November 2010, adopted increased standards for floodplain management, which are contained in the Rules and Regulations for Regulatory Floodplains in Colorado (Rules), effective January 14, 2011.

Communities were provided with a three-year transition period to adopt local regulations consistent with the Rules. Through sound floodplain management practices, these standards support enhanced public health, safety and welfare and will help communities reduce future flood risk to people and property. Staff has been working very collaboratively with communities to assist them with technical questions, model ordinance templates, and transition support. CWCB staff has contacted each community that has not yet provided documentation of adoption of the Rules via phone or email to offer assistance. Staff has also met with several communities to answer questions and review the process for updating floodplain regulations. Most communities have made adopting the

Rules into local floodplain regulations a priority. However, the Town of Holyoke is the last of 252 total communities to adopt or provide documentation to the CWCB. A three-year transition period was provided and all Colorado communities had until January 14, 2014 to adopt floodplain regulations consistent with the Rules. Therefore, the remaining community is considered to be non-compliant. Non-compliance is taken into consideration by CWCB staff when awarding grant funding, and can prevent a community from receiving CWCB funds. In accordance with the procedure outlined in Rule 16, staff is continuing to provide outreach and technical assistance to the community. The Town of Holyoke has provided the CWCB with an update of their progress to date and are working towards final adoption at the local level. The CWCB anticipates receiving a final ordinance from the community no later than March 2019. (*Stephanie DiBetitto*)

**AERIAL SEEDING IN THE NEVER SUMMER MOUNTAIN RANGE** – Colorado's inaugural aerial cloud seeding program is complete and operations have ended for the Never Summer Mountain Range 2019 Water Year. A total of 3 flights were conducted, all occurring in February (2/3, 2/5, 2/14). The February 3<sup>rd</sup> flight seeded the target area utilizing both burn-in-place and ejectable flares. The February 5<sup>th</sup> and 14<sup>th</sup> flights used only ejectable flares. Project sponsors included the Jackson County Water Conservancy District, North Platte Basin Roundtable, State of Wyoming Water Development Office, and the Cheyenne Board of Public Utilities. The Never Summer Range Operations Summary table as of 3/5/2019 is below. (*Andrew Rickert*)

	SNOW	RECON	REPO	WMI OTHER	BILLABLE TOTAL	MX FLIGHTS	BIP	Ð	TRACK(5)	TARGET AREA	CREW	Flight #
DATE	3	0	0									
2/3/2019	5.05				5.05	0.00	2	204	N54	NS	КНЈВ	1
2/5/2019	3.93				8.98	0.00		166	N54	NS	КНЈВ	2
2/14/2019	4.05				13.03	0.00		147	N54	NS	KHDH	3
					13.03	0.00						
TOTALS	13.03	0.00	0.00	0.00	13.03	0.00	2	517				

NEVER SUMMER RANGE FLIGHT SUMMARY

**WATER FORECASTING PARTNERSHIPS PROGRAM** – The watershed and flood protection section has funding and project ideas to improve water supply seasonal forecasts. Recently the National Center for Atmospheric Research

has started providing experimental water supply forecasts to the DWR and Water Users every two weeks using the NCAR WRF-Hydro modeling system. New SNOLite stations in the Conejos were installed by NCAR and are now ingested and bias corrected to help improve the hydrologic modeling and added to the official federal water supply forecasts provided by both the NWS West Gulf River Forecast Center and the NRCS Snow Survey Program in Portland. Once the permanent weather radar is up and running next winter it will have a 200 mile circle of radar data to also force models for water supply forecasts. The graphic shows red stars as the

#### Upper Rio Grande Model Domain

- Forecast Process:
- Keep a continuous cycling WRF-Hydro analysis driven by current observed conditions
- Run WRF-Hydro water supply forecasts from present through Sep 30 using 15 past years of observed data
- Bias correct water supply volume (kac-ft) forecasts based on long term simulation verification
- Create bias corrected mean/median/guantile water supply forecasts

#### • Four Compact Stations – (red stars) – Rio Grande at Del Norte

- Conejos at Mogote
   San Antonio at Ortiz
- Los Pinos at Ortiz
- SnoLite Stations:

- Upper Adams Fork

- (yellow stars)
- Upper Elk Fork
  Upper South Fork (2)
  Upper Middle Fork



V2.0 Hydro model code: https://github.com/NCAR/wrf\_hydro\_nwm\_public/releases/tag/nwm-v2.0

Compact stations, the yellow stars are the new SNOlite stations. The purple and blue is the NOAA SNODAS depiction of Rio Grande snowpack on March 1, 2019. Now the WRF-Hydro model is bias corrected using these new stations. We are hopeful the NCAR experimental forecasts are even more accurate. In addition to this work the

CWCB is also hiring the NASA Aerial Snow Observatory for two snowpack mapping flights in the Gunnison. Also utilizing the CWCB contract with NASA is Denver Water to map the Blue River Basin. (*Joe Busto*)

**2018 FIRE RECOVERY – NRCS EMERGENCY WATERSHED PROTECTION AND CWCB COLORADO WATERSHED RESTORATION PROGRAM** — The Emergency Watershed Protection (EWP) Program is a federal cost share program designed to protect life and property after a disaster. It is administered by the U.S. Dept of Agriculture, Natural Resources Conservation Service (NRCS).

The NRCS contributes 75% of the cost share determined during the Damage Survey Report (DSR) process. DSRs determine project eligibility. The values at risk (houses, infrastructure, etc) must be worth more than the project cost. The NRCS seeks local or state government as the local sponsor. The sponsor is responsible for 25% of the total project cost.

In Colorado, EWP funds are often used for post fire/pre flood mitigation or post flood restoration.

The Colorado Water Conservation Board (CWCB) has extensive experience administering the EWP program as the local sponsor to the NRCS, although this is not a normal operating function of the CWCB.

The CWCB managed over \$50 million in EWP project funds during the 2013 flood recovery effort. The majority of these funds were expended in 2017 and 2018. Sixty-seven projects were completed in Larimer, Boulder, Weld, Jefferson, and El Paso Counties.

Several fires that occurred in 2018 qualified for EWP funding. These include the Spring Creek, 416, and Lake Christine fires. The Spring Creek fire was in Huerfano and Costilla County, the 416 fire took place in La Plata County, and the Lake Christine fire was in Eagle County.

The NRCS is working directly with the local counties and municipalities in the fire affected areas. The primary focus of the funding is to protect against potential floods that may be triggered during snowmelt or monsoon seasons.

The Colorado Department of Local Affairs (DOLA) and the Department of Homeland Security and Emergency Management (DHSEM) are working with local sponsors to identify how much funding the State will provide towards the required 25% match. This is done by performing an "Informal Hardship Evaluation of Fiscal Capacity and Available Reserves" for each county or municipality that requested support from the State.

Funding Breakdowns are below:

#### **Spring Creek Fire**

Huerfano County total EWP project value = \$7,396,914. NRCS share = \$5,547,686 (75%) DHSEM share = \$1,612,686 (~22%) Huerfano County share = \$236,542 (~3%)

**Town of La Veta** total EWP project value = \$5,000,000 NRCS share = \$3,750,000 DHSEM share = \$1,224,601 (24.5%) La Veta share = \$25,399 (0.5%)

Walsenburg total EWP project value = \$2,000,000 NRCS share = \$1,800,000 (90% - Walsenburg qualified for greater federal cost share due through Federal hardship analysis) DHSEM share = \$121,272 (~6%) Walsenburg share = \$78,728 (~4%)

#### 416 Fire

La Plata County total EWP project value = \$5,200,000 NRCS share = \$3,900,000 DHSEM share = \$650,000 (12.5%) La Plata did not qualify for financial hardship, but DHSEM has indicated it will honor a 12.5% match La Plata County share = \$650,000 (12.5%)

#### Lake Christine Fire

Cost share breakdowns have yet to be determined. (Kevin Houck)

**COLORADO WATERSHED RESTORATION PROGRAM (CWRP)** – The CWCB Colorado Watershed Restoration Program (CWRP) is a grant program developed in 2008 to protect or restore the ecological processes that protect land and water while protecting life and property from floods. EWP projects can qualify for funding based on the grant criteria.

La Plata County and Huerfano County Water Conservancy District (HCWCD) applied for \$500,000 each in the Nov 2018 grant cycle. Both applications were approved for funding through Board action on January 28, 2019.

At this time, it does not appear that either entity will need the funds for EWP cost share. DHSEM has indicated that any other State funding will offset their proportionate amount. In other words, DHSEM is adamant that the local governments provide their cost share through their own sources, in kind donations (time and materials), or non-State grant funding sources.

CWCB staff have determined through experience with the EWP program that EWP funds alone often are not enough to recover from disasters.

CWCB grant funding will be used for non-EWP expenses including planning, design, and project implementation in disaster affected areas. The funds are further recommended for EWP match funding in the event that the DHSEM funds are not committed.

HCWCD has already allocated some of the grant funds to an early flood warning system. The system will use stream gauges at locations above the town of La Veta. They will be located on the Cucharas River and other creeks that are likely to experience flooding after a storm event. These creeks are in watersheds that experienced high burn intensity during the Spring Creek Fire.

The Spring Creek and 416 Fire stakeholders have also indicated that the CWCB grant funds will be used to stabilize areas higher in the watershed at non-EWP project locations. They further indicated that protection of water diversions is a priority. (*Chris Sturm*)

WATERSHED AND FLOOD PROTECTION SECTION INVITED TO LOUISIANA TO SHARE SUCCESS STORIES OF COALITION BUILDING — CWCB Flood Section Chief Kevin Houck and two staff members from the Colorado Department of Local Affairs were invited by the State of Louisiana, along with representatives from Texas and Minnesota, to the "Best Practices Interstate Summit" (Summit) in February. This was a key event as part of the Louisiana Watershed Initiative (Initiative), which was founded following devastating flood events in 2016. According to the Initiative website,

In May 2018, Gov. Edwards issued an executive order establishing the **Council on Watershed Management** to develop and implement a statewide floodplain management program based on watersheds as opposed to political and jurisdictional boundaries, which water does not recognize. The Council was charged with empowering local jurisdictions and communities to implement regional, long-term solutions that follow watershed boundaries to better reduce flood risk in Louisiana communities.

The **Louisiana Watershed Initiative** serves as the program through which floodplain management responsibilities are coordinated across federal, state and local agencies, supported by experts who serve as advisors in building a foundation of data, projects, policies, standards and guidance.

For the Summit, the Disaster Recovery Unit of the Louisiana Office of Community Development, the State agency in charge of administering the Initiative, sought national experts to discuss topics of relevance to that state's charge. They believed the coalition-building effort performed in Colorado, not just in the wake of the 2013 floods, but in general for watershed related activities, represented the best blueprint of where they wanted to head. Although the State of Louisiana is primarily interested in coalition building for the purposes of improved floodplain management and recovery activities (as opposed to Colorado's experience, which includes some flood activities, but is more primarily used for restoration and environmental functions), the Summit proved very successful, and the Louisiana officials were grateful for Colorado's participation in their effort.

Further information regarding the Louisiana Watershed Initiative can be found at https://www.watershed.la.gov/

#### ~AGENCY UPDATES~

**PRESENTATION ON ISF PROGRAM TO WATER LITERATE LEADERS CLASS** — On February 14, 2019, CWCB staff member Linda Bassi spoke to the Water Literate Leaders of Northern Colorado class about Colorado's Instream Flow Program and how the CWCB can work with local governments on stream flow protection. The class is part of a program launched by the Colorado Water Institute in cooperation with the Community Foundation of Northern Colorado to educate emerging Northern Colorado leaders about water from multiple perspectives. Attendees at the class on February 14 included mayors, city managers, water district board members, town administrators, candidates for county commissioner, and others.

**GROUND WATER COMMISSION MEETING** — The Ground Water Commission (GWC) held a regular meeting on Friday, February 15th. The main topic of discussion regarding amendments to Rules 5.6 and 5.8 of the Rules and

Regulations for the Management and Control of Designated Groundwater (Case no. 17-GW-05). The GWC approved all amendments as recommended by Hearing Officer Joseph Grantham. The GWC will hold its next regular meeting on May 17th, 2019 in Castle Rock, CO. For more information, visit: http://water.state.co.us/groundwater/CGWC/Pages/default.aspx. (*Erik Skeie*)

#### ~INSTREAM FLOW ATTACHMENTS~

- 01 Instream Flow and Natural Lake Level Program Summary of Resolved Opposition Cases
- 02 Stream and Lake Protection Section De Minimis Cases

#### ~LOAN PROGRAM ATTACHMENTS~

- 01 Water Project Loan Program Interest Rates
- 02 Prequalified Project List and Loan Prospect Summary
- 03 Design and Construction Status Report
- 04 Loan Repayment Delinquency Report

#### March 20-21, 2019 Board Meeting Instream Flow and Natural Lake Level Program Summary of Resolved Opposition Cases

The Board's Instream Flow ("ISF") Rule 8i(1) states:

In the event the pretrial resolution includes terms and conditions preventing injury or interference and does not involve a modification, or acceptance of injury or interference with mitigation, the Board is not required to review and ratify the pretrial resolution. Staff may authorize its counsel to sign any court documents necessary to finalize this type of pretrial resolution without Board ratification.

Staff has resolved issues of potential injury in the following water court cases; the Director has authorized the Attorney General's Office to enter into stipulations that protect the CWCB's water right(s).

### **STATEMENTS OF OPPOSITION**

# (1) Case No. 15CW3148 (Water Division 1) - Application of Central Colorado Water Conservancy District

The Board ratified this Statement of Opposition at its March 2016 meeting. Applicant seeks a new water right in Chatfield Reservoir for several uses, including "streamflow enhancement" that "may be made in conjunction with the Colorado Water Conservation Board." Staff, in cooperation with the Attorney General's Office, has negotiated a settlement to ensure that the CWCB's instream flow water rights will not be injured.

In addition to standard terms regarding measuring devices, accounting and retained jurisdiction, the Applicant has agreed to the following additional protective terms and conditions:

- The Division Engineer and/or water commissioner shall only administratively approve exchanges using the Chatfield Reservoir-Refill Right to locations such that the proposed exchange reach does not deplete a CWCB instream flow reach. Proposed exchanges using the Chatfield Reservoir-Refill Right that would exchange water through a decreed CWCB instream flow reach shall only be allowed pursuant to a future water court decree. If an administrative exchange using the Chatfield Reservoir-Refill Right is approved for a stream reach where no instream flow right is decreed at the time of that administrative approval, but CWCB later files an application for an instream flow appropriation in such reach, such instream flow appropriation will be subject to the provisions of 37-92-102(3)(b), C.R.S., which shall be confirmed by such new instream flow decree.
- Place of Use. Applicant shall use water stored pursuant to the Chatfield Reservoir-Refill Right within the boundaries of Central or its subdistricts, as they now exist or as modified in the future. The recreation, fish and wildlife uses shall only occur within Chatfield Reservoir.
  - Applicant's augmentation use of the Chatfield Reservoir-Refill Right shall occur in accordance with the terms and conditions of Applicant's augmentation plans

decreed in Case Nos. 02CW335, 03CW99, and 16CW3202, and any future augmentation plan decreed by Applicant or its subdistricts.

- The Chatfield Reservoir-Refill Right may be added and used as an additional augmentation source by parties other than Applicant to augment water rights beneficially used within the existing boundaries of Central or its subdistricts, pursuant to the terms of any augmentation plan presently decreed to augment such water rights.
- The Chatfield Reservoir-Refill Right may be used as an augmentation source in a future augmentation plan or substitute water supply plan to augment future diversions of water rights beneficially used within the boundaries of Central or its subdistricts, as they currently exist or as modified in the future.
- Replacement use shall occur so as to replace return flows associated with the water rights included in Exhibit 1, and the return flows for other water rights subject to a future decree of the water court or substitute water supply plan.

# (2) Case No. 17CW3004 (Water Division 6) - Application of James Ritchie

The Board ratified this Statement of Opposition at its May 2017 meeting. Applicant seeks changes of water rights to alternate points of diversion for irrigation. Staff, in cooperation with the Attorney General's Office, has negotiated a settlement to ensure that the CWCB's instream flow water rights will not be injured.

The CWCB holds instream flow water rights, including the following, in Water Division 6 (decreed as Water Division 5) in the Upper White watershed that could be injured by this application:

Case Number	Stream	Upper Terminus	Lower Terminus	CFS Rate (Dates)	Approp. Date
77W3652G	Miller Creek	confl Moog Gulch	confl White River	10 (1/1 - 12/31)	11/15/1977
77W3652C	White River	confl NF & SF White River	confl Piceance Creek	200 (1/1 - 12/31)	11/15/1977

In addition to standard terms regarding measuring devices, accounting and retained jurisdiction, the Applicant has agreed to the following additional protective terms and conditions in the decree:

- "Applicant may offset [its return flow] obligations by future return flows that will accrue to Flag Creek resulting from the future use of the subject water rights to irrigate the lands shown in Exhibit B."
- "Following implementation of the changes approved herein, flows from Goff Creek, West Fork of Flag Creek, and springs and other tributaries downstream of the headgate of the Hoback and Redpath Ditch, that historically contributed to diversions into the Chandler Ditch or the East Chandler Ditch (collectively, "Flag Creek Inflows"), will no longer be diverted by those water rights. Instead, the Flag Creek Inflows, which are included in the quantification and subject to the limits described in paragraph 22.G, above, maybe used to maintain the historical return flow pattern of the subject water rights. Any Flag Creek Inflows used to maintain historical return flows must be physically measured."

• "To the extent that future irrigation return flows and Flag Creek Inflows are insufficient to maintain the historical return flow pattern described in the table above, Applicant shall, in each such month, bypass at the headgate of the Bear Pond Ditch and/or the Hoback and Redpath Ditch such additional water attributable to the historical headgate diversions, as quantified and subject to the limits described in paragraph 22.G, above, as may be necessary to meet the historical return flow obligation. Any such bypassed water shall be physically measured. Water bypassed at the Bear Pond Ditch headgate may be counted toward meeting historical return flow obligations only if such water flows past the Hoback and Redpath Ditch without being diverted by that structure."

## LETTERS-IN-LIEU

The following cases were resolved by Staff through negotiated letter agreements in lieu of filing water court Statements of Opposition. This method of settlement is preferred when facts and time allow such negotiation before the Statement of Opposition period ends. In each case, CWCB staff will continue to monitor the proposed rulings and decrees. In each case, Applicant has agreed to not oppose a motion to intervene if the agreed upon terms are not included. The following were negotiated to resolution:

# (1) Case No. 18CW3192 (Water Division 1) - Application of The City and County of Denver, Acting by and Through its Board of Water Commissioners

During the November 2018 Water Court Resume Review, CWCB staff identified concerns regarding potential injury to CWCB's many instream flow water rights decreed in Division 1. This case was resolved with CWCB by a letter agreement, dated January 29, 2019, by which CWCB agreed not to file a Statement of Opposition, provided Applicant incorporates the following terms and conditions into any draft and final decrees and Applicant agrees to not oppose a motion to intervene by CWCB if such terms and conditions are not included:

- Applicant agrees to include in the decree language substantially similar to the extraterritorial and reuse language contained in paragraph 10 of Applicant's amended application, as follows:
  - "Location of Use: The water diverted and stored under the water right proposed herein will be placed to beneficial use wherever Denver Water may, now or in the future, legally provide water. The place of use includes Denver Water's service area as it exists now as approximately show on the map (in the decree as Exhibit B) or may exist in the future, within Denver, Arapahoe, Douglas, Jefferson, Adams, and Broomfield Counties, Colorado."

### (2) Case No. 18CW3215 (Water Division 1) - Application of City of Loveland

During the December 2018 Water Court Resume Review, CWCB staff identified concerns regarding potential injury to CWCB's many instream flow water rights decreed in Division 1. This case was resolved with CWCB by a letter agreement, dated February 26, 2019, by which CWCB agreed not to file a Statement of Opposition, provided Applicant incorporates the following terms and conditions into any draft and final decrees and Applicant agrees to not oppose a motion to intervene by CWCB if such terms and conditions are not included.

- Any direct use or storage of this water, if made by undecreed exchange, substitution, or other mechanism, whether by administrative approval or not, shall not occur through an instream flow water right at times when the instream flow decreed rate is not met and is being administered. Pursuant to section 37-92-102(3)(b), C.R. S., any of Loveland's existing uses and practices on the date of an instream flow water right appropriation shall not be subject to curtailment during administration of such a instream flow once the existing use or practice is quantified and confirmed by the court, which can occur in a decree for any new instream flow appropriation or other decree.
- Reuse and successive use of the subject water rights outside of the City's water service area may only be made pursuant to a separate decree quantifying the rate, timing, and location of water available for such reuse and successive use.
- Additionally, the City will include the CWCB as a party to receive any post-decree notifications related to the water rights decreed in Case No. 18CW3215.
- The City further agrees (1) to provide the CWCB with copies of proposed decrees and any C. R. C. P. 26(a)(2) filings submitted to the court in this case, (2) to file a motion to amend the decree if the decree is entered by the court without the agreed upon terms and conditions, and (3) to not oppose a CWCB motion to intervene to participate in the case, including participation at trial if necessary, to ensure that these agreed upon terms and conditions are included in the final decree.

### (3) Case No. 18CW3120 (Water Division 5) - Application of 440-808, LLC

During the July 2018 Water Court Resume Review, CWCB staff identified concerns regarding potential injury to CWCB's instream flow water rights decreed in Case Nos. 90CW0305 and 90CW0306 on Ranch Creek and 90CW0308 on the Fraser River. Initially, during resume review CWCB sent a de minimis letter to Applicant for this case, dated September 25, 2018. However, Applicant requested a confirmation that an instream flow call would not curtail indoor uses and thus requested an agreement regarding specific 102(3)(b) language for the decree. This case has now been resolved with CWCB by a letter agreement, dated February 28, 2019, with the following term:

Colorado Water Conservation Board ("CWCB") C.R.S. § 37-92-102(3)(b) Exception. The Colorado Conservation Board (CWCB) has instream flow rights (ISF) decreed on Ranch Creek in Case Nos. 90CW306, 90CW306A, and 90CW305 ("Ranch Creek ISF") and on the Fraser River in Case Nos. 90CW308 and 90CW308B ("Fraser River ISF") that are above the confluence of the Fraser and Colorado Rivers, one of Applicant's augmentation water delivery locations. The CWCB has ISF in Case Nos. 80CW446, 80CW447, and 80CW448 on the Colorado River ("Colorado River ISF) above the confluence of Muddy Creek and the Colorado River, an alternate augmentation delivery location. These ISF water rights are collectively referred to as "CWCB's ISFs." By agreement with the CWCB, pursuant to C.R.S. §37-92-102(3)(b), and in recognition of Applicant's historical water uses and practices that preceded the appropriation of CWCB's ISFs listed above, Applicant may divert from its Well under the plan for augmentation and exchange decreed herein subject to the following condition. In the event of a CWCB ISF call on the Well that is not otherwise satisfied by the release of augmentation water under the Augmentation Plan, Applicant shall curtail all outside irrigation allowed pursuant to this Decree. This

agreement is consistent with C.R.S. §37-92-102(3)(b) and does not interfere with the administration of the Well water right in priority as against other water rights, and does not result in subordination of the CWCB's ISFs to any other water rights junior to the CWCB's ISFs.

# (4) Case No. 18CW3214 (Water Division 5) - Application of Steven Shane and Clare Evert-Shane

During the December 2018 Water Court Resume Review, CWCB staff identified concerns regarding potential injury to CWCB's instream flow water rights on Snowmass Creek and the Roaring Fork River. This case was resolved with CWCB by a letter agreement, dated February 27, 2019, by which CWCB agreed not to file a Statement of Opposition, provided Applicant incorporates the following term and condition into any draft and final decrees and Applicant agrees to not oppose a motion to intervene by CWCB if such terms and conditions are not included:

• Local call: in the event of an administered call senior to the exchange claimed herein within the exchange reach, Applicant will curtail all diversions for the Lutz Ditch, Shane Enlargement.

# Director's Report Attachment - March 20-21, 2019 CWCB Meeting Stream and Lake Protection Section De Minimis Cases

The following table summarizes applications that have the potential to injure the Board's instream flow water rights, but the impact is considered de minimis. In these cases, the cumulative impact to the Board's right is less than 1%. Pursuant to ISF Rule 8(e) (the de minimis rule), staff has not filed a Statement of Opposition in these cases and has provided the required notification to the Division Engineers and applicants.

Applicant Case No.	Applicant	Stream/ CWCB Case No.	ISF Amount (cfs/date)	Individual Injury (%)	Cumulative Injury (5)	Count
18CW3047	Frederick D. and Donna J. Miller	Florida River 77W1763	14 (10/15 - 6/30) 7 (7/1 - 10/14)	0.00080 0.00040	0.77507 0.43340	27
18CW3047	Frederick D. and Donna J. Miller	Florida River 77W1764	20 (10/15 - 6/30) 12 (7/1 - 10/14)	0.00050 0.00030	0.36454 0.19921	14
96CW0017	Elizabeth Dunn Riviere	Cottonwood Creek 79CW0115	20 (1/1 - 12/31)	0.00120 0.00004	0.99379 0.48680	237
94CW0041	James F. Ince	Chalk Creek 77W4662	18 (1/1 - 12/31)	0.00130 0.00020	0.18905 0.03117	41
94CW0041	John Duncan Peterson & Cynthia A. Peterson	Chalk Creek 77W4662	18 (1/1 - 12/31)	0.00130 0.00020	0.19035 0.03137	42



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

Department of Natural Resources

1313 Sherman Street Denver, CO 80203

P (303) 866-3441 F (303) 866-4474 Jared Polis, Governor

Dan Gibbs, DNR Executive Director

Rebecca Mitchell, CWCB Director

TO:	Colorado Water Conservation Board Members
FROM:	Kirk Russell, P.E., Finance Section Chief
Board Meeting:	March 20-21, 2019 Board Meeting
Directors Report:	Water Project Loans Interest Rates

#### Introduction

The CWCB establishes interest rates bi-monthly for the Water Project Loan Program (per Financial Policy #7).

The current rates for a 30-year term are as follows: 1.85% - Agricultural 2.55% - Low-income Municipal 2.95% - Middle-income Municipal 3.30% - High-income Municipal 6.00% - Commercial 2.00% - Hydroelectric

The standard loan term is 30 years. Rates are reduced by 0.25% for 20-year loans, and by 0.65% for 10-year loans. Rates are increased by 0.25% for 40-year loans.

The rates can also be found on the CWCB web site under the "Loans and Grants" tab. These rates will be applicable for loans presented at this Board meeting.





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Dan Gibbs, Executive Director

Rebecca Mitchell, CWCB Director

TO:	Colorado Water Conservation Board Members
FROM:	Anna Mauss, P.E., Marketing Finance Section
DATE:	March 20-21, 2019 Board Meeting
DIRECTORS REPORT:	Water Project Loan Program Prequalified Project List and Loan Prospect Summary

The Finance Section compiles a list of prequalified projects for the Water Project Loan Program. In order to be included on this list, potential borrowers must submit a Loan Application and three years of financial statements to the CWCB staff. In addition, Borrowers requesting to be placed on the Prequalification Project List have a defined project, have performed preliminary engineering, and have a reasonable estimate of the project costs.

Projects on this list fit the initial criteria of the Water Project Loan Program; however, the list does not constitute loan approval. In order to receive a loan, borrowers must additionally submit a completed Loan Feasibility Study for review by CWCB staff. Staff will then prepare a recommendation to the Board for approval at a future CWCB meeting. Projects will remain on this list for one year from the date of the application or until Board approval of a loan.



Interstate Compact Compliance • Watershed Protection • Flood Planning & Mitigation • Stream & Lake Protection

Prequalified Project List

BORROWER	PROJECT NAME	APPLICATION DATE	BASIN	PROJECT DESCRIPTION	PROJECT COST/LOAN AMOUNT
Previously Ap	proved Applica	ations			
		No prequ	ualified proje	cts at this time	
Total					\$ -

The Finance Section also compiles a list of potential borrowers/projects for the Water Project Loan Program. This list represents borrowers that have contacted the CWCB about a potential need for funding but have not submitted a loan application and loan feasibility study.

South Platte River Basin		
<ul> <li>Borrower</li> <li>NISP Participants</li> <li>Upper Platte &amp; Beaver Irrigating Co.</li> <li>Woods Lake Mutual Ditch Co.</li> <li>Town of Kersey</li> <li>Tunnel Water Company</li> <li>Riverside Reservoir and Land Co.</li> <li>Town of Bennett</li> <li>Town of Empire</li> <li>Logan Irrigation District</li> <li>Evergreen Metro District</li> <li>Left Hand Water District</li> <li>Roxborough Water &amp; San District</li> <li>Shawnee Water Consumers Assoc.</li> <li>North Poudre Irrigation Company</li> <li>Boulder&amp;White Rock Ditch&amp;Res. Co.</li> <li>Western Mutual Ditch Company</li> <li>Subtotal</li> </ul>	NISP Diversion Structure Culvert Replacement Raw Water Line Ditch Rehabilitation Ditch Rehabilitation Raw Water Tank Water Rights Purchase Prewitt Reservoir Rehab Evergreen Dam Enlargement Dry Creek Reservoir Reservoir Rehabilitation Reservoir Rehabilitation Reservoir Enlargement	ntial Loan Amount \$100,000,000 \$7,000,000 \$150,000 \$TBD \$5,000,000 \$250,000 \$500,000 \$100,000 \$TBD \$TBD \$TBD \$TBD \$TBD \$TBD \$TBD \$TBD \$TBD \$TBD \$TBD \$TBD \$10,000 \$TBD \$TBD \$10,000 \$TBD \$10,000 \$TBD \$10,0000 \$10,000 \$10,000 \$10,000 \$10,000 \$10,000 \$
Arkansas River Basin •Oxford Ditch •Town of Manitou Springs •City of Woodland Park •Fort Lyon Canal Company •Amity Mutual Irrigating Co. •Arkansas Groundwater Users Assoc. •Deweese Ditch and Reservoir Co. •Holbrook Ditch Company •Lake County •Lower Arkansas Water Mgmt Assoc. •Catlin Canal Company •Subtotal	Siphon Repair Raw Water Pipeline Storage Project Adobe Creek Enlargement Reservoir Rehabilitation Gravel Pit Purchase Reservoir Enlargement Reservoir Enlargement New Reservoir Gravel Pit Purchase Canal System Improvement	\$1,800,000 \$3,000,000 \$1,000,000 \$TBD \$3,000,000 \$TBD \$TBD \$TBD \$TBD \$TBD \$4,600,000 \$1,500,000 <b>\$22,900,000</b>
San Miguel/San Juan River Basir •Town of Bayfield •Redmesa Reservoir and Ditch Co. •Subtotal	) Ditch Piping Reservoir Enlargement	\$500,000 \$5,000,000 \$5,500,000
Colorado River Basin • Town of Breckenridge • Orchard Mesa Irr. Dist. • Silt Water Conservancy District • Middle Ditch • Subtotal	Goose Pasture Tarn Dam Lateral Piping Harvey Gap Reservoir Ditch Piping Project	\$20,000,000 \$300,000 \$300,000 \$TBD <b>\$20,600,000</b>
Gunnison River Basin •Gunnison County Electric	Hydroelectric Project	\$1,000,000





### North Platte Basin

•No projects at this time



COLORADO Colorado Water Conservation Board

Department of Natural Resources

1313 Sherman Street Denver, CO 80203 Jared Polis, Governor

Dan Gibbs, DNR Executive Director

P (303) 866-3441 F (303) 866-4474

Rebecca Mitchell, Director

TO:	Colorado Water Conservation Board Members
FROM:	Kirk Russell, P.E., Finance Section Chief Jessica Halvorsen, Program Assistant
Board Meeting:	March 21-21, 2019 Board Meeting
Directors Report:	Water Project Loan Program Design & Construction Status Report

The CWCB Loan Program has Substantially Completed nine (9) projects in Fiscal Year 2018 - 2019 as shown in Table 1. There are currently fifty four (54) projects authorized to receive loan funding totaling \$398 million. There are forty three (43) projects currently under contract and in the Design and Construction phase totaling \$245 million.

The attached spreadsheet summarizes the status of the projects. A detailed description about each project is provided in the digital version of the Director's Report.

	TABLE 1							
	Borrower	Project	County	Loan Amount	Complete			
1	Dixon Canon Ditch & Reservoir Company	Dixon Reservoir Dam Improvements	Larimer	\$278,100	7/1/2018 (a)			
2	Bennett, Town of	Wells #3 and #6 Replacement Project	Adams/Arapahoe	\$1,454,000	7/1/2018			
3	North Poudre Irrigation Company	Mountain Supply Reservoir No. 10 Repairs	Larimer	\$802,950	7/1/2018 (b)			
4	Corsentino Dairy Farms, Inc.	Holita Dam Rehabilitation	Walsenburg	\$112,716	9/1/2018 (c)			
5	Grand Valley Water Users Association	Government Highline Canal Lining	Mesa	\$151,500	9/1/2018			
6	Sanchez Ditch and Reservoir Company	Sanchez Reservoir Outlet Rehabilitation Project	Costilla	\$1,502,476	9/1/2018 (d)			
7	Monte Vista, City of	Augmentation Water Rights Acquisition	Rio Grande	1,690,770	9/1/2018			
8	Lupton Bottom Ditch Company	Diversion Structure Repair	Weld	606,000	10/1/2018			
9	North Poudre Irrigation Company	Fossil Creek Reservoir Diversion Structure Repair	Larimer	\$876,680	11/1/2018			
			Total	\$7,478,192				

Fiscal Year 2018 - 2019 has added or preserved 56,030 acre-feet of reservoir storage (a) 412; (b) 344; (c) 274; (d) 55,000





## Dixon Reservoir Dam Improvements Dixon Canon Ditch and Reservoir Company

Substantially Complete July 1, 2018



# **Project Description**

Dixon Canon Ditch and Reservoir Company owns and operates the Dixon Reservoir Dam and associated ditch located in Larimer County on the west side of Fort Collins. The ditch diverts water off of Dixon Creek and provides water for outdoor irrigation to a 206-acre service area via approximately 9,000 feet of pipe and ditch. The dam was constructed in 1885 and is classified as a Significant Hazard Dam by the Dam Safety Branch of the Office of the State Engineer (SEO). The Reservoir has a decreed storage volume of 412 acre-feet. Recent SEO inspections identified areas of seepage that need to be addressed in order to maintain the full storage decrees. To address the SEO concerns, this Project installed a seepage filtration and collection system including a sand and gravel filter with a toe drain, cleanouts, and flow monitoring weirs. Construction occurred from January 2018 through April 2018.

Р	R O J E C	TDA	A	
<i>Sponsor:</i> Dixon Canon Ditch and Reservoir Company	County: Larime	r	Water Source:	Dixon Creek
Type of Project: Reservoir Rehabilitation Board Approval		l Date: May 2016		
Loan Terms: 2.55% for 30 years (Original) \$280,881 (Final) \$280,881				
Design Engineer: Gauthiere Engineering, Inc.				
Contractor: Zak Dirt, Inc.				



# Well #3 and #6 Replacement Project Town of Bennett

Substantially Complete August 1, 2018



The Town of Bennett pr

ber Arapahoe and Lower

Arapahoe, and Laramie-Fox Hills aquifers. A 2014 study revealed the need to address operational reliability, efficiency, and safety of the Town of Bennett's well #3 and well #6. The replacement of the wells provided the Town with additional supply to meet demands and needed redundancy in its water supply system. Construction activity included drilling the wells, electrical work, testing, and bringing the wells online.

PROJECT DATA				
Sponsor: Town of Bennett	County: Adams &	& Arapahoe	Water Source: Non-Tributary Groundwater	
Type of Loan: Well Drilling		Board Approval Date: November 2014		
Terms of Loan: \$1,454,400 at 3.25% for 30 years				
Design Engineer: Jehn Water Consultants and Pure Cycle Corporation				
Contractor: Hydro Resources - Rocky Mountain, Inc. (Fort Lupton, CO)				



# Mountain Supply Reservoir No. 10 Repairs North Poudre Irrigation Company

Substantially Complete August 1, 2018



# **Project Description**

The North Poudre Irrigation Company is a mutual ditch company established in 1901. The Company's service area encompasses approximately 28,000 irrigated acres in Larimer County north of Fort Collins near Wellington, and includes service to 14 communities and municipal water providers.

The Mountain Supply Reservoir No. 10 is owned and operated by the Company and was constructed in 1905. Major rehabilitation of the reservoir's dam was completed in 1973. In August 2015, the reservoir experienced a failure in its corrugated metal pipe (CMP) outlet, prompting the Company to drain the reservoir and the State Engineer's Office to impose a full storage restriction. Temporary emergency repairs were made in 2016 which permitted the Company to store 80 AF. This project made permanent repairs which resulted in the State Engineer's Office removing all storage restrictions. Repairs to the reservoirs outlet structure included construction of a new gate tower and walkway and lining the length of the outlet pipe using a cured-in-place pipe (CIPP) liner. Additionally, the Company made repairs to the reservoir's inlet structure off the No. 10 ditch, and installed a new spillway cutoff wall. Construction occurred from November 2017 to April 2018.

Р	ROJEC	T D A T	Α	
Sponsor: North Poudre Irrigation Company	County: Larimer		<i>Water Source:</i> Cache la Poudre River	
Type of Project: Reservoir Rehal	oilitation	Board Approval I	Date: March 2017	
Loan Terms: 2.50% for 30 years (Original) \$802,950 (Final) \$726,213.77				
Design Engineer: Tessara Water, Inc				
Contractor: Zak Dirt, Inc.				



# Holita Dam Rehabilitation

**Corsentino Dairy Farms**, Inc. Substantially Complete September 1, 2018



Figure 1 - Reservoir before construction



Figure 2 - Downstream view of dam before construction



Figure 3 - Construction - Dam core



Figure 4 - Embankment reconstruction



Figure 5 - Finished dam

# **Project Description**

Corsentino Dairy Farms, Inc. is located on 1,019 acres located approximately three miles east of the City of Walsenburg, along the north and south sides of State Highway 10. The Dairy has been in the Corsentino family since 1936 and is currently operated as an organic dairy. The primary water for the dairy operation comes from a well. The well is operated in accordance with the Corsentino Dairy plan for augmentation. The replacement water comes from the Holita Reservoir.

Holita reservoir has a storage capacity of 498 acre-feet and was built in 1889. In September of 2014 the Dairy received a letter from the Office of the State Engineer (SEO) that identified the Holita dam as unsatisfactory and restricted the storage level to five feet below the low point of the west dam crest.

Through this loan, the Dairy addressed seepage issues by reconstructing the embankment and permanently lowered the spillway to allow a storage volume of 274 acre-feet.

P R O	JECT DAT	A		
Borrower: Corsentino Dairy Farms, Inc.	County: Huerfano	Water Source: Cucharas River		
Type of Loan: Reservoir Rehabilitation	Board A	pproval Date: July 2017		
Loan Terms: 0.5% for 10 years (Original) \$112,716.00 (Final) \$99,263.32				
Design Engineer: Nicholas Kock, P.E.				
Contractor: Double M Excavating, Inc., La Veta, CO				



# **Government Highline Canal Lining**

Grand Valley Water Users Association Substantially Complete September 1, 2018



# **Project Description**

The Grand Valley Water Users Association (Association), obtained loan and grant funding for the Government Highline Canal Lining Project. The Association is the managing entity of the Bureau of Reclamation's Grand Valley Project. The Grand Valley Project facilities includes the Grand Valley Diversion Dam (also known as the Roller Dam) on the Colorado River in De Beque Canyon and the 55-mile-long Government Highline Canal. The embankment immediately below the Roller Dam is relatively narrow and separates the Government Highline Canal from the Colorado River. This section of canal was constructed around 1915. Over the last 100 years the embankment settled and degraded. Erosion within the embankment led to material loss and sinkholes. As a result of canal degradation, water flow was restricted and the canal cross section was reduced, causing a reduction in capacity of the canal channel. Through this loan the Association lined the upper section of the canal to increase the conveyance capacity.

Р	R O J E C	T D A T	A
Sponsor: Grand Valley Water Users Association	County: Mesa		Water Source: Colorado River
Type of Project:Ditch RehabilitationBoard Approval Date:September 2016			
Loan Terms: 1.55% for 30 years (Original) \$151,500 (Final) \$151,500			
Design Engineer: SGM, Inc.			
Contractor: Mountain Valley Contracting, Inc.			



# Sanchez Reservoir Outlet Rehabilitation Project

Colorado Water Conservation Board Department of Natural Resources

COLORADO

Sanchez Ditch and Reservoir Company Substantially Complete September 1, 2018



Figure 1 -Before construction original outlet tower



Figure 2 - New staff gage construction



Figure 3 - After construction - new outlet controls



Figure 4 - After construction - new intake



*Figure 5 - After construction - new staff gage* 

# **Project Description**

The Sanchez Ditch and Reservoir Company provides irrigation water for users in Costilla County, southwest of the town of San Luis. The Company's primary storage reservoir is Sanchez Reservoir. The approximately 104,000 acre-foot reservoir was built in 1910. The reservoir's original outlet included a 135-foot tall concrete gate tower. In order to operate the dam, a tramway/gondola ran along a cable and was powered by a portable gasoline generator. Because daily operation of the gate is required during irrigation season, the reliability and safety of the gondola system was a concern of the Company. Using loan and grant funds, the Company demolished the gate tower; the installed new control gates and operators; lined the outlet conduit with shotcrete; repaired the downstream outlet structure; and, installed a new perimeter drain and weir along the right side of the outlet structure to control seepage. Additional seepage monitoring was also funded through the project.

F	PROJECT	DA	ТА	
<i>Sponsor:</i> Sanchez Ditch and Reservoir Company	County: Costilla		Water Source: Ventero Creek	
Type of Loan: Reservoir Rehabilitation Board		Board Ap	pard Approval Date: September 2012	
Loan Terms: 2.0% for 40 years (Original) \$1,502,476.00 (Final) \$1,502.465.51 WSRF Funding: \$914,400				
Design Engineer: Smith Geotech & AECOM				
Contractor: Moltz Construction, Inc				



# Water Rights Acquisition Project

City of Monte Vista Substantially Complete September 1, 2018



# **Project Description**

The City of Monte Vista, by and through its water activity enterprise, provides water to 4,300 residents in the San Luis Valley. The City's water system consists of five wells in a confined aquifer and three wells in an unconfined aquifer. Recent rules from the Office of the State Engineer require water users in the San Luis Valley to replace depletions from pumping of wells in both the confined and unconfined aquifers tributary to the Rio Grande River. As a result, the City needed an additional 321 acre-feet of replacement water. In order to meet this need, the City borrowed funds from the CWCB to purchase Anderson Ditch water rights and storage in the Rio Grande Reservoir to store the excess credits from the water it purchased.

Р	R O J E C	T D A T	А
Sponsor: City of Monte Vista	County: Rio Gra	nde	Water Source: Rio Grande River
Type of Loan: Water Rights Purchase Board Approv		Board Approval	Date: May 2010
Terms of Loan Loan Terms: 4.5% for 30 years (Original) \$1,693,770.00 (Final) \$1,627,359.48			
Design Engineer: Bikis Water Consultants, LLC			
Contractor: N/A			


# **Diversion Structure Repair Project**

Lupton Bottom Ditch Company Substantially Complete October 1, 2018







Figure 2 - Diversion repair on South side of diversion structure.



Figure 3 - Diversion structure.



Figures 4 & 5 - Bank stabilization upstream and downstream of diversion structure.



Figure 6 - Lupton Bottom Ditch headgate.

### **Project Description**

The Lupton Bottom Ditch Company diverts water from the South Platte River near Wattenberg in Weld County. The original check dam was built in 1949 and the gates were replaced in 2001. Damage to the structure began when high river flows overtopped the rock dam and scoured a large hole on the downstream side and subsequently extended that scour into the structure. The structure was initially damaged during September 2013 flooding and further damaged in subsequent high river flows. This repair work was completed in a two-stage process due to the requirement for construction to occur during low flow conditions within the river. During the first stage, upstream stabilization and installation of sheet piling and the construction of a concrete apron occurred. The downstream side of the structure was stabilized with grouted boulders. The second stage included rebuilding the rock dam on the southern side of the diversion structure.

With this project, the Company repaired and improved the diversion and intake structures, provided water deliveries to the shareholders, and improved operation safety. Design commenced in 2017, project construction occurred in early 2018 through summer 2018 and construction is complete.

PRO	ЈЕСТ	D A T	А							
Sponsor: Lupton Bottom Ditch Company	County: Weld		Water Source: South Platte							
<i>Type of Loan:</i> Diversion Structure Repair		Board Ap	proval Date: January 2018							
Loan Terms: 1.6% for 10 years (Original)	Loan Terms: 1.6% for 10 years (Original) \$606,000 (Final) \$561,832									
Design Engineer: Civil Resources, LLC										
Contractor: Zak Dirt, Inc.										





### **Project Description**

During the unprecedented flood of September 2013 in the tributaries to the South Platte River, a significant number of diversion structures and dams along the river corridor were damaged including the Company's Fossil Creek Reservoir inlet diversion off the Cache la Poudre River. The entire concrete dam spanning the river was undermined and washed out during the flood. This Project repaired the existing diversion structure by rebuilding the check dam, abutment, and bypass gate. Additionally, the Company worked with Colorado Parks and Wildlife to incorporate a fish ladder on the north end of the check structure. Construction occurred from December 2015 to March 2016. The Project was eligible for FEMA public assistance and received grant funding to help offset the construction costs.

Р	R O J E C	T D A	Т	Α							
Sponsor: North Poudre Irrigation	County: Larimor			Water Source: Cache la Poudre							
Company	county. Lammer			River							
Type of Loan: Diversion Rehabilitation Board Approval Date: October 2013											
Terms of Loan: (Original) \$876,6	80 at 2.35% for 32	years (Disbur	rsed	) \$846,222.20							
Design Engineer: Ronald H. Slosson, P.E.											
Contractor: Naranjo Civil Constructors											

	Projects	County	Loan Amount	Design Status	Const. Start/End	Proj. Status	РМ	Status Description/Update
	Projects in Design or Construction							
1	Bessemer Irrigation Ditch Company >Landslide Stabilization and Ditch Lining CT2018-2829	Pueblo	\$909,000	80%	March 2018 - Dec 2019	55%	RP	Ditch stabilization phase complete. Backfill complete along wall. Winter 2019 design/bid ditch lining. March lining starts and complete by 3/17.
2	Big Elk Meadows Association > Emergency Raw Water Storage Repair CT2015-039 (C150391)	Boulder/ Larimer	\$2,020,000	80%	July 2014 - Sept 2019	60%	JH	Project will rebuild 5 dams damaged in 2013 flood. 3 dams completed: Mirror Dam (2015), Rainbow Dam (2016), Willow Dam (2017). Meadow Dam construction started Oct 2017. Sunset Dam design pending. Loan increased at March 2017 Board meeting, 0% interest thru 2020.
3	Bonus Ditch Company > St. Vrain Diversion Replacement CT2018-2081	Longmont & Boulder	\$1,309,970	100%	Dec 2018 - Apr 2019	60%	JH	City of Longmont is performing project management on behalf of the ditch company. Construction began in of December 2018. Work in the river is finished and sheet piles have been removed. Pipeline work remains.
4 - (	CHATFIELD Reallocation Project - First Cost of Storage							
а	Castle Pines North Metropolitan District >(C150404A) CT2018-1617	Arapahoe Douglas Park Weld	\$723,160	N/A	N/A	0%	JH	
b	Centennial Water & Sanitation District >(C150405A) CT2016-2053	Arapahoe Douglas Park Weld	\$4,978,290	N/A	N/A	0%	JH	This contract is to provide reimbursement for the Chatfield Reallocation Project, specific to the "first cost of storage." Payment will be due once
с	Center of Colorado Water Conservancy District >(C150406A) CT2016-2047	Arapahoe Douglas Park Weld	\$94,637	N/A	N/A	0%	JH	storage in the new reservoir pool is allowed (after Phase 1 Mitigation contract is complete).
d	Central Colorado Water Conservancy District >(C150407A) CT2016-2057	Arapahoe Douglas Park Weld	\$3,187,560	N/A	N/A	0%	JH	
5 - 0	CHATFIELD Reallocation Project - Phase 1 Mitigation							\$39,334,349
а	Castle Pines North Metropolitan District >(C150404B) CT2018-1616 *\$	Arapahoe Douglas Park Weld	\$5,462,484	100%	Sept 2017 - Fall 2019	80%	JH	This contract is to provide reimbursement for the Chatfield Reallocation Project, for engineering, recreation facilities construction, on-site mitigation, off-site mitigation, and mitigation monitoring. Phase 1 covers the work required before storage is allowed.
b	Centennial Water & Sanitation District >(C150405B) CT2016-2055	Arapahoe Douglas Park Weld	\$37,573,717	100%	Sept 2017 - Fall 2019	80%	JH	Several of the modified recreation areas within the park are already completed and are now open to the public including the North Boat Ramp and the perimeter road. Remaining construction activities and revegetation efforts along the west side of the Park associated with Season One
с	Center of Colorado Water Conservancy District >(C150406B) CT2016-2048	Arapahoe Douglas Park Weld	\$511,363	100%	Sept 2017 - Fall 2019	80%	JH	construction are expected to be completed by December 2018. Impacted construction areas in Season Two include the Marina (docks and landside), South Boat Ramp, Roxborough Cove, Plum Creek Day Use Area, Kingfisher, Gravel Pond, and a portion of the Perimeter Road from Jamison

	Projects	County	Loan Amount	Design Status	Const. Start/End	Proj. Status	РМ	Status Description/Update
d	Central Colorado Water Conservancy District >(C150407B) CT2016-2058	Arapahoe Douglas Park Weld	\$19,812,059	100%	Sept 2017 - Fall 2019	80%	JH	Day Use Area to the Park Headquarters. Overall, CRMC is anticipating reopening a large majority of the recreational areas impacted by Memorial weekend 2019.
6 - 0	CHATFIELD Reallocation Project - Phase 2 Mitigation							\$7,000,310
а	Castle Pines North Metropolitan District >(C150404C) CT2018-1619	Arapahoe Douglas Park Weld	\$1,587,720	0%	Fall 2019 - Summer 2020	0%	JH	This contract is to provide reimbursement for the Chatfield Reallocation - Project, for engineering, recreation facilities construction, on-site mitigation,
b	Centennial Water & Sanitation District >(C150405C) CT2016-2056	Arapahoe Douglas Park Weld	\$10,934,260	0%	Fall 2019 - Summer 2020	0%	JH	off-site mitigation, and mitigation monitoring. Phase 2 covers the work remaining after storage is allowed. It was originally estimated Phase 2 work could last until 2028. However, the on-site mitigation in Phase 1 is proving more effective than planned, lessoning the amount of off-site mitigation in Phase 2. It is currently ancitipated that Phase 2 could be completed by
с	Central Colorado Water Conservancy District >(C150407C) CT2016-2060	Arapahoe ouglas Weld	\$7,000,310	0%	Fall 2019 - Summer 2020	0%	JH	summer 2020.
7	Centenial Irrigating Ditch Company >Centenial Diversion Replacement CT2108-1999	Rio Grande	\$232,300	100%	Jan 2018 - Feb 2019	95%	JH	This project is part of the Rio Grand Five Ditches WSRF Project and consisted of replacing the existing diversion dam. Contractor mobilized to site in January 2018 and construction was substantially completed by the end of March 2018. Miscellaneous site clean up will occur winter 2019 and then final billing will occur.
8	Central Colorado Water Conservancy District >Shores Lakes Pond C Infrastructure Improvement CT2018-2851	Weld	\$2,367,440	100%	Feb 2019 - Dec 2019	5%	JH	This project will increase the efficiency by which the Shores Lakes can capture and release water for augmentation use by making infrastructure improvements at the site of an old gravel pit. Contractor mobilized to site at the end of February. Construction to be complete by Dec 2019.
9	Chilcott Ditch Comapny >Chilcott Augmentation Station CT2019-2252	El Paso	\$505,000	100%	Fall 2018 - Spring 2019	80%	RP	Construction to begin in Spring 2019. Out for bid November 2018. PreCon 12/18/2018. Construction begins Jan2019.
10	Church Ditch Water Authority >Ditch System Improvements CT2018-1335	Jefferson	\$3,615,000	90%	Dec 2017 - Oct 2019	75%	RP	Loan covers 5 individual projects within the Church Ditch system. Leyden Flushing Structure, Headgate 53 Retaining Wall complete. The Area 15 Ditch Lining, Ford Street Siphon, and Legacy Farms Culvert will be completed after the 2018 irrigation season. Area 15 Ditch lining complete April 2019.
11	Consolidated Ditch and Headgate Co >Consolidated Diversion and Headgate Replacement CT2018-1017	Rio Grande	\$1,010,000	100%	Jan 2018 - Mar 2019	75%	JH	This project is part of the Rio Grand Five Ditches WSRF Project and will consist of replacing the existing diversion dam and headgate. Contractor mobilized to site in January 2018 finished the headgates and trash rack structures by the end of March 2018. Dam is currently under construction, scheduled for completion in March.
12	Duke Ditch Company >Piping the Duke Ditch CT2017-915 CTGG1 2017-212 (WSRF)	Delta	\$90,000	100%	No Est.	0%	AM	NRCS finalized the design in August 2018. Federal grant expired. Expecting company to reapply for federal funding in 2019.
13	Fort Lyon Canal Company >Adobe Creek Dam Rehabiliatation CT2018-1960 CTGG1 2018-806 (WSRF)	Bent	\$8,181,000	100%	Fall 2017 - Spring 2020	50%	RP	Waiting Dam Safety conditional approval 8/31/2018. Out for bid 7/31/2018. Award 9/5/2018. PreCon 9/13/2018. Work continues placement mut mat, outlet conduit, intake gate tower and left toe drain 2/2018.

	Projects	County	Loan Amount	Design Status	Const. Start/End	Proj. Status	РМ	Status Description/Update
14	Fowler, Town of >Augmentation Pipeline Project C150359 (CT2015-054)	Otero	\$277,245	100%	Fall 2018 - Spring 2019	0%	RP	Engineering completed. Easement and appraisal processes causing delay; might result in litigation per disc with Town 5/23/17. Bid process on hold. tt Kelly (Town Clerk) - no updates, no response on extension letter request 11/2018.
15	Fruitland Irrigation Company >Tunnel and Canal Renvation CT2019- 2019-2848 CTGG1 2019-2449 CTGG1 2475	Delta & Montrose	\$1,746,290	95%	Spring 2019 - Fall 2022	0%	RP	Contract needed by - 11/30/2018. Sept 2018 letter from Bureau of Reclamation recvd. Require letter prior to CWCB contract. Finishing permitting process, anticipate pre-bid in April 2019
16	Grand Mesa Water Conservancy District >Peak Res. & Blanche Park Res. Rehabilitation C150354 (CT2015-061)	Delta	\$227,250	100%	Mar 2013 - Sept 2019	50%	JH	Construction on Peak Reservoir began in the 2013 season and was completed in Oct 2014. Blanche Park construction was delayed due to Forest Service permit issues. Access road construction began Fall 2018 and dam construction will begin summer 2019.
17	Grand Valley Water Users Association >Grand Valley Power Plant Rehabilitation CT2017-2875 - SCTF	Mesa	\$1,717,000	100%	Spring 2019 - Fall 2020	0%	JH	Project was delayed due to a Dept of the Interior review of pending projects nationwide. Design is 100% complete but has not had final approval from Bureau of Reclamation. Final approval is pending.
18	Huerfano County Water Conservancy District >Regional Augmentation Project C150364 (CT2015-047)	Huerfano	\$2,222,000	100%	Jan 2014 - Jun 2019	60%	RP	Land and water rights purchase occurred in January 2014. Phase I completed Oct 2017. Sheep Mtn. Ph2 construction of access roads and pipeline to Aug. Pond under construction. Ph 3 - Reservoir and Embankment bid 3/2019.
19	Lake Durango Water Authority >Source Water Supply Project C150317 (CT2015-013) CTGG1 2015-370	LaPlata	\$2,525,000	100%	Oct 2016 - July 2018	100%	KR	Project Complete. Substantial Completion 1/1/2019
20	Lamar, City of >Repurposing of Wells 12 and 13 CT2017-917 CTGG1 2017-211 (WSRF)	Prowers	\$101,000	100%	Jun 2017 - Jul 2019	50%	RP	City staff is doing construction. Work has been postponed due to staffing/workload issues. Staffing changes. JVA additional scope approved by CWCB Board Sept2018. Approved scope extension new well pump and interconnecting piping construction begin 3/2019.
21	Larimer & Weld Irrigation Company >Headgate Structure Replacement CT2017-2253	Larimer & Weld	\$681,750	100%	Nov 2017 - Apr 2018	98%	JH	Constructin began in November 2017 and was substantially completed in April 2018. Final billing remains.
22	Left Hand Water District >Participation in Southern Water Supply Project II CT2018-2028	Broomfield & Weld	\$10,000,000	100%	July 2018 - March 2020	20%	JH	Project is managed by Northern Water with Left Hand Water District paying for its prorata share based on pipeline capacity. Contractor mobilized July 2018 and began laying pipe at the end of August.
23	Missouri Heights Mountain Meadow Irr Company >Ditch Piping Phase B CT2019-2241	Garfield	\$303,000	100%	Oct 2018 - Spring 2020	50%	JH	Phase B1 lining began in October 2018 and completed Dec 2018. Phase B2 lining will begin Fall 2019 if NRCS approves grant funds for Phase B2.
24	Ogilvy Irrigating and Land Comapny >Seely Reservoir Dredging CT2019-20199 CTGG1 2019-2018 (WPG)	Weld	\$2,274,520	0%	Spring 201x - Fall 202x	0%	RP	Contract needed by - unknown (permitting considerations being made) Permitting/Eval Jul 2018 and Construction Aug 2018 Peg waiting on AOL all contracts signed by borrower.

	Projects	County	Loan Amount	Design Status	Const. Start/End	Proj. Status	РМ	Status Description/Update
25	Orchard Mesa Irrigation District >Grand Valley Power Plant Rehabilitation CT2017-2878 - SCTF	Mesa	\$1,717,000	100%	Spring 2019 - Fall 2020	0%	JH	Project was delayed due to a Dept of the Interior review of pending projects nationwide. Design is 100% complete but has not had final approval from Bureau of Reclamation. Final approval on electrical anticipated end of November, for a December go/no-go decision.
26	Orchard Ranch Ditch Company >Orchard Ranch Ditch Pipe Project CT2016-2795 POGG1 2017-493	Delta	\$151,500	100%	Dec 2018 - Jun 2020	60%	RP	Design and permitting work is underway. Construction is expected to begin in Fall 2018. PreBid 7/23/18. Material supply issue - JUB redesign and rebid 10/2018. Construction begin 12/2018. One of two concrete intake structures placed, smaller pipe installed 3/2019.
27	Overland Ditch and Reservoir Company >Overland Reservoir Rehabilitation C150206 (CT2015-034)	Delta	\$1,141,300	50%	No Est Permitting	0%	KR	Permitting issues are being addressed to enlarge reservoir. Company is concerned about the impact of increased costs to the project. Staff reviewing project with Borrower to determine feasibility.
28	Pueblo Consevancy District > Arkansas River and Wildhorse Creek Levees CT2019-366	Pueblo	\$17,170,000	100%	Spring 2015 - Fall 2020	99%	RP	Phases 1-4 complete. KRS awarded Phase 5 Oct 2018. Funds approved June 2018. Phase 5 under construction - removing, replacing concrete where Ph4 ended. Phase 5A under construction - grouting, filling voids in toe of levee for future Ph6.
29	Riverside Reservoir and Land Company >Emergency Spillway Project C150291 (CT2015-026)	Weld	\$2,838,100	100%	July 2018 - Jun 2019	99%	RP	Plans SEO approved, preparing bid package. Construction timing non- irrigation season. Contract extension approved through 12/31/2018. Awarded Connell Resources April 2018. Loan extension to 6/30/2019. Final walkthru 12/14/18. Waiting as-builts.
30	Roxborough Water and Sanitaion District >Ravenna Development Interconnect CT2019-2250	Douglas	\$1,584,690	100%	Nov 2018 - Mar 2019	80%	JH	This Project will connect the Ravenna water service area into Roxboroughs water system. PConstruction started of November 2018 and on track for completion for March 2019.
31	San Luis Valley Canal Company >San Luis Valley Canal Headgate Construction CT2019-2046	Rio Grande	\$303,000	100%	Jan 2019 - April 2019	50%	JH	This project is part of the Rio Grand Five Ditches WSRF Project and consists of replacing the existing diversion dam. Bids were received in October 2018. Contractor selected and mobilized onsite in Jan 2019.
32	San Luis Valley Irrigation District >Rio Grande Reservoir Rehabilitation CT-2018-3303, CTGG1-2018-1805	Hinsdale, Rio Grande	\$15,000,000	100%	Aug 2018 - June 2020	15%	KR	Moltz Constructors has mobilized to the site. Batch plant has been built. Reservoir has been lowered. Rock bolting in tunnel and upstream tunnel opening concrete work currently occuring.
33	St. Vrain & Left Hand Water Conservancy District >Lake No. 4 Outlet Pipeline Repair CT2017-3213	Boulder	\$864,560	100%	Spring 2019 - Spring 2020	0%	JH	Project is being done in partnership wtih Emergency Rock'n WP Ranch Lake No. 4 Repair, as well as repairs to Boulder County's West Lake and A- Frame Lake. County is lead agency for all projects and plans to bid all projects under one contract in early 2019.
34	St. Vrain & Left Hand Water Conservancy District > Emergency Rock'n WP Ranch Lake No. 4 Repair CT2016-2452	Boulder	\$4,545,000	100%	Spring 2019 Spring 2020	0%	JH	Project is being done in partnership wtih Lake 4 Outlet Pipeline Repair, as well as repairs to Boulder County's West Lake and A-Frame Lake. County is lead agency for all projects and plans to bid all projects under one contract in early 2019.
35	Southeastern CO Water Conserv. District >Pueblo Dam Hydroelectric Project CT2018-833	Pueblo	\$16,725,600	100%	June 2017 - Oct 2019	95%	RP	Construction beginning fall 2017. District anticipates power production by fall of 2018. Tie-in to SDS complete April 2018. Waiting on transformer approval from Black Hills.Turbine and generator placement and fiber optic line approval. Waiting SDS and connect approval BOR.

	Projects	County	Loan Amount	Design Status	Const. Start/End	Proj. Status	РМ	Status Description/Update
36	Town of Firestone >Storage Development and Water Rights Purchase CT2017-2880	Weld	\$10,000,000	95%	May 2018 - Dec 2019	50%	RP	LG Everist to complete mining and reclamation of future reservoir in Fall 2017/Winter 2018. Lower Boulder water rights purchased in July 2017. Final design pending - engineer looking to fill reservoir via wells/pipelines instead of diversion off river. Change case appl filed 2017 reservoir water rights.
37	Trinchera Irrigation Company >Mountain Home Dam Outlet Rehibilitation Phase III CT2018-3122 CTGG1 2018-1773 (WSRF)	Costilla	\$756,490	100%	Oct 2018 - Mar 2019	95%	JH	This is a loan/grant project to replace outlet valves at Trinchera Reservoir. Company received a loan increase to add outlet lining. Construction started October 2018. Outlet work is finished and reservoir begining to store water. Final walk thru to occur in March 2019.
38	Tunnel Water Company >Laramie-Poudre Tunnel Rehabilitation CT2016-2001	Larimer	\$1,717,000	100%	Sept 2015 - Fall 2019	55%	JH	Phase 1 (Inlet) complete in 2016. Phase 2 (outlet) construction was dealyed due to need to reroute access road. Construction of Phase 2 started fall 2018, stopped for winter, and will resume fall 2019. Company received a loan increase at March 2018 meeting to fully cover expected Phase 2 costs.
39	Walsenburg, City of > City Lake Dam Rehabilitation & Enlargement CT2019-648 Grant CTGG1 2019-094	Huerfano	\$6,889,210	100%	Jan 2019 - May 2019	0%	AM/RP	Construction scheduled began in January of 2019. Dam embankment has been removed. Foundation excavation and corresponding fill and filter placement is underway.
40	Wiggins, Town of >Wiggins Recharge Facility at Glassey Farms CT2018-892	Morgan	\$2,408,850	95%	Spring 2018 - Summer 2019	0%	JH	Town purcahsed Galssey Farms in 2017. Final design of the project is pending, looking for spring construction. Town is finishing agreement with Morgan Community College to allow land to be used for an experimental precision agricultural program.
41 -'	WISE Project - Phase 1 Infrastructure							\$16,802,501
а	Cottonwood W&S Dist - C150408B (CT2015-106)	Douglas/ Arapahoe	\$2,636,100	100%	Spring 2015 - Dec 2018	80%	RP	
b	Inverness W&S Dist - C150409B (CT2015-118)	Douglas/ Arapahoe	\$1,181,700	100%	Spring 2015 - Dec 2018	40%	RP	Infrastructure to treatment plant completed. 42-inch Pipeline construction on Ridgeway line continues. E470 bore complete. All lines in ground and connections in place. Next step, testing. Waiting on water treatment piece before startup testing in May 2018. Ridgegate pipeline complete - punchlist items. WISE system has been delivering water since August of 2017 as
с	Parker W&S Dist - C150410B (CT2015-108)	Douglas/ Arapahoe	\$6,785,321	90%	Spring 2015 - Dec 2018	60%	RP	connection come online. All but 2 members connected to the pipeline and those connections have been tested. Centennial Water and Sanitation has built their connection and is working on finalizing the controls programing. Anticipate CWSD start up around Fall 2018. Pinery working on physical connection and anticipate accepting water Fall 2018.
d	Pinery (Den SE WSD)C150411B (CT2015-085)	Douglas/ Arapahoe	\$6,199,380	90%	Spring 2015 - Dec 2018	60%	RP	
42 -	WISE Project - Phase 2 Infrastructure							\$7,400,078
а	Cottonwood W&S Dist - C150408C (CT2015-105)	Douglas/ Arapahoe	\$1,127,160	0%	Spring 2018 - Fall 2021	0%	RP	
b	Inverness W&S Dist - C150409C (CT2015-119)	Douglas/ Arapahoe	\$1,427,130	0%	Spring 2018 - Fall 2021	0%	RP	Binney Connection Pipeline of Water Infrastructure and Supply Efficiency

	Projects	County	Loan Amount	Design Status	Const. Start/End	Proj. Status	РМ	Status Description/Update
с	Parker W&S Dist - C150410C (CT2015-109)	Douglas/ Arapahoe	\$3,418,658	0%	Spring 2018 Fall 2021	0%	RP	infrastructure from Aurora Binney Facility to SMWA. Prebid 11/15/18.
d	Pinery (Den SE WSD)C150411B (CT2015-086)	Douglas/ Arapahoe	\$1,427,130	0%	Spring 2018 - Fall 2021	0%	RP	
43 -	WISE Project - DIA Connection	[]						
а	Cottonwood W&S Dist - C150408D (CT2015-104)	Douglas/ Arapahoe	\$363,600	35%	N/A	35%	RP	
b	Inverness W&S Dist - C150409D (CT2015-120)	Douglas/ Arapahoe	\$454,500	35%	N/A	35%	RP	Annual disbursment to be made on this loan through 2021.Design Status
с	Parker W&S Dist - C150410D (CT2015-110)	Douglas/ Arapahoe	\$1,099,890	60%	N/A	60%	RP	indicates percent of funds disbursed to date.
d	Pinery (Den SE WSD)C150411B (CT2015-087)	Douglas/ Arapahoe	\$454,500	60%	N/A	60%	RP	
	Projects Ur	nder Contract	t \$244,567,694	100%				
	Approved Projects - Not Under Contract							
а	Florida Consolidated Ditch Company >Hess Lateral Improvement CT2019-XXXX CTGG1 2016-XXXX (WSRF)	La Plata	\$1,085,750	0%	Spring 201x Fall 202x	0%	AM	Contract need by - unknown (Waiting on CDOT contract) Loan contract in their hands since 12/2017 - Peg
b	San Juan Water Conservancy District >Dry Gultch Reservior Land Acquistion CT2018-XXXX	Archuleta	\$2,000,000	0%	Spring 201x Fall 202x	0%	JH	Contract needed by - Postponed Indefinitely CWCB approval is conditioned on voters approving debt. Debt approval failed at November 2017 election. District is regathering to determine if/how/when to move the project forward.
с	Southeastern CO Water Conserv. District > Arkansas Valley Conduit C150238	Crowley	\$40,000,000	0%	Spring 201x Fall 202x	0%	KR	Contract needed by - > 12months Pending Federal Appropriation. Southeastern's Pueblo Dam Hydro project was taken out of these loan funds.

	Projects	County	Loan Amount	Design Status	Const. Start/End	Proj. Status	РМ	Status Description/Update
d	Municipal Subdistrict >Windy Gap Project CT2019-XXXX	Larimer	\$90,000,000	0%	Spring 201x - Fall 202x	0%	JH	Contract needed by - April 2018? Contracts waiting on participant water storage agreements with Northern.
e	Julesburg Irrigation District >Diversion Structure Rehabilitation CT2019-XXXX	Sedgwick	\$3,341,080	0%	Spring 201x - Fall 202x	0%	RP	Contract needed by - unknown Per Rachel-there is a delay before Julesburg is ready to execute a loan contract. The District seeking additional funding. They plan to gather additional funding sources prior to holding special election. This project is not a rush in any way at this point./no BOL needed just AOL
f	Central Colorado WCD >Walker Recharge CT2019-XXXX	Weld	\$2,272,500	0%	Fall 2019 - Spring 2020	0%	JH	Contract needed by - Contract Pending 2019 Projects Bill
g	Groundwater Management Subdistrict of CCWCD >Walker Recharge CT2019-XXXX	Weld	\$9,847,500	0%	Fall 2019 - Spring 2020	0%	JH	Contract needed by - Contract Pending 2019 Projects Bill
h	Well Augmentation Subdristrict of CCWCD >Walker Recharge CT2019-XXXX	Weld	\$3,030,000	0%	Fall 2019 - Spring 2020	0%	JH	Contract needed by - Contract Pending 2019 Projects Bill
i	Arabian Acres >Automatic Meter Implementation CT2019-XXXX	Teller	\$404,000	50%	Fall 2018 - Fall 2019	0%	RP	Contract needed by - January 30, 2019
j	Left Hand Ditch Company >Allen's Lake Filler Canal Improvements CT2019-XXXX		\$671,650				JH	
k	Schneider Ditch Company >Diversion Structure Replacement CT2019-XXXX		\$1,245,330	50%	Sep 2019 - May 2020	0%	RP	Contract needed by - April 30, 2019
	Not Under Contrac	t SubTotal =	\$153,897,810					
		Grand Total =	\$398,465,504					



### Landslide Stabilization and Ditch Lining Project

**Bessemer Irrigation Ditch Company** 

January 2018 Board Meeting

LOAN DETA	AILS
Project Cost:	\$900,000
CWCB Loan (with Service Fee):	\$909,000
Loan Term and Interest Rate:	20 years @ 1.65%
Funding Source:	Construction Fund
BORROWER	ТҮРЕ
Agriculture Municipal	Commercial
62% 38% Low - 0% Mid -0%	High 0%
P R O J E C T D E	TAILS
Project Type:	Ditch Rehabilitation
Average Annual Diversions:	71,600 AF

The Bessemer Ditch Company was incorporated in 1888 and construction of the ditch began in 1889. It serves nearly 20,000 irrigated acres in Pueblo County and provides water for municipal use. In the summer of 2017, land along limestone bluffs, approximately 2 miles east of Pueblo Dam, started sliding away from the Bessemer Ditch canal. The landslide area is approximately 200 feet wide. Stabilization and corrective work will occur in two

3	R	m	R	3-	$\sim$	/ 1	
L	0	С	А	т	I	0	N
Count	y:					F	Pueblo
Water	- Sour	rce:			Ark	ansas	s River
Draina	age B	asin:				Ar	kansas
Divisio	on:	2		Distri	ict:	1	4

stages; mechanical stabilization and ditch lining. Mechanical stabilization of the slide area will protect the canal and provide width for access and maintenance. The second stage of work includes synthetic liner installation, extending upstream and downstream from the slide area 1200 lineal feet to control canal seepage. Construction is expected to begin in January 2018.





**Emergency Raw Water Storage Repair** 

Big Elk Meadows Association

March 2017 Board Meeting

(Loan Increase)

LO	Α	Ν	D	Ε	Т	Α	I	L	S		
Project Cost:									\$4	,16	2,453
CWCB Loan:									\$2	2,02	0,000
Loan Term and	Inter	rest	Rate	: 6-	Yrs	@(	)%,	30	-Yrs	@2	2.75%
Funding Source:						0	Sev	era	nce	e Ta:	x PBF
BOR	R	0	W	Εŀ	R	]		Y	Ρ	Ε	
Agriculture			Muni	icipa	1				Cor	nme	ercial
0% (	)% Lo	- wc	100%	Mid	- 0	% H	igh			0%	)
PRO.	I E	С	Т	D	) E	: 1	-	A	1	L	S
Project Type:					Re	ser	voi	r Re	eha	bilit	ation
Water Storage F	rese	erve	d:							1	08 AF



During the unprecedented flood of September 2013 in the tributaries to the South Platte River, a significant number of diversion structures and dams along the river corridor were damaged. Measured rainfall in and around Big Elk Meadows exceeded the 1,000-year Average Recurrence Interval for rainfall. Flow along the West Fork reached

historic levels and resulted in the destruction of all five dams; both flow monitoring stations; the community's access road (CR-47); the majority of interior roads; and the water, power, and telephone services. The purpose of this project is to restore the community's water supply by reconstructing the five dams and two monitoring stations. Two of the five dams have been rebuilt and the Association is seeking an increase to the emergency loan to help with its cash flow during construction and through the FEMA grant reimbursement period.





## St. Vrain Diversion Replacement

Bonus Ditch Company September 2017 Board Meeting

LOAN DET	AILS
Project Cost:	\$1,297,000
CWCB Loan (with Service Fee):	\$1,309,970
Loan Term and Interest Rate:	30 Years @ 2.90 %
Funding Source:	Severance Tax PBF
BORROWER	ТҮРЕ
Agriculture Municipal	Commercial
2% 0% Low - 52% Mid -46%	% High 0%
PROJECT DE	TAILS
Project Type:	Ditch Rehabilitation
Average Annual Delivery:	2,221 AF

The Bonus Ditch irrigates open space property leased to farmers in Boulder County and Weld County. Its diversion structure on St. Vrain Creek was destroyed during the September 2013 flood in the South Platte Basin.

The Company is working with Longmont under the Resilient St. Vrain (RSV) project, a multi-year project to



fully restore the St. Vrain Greenway trails and improve the St. Vrain Creek channel to protect people and property from future flooding. The Company's diversion structure is located with the "City Reach" of the RSV project. The selected alternative for repairing the diversion structure fits with the goals of the RSV project. The Company has an approved Project Worksheet with FEMA to cover the "like for like" replacement cost of the project. Construction of the repair project is on hold until FEMA acts on a funding request to instead fund an "improved project" as replacing the diversion like for like is no longer feasible due to the post flood channel condition, and does not fit with the goals of the RSV project.





## **Castle Pines North Metropolitan District**

Chatfield Reallocation Project

January 2018 Board Meeting

(Loan Increase)

LOAN DETAILS	
Project Cost: \$8,35	60,776
CWCB Loan (with Service Fee): \$7,77	3,364
Loan Term and Interest Rate: 30 years	s @ 3%
Funding Source: Severance Tax Perpetual Base	e Fund
BORROWER TYPE	
Agriculture Municipal Comm	ercial
0% 0 % Low - 0% Mid -100% High 09	%
PROJECT DETAIL	S
Project Type: Reservoir St	orage
New Storage: 1,0	006 AF



The Castle Pines North Metropolitan District provides water and wastewater services to the residents and businesses in the City of Castle Pines, Douglas County. The District is participating in the Chatfield Reallocation Project in order to increase the permanence and reliability of its water supply. Successful completion of the Project would result in

the District securing renewable water rights that on average would supply 32% of its average annual water demand. Of the 20,600 acre-feet proposed to be reallocated, the District would receive 1006 AF of storage, or 4.88% of the total reallocation. The District will use Chatfield storage through exchanges as authorized in water court Case Nos. 04CW308 and 09CW279.

The US Army Corps of Engineers issued the Project's final Feasibility Report and Environmental Impact Statement (FR/EIS) and the Record of Decision on May 29, 2014. The Selected Alternative recommended in the FR/EIS will provide 20,600 acre-feet of storage in Chatfield between the elevations 5432 and 5444 msl for M&I water supply and other purposes including agriculture, environmental restoration, and recreation and fishery habitat protection and enhancement. Construction cost in October 2015 estimated the overall Reallocation Project to cost to \$134 million. An October 2017 cost estimate revised this cost to be \$171 million. The District is seeking an increase to its Chatfield Ioan to cover its share of the cost difference.



Water Project Loan Program - Project Data Sheet



## **Centennial Water and Sanitation District**

Chatfield Reallocation Project

January 2018 Board Meeting

(Loan Increase)

LOAN DETA	AILS
Project Cost:	\$57,459,314
CWCB Loan (with Service Fee):	\$53,486,267
Loan Term and Interest Rate:	30 years @ 3%
Funding Source: Severance Tax F	Perpetual Base Fund
BORROWER	ΤΥΡΕ
Agriculture Municipal	Commercial
0% 0 % Low - 0% Mid -100%	High 0%
PROJECT DE	TAILS
Project Type:	Reservoir Storage
New Storage:	6,922 AF



The Centennial Water & Sanitation District provides water and wastewater services to the residents and businesses of Highlands Ranch in Douglas County. The District is participating in the Chatfield Reallocation Project in order to increase the permanence and reliability of its water supply. Successful completion of the Project would result in the

District securing renewable water rights that on average would supply 16% of its average annual water demand. Of the 20,600 acre-feet proposed to be reallocated, the District would receive 6,922 acre-feet of storage, or 33.6% of the total reallocation. The District will store Chatfield water in accordance with water court Case Nos. 83CW184, 84CW411, and 85CW314.

The US Army Corps of Engineers issued the Project's final Feasibility Report and Environmental Impact Statement (FR/EIS) and the Record of Decision on May 29, 2014. The Selected Alternative recommended in the FR/EIS will provide 20,600 acre-feet of storage in Chatfield between the elevations 5432 and 5444 msl for M&I water supply and other purposes including agriculture, environmental restoration, and recreation and fishery habitat protection and enhancement. Construction cost in October 2015 estimated the overall Reallocation Project to cost to \$134 million. An October 2017 cost estimate revised this cost to be \$171 million. The District is seeking an increase to its Chatfield Ioan to cover its share of the cost difference.



Water Project Loan Program - Project Data Sheet

#### CWCB Water Project Loan Program Project Data Sheet

### C150406

Borrower: Center of Colorado Water Conservancy District	County: Park
Project Name: Chatfield Reallocation Project	Project Type: Reservoir Storage
Drainage Basin: South Platte	Water Source: South Platte River Plum Creek
Total Project Cost: \$931,000	Funding Source: Severance Tax Perpetual Base Fund
Type of Borrower: Middle-income Municipal	Average Annual Diversion: 700 AF Added Water Supply Storage: 131.3 AF

CWCB Loan: \$606,000 (with 1% service fee) Interest Rate: 2.5% Term: 15-years

The Center of Colorado Water Conservancy District co-owns and manages a blanket augmentation plan with the Upper South Platte Water Conservancy District through the Headwater Authority of the South Platte. The District is participating in the Chatfield Reallocation Project in order to improve its augmentation operations by needed storage space at the lower reaches of its augmentation plan. Of the 20,600 acre-feet proposed to be reallocated, the District would receive 131.3 acre-feet of storage, or 0.64% of the total reallocation. The District will use Chatfield storage to store senior and junior rights as authorized in water court Case Nos. 12CW50 and 13CW3148.

The US Army Corps of Engineers issued the Project's Feasibility Report and Environmental Impact Statement (FR/EIS) in July 2013 and a Record of Decision is expected in 2014. The Selected Alternative recommended in the Final FR/EIS will provide 20,600 acre-feet of storage in Chatfield between the elevations 5432 and 5444 msl for M&I water supply and other purposes including agriculture, environmental restoration, and recreation and fishery habitat protection and enhancement. Project participants completed the Project's Fish, Wildlife and Recreation Mitigation Plan, in accordance with C.R.S. 37-60-122.2 in January 2014.





## **Central Colorado Water Conservancy District**

Chatfield Reallocation Project

January 2018 Board Meeting

(Loan Increase)

LOAN DETAIL	S
Project Cost:	\$35,478,346
CWCB Loan (with Service Fee):	\$29,999,929
Loan Term and Interest Rate: 30 y	ears @ 1.75%
Funding Source: Severance Tax Perpetu	ual Base Fund
BORROWER TY	ΡE
Agriculture Municipal	Commercial
100% 0 % Low - 0% Mid - 0% High	0%
PROJECT DETA	ILS
Project Type: Rese	ervoir Storage
New Storage:	4,274 AF



The Central Colorado Water Conservancy District is located in the South Platte River basin between Denver and Fort Morgan including Beebe Draw, and the lower portions of the Box Elder Creek and Lost Creek drainages. Approximately 210,000 acres of irrigated agricultural lands are served by the District. The District is participating in the Chatfield

Reallocation Project to increase the availability of augmentation water for users within its District. Of the 20,600 acre-feet proposed to be reallocated, the District would receive 4,274 acre-feet of storage, or 20.75% of the total reallocation. The location of Chatfield provides the ability to replace well depletions to all locations within the District.

The US Army Corps of Engineers issued the Project's final Feasibility Report and Environmental Impact Statement (FR/EIS) and the Record of Decision on May 29, 2014. The Selected Alternative recommended in the FR/EIS will provide 20,600 acre-feet of storage in Chatfield between the elevations 5432 and 5444 msl for M&I water supply and other purposes including agriculture, environmental restoration, and recreation and fishery habitat protection and enhancement. Construction cost in October 2015 estimated the overall Reallocation Project to cost to \$134 million. An October 2017 cost estimate revised this cost to be \$171 million. The District is seeking an increase to its Chatfield Ioan to cover its share of the cost difference.



Water Project Loan Program - Project Data Sheet



## **Centenial Diversion Replacement**

Centenial Irrigating Ditch Company

September 2017 Board Meeting

LOAN DETAIL	S
Project Cost:	\$512,000
CWCB Loan (with Service Fee):	\$232,300
Loan Term and Interest Rate: 20 Ye	ars @ 1.50%
Funding Source: Severance Tax PBF and	WSRF Grant
BORROWER TY	ΡE
Agriculture Municipal (	Commercial
100% 0% Low - 0% Mid - 0% High	0%
PROJECT DETA	ILS
Project Type: Ditch Re	habilitation
Average Annual Delivery:	21,700 AF



The Company's diversion and headgate structures are located four miles east of Monte Vista on the Rio Grande. 8,500 acres are irrigated under the system. The diversion was highlighted as a river rehabilitation priority in a 2001 study titled "Rio Grande Headwater Restoration Project." That study analyzed the condition of riparian habitats and

structures along a 91-mile reach of the Rio Grande from the town of South Fork to Alamosa, and was sponsored by the San Luis Valley Water Conservancy District and funded with a grant from the CWCB. A 2007 Rio Grande Watershed Restoration Strategic Plan highlighted the importance of continued efforts to implement the 2001 study recommendations.

The Company partnered with the Colorado Rio Grande Restoration Foundation, the fiscal agent for the Rio Grande Headwater Restoration Project, to organize and raise funds for the Project. The Foundation similarly worked with four other ditch companies and consolidated those needs into one WSRF grant request ("Five Ditches: Rio Grande Diversion and Headgate Improvement"). That grant request will also be heard at the September 2017 Board Meeting. The existing diversion dam will be replaced with a grouted rock diversion dam spanning the width of the river. The dam will include a low flow channel to allow for sediment transport. Project stakeholders worked with Colorado Parks and Wildlife, and at CPW's request, final design will incorporate a partial fish barrier to protect native fish upstream from downstream non-native predators such as the pike.



COLORADO

Colorado Water Conservation Board Shores Lakes Ponds C Infrastructure Improvement

Department of Natural Resources

#### Central Colorado Water Conservancy District January 2018 Board Meeting

LOAN DETAI	LS
Project Cost:	\$3,430,000
CWCB Loan (with Service Fee):	\$2,367,440
Loan Term and Interest Rate: 30	0 years @ 1.65%
Funding Source: Co	onstruction Fund
BORROWERT	ΥΡΕ
Agriculture Municipal	Commercial
100% 0 % Low - 0% Mid -0% High	0%
PROJECT DET	AILS
Project Type: Reservo	ir Rehabilitation
Storage Maintained:	4,500 AF

The Well Augmentation Subdistrict (WAS) was formed in 2004 to develop a permanent augmentation plan for well owners who were previously members of the Groundwater Appropriators of the South Platte (GASP), and covers land in Adams, Weld, and Morgan counties. There are currently 275 wells contracted for coverage in

4 2 3 0  $\mathbf{O}$ Δ Weld County: South Platte River Water Source: Drainage Basin: South Platte Division: 1 District: 2

the WAS Augmentation Plan, covering 78 square miles, for a total of 15,250 AF. WAS issues an annual pumping quota to its member wells based on WAS overall augmentation supplies. The first seven years the quota was set to 0%, but in recent years the quota has ranged from 35%-60%.

The Shores Lakes is a gravel pit complex located near Firestone in Weld County and consists of four lined cells (Ponds A, B, C, D), which are interconnected via pipelines. Shores Lakes has all planned infrastructure installed except Pond C's inlet and outlet structures. This Project will install the inlet and outlet infrastructure for Pond C, thereby allowing WAS to efficiently store and release water under its augmentation plan. Construction is anticipated to being in fall 2018 and be complete in spring 2019.





## **Chilcott Augmentation Station**

Chilcott Ditch Company July 2018 Board Meeting

LOAN DETAILS
Project Cost: \$500,000
CWCB Loan (with Service Fee): \$505,000
Loan Term and Interest Rate: 20 Years @ 2.55%
Funding Source: Construction Fund
BORROWER TYPE
Agriculture Municipal Commercial
0% 0% Low - 100% Mid -0% High 0%
PROJECT DETAILS
Project Type: Ditch Rehabilitation
Average Annual Diversions: 4,961 AF

The Chilcott Ditch Company operates the Chilcott Ditch for the benefit of its shareholders by providing direct flow irrigation water. The ditch diverts from Fountain Creek, just north of the Town of Fountain, and water travels through the Company's eight-mile-long ditch to land under the ditch as well as to an augmentation



station that measures return flow to Fountain Creek on behalf of shareholders taking delivery of their pro-rata share through the augmentation station. Over time the streambank near the augmentation station has eroded and undercut the augmentation station flume. This has caused concern about the structural stability and discharge functionality and operation of the augmentation station. The Company has concluded that the protection of the augmentation station is needed. The Company desires to stabilize the embankment and reconstruct the outfall and sand discharge line considering a 100-yr flood recurrence interval and associated streamflow and water surface profile. Construction is scheduled for the fall of 2018/winter of 2019.





#### Ditch System Improvements Church Ditch Water Authority

July 2017 Board Meeting

LOAN DETA	AILS
Project Cost:	\$3,580,000
CWCB Loan (with Service Fee):	\$3,615,800
Loan Term and Interest Rate:	30 Years @ 3.0%
Funding Source:	Construction Fund
BORROWER	ΤΥΡΕ
Agriculture Municipal	Commercial
0% 0% Low - 33% Mid - 67%	High 0%
PROJECT DE	TAILS
Project Type:	Ditch Rehabilitation
Average Annual Delivery:	10,500 AF

The Authority was formed in 2004 by the cities of Northglenn and Westminster to operate the Church Ditch. The ditch is 26-miles long and carries water from its headgate in Clear Creek, near Golden, through Jefferson County until it ends near the intersection of 100<sup>th</sup> Ave and Simms St at the Wilson Flume. There are 97 Contractual Users who receive water from the ditch.



The Authority and Ecological Resource Consultants (ERC) created a Master Plan in 2009 to identify areas in need of maintenance, modification, or replacement. Since 2009, the Authority has been completing identified projects as time and budgets have allowed. Currently, the following five projects have been identified as the highest priority for the Authority over the next two years. (1) The Leyden Creek Flushing Structure will replace the aging structure and improve efficiency, safety, and maintenance. (2) The Headgate 53 Retaining Wall project will repair a concrete block wall which was installed as an emergency fix due to the 2013 flood. (3) The Area 15 Ditch Lining will line a section of ditch where the dewatering by new homes and businesses adjacent to the ditch are causing increased water loss in the ditch. (4) The Ford Street Siphon will address a 75 year old culvert that is at or near

the end of its expected lifespan. Finally (5) the Legacy Farms Culvert will replace an undersized culvert which is currently creating a bottleneck.

All projects will be constructed during the non-irrigation season and are planned to be complete by spring of 2019.



Water Project Loan Program - Project Data Sheet



# Consolidated Diversion and Headgate Replacement

#### Consolidated Ditch and Headgate Company

July 2017 Board Meeting

LOAN DETAIL	S
Project Cost:	\$1,862,000
CWCB Loan (with Service Fee):	\$1,010,000
Loan Term and Interest Rate: 30	Years @ 1.8%
Funding Source: Severance Tax Perpetu	al Base Fund
BORROWER TY	ΡE
Agriculture Municipal	Commercial
100% 0% Low - 0% Mid - 0% High	0%
PROJECT DETA	ILS
Project Type: Ditch R	ehabilitation
Average Annual Delivery:	33,500 AF

The Company is a Mutual Ditch Company formed in 1910. Its diversion and headgate structures are located five miles northwest of Monte Vista on the Rio Grande. The company serves 38 shareholders made up of water right owners who use the ditch as a carrier ditch. The diversion dam and headgate structures are at the end of its service

L O C A	ΤΙΟΝ
County:	Rio Grande
Water Source:	Rio Grande
Drainage Basin:	Rio Grande
Division: 3	District: 20

life and are no longer effective at low or high river flows. These structures were highlighted as river rehabilitation priorities in 2001 study titled "Rio Grande Headwater Restoration Project." That study analyzed the condition of riparian habitats and structures along a 91-mile reach of the Rio Grande from the town of South Fork to Alamosa.

The Company has partnered with the Colorado Rio Grande Restoration Foundation, the fiscal agent for the Rio Grande Headwater Restoration Project, to organize and raise funds for the Project. The Natural Resources Conservation Service is providing design and construction oversight for the project, as well as a \$750,000 grant from its Environmental Quality Incentive Program (EQIP). The Foundation will be including this Project as part of a WSRF grant request that, if approved by the Rio Grande Roundtable, will be heard at the CWCB September 2017 Board Meeting. The EQIP grant funds are subject to forfeiture if the Project does not begin construction in Fall 2017. Therefore, to ensure construction can begin as soon as river conditions allow, the Company is seeking this CWCB loan to cover its full cost share. Any WSRF grant funds obtained for this Project will reduce the final loan amount.





			n Program achment 3
Piping	the	Duke	Ditch
D	uke [	Ditch Co	ompany

March 2016 Board Meeting

LOAN DETA	ILS
Project Cost:	\$749,374
CWCB Loan (with Service Fee):	\$90,900
Loan Term and Interest Rate:	30 years @ 2.0%
Funding Source: Construction Fund, WSRA	A, Salinity Control
BORROWER T	ΥΡΕ
Agriculture Municipal	Commercial
68% 32% Low - 0% Mid - 0% Hig	gh 0%
PROJECT DET	AILS
Project Type: Dit	tch Rehabilitation
Average Annual Delivery:	2,424 AF



The Duke Ditch Company diverts from Leroux Creek and Barrow Gulch, west of the Town of Hotchkiss, and delivers water through the Company's ditch to a 380-acre service area. The earthen ditch traverses a steep hillside in the Leroux Creek canyon where it is prone to washout and is subject to significant seepage and evaporative losses. As a result of the location, it has significant

maintenance and aquatic vegetation growth issues. The deep percolation of irrigation water in this area contributes salinity and selenium to the Colorado River system; therefore, the Company obtained a \$464,000 Salinity Control Program grant (61% of project costs) and a \$100,900 NRCS grant (13% of project costs), as the project is expected to reduce salt loading to the Colorado River system by 395 tons/year. In addition, the Company is applying for a \$47,237 basin grant and a \$47,237 statewide grant from the Water Supply Reserve Account Grant Program to pipe the entire 2.7 miles of ditch. Construction is scheduled for the fall/winter of 2016/2017.





Adobe Creek Dam Rehabilitation

Fort Lyon Canal Company September 2017 Board Meeting

LOAN DETA	AILS
Project Cost:	\$9,200,000
CWCB Loan (with Service Fee):	\$8,181,000
Loan Term and Interest Rate:	40 years @ 1.50%
Funding Source: WSRF & Severance Tax	Perpetual Base Fund
BORROWER	ΤΥΡΕ
Agriculture Municipal	Commercial
99.1% <1% Low - TBD% Mid -0%	High <1%
PROJECT DE	TAILS
Project Type:	Dam Rehabilitation
Average Annual Diversions:	221,000 AF
Recovered Storage:	32,560 AF
neeer en eu erer ager	52,500 / 1



Adobe Creek Reservoir (also known as Blue Lake) is owned by the Fort Lyon Canal Company. The dam is a 32foot-high, high hazard dam that impounds approximately 77,400 acre-feet of active storage and 4,292 acre feet of dead storage. The water is used to irrigate

approximately 93,000 acres of land in Bent, Otero, and Prowers County.

A storage restriction was issued by the Dam Safety Branch of the Office of the State Engineer on May 5, 2017 due to adverse seepage conditions in the dam's foundation and deteriorated conditions in the 112-year-old, vitrified clay outlet works. Through this loan, the Company intends to design and construct new outlet works and seepage control systems in Adobe Creek Dam to regain the approximately 32,560 acre-feet of storage that was lost due to the storage restriction. The project will also be funded by a \$100,000 Water Supply Reserve Fund (WSRF) Arkansas Basin grant and a \$1,000,000 Statewide WSRF grant. Construction is expected to being in late 2018.



#### CWCB Water Project Loan Program Project Data Sheet

### C150359

Borrower: Town of Fowler, Water Enterprise	County: Otero
Project Name: Augmentation Pipeline Project	Project Type: Augmentation
Drainage Basin/ District: Arkansas / 17	Water Source: Arkansas River
Total Project Cost: \$305,000	Funding Source: Construction Fund
<b>Type of Borrower:</b> Municipal (Low)	Average Annual Diversion: 157 AF
<b>CWCB Loan:</b> \$277,245 (with 1% Service Fee)	Interest Rate: 2.25% Term: 30 years

The Town is located in Otero County along Highway 50, approximately 35 miles east of Pueblo. It has approximately 1,185 residents. The Town's water system service area includes the Town and adjacent areas within unincorporated Otero and Crowley Counties for a total of 709 taps. Per a water court mandate, the Town must separate its augmentation water from its stormwater. The purpose of this project is to construct a diversion box to separate stormwater from augmentation water and to pipe the augmentation water to the Arkansas River. Construction of the Project is scheduled for the fall of 2013 with completion expected to occur by the end of the year.





## **Tunnel and Canal Renovation**

Fruitland Irrigation Company September 2017 Board Meeting

LOAND	ETAILS
Project Cost:	\$10,509,000
CWCB Loan (with Service Fe	<i>e):</i> \$1,746,290
Loan Term and Interest Rate	e: 40 Years @ 2.0%
Funding Source: Sever	ance Tax PBF and WSRF Grant
BORROW	ER TYPE
Agriculture Mui	nicipal Commercial
100% 0% Low - 0%	6 Mid -0% High 0%
PROJECT	DETAILS
Project Type:	Ditch Rehabilitation
Average Annual Diversions:	10,103 AF



The Company owns and operates the 17.7 mile-long earthen Fruitland Highline Canal, the 22 mile-long earthen Gould Canal including 0.8 miles through two rock tunnels, and the 10,168 AF Gould Reservoir. The Fruitland Highline Canal diverts from Crystal Creek, 13 miles south of the Town of Crawford and provides irrigation water to approximately 5,900 acres in Delta and Montrose Counties.

The Company is seeking a CWCB Loan and a WSRF Grant as part of an overall funding package for the Tunnel and Canal Renovation Project. The two tunnels in the Gould Canal are over 100 years old and have eroded to the point that its structural integrity is threatened. A collapse would eliminate the ability to deliver irrigation water after the junior direct flow rights are out of priority, typically in mid-June. Additionally, the Fruitland Highline and Gould Canals are located within the Colorado River salinity control area. The seepage losses are estimated to be 12.5 cfs, or 1856 AF annually which equates to approximately 6,053 tons of salt to the Colorado River system.

CWCB funding will be used to pipe the Gould Canal from Gould Reservoir through the two tunnels, a distance of approximately 2.1 miles and line the earthen canal for approximately 10.3 miles.





#### CWCB Water Project Loan Program Project Data Sheet

Borrower: Grand Mesa Water Conservancy District	County: Delta
<b>Project Name:</b> Peak Reservoir and Blanche Park Reservoir Rehabilitation	<b>Project Type:</b> Reservoir Rehabilitation
Drainage Basin/ District: Gunnison / 40	Water Source: Surface Creek
Total Project Cost: \$640,000	<b>Funding Source:</b> Construction Fund/ WSRA Gunnison Basin Funds
Type of Borrower: Municipal/Agricultural	<b>Average Annual Diversion:</b> 400 AF <b>Storage Added:</b> 155 AF
<b>CWCB Loan:</b> \$227,250 (with 1% Service Fee)	Interest Rate: 1.55%* Term: 20 years (Reduced from 1.8% blended rate)

The Grand Mesa Water Conservancy District owns several reservoirs and a network of ditches to service agricultural users and municipal users including the Town of Orchard City and Cedaredge. It is requesting a loan to rehabilitate Peak Reservoir and Blanche Park. Both reservoirs are located in the Grand Mesa National Forest and have not been used in nearly 50 years. The District has already contributed \$352,500 towards Project costs and has also been awarded \$75,000 in Water Supply Reserve Account (WSRA) Gunnison Basin Roundtable grant funds. Peak Reservoir involves earthwork on the dam and new outlook works. Blanche Park reservoir work will be a complete rebuilding of the dam. Construction is expected to resume in the summer of 2013 with the ability to store water by the winter of 2014-2015.



COLORADO Colorado Water Conservation Board Department of Natural Resources

#### Attachment 3 Grand Valley Power Plant Rehabilitation

Grand Valley Water Users Association November 2016 Board Meeting

Loan Program

LOAN DET.	4	ΙL	- 5	5	
Project Cost:			\$	5,2	00,000
CWCB Loan (with Service Fee):			\$	1,7	17,000
Loan Term and Interest Rate:		30	Yea	ars (	<b>@ 2.0%</b>
Funding Source: Construction Fund					
BORROWER	Т	Y	Ρ	E	
Hydropower					
PROJECT DE	Т	Α		L	S
			11.10	Iraa	lectric
Project Type:			нус	li de	

The Grand Valley Water Users Association (Association) and Orchard Mesa Irrigation District (District) are each seeking a loan to cover its cost share for the Grand Valley Power Plant (GVPP) Rehabilitation Project. The GVPP is owned by the Bureau of Reclamation and originally operated by Public Service Company of Colorado (Xcel Engergy) in conjunction with the Cameo coal fired power plant. The Association and District took operational control of the plant when Xcel decided to cease its operations. The Association and District equally split costs and



revenues from the GVPP under a Lease of Power Privilage with Reclamation and a Power Purchase Agreement with Xcel. In addition to being a revenue source, the GVPP serves an important role in providing water to the "15-Mile Reach" which has been designated by the Upper Colorado River Endangered Fish Recovery Program as critical habitat. The non-consumptive hydropower water right ensures continued flows for this important stretch of river.

The goal of the Project is to bring the GVPP up to a sustainable operating condition and meet current electric and safety standards. The GVPP was built in the early 1930s and has seen no major upgrades or modernization to date. Under current operations, the "water-to-wire" efficiency is approximately 54% with a maximum generation output of 2.5 MW. Calculations show as much as 4.1MW production should be feasible based on flow rate and available head.



Water Project Loan Program - Project Data Sheet

Water Project Loan Program					
	Project Data Sl	neet			
Borrower:	Huerfano County Water Conservancy District	County:	Huerfano		
Project Name:	Regional Augmentation Project	Project Type:	Water Rig and Augm		
Drainage Basin:	Arkansas / District 67	Water Source:	Huerfano	River	
Total Project Cost:	\$3,050,000	Funding Source:	Constructi	ion Fund	
Type of Borrower:	Low-Income Municipal	Avg. Annual Diversions:	19.5 AF		
<b>CWCB</b> Loan:	\$2,222,000 (w/ 1% service fee)	Interest Rate:	2.25%	Term:	30 years

The Huerfano County Water Conservancy District is applying for a CWCB loan to develop a regional augmentation program to replace depletions of wells in unincorporated communities in Huerfano County through a regional augmentation program. Within Huerfano County there are many water users that are at risk of being curtailed due either to being out of priority or due to failing (or failed) augmentation plans. The users include schools and domestic, commercial, and agricultural users. The District has utilized a Substitute Water Supply Plan and Regional Rule 14 Replacement Plan from 2009 to 2013 to provide augmentation water to five entities that were in danger of having water use curtailed due to out of priority usage. The District believes that other water users will find it necessary to join the regional augmentation plan and the Division Engineer has indicated an urgent need for such a plan. Project components include: the purchase of land and water rights, the construction of a recharge reservoir, and the construction of a reservoir for augmentation use. The Project is expected to occur between 2014 and 2016.



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

Borrower: Lake Durango Water Authority	County: La Plata	
Project Name: Source Water Supply Project	<b>Project Type:</b> Water Rights Purchase/Infrastructure	
Drainage Basin: San Juan / Dolores	Water Source: ALP	
Total Project Cost: \$3,000,000	<b>Funding Source:</b> Construction Fund and WSRA Statewide Funds	
Type of Borrower: Low-income Municipal	Average Delivery: 309 AF	
<b>CWCB Loan:</b> \$2,525,000 (w/ 1% service fee) <b>WSRA Statewide Grant:</b> \$500,000 \$450,000	Interest Rate: 4.0% Term: 30 years	

The Lake Durango Water Authority serves 1,435 taps in southwest La Plata County. A safe yield analysis has indicated that the Authority can only supply water to 792 taps in a drought year. This was an issue in the 2002-2003 drought, so the Authority is seeking additional supply and storage to safely serve its customers. The Authority is planning on purchasing 100 AF of A-LP water from the Colorado Water Resources and Power Development Authority, constructing a pump station at Lake Nighthorse, building an access road, and installing a pipeline to bring water from Lake Nighthorse to Lake Durango (where the Authority currently stores the majority of its water).



2009 NAP aerial imagery provided by the US Farm Service Agency



Loan Program Attachment 3 Repurposing of Wells 12 and 13

City of Lamar September 2015 Board Meeting

LOAN DETAILS
<i>Project Cost:</i> \$400,000
CWCB Loan (with Service Fee): \$101,000
Loan Term and Interest Rate: 10 Years @ 1.95%
Funding Source: WSRA & Sev. Tax Perpetual Base Fund
BORROWER TYPE
Agriculture Municipal Commercial
0% 100% Low - 0% Mid - 0% High 0%
PROJECT DETAILS
Project Type: Municipal & Industrial
Average Annual Delivery: 2,005 AF

The City of Lamar, through its Water and Wastewater Department, has been providing the city with water and sewer services for over 135 years. Although the City has undertaken numerous upgrades, rehabilitation, and expansion projects over the years, most of the existing infrastructure was funded and built during New Deal-era programs. The City's Wells 12 and 13 were developed in



the 1950s and used for municipal potable water supply until 2012, when Microscopic Particulate Analysis water quality testing was conducted, resulting in a reclassification of both wells as Ground Water Under Direct Influence of Surface Water (GWUDI) by the Colorado Department of Public Health and Environment (CDPHE). The wells were taken out of service at that time. A Feasibility Study conducted in 2014 concluded that it is feasible to redevelop both wells for non-potable irrigation use. Once this project is completed, water can be used for any non-potable municipal application, including irrigation of a city-owned cemetery and a golf course, both of which are currently watered with potable water.



Water Project Loan Program - Project Data Sheet



#### Attachment 3 Headgate Structure Replacement

Larimer and Weld Irrigation Company

September 2016 Board Meeting

Loan Program

LOAN DETA	ILS		
Project Cost:	\$750,000		
CWCB Loan (with Service Fee):	\$681,750		
Loan Term and Interest Rate:	30 Years @ 1.5%		
Funding Source: Construction Fund			
BORROWER T	ΥΡΕ		
Agriculture Municipal	Commercial		
96% 0% Low - 4% Mid - <1% Hig	gh 0%		
PROJECT DET	AILS		
Project Type: Di	tch Rehabilitation		
Average Annual Delivery:	85,000 AF		



The Larimer and Weld Irrigation Company is a Colorado Mutual Ditch Company and a nonprofit corporation. The Company's service area extends from the Cache la Poudre River diversion north of Fort Collins, east to near the town of Galeton, encompassing approximately 61,000 acres of irrigated land in Larimer and Weld Counties. The

Company's diversion off the Cache la Poudre River is aging and in need of repair. This Project will focus on replacing the headgate structure, including the concrete structure, gates, and gate operators. The replacement of the trash rack and forebay structure, and repairs to the diversion structure, are planned to take place within the next few years and are not a part of this Project.

The City of Fort Collins has developed a flood control plan for the Dry Creek Basin, which in part uses the Larimer & Weld Ditch as a conveyance for flood flows in Dry Creek. Therefore, should a flood occur in the Dry Creek Basin, it is of great importance for life, safety, and prevention of property damage, that the ditch's upstream headgate off the Poudre River be able to close so there is capacity available in the ditch to handle flood flows. Construction activities will include the replacement of the concrete structure, new gates and operators, and a new control building. Construction is expected to occur between the 2016 and 2017 irrigation seasons.





COLORADO Participation in Southern Water Supply Project II

Conservation Board Department of Natural Resources Left Hand Water District September 2017 Board Meeting

LOAN DETAILS
<i>Project Cost:</i> \$10,735,300
CWCB Loan (with Service Fee): \$10,000,000
Loan Term and Interest Rate:20 Years @ 2.75%
Funding Source:Construction Fund
BORROWER TYPE
Agriculture Municipal Commercial
0% 0% Low - 30% Mid -70% High 0%
PROJECT DETAILS
Project Type: Municipal Water Supply System New
Average Annual Delivery: 4,400 AF

The District provides potable water service within a 108 square mile service area within unincorporated areas of Boulder and Larimer Counties; serving approximately 20,000 people through 7,154 individually metered taps. Water is treated at the Spurgeon Water Treatment Plant (WTP) and Dodd WTP. Spurgeon WTP is operated yearround while Dodd WTP is operated only during the



Carter

Lake

Berthoud

irrigation season. By participating in the Southern Water Supply Project (SWSP) II, the District will be able to supply Dodd WTP with a year-round water supply, significantly reducing the risk associated with having only one water supply during the non-irrigation season, as well as reducing the maintenance associated with an open canal supplying water for treatment.

The SWSP II, proposed by Northern Colorado Water Conservancy District, is a 20-mile pipeline from Carter Lake to the Boulder Reservoir. The pipeline will deliver raw water for municipal use to Left Hand Water District (Borrower), Longs Peak Water District,

and the City of Boulder. The full cost of the project is estimated to be \$43,890,000. The Districts participation cost is estimated to be \$10,735,000. The \$10,000,000 CWCB loan will cover a majority of the District's participation cost. The District will use its cash reserves for any cost exceeding that exceeds the CWCB loan.





## **Ditch Piping Phase B**

Missouri Heights Mountain Meadow Irrigation Company July 2018 Board Meeting

	L S
Project Cost:	\$400,000
CWCB Loan (with Service Fee):	\$404,000
Loan Term and Interest Rate:	30 Years @ 2.05%
Funding Source:	Construction Fund
BORROWER	ΤΥΡΕ
Agriculture Municipal	Commercial
78% 0% Low - 0% Mid -22% H	ligh 0%
PROJECT DE	TAILS
Project Type:	Ditch Rehabilitation
Average Annual Diversions:	5,500 AF

The Company operates the Missouri Heights Mountain Meadow Irrigation Ditch to provide irrigation water from the Spring Park Reservoir to approximately 2,000 acres of ranch land located 12 miles northeast of Carbondale. The Company worked with the Natural Resources Conservatio service (NRCS) to evaluate water losses

LOCA	A T I	O N
County:		Garfield
Water Source:	C	Cattle Creek
Drainage Basin:		Colorado
Division: 5	District:	38

within its ditch. Previous construction activity lined 3,500 LF of ditch and piped 5,750 LF of ditch. This Project will pipe 9,120 LF of ditch, a section where water losses are estimated to be as high as 20%. Construction for Phase B-1 is scheduled for fall of 2018. Construction for Phase B-2 is planned to occur in fall 2019.





## Seeley Reservoir Dredging

Ogilvy Irrigating and Land Company May 2018 Board Meeting

L O	Α	Ν	D	Е	Т	Α		L	S			
Project Cost:									\$3	8,6	67,74	0
CWCB Loan (wi	th Se	ervic	e Fee	):					\$2	2,2	74,52	0
Loan Term and	Inte	erest	Rate:				30	) Ye	ars	; @	1.70	%
Funding Source	:	Seve	rance	е Тах	( PB	F &	W	ate	rР	lan	Gran	t
BOR	? R	0	W	ΕF	R	Т	- `	Y	Ρ	Ε		
Agriculture			Muni	cipa	1			(	Cor	nn	nercia	/
Agriculture 95%			Muni 5%		I			(	Сог		nercia %	1
<u> </u>	JE	E C		Mid	) E	Т			Cor I			/
<u> </u>	JE	E C		Mid	) E			Ą		0 L		
95%			5% T	Mid	) E			Ą	l eha	0 L bil	% S	n

The Ogilvy Irrigating and Land Company is a Colorado Mutual Ditch that owns and operates Seeley Reservoir and the Ogilvy Ditch. The Ogilvy Ditch system encompasses 3,600 acres from a Cache Ia Poudre River diversion, located on the east edge of Greeley to farms east of Kersey. Seeley Reservoir has a decreed capacity of 1,543



acre-feet. The proposed project will re-establish the physical capacity to this decreed volume. The water stored in the reservoir is used to provide supplemental irrigation supplies to the Ogilvy Ditch service area. Stored water is also used to provide augmentation water for the Ogilvy Augmentation Company, whose members own wells that provide irrigation water within the same service area. This project will recover 356 acre-feet of reservoir storage space that has been lost to sedimentation deposition over many years. New water storage sites have been considered, but would be limited to about 100 acre-feet of capacity. Sedimentation of Seeley Reservoir resulted largely because of the high inflows running through the steep inlet channel above the reservoir. The Colorado Department of Transportation completed major improvements to the Seeley Reservoir inlet channel at State Highway 392 in 2011 that substantially mitigated the conditions causing the erosion within the inlet ditch generating sediment at Seeley Reservoir. It is expected that the recurrence of sedimentation will be limited. Construction is scheduled for the fall of 2018. Funding will come from a Water Plan Grant for \$1,415,740 and a CWCB loan.



COLORADO Colorado Water Conservation Board Department of Natural Resources Attachment 3 Grand Valley Power Plant Rehabilitation

> Orchard Mesa Irrigation District November 2016 Board Meeting

Loan Program

LOAN DETAILS					
Project Cost: \$5,200,000					
CWCB Loan (with Service Fee): \$1,717,000					
Loan Term and Interest Rate: 30 Years @ 2.0%					
Funding Source: Construction Fund					
BORROWER TYPE					
Hydropower					
PROJECT DETAILS					
Project Type: Hydroelectric					
Average Annual Power Production: 17M kWh					

The Orchard Mesa Irrigation District (District) and Grand Valley Water Users Association (Association) are each seeking a loan to cover its cost share for the Grand Valley Power Plant (GVPP) Rehabilitation Project. The GVPP is owned by the Bureau of Reclamation and originally operated by Public Service Company of Colorado (Xcel Engergy) in conjunction with the Cameo coal fired power plant. The District and Association took operational control of the plant when Xcel decided to cease its operations. The District and Association equally split costs and revenues



from the GVPP under a Lease of Power Privilage with Reclamation and a Power Purchase Agreement with Xcel. In addition to being a revenue source, the GVPP serves an important role in providing water to the "15-Mile Reach" which has been designated by the Upper Colorado River Endangered Fish Recovery Program as critical habitat. The non-consumptive hydropower water right ensures continued flows for this important stretch of river.

The goal of the Project is to bring the GVPP up to a sustainable operating condition and meet current electric and safety standards. The GVPP was built in the early 1930s and has seen no major upgrades or modernization to date. Under current operations, the "water-to-wire" efficiency is approximately 54% with a maximum generation output of 2.5 MW. Calculations show as much as 4.1MW production should be feasible based on flow rate and available head.



Water Project Loan Program - Project Data Sheet

COLORADO Colorado Water Conservation Board Department of Natural Resources Loan Program Attachment 3 Orchard Ranch Ditch Pipe Project

Orchard Ranch Ditch Company

January 2016 Board Meeting

LOAN DET	AILS
Project Cost:	\$1,430,720
CWCB Loan (with Service Fee):	\$151,500
Loan Term and Interest Rate:	30-Years @ 1.95%
Funding Source: Severance Tax	Perpetual Base Fund
BORROWER	ΤΥΡΕ
Agriculture Municipal	Commercial
86% 14% Low - 0% Mid - 0%	G High 0%
P R O J E C T D E	TAILS
Project Type:	Ditch Rehabilitation
Average Annual Delivery:	2,750 AF

The Company serves approximately 350 irrigated acres in Delta County, approximately 10 miles north of the town of Delta, diverting all its supplies via a concrete diversion structure on Surface Creek. The Company's ditch was constructed in the late 1800s by a group of early settlers cooperating to get water to their new farms, and has been in continuous operation since that time. The

		-
L O C A	ТІ	0 N
County:		Delta
Water Source:		face Creek
Drainage Basin:	Gun	nison River
Division: 4	District:	40

proposed project will pipe the 1.6 mile long main earthen canal and portions of 4 laterals. The project will be done in conjunction with the U.S. Bureau of Reclamation's Colorado River Basin Salinity Control Program. Approximately 90% of project costs will be provided by a grant from the the U.S. Bureau of Reclamation. Construction is expected to begin in mid-2016 with completion by mid-2017.



Water Project Loan Program - Project Data Sheet
## CWCB Construction Loan Program Project Data Sheet

Borrower: Overland Ditch and Reservoir Co.	County: Delta
Project Name: Overland Reservoir Enlargement	Project Type: Reservoir Enlargement
Drainage Basin: Gunnison River Basin	Water Source: Cow Creek
Total Project Cost: \$1,255,555	Funding Sources: CWCB & Local Bank
Type of Borrower: Agricultural	Average Delivery: 17,000 acre-feet
Loan Amount: \$1,130,000	Interest Rate: 2.5% Term: 30 years

The Overland Reservoir Company is a non-profit mutual ditch company established in the State of Colorado in 1895. The Company owns and operates the Overland Reservoir for the 120 shareholders and delivers an average of 17,000 AF of irrigation water annually. The Reservoir is located in Delta County in the Gunnison National Forest at an elevation of 10,000 feet. The Reservoir has a current storage capacity of 6,200 AF and will be increased to 7,171 AF with this project. The reservoir was built in 1905 and required significant repair work in 1987 by the Company with financial assistance from CWCB and the Bureau of Reclamation. This project consists of raising the spillway elevation by 3.8 feet, installing toe drains, increasing the dam crest width and adding necessary embankment protection. Construction is scheduled to begin in the summer of 2007.





## Arkansas River and Wildhorse Creek Levee Rehabilitation Pueblo Conservancy District

September 2017 Board Meeting

LOAN DETAIL	S
Project Cost:	\$23,000,000
CWCB Loan (with Service Fee):	\$17,170,000
Loan Term and Interest Rate: 30 y	ears at 2.45%
Funding Source: Severance Tax Perpetu	ial Base Fund
BORROWER TY	ΡE
Agriculture Municipal	Commercial
0% 100% Low - TBD% Mid -0% High	0%
PROJECT DETA	ILS
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 Wildlhorse Creek levees were accredited by the Federal Emergency Management Agency (FEMA), the City would lose it protected status which ensures that flood insurance can be provided at



affordable rates. To date, the District has completed the reconstruction and stabilization of 6,600 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 2,800 feet of Wildhorse Creek Levee has been constructed. The next phase of work is scheduled to begin in late 2017. Construction is limited to November to March when river flows are the lowest. The entire project is expected to be complete in 2022.



Water Project Loan Program - Project Data Sheet

## CWCB Construction Loan Program Project Data Sheet

Borrower: Riverside Reservoir and Land Co.	County: Weld
Project Name: Emergency Spillway Project	Project Type: Reservoir Rehabilitation
Drainage Basin: South Platte	Water Source: South Platte River
Total Project Cost: \$3,120,000	<b>Funding Sources:</b> Severance Tax Trust Fund Perpetual Base Account
Type of Borrower: Agricultural	<b>Average Delivery:</b> 39,000 AF (from Reservoir storage) (105,000 Total AF for Company)
Loan Amount: \$2,838,100 (Including 1% fee)	Interest Rate: 2.5% Term: 30 years

The Riverside Reservoir and Land Company (Company) owns and operates the 64,000 acre-foot capacity Riverside Dam and Reservoir, an inlet canal known as Riverside Ditch, and a river diversion structure located near the town of Kersey, Colorado. The Company diverts water from the South Platte River, approximately 10 miles downstream of Greeley, Colorado. It stores water primarily during winter months for irrigation releases during the following water season. The Company, formed in 1902, delivers irrigation water to approximately 50,000 acres. The Company is applying for a loan to install a spillway at Riverside Reservoir (Reservoir). The Reservoir is not equipped with an emergency spillway, which is required by the DWR's *Rules and Regulations for Dam Safety and Dam Construction*. There is currently a nominal restriction of 0.05 feet (200 AF of storage loss) due to the lack of a spillway. In order to enhance the safety of the Reservoir and prevent further storage restrictions, the Company plans on constructing an emergency spillway. The final design is expected to be complete in January 2010 with construction occurring from July 2010 through March 2011.



# Ravenna Development Interconnect



Roxborough Water and Sanitation District

July 2018 Board Meeting

LOAN DETAIL	S
Project Cost:	\$1,763,750
CWCB Loan (with Service Fee):	\$1,584,690
Loan Term and Interest Rate: 30 Yea	ars @ 3.15%
Funding Source:	TBD
BORROWER TYF	P E
Agriculture Municipal C	Commercial
0% 0% Low - 0% Mid -100% High	0%
PROJECT DETAI	LS
Project Type: Municipal Water Supply S	ystem New
Average Annual Diversions:	1,200 AF



The Roxborough Water and Sanitation District was established in 1971 and provides water and sewer service within its service area in northwest Douglas County. In 2017 the District included the Ravenna Development (Ravenna) into its water service area. Ravenna sought inclusion into the District as a means to replace its

non-renewable water supply (non-tributary groundwater wells) with a renewable water supply and as a means to efficiently provide potable water to the residents of Ravenna.

In summer of 2017, the District installed a single emergency interconnect with Ravenna and has been the sole source of potable water for Ravenna since. The inclusion agreement requires that in addition to the emergency interconnect, two additional interconnects between the District and Ravenna be constructed in order to provide a permanent and reliable water supply to Ravenna. Construction will include two new interconnections, a new pipeline, and the relocation of a pressure reducing valve. Final design, right-of-way acquisition, and county approvals is scheduled to be completed by fall 2018. Construction is expected to begin late 2018 and continue into the early part of 2019.



Water Project Loan Program - Project Data Sheet



San Luis Valley Canal Headgate Construction

San Luis Valley Canal Company

L O	A N	D	E 1	ΓА		L S	5	
Project Cost:							\$56	9,000
CWCB Loan (with	n servic	e fee)	):				\$30	3,000
Loan Term and I	nterest	Rate			20	Year	's @	1.45%
Funding Source:	S	ievera	nce T	ax P	BF ar	nd W	SRF	Grant
B O R	RO	W	E R		ΤY	P	E	
Agriculture		Muni	cipal			Со	mme	ercial
100%		0	%				0%	6
PROJ	ΕC	Т	D	E	ΤA		L	S
Project Type:				Head	dgate	e Rep	olace	ement
Average Annual	Diversio	ons:					24,0	00 AF



May 2018 Board Meeting

The San Luis Valley Canal Company (Company) was incorporated as a mutual ditch company in 1923. It diverts water from the Rio Grande into the San Luis Valley Canal 4 miles east of the town of Monte Vista.

The irrigation system serves 78 shareholders covering 20,200 irrigated acres. The Project is a structural and

riparian improvement project that will improve the Company's ability to divert its water right as well as meet non-consumptive needs of the area by replacing a poorly functioning headgate and stabilizing streambanks.

The Colorado Rio Grande Restoration Foundation (Foundation) is the fiscal agent for the RGHRP and partnered with the Company, as well as four other ditch companies, to organize and raise funds for diversion and headgate improvement projects that also incorporate streambank stabilization and riparian restoration. The Foundation consolidated the individual ditch projects into a single WSRF Grant request known as "Five Ditches: Rio Grande Diversion and Headgate Improvement Project" (Five Ditches). The Foundation received a WSRF Grant to help cover the implementation cost of Five Ditches at the CWCB September 2017 Board Meeting. Additionally, the Foundation, at the CWCB May 2017 Board Meeting, received a WSRF Grant to cover the cost of engineering design for three headgate improvement projects around the Rio Grande State Wildlife Area, which included this Project. In total, \$263,000 in WSRF grant funding is allocated to the San Luis Valley Headgate Construction Project.

Final Design is expected to be completed in spring 2018 with construction occurring between the 2018 and 2019 irrigation seasons.



Water Project Loan Program - Project Data Sheet



**Rio Grande Reservoir Rehabilitation Project** 

San Luis Valley Irrigation District

LOAN DETAILS
Project Cost: \$25M
Funding Package:\$10M Grant & \$15M Loan
Loan Term and Interest Rate: 30 years @1.65%
Funding Source:Const Fund & NonReimbursable
BORROWER TYPE
Agriculture Municipal Commercial
100% 0% Low - 0% Mid - 0% High 0%
PROJECT DETAILS
Project Type: Reservoir Rehabilitation
Preserved Storage: 51,113 AF

The San Luis Valley Irrigation District is applying for a loan and grant for the Rio Grande Reservoir Rehabilitation - Phase 2 (Project). The purpose of the Project is to rehabilitate the outlet works of the onchannel Rio Grande Reservoir Dam. The Reservoir has a capacity of 51,113 acre-feet and delivers water to nearly



March 2018 Board Meeting

62,000 acres of agricultural land in the San Luis Valley. The Reservoir's outlet has long been a limiting factor in the administration of the Rio Grande.

This Project is vital to the basin and region as it will provide operational efficiencies by better managing the timing of water stored and released from the Reservoir. This will result in improved stream health and utilization of Rio Grande water by the District, the State of Colorado, and the many other water users in the basin.

The total Project cost estimate (Phase 1 & 2) is \$30,000,000. The District received a \$5,000,000 grant in Projects Bill SB12S-002 for Phase 1, which included seepage control improvements, a U.S. Forest service land exchange, and final design of the outlet works. SB12S-002 also included an appropriation for a loan and grant funding package of \$15,000,000. A subsequent Projects Bill in 2017 (HB17-1248) increased this loan/grant funding package to \$25,000,000.

The District, is requesting a loan from the CWCB for 60% of the Phase 2 Project costs and a grant for 40% of the Phase 2 Project costs.



Water Project Loan Program - Project Data Sheet



# Lake 4 Outlet Pipeline Repair

St. Vrain and Left Hand Water Conservancy District

January 2019 Board Meeting

(Loan Increase)

LOAN DET	A I L S
Project Cost:	\$1,155,000
CWCB Loan (with Service Fee):	\$864,560
Loan Term and Interest Rate:	30 Years @ 2.85%
Funding Source:	Construction Fund
BORROWER	ΤΥΡΕ
Agriculture Municipal	Commercial
0% 0% Low - 0% Mid - 97%	6 High 3%
PROJECT DE	TAILS
Project Type: Res	servoir Rehabilitation
Average Annual Delivery:	240 AF
Storage Preserved:	600 AF

LOCATON County: Boulder Water Source: St Vrain Creek Drainage Basin: South Platte Division: 1 District: 5

The St. Vrain and Left Hand Water Conservancy District and Boulder County Parks and Open Space jointly own a lined reservoir known as Rock'n WP Ranch Lake No. 4 (Lake 4). Lake 4 was created by reclaiming mined slopes, installing a slurry wall liner around the former gravel pit,

and installing inlet and outlet structures. The outlet works include a half-mile-long 18-inch reinforced concrete pipe approximately extending from the dam to the St. Vrain Creek. The District and County inspected the pipeline just prior to the September 2013 flood event and determined that it is leaking in several locations. It is critical for reservoir accounting and water rights administration purposes that the water delivered through the pipeline be water from Lake 4 and not groundwater leaking into the pipe between the dam and the river. Therefore the District and Boulder County desire to repair the pipe to resolve the leakage and to extend the service life of the structure.



Water Project Loan Program - Project Data Sheet

Borrower: St. Vrain and Left Hand Water Conservancy District	County: Boulder
Project Name: Emergency Rock'n WP Ranch Lake No. 4 Repair Project	Project Type: Reservoir Rehabilitation
Drainage Basin: South Platte	Water Source: St. Vrain Creek
Total Project Cost: \$9,000,000	Funding Source: Severance Tax Perpetual Base Fund
Type of Borrower: Blended	Average Annual Augmentation: 200 AF Preserved Water Supply Storage: 600 AF
<b>CWCB Loan:</b> \$4,545,000 (with 1% service fee)	Interest Rate: 3.2% Term: 30-years (Ownership: 93% High Municipal, 7% Commercial)

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





## Attachment 3 Arkansas Valley Conduit Phase One Pueblo Dam Hydroelectric Project

Southeastern Colorado Water Conservancy District

July 2016 Board Meeting

Loan Program

LOAN DET	Α	I I	_ S	5	
Project Cost:			\$1	9,06	0,000
CWCB Loan (with Service Fee):			\$1	7,39	2,200
Loan Term and Interest Rate:		30	Yea	rs @	2.0%
Funding Source:	S	ever	anc	e Ta	x PBF
BORROWER	Т	Y	Р	Ε	
Hydropower					
Hydropower PROJECT DE	ЕT	Α	I	L	S
	T			L Iroel	S ectric

Southeastern Colorado Water Conservancy District, acting by and through its water activity enterprise, is applying for a loan for the construction of the Pueblo Dam Hydroelectric Project. The Project is located at the existing Pueblo Dam and will utilize the existing releases to the Arkansas River without changing the flow regime. This Project is being constructed as Phase One of the overall Arkansas Valley Conduit project, authorized in the

LOCA	TION
County:	Pueblo
Water Source:	Arkansas River
Drainage Basin:	Arkansas River
Division: 2	District: 10

2007 and 2009 Projects Bill (SB07-122, SB09-125). The purpose of the Project is to develop a revenue source to offset the operational and maintenance cost of the Arkansas Valley Conduit.

The proposed 7.5 megawatt facility will be located on the North Outlet of Pueblo Dam. A powerhouse would be located at the downstream end of the existing outlet works that supplies water to the Arkansas River and would allow the Dam's authorized releases to generate an annual average 28 million kWh (enough to power approximately 3,300 homes) and \$1,500,000 in average revenue per year. The Project is being performed under the U.S. Bureau of Reclamation's Lease of Power Privilege (LOPP) process. Power generated will be purchased by Colorado Springs Utilities via transmission through the local Black Hills Energy power delivery system. Construction is planned to start in October 2016 for commissioning in May 2018.





## Loan Program Attachment 3 Storage Development and Water Rights Purchase

# Town of Firestone

November	2016	Board	Meeting
100 CHIDCI	2010	Dould	meeting

LO	Α	Ν	D	E	Т	Α		L	S			
Project Cost:									\$10	),0	43,	150
CWCB Loan (w	ith Se	ervic	e Fee	?):					\$10	),0	00,	000
Loan Term and	l Inte	erest	Rate	:			20	) Y	ears	6	2.	35%
Funding Source	?:						Со	nst	ruc	tio	n F	und
BO	R R	0	W	E	R			Y	Ρ	Ε		
Agriculture			Mun	icipa	ıl				Cor	nn	ner	cial
Agriculture 0%	0% L	.ow -	Mun 0% N		100		igh		Cor		nero 1%	cial
-		.ow - E C		۰ hid			<u> </u>	A	Cor I			cial
0%		E C		۔ ۸id ا	100 D E	: 1	-	A	1	C L	% S	
0% P R O	JE	E C	0% N T Stora	۔ ۸id ا	100 D E	: 1	-	A	1	C L Pu	% S rch	

The Town of Firestone's boundary encompasses approximately 9,089 acres and is generally located east of Interstate 25 between Highway 66 and Highway 52. The Town of Firestone provides water and wastewater services to approximately 12,110 residents and operates a water distribution network of approximately 58.5 miles of pipeline and associated facilities. The purpose of this

L O C A	ΤΙΟΝ
County:	Weld
Water Source:	St. Vrain River / Boulder Creek
Drainage Basin:	South Platte River
Division: 1	District: 2

project is to provide a water storage project to help meet the Town's current and future non-potable water needs. For planning purposes, the Town is pursuing a little over two times the demand, or 2,000 acre-feet of non-potable storage for the Town. As a short-term water supply goal, the Town is requesting funds to Purchase the Carbon Valley Resource Pit and acquire 1,092 acre-feet as part of this project.



Water Project Loan Program - Project Data Sheet



Colorado Water Conservation Board Mountain Home Dam Outlet Rehabilitation Phase III

Department of Natural Resources

Trinchera Irrigation Company March 2018 Board Meeting

LOAN DETAIL	S
Project Cost:	\$987,000
CWCB Loan (with Service Fee):	\$440,360
Loan Term and Interest Rate: 30 ye	ears @ 1.65%
Funding Source:Severance Tax	PBF & WRSF
BORROWER TY	ΡE
Agriculture Municipal	Commercial
100% 0% Low - 0% Mid - 0% High	0%
PROJECT DETA	
PRUJECI DETA	ILS
	I L S ehabilitation



Trinchera Irrigation Company is located in Costilla County and owns and operates Mountain Home Reservoir, Smith Reservoir, and approximately 26 miles of canals and 45 miles of laterals. Mountain Home Reservoir (Reservoir) was built in 1908 and has a capacity of 17,964 AF. The Reservoir's primary function is for irrigation but Colorado

Parks and Wildlife operates a State Wildlife Area around the Reservoir and maintains a conservation pool of 653 AF in the Reservoir.

The Reservoir's existing outlet works experience significant leakage and since only one of the three valves is operable, does not meet the State Engineer's Office, Dam Safety Branch's emergency drawdown requirements. This Project will replace the original valves with new valves and make other minor repairs to the outlet including a new trash rack, line the outlet tunnel and tower, and replace the gate house. Successful repair of the dam outlet works will prevent a storage restriction, recover approximately 2,000 AF currently lost to leakage, and ensure the long-term integrity and protection of 11,800 acres of irrigated land, as well as the environment, wildlife, and recreation at the State Wildlife Area. Funding for the project will come from the CWCB loan and \$513,000 in WSRF grant funds.





Laramie-Poudre Tunnel Rehabilitation

Loan Program Attachment 3

The Tunnel Water Company September 2015 Board Meeting

LOAN DET	AILS					
Project Cost:	\$1,225,000					
CWCB Loan (with Service Fee):	\$1,111,000					
Loan Term and Interest Rate:	30 Years @ 2.55%					
Funding Source:	Construction Fund					
BORROWER	ТҮРЕ					
Agriculture Municipal	Commercial					
24% 20% Low - 24% Mid - 32%	% High 0%					
PROJECT DE	TAILS					
Project Type:	Ditch Rehabilitation					
Average Annual Diversion: 6,875 AF						



The Tunnel Water Company operates the Laramie-Poudre Tunnel for the benefit of its two shareholders: Water Supply and Storage Company (WSSC) and Windsor Reservoir and Canal Company (WRCC). The tunnel diverts from the Laramie River, about 60 miles west of Fort Collins, and delivers water through a 2.15-mile tunnel to the Poudre River. WSSC delivers irrigation water to its

shareholders, primarily for agricultural irrigation on approximately 40,000 acres lying below the Larimer County Canal. WRCC delivers water to its municipal shareholders via the Soldier Canyon and Bellvue Water Treatment Plants.

The Company purchased the Laramie Poudre Tunnel and its adjoining Laramie River System in 1938. The west portal (inlet) has deteriorated since it was originally constructed in 1910. The interior timber cribbing and concrete lining are at or near the end of their useful lives and the steepness of the slope of this section makes it very difficult to access the tunnel for maintenance. Additionally the east portal's (outlet) concrete energy attenuation structure, which has been resurfaced many times before, is heavily spalled and near failure. The Company is seeking this CWCB loan to cover 90% of construction cost associated with the west and east portal repairs. West portal repairs will occur after the 2015 irrigation season with the east portal repairs being completed after the 2016 irrigation season.



Water Project Loan Program - Project Data Sheet



# **City Lake Dam Rehabilitation & Enlargement**

City of Walsenburg July 2017 Board Meeting

LOAN DETA	ILS
Project Cost:	\$6,821,000
CWCB Loan (with Service Fee):	\$6,889,210
Loan Term and Interest Rate:	30 years @ 2.0%
Funding Source:	Severance Tax
BORROWER	ГҮРЕ
Agriculture Municipal	Commercial
0% 100% Low - 0% Mid - 0% H	ligh 0%
PROJECT DE1	TAILS
Project Type: Reser	voir Rehabilitation
Average Annual Delivery:	730 AF
Total Reservoir Storage:	531 AF
Water Storage Developed:	120 AF

The City of Walsenburg's City Lake dam and reservoir provides the primary water supply and storage for the City's water treatment plant located downstream of the dam. This dam has been subject to a State Engineer's Office (SEO) safety compliance plan since September of 2014, and a formal storage restriction since April 2017 as a result of dam safety deficiencies including seepage, stability, and spillway capacity. The dam safety imposes a 1-foot storage restriction on April 1, 2017, a 2-foot storage restriction on November 15, 2017, and a 3-foot storage restriction on May 1, 2019.

The City needs the full storage capacity of City Lake to adequately supply their water treatment plant and to ensure future water supplies.

Elements of the Project include dam embankment reconstruction, new outlet works, new spillway construction, riprap channel lining, and a temporary bypass conduit to route water to the water treatment plant. The project will increase storage by 120 acre-feet by raising the dam embankment three feet. Construction is planned for 2017/2018.









### Attachment 3 Wiggins Recharge Facility at Glassey Farms

Loan Program

Town of Wiggins March 2017 Board Meeting

LOAN DETA	AILS
Project Cost:	\$2,385,000
CWCB Loan:	\$2,408,850
Loan Term and Interest Rate:	30 Years @ 2.40%
Funding Source:	Severance Tax PBF
BORROWER	ΤΥΡΕ
Agriculture Municipal	Commercial
0% 100% Low - 0% Mid - 0%	High 0%
PROJECT DE	TAILS
Project Type:	Augmentation
Average Annual Delivery:	140 AF

2 3 0 0 Morgan County: South Platte River Water Source: Drainage Basin: South Platte River Division: District: 1 1

The Town of Wiggins, through a water activity enterprise, provides service to approximately 900 residents. The Town anticipates considerable growth over the next 10 years due to four new developments recently annexed into the Town limits. Those developments are projected to bring up to 310 jobs into Wiggins over the next 5 years and approximately 500 new single family units and 150 multi-family units.

Historically the Town has relied on non-tributary wells drilled into the Kiowa Bijou Designated Ground Water Basin. Due to water quality issues and dropping aguifer levels, the Town drilled two wells into the South Platte Alluvial Aquifer. Those wells are augmented through the Kammerer Recharge site and augmentation water leases. In order to develop a reliable and long-term augmentation water supply, the Town will purchase the Glassey Farm and associated water rights. Recharge ponds will take approximately 40 acres and the Town is in negotiations with Morgan County Community College to share the remaining farmland for an agricultural education program focused on low watering farming techniques. Construction is planned to begin summer 2017 and be complete by fall 2017.



Project Dat	ca Sneet C150408
Borrower: Cottonwood Water & Sanitation	County: Douglas & Arapahoe
District Project Name: Water Infrastructure and Supply	Project Type: New Water Supply
(WISE) Efficiency Project Drainage Basin/ District: South Platte / 8	Water Source: South Platte
Total Project Cost: \$4,960,000	Funding Source: Construction Fund
Type of Borrower: High-Income Municipal	Average Annual Delivery: 789 AF
<b>CWCB Loan:</b> \$4,508,640 (with 1% service fee)	Interest Rate: 3.00% Term: 30 years

In 1981, the Cottonwood Water & Sanitation District was formed, pursuant to Title 32 C.R.S., to provide water supply and treatment systems for customers within its service area.

Cottonwood's local project infrastructure components will extend from an existing tee located on the ECCV Western Pipeline, where a below-grade vault with flow control and metering equipment will be installed. From this location 500 feet of 36-inch pipe will be installed to connect to an existing Cottonwood pipeline. In addition, Cottonwood will also participate in a Rueter-Hess Reservoir fill pipeline and pump station being constructed by Parker.

The WISE Project is the result of regional cooperative planning efforts between Denver Water, Aurora Water, and 10 regional water providers in the south metropolitan area. The South Metro WISE Authority (WISE Authority) is comprised of ten governmental water providers in Douglas and Arapahoe Counties bound together by a 2013 Intergovernmental Agreement. The WISE Project will reduce dependence on non-renewable groundwater resources.



## C150409

<b>Borrower:</b> Inverness Water & Sanitation District	County: Douglas & Arapahoe				
Project Name: Water Infrastructure and Supply (WISE) Efficiency Project	Project Type: New Water Supply				
Drainage Basin/ District: South Platte / 8	Water Source: South Platte				
Total Project Cost: \$5,400,000	Funding Source: Construction Fund				
Type of Borrower: High-Income Municipal	Average Annual Delivery: 1,100 AF				
<b>CWCB Loan:</b> \$4,908,600 (with 1% service fee)	Interest Rate: 2.75% Term: 20 years				

In 1973, Inverness was formed pursuant to Article 1 of Title 32 C.R.S. to provide water supply and treatment systems for the customers within their service area.

Inverness will have a connection to the East Cherry Creek Valley (ECCV) Western Pipeline near the intersection of South Jamaica Street and E-470. Immediately downstream of the connection will be a below-grade vault with flow control and metering equipment. Downstream of the vault will be approximately 1,800 feet of 10-inch pipe to connect to the existing Inverness distribution system.

The WISE Project is the result of regional cooperative planning efforts between Denver Water, Aurora Water, and 10 regional water providers in the south metropolitan area. The South Metro WISE Authority (WISE Authority) is comprised of ten governmental water providers in Douglas and Arapahoe Counties bound together by a 2013 Intergovernmental Agreement. The WISE Project will reduce dependence on non-renewable groundwater resources.



## C150410

Borrower: Parker Water & Sanitation District	County: Douglas & Arapahoe				
<b>Project Name:</b> Water Infrastructure and Supply (WISE) Efficiency Project	Project Type: New Water Supply				
Drainage Basin/ District: South Platte / 8	Water Source: South Platte				
<b>Total Project Cost:</b> \$17,305,500	Funding Source: Construction Fund				
Type of Borrower: High-income Municipal	Average Annual Delivery: 5,000 AF				
<b>CWCB Loan:</b> \$15,734,790 (with 1% service fee)	Interest Rate: 2.75% Term: 20 years				

Parker Water and Sanitation District is a quasi-municipal corporation and political subdivision of the State of Colorado created in 1962 in Douglas County, for the purpose of providing water and sanitary sewer services its users.

Parker will take the lead on construction of 20,300 feet of new 42-inch pipeline from near the intersection of Chambers Road and E-470 to the Parker Water Treatment Plant located just south of Rueter-Hess Reservoir. Southward from the treatment plant a 16.5 million gallons per day pumping station will be constructed, followed by 9,000 feet of new 24-inch pipe that will allow WISE water to be conveyed to Rueter-Hess Reservoir for storage. Parker's facilities will oversized for use by other WISE Authority members.

The WISE Project is the result of regional cooperative planning efforts between Denver Water, Aurora Water, and 10 regional water providers in the south metropolitan area. The South Metro WISE Authority (WISE Authority) is comprised of ten governmental water providers in Douglas and Arapahoe Counties bound together by a 2013 Intergovernmental Agreement. The WISE Project will reduce dependence on non-renewable groundwater resources.



## C150411

<b>Borrower:</b> Denver Southeast Suburban Water and Sanitation District (dba Pinery Water and Wastewater District)	County: Douglas
<b>Project Name:</b> Water Infrastructure and Supply (WISE) Efficiency Project	Project Type: New Water Supply
Drainage Basin/ District: South Platte / 8	Water Source: South Platte
<b>Total Project Cost:</b> \$10,920,000	Funding Source: Construction Fund
Type of Borrower: High-income Municipal	Average Annual Delivery: 2,837 AF
CWCB Loan: \$9,926,280 (with 1% service fee)	Interest Rate: 3.00% Term: 30 years

In 1965, the District was formed as the Denver Southeast Suburban Water and Sanitation District. The District has been providing water and wastewater services since 1971 to its predominately residential customers.

The District will participate in Parker's WISE infrastructure components including 20,300 feet of new 42-inch pipeline from near the intersection of Chambers Road and E-470 to the Parker Water Treatment Plant located just south of Rueter-Hess Reservoir. At the Parker Water Treatment Plant site a new 16.5 million gallons per day pumping station will be constructed. Downstream of the pumping station 9,000 feet of new 24-inch pipe will be constructed that will allow WISE water to be conveyed to Reuter-Hess Reservoir for storage. In addition, Pinery will construct about 6,200 feet of 12-inch pipeline to deliver water to an existing finished water distribution system pumping station.

The WISE Project is the result of regional cooperative planning efforts between Denver Water, Aurora Water, and 10 regional water providers in the south metropolitan area. The South Metro WISE Authority (WISE Authority) is comprised of ten governmental water providers in Douglas and Arapahoe Counties bound together by a 2013 Intergovernmental Agreement. The WISE Project will reduce dependence on non-renewable groundwater resources.



Loan Program Attachment 3

# **Projects Not Under Contract**



# Hess Lateral Improvement

Florida Consolidated Ditch Company May 2017 Board Meeting

LC	)	Α	Ν		D	Е	Т	Α		L	S		
Project Cost:											\$2	800	000,0
CWCB Loan:											\$1	,085	5,750
Loan Term and	d	Inte	eres	t Rat	e:				30	)-ye	ars	@ 1	.80%
Funding Sourc	e:			Seve	rar	nce	Tax	<pre></pre>	rpe	etua	al Ba	ase	Fund
BOR	2	R	0	W	Ε	R		Т	Y	P	' E		
Agriculture				Mu	nic	cipa	1			(	Corr	nme	rcial
100%				0	%						0%		
PRO	J	E	С	Т		D	Ε	Т	Α		L	S	
Project Type:								D	itch	n Re	hab	oilita	ation
Average Annua	al	Div	ers	ion:							4	3,00	)0 AF

The Hess Lateral, part of the Florida Consolidated Ditch Company water conveyance system, is located 7 miles south of Durango, CO on the Florida Mesa. The lateral serves approximately 67 users irrigating over 1,500 acres of hay and pasture land. The project will replace the open ditch with buried gravity-pressurized pipeline and

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Count	y:					La	i Plata
Water	· Sour	ce:			Α	nimas	River
Draina	age B	asin:	Sa	n Jua	ın/Do	olores	River
Divisio	on:	7		Distri	ict:	3	0

relocate approx. 21,100 feet of the Hess Lateral due to expansion of HWY 550. CDOT has committed \$950,000 to the project. The company also received approval of a \$775,000 WSRF grant at the September 2015 meeting. Final design of the project is expected to begin in the fall of 2017 and construction will likely follow one year later.







# **Dry Gulch Reservoir Land Acquisition**

San Juan Water Conservancy District

May 2017 Board Meeting

L O A N D E T	AILS
Project Cost:	\$2,000,000
CWCB Loan (with Service Fee):	\$2,000,000
Loan Term and Interest Rate:	30 Years @ 2.55%
Funding Source:	Construction Fund
BORROWER	ТҮРЕ
Agriculture Municipal	Commercial
0% 100% Low - 0% Mid - 0%	% High 0%
PROJECT DE	TAILS
Project Type: Water Stor	rage Land Acquisition
Average Annual Delivery:	NA

The District was created in 1987 with a purpose to conserve, maximize, and utilize the water resources of the San Juan River and its tributaries, with the primary function to address future water supply needs within its boundaries. Population projections predict an increase of 25,400 county-wide by 2070, an increase that could produce a water supply gap of 4,300 AF per year.

LOCATON County: Archuleta Water Source: San Juan River Drainage Basin: Southwest Division: 29 District: 7

The District has identified the development of Dry Gulch Reservoir as a top priority project for the region's long-term water supply solution. This reservoir site has been under consideration since the 1960s and has been identified in 1989 and 2003 as a preferred water storage location for diversions from the San Juan River. A previous CWCB loan to the Pagosa Area Water and Sanitation District and a WSRF grant to the San Juan Water Conservancy District provided funding for the purchase of a large portion of the land needed for the proposed Dry Gulch Reservoir. This loan will acquire the remaining land needed for the proposed reservoir. The overall Dry Gulch Reservoir project will be planned in keeping with the objectives outlined in the Colorado Water Plan for new water storage, by not only off-setting the projected water supply gap, but also providing water resources for non-consumptive uses to enhance environmental and recreational opportunities of state and local economic benefit. Planning and permitting for the reservoir is expected to take up to 10 years. This loan will not provide funds for reservoir construction.



Water Project Loan Program - Project Data Sheet

## Water Project Construction Loan Program - Project Data

Borrower: SECWCD - Enterprise	County: Pueblo, Crowley, Otero, Bent, Prowers	
Project Name: Arkansas Valley Conduit	Project Type: Water Supply Pipeline	
Drainage Basin: Arkansas	Water Source: Arkansas – Fry-Ark Project	
Total Project Cost: \$300,000,000	Funding Sources: CWCB, Federal	
Type of Borrower: Municipal/Low	Aver. Delivery: 6,555 AF (2005 demand)	
<b>CWCB Construction Fund Loan:</b> \$60,600,000 (incl. 1% loan fee)	Interest Rate: 3.25% Term: 30 years	

The Arkansas Valley Conduit is designed to bring relatively clean raw water to 41 water providers in the lower Arkansas Valley, who currently either take water from the Arkansas River, and/or pump from shallow and\or deep aquifers. This pumped water has quality problems and requires significant treatment before it meets Clean Drinking Water standards. The conduit will begin at Pueblo Reservoir Dam, where a 30.94 cfs municipal outlet is already in place and reserved for the specific use of the conduit. The conduit will gravity flow approximately 138 miles down the Arkansas River Valley to Lamar. The conduit water will flow by the St. Charles Mesa Water District where it will enter a water filtration plant. As the conduit moves down the valley, spurs will take off the main line to deliver water to local and regional water providers. The conduit will receive its water from the USBR Fryingpan-Arkansas Project. Currently, about 5,779 acre-feet of water per year is available for entities East of Pueblo in an average year. Additionally, Return Flows are retained by the District and can be exchanged back up to Pueblo Reservoir for delivery. These Return Flows can provide up to an additional 1,600 acre-feet of water. Storage is available to these entities in Pueblo Reservoir because they are in the SECWCD service area. This storage will help provide water in the years when less than average water is provided by the Fry-Ark Project. The water will be provided strictly for municipal and industrial purposes. Final chlorination or treatment will be left up to each water provider. The conduit is currently planned to be paid 80% (approximately \$240 million) by the federal government.



Location Map

COLORADO Colorado Water

# Windy Gap Firming Project

Conservation Board ML Department of Natural Resources

Municipal Subdistrict, Northern Colorado Water Conservancy District Windy Gap Firming Project Water Activity Enterprise

November 2017 Board Meeting

LOAN DETA	ILS
Project Cost:	\$440,000,000
CWCB Loan (with Service Fee):	\$90,000,000
Loan Term and Interest Rate:	30 years @ 3.10%
Funding Source: Revenue Bonds & Const	ruction Fund Loan
BORROWER T	ΥΡΕ
Municipal	
PROJECT DET	AILS
Project Type:	New Reservoir

In 1970, six Northern Colorado cities formed the Municipal Subdistrict to plan, finance, and build the Windy Gap project. That project was completed in 1985. The annual delivery of Windy Gap water is not reliable because in dry years the junior water rights may not come into priority, and in wet years, there may not be room in Lake Granby to store Windy Gap water. LOCATION County: Larimer, Boulder, Broomfield, Weld Water Source: Drainage Basin: Division: 1 District: 2,3,4,5,6

In 1999, The Subdistrict formed the Windy Gap Firming Water Activity Enterprise with the purpose of pursuing activities that would lead to firming the yield of Windy Gap water. Participants identified 30,000 AF as a goal for total firm yield. After a review of over 170 alternatives, the Bureau of Reclamation and project participants identified the construction of a 90,000 AF Chimney Hollow Reservoir as the preferred alternative. This Project will consist of the construction of Chimney Hollow Reservoir and associated pipelines to deliver water from the existing C-BT infrastructure, as well as environmental mitigation and enhancements. Construction is anticipated to begin in fall of 2018 and be complete in 2022.



Water Project Loan Program - Project Data Sheet



**Diversion Structure Rehabilitation** 

Julesburg Irrigation District May 2018 Board Meeting

LOAN DET A	AILS
Project Cost:	\$3,308,000
CWCB Loan (with Service Fee):	\$3,341,080
Loan Term and Interest Rate:	30 Years @ 1.70%
Funding Source:	Severance Tax PBF
BORROWER	ТҮРЕ
Agriculture Municipal	Commercial
98% 1% Low - 0% Mid -0% H	ligh 1%
PROJECT DE	TAILS
Project Type: Diversion Stru	cture Rehabilitation
Average Annual Diversions:	54,421 AF

The Julesburg Irrigation District (District) operates a South Platte River diversion structure and the Petersen Ditch headgate as well as other ditches and reservoirs for the benefit of the shareholders by providing direct flow irrigation water. The District service area is comprised of approximately 19,129 acres. The District's diversions from the South Platte River through the Petersen Ditch



are normally 164 cubic feet per second from the South Platte River providing water to 8,925 acres. The diversion of water is accomplished with a concrete diversion dam across the South Platte and a ditch regulating head gate structure. The 1956 river diversion dam is approximately 320 feet wide and the ditch head gate structure is approximately 30 feet wide. The District wants to rebuild the diversion dam and ditch head gate in order to continue water deliveries to the shareholders and provide and improve the structures' operational safety. Construction is anticipated during the 2018-2019 winter months prior to the 2019 irrigation season.



## Walker Recharge



Central Colorado Water Conservancy District

September 2	2018	Board	Meeting
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LOAN DET.	AILS
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
BORROWER	ΤΥΡΕ
Agriculture Municipal	Commercial
100% 0 % Low - 0% Mid -0%	High 0%
PROJECT DE	TAILS
Project Type: A	ugmentation Facility
Annual Yield:	2,100 AF

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

LOCA	ΤΙΟΝ
County:	Weld & Morgan
Water Source:	South Platte River
Drainage Basin:	South Platte
Division: 1	District: 1

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.





## Walker Recharge

Groundwater Management Subdistrict of Central Colorado Water Conservancy District September 2018 Board Meeting

LOAN DETA	AILS
Project Cost:	\$18,164,000
CWCB Loan (with Service Fee):	\$9,847,500
Loan Term and Interest Rate:	30 years @ 1.75%
Funding Source:	Severance Tax PBF
BORROWER	ΤΥΡΕ
Agriculture Municipal	Commercial
100% 0 % Low - 0% Mid -0% H	High 0%
PROJECT DE	TAILS
Project Type: Au	ugmentation Facility
Annual Yield:	9,100 AF

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

LOCA	TION
County:	Weld & Morgan
Water Source:	South Platte River
Drainage Basin:	South Platte
Division: 1	District: 1

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.





# Walker Recharge

Well Augmentation Subdistrict of Central Colorado Water Conservancy District September 2018 Board Meeting

LOAN DET A	AILS
Project Cost:	\$18,164,000
CWCB Loan (with Service Fee):	\$3,030,000
Loan Term and Interest Rate:	30 years @ 1.75%
Funding Source:	Severance Tax PBF
BORROWER	ΤΥΡΕ
Agriculture Municipal	Commercial
100% 0 % Low - 0% Mid -0% H	High 0%
PROJECT DE	TAILS
Project Type: Au	ugmentation Facility
Annual Yield:	2,800 AF

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

LOCA	TION
County:	Weld & Morgan
Water Source:	South Platte River
Drainage Basin:	South Platte
Division: 1	District: 1

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.





**Automatic Meter Implementation** 

Arabian Acres Metro District September 2018 Board Meeting

LOAN DETA	AILS
Project Cost:	\$400,000
CWCB Loan (with Service Fee):	\$404,000
Loan Term and Interest Rate:	10 Years @ 1.85%
Funding Source:	Construction Fund
BORROWER	ΤΥΡΕ
Agriculture Municipal	Commercial
0% 100% Low - 0% Mid -0%	High 0%
PROJECT DE	TAILS
Project Type: Water	Meter Replacement
Average Annual Diversions:	17 AF



The Arabian Acres Metropolitan District (District) provides potable water service to the Arabian Acres subdivision and Trout Haven Estates in Teller County. The District currently serves 145 residential and 5 commercial taps for a population of approximately 392 people. The District has had trouble providing reliable service with an

approximately 40-year-old, poorly constructed distribution system that leaks considerably and lacks adequate flow measurement of potable water delivery. Through this Automatic Meter Implementation (Project) the District intends to install an automatic meter reading (AMR) system, new meter pits, installation hardware, a drive-by meter read base station, and software. This Project will help improve the District's operational efficiency by upgrading its water system. The meters will help accurately measure the amount of water usage and help quantify the system water loss. In addition to the loan, the District is also seeking a DOLA Energy Impact Assistance Fund Grant for 50% of the project cost.





Allen's Lake Filler Canal Improvements

Left Hand Ditch Company January 2019 Board Meeting

LOAN DETAILS					
Project Cost: \$665,000					
CWCB Loan (with Service Fee): \$671,650					
Loan Term and Interest Rate: 30 Years @ 2.50%					
Funding Source:Construction Fund					
BORROWER TYPE					
Agriculture Municipal Commercial					
49% <1% Low - 19% Mid - 32% High 0%					
PROJECT DETAILS					
Project Type: Ditch Rehabilitation					
Average Annual Diversions:50,000 AF					

The Left Hand Ditch Company, located in Boulder County, provides irrigation water to a service area of approximately 15,000 acres north of Boulder. Its service area generally lies along Left Hand Creek from the foothills of the Front Range east to Niwot.



The Allen's Lake Filler Canal Improvements Project

focuses on a 2,400-foot reach of Lake Ditch which parallels the west shore of Allen's Lake. The existing ditch is experiencing notable losses due to seepage and excessive sedimentation. This is preventing the ditch from delivering the Company's desired 25 cfs design flow. Due to the extremely narrow right-of-way (7.5 feet on both sides of ditch centerline), proper cleaning and maintenance of the ditch is uneconomical. Additionally, residents of the adjacent community surrounding Allen's Lake have built their own crossings and patios on the ditch. This gives rise to concerns of public safety and further restricts ditch cleaning efforts. To address these issues, the Company has opted to pipe the ditch with a 3.5-ft diameter pipe. Construction is anticipated to begin in the spring of 2019.



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

# **Diversion Structure Replacement**

Schneider Ditch Company January 2019 Board Meeting

LOAN DE	TAILS					
Project Cost:	\$1,233,000					
CWCB Loan (with 1% Service Fee): \$1,245,330						
Loan Term and Interest Rate: 30 years @ 1.85%						
Funding Source: Severance Tax PBF						
BORROWE	R T Y P E					
Agriculture Municipa	al Commercial					
100% 0%	0%					
P R O J E C T E	DETAILS					
Project Type: Diversion Structure						
Average Annual Diversions:	9,400 AF					

The Schneider Ditch Company diverts water from a side channel in the South Platte River for both irrigation and augmentation purposes. Water deliveries are made through the Schneider Ditch to recharge sites and irrigation lands lying south of the South Platte River and near the Town of Atwood. The diversion structure was constructed over 50 years ago and consists of a concrete



rollover wall with a flashboard system that diverts water into the ditch. The current structure has a problem with seepage, undermining, and sediment control. A major operational drawback of the current structure is the inability of the Company to remove flashboards on a routine basis, which results in a significant build-up of sand in front of the rollover wall and the ditch intake headgates. The proposed project will include the removal of the existing structure, installation of a new concrete structure with a 60-foot long inflatable bladder gate to act as a service spillway in the river channel, a 10-foot wide radial gate for headgate sand maintenance, a 10-foot wide intake headgate, and construction of a control building with new gate controls. Construction is anticipated to begin in the fall of 2019 with completion before the 2020 irrigation season.



Water Project Loan Program - Project Data Sheet

### WATER PROJECT CONSTRUCTION LOAN PROGRAM LOAN REPAYMENT DELINQUENCY REPORT LOAN FINANCIAL ACTIVITY REPORT March 2019

### LOAN REPAYMENT DELINQUENCY

Loan Repayments received relative to the Water Project Construction Loan Program have been reviewed for the period covering July 2018 through February 2018. The effective due date of the payment is inclusive of the Board's current 60 day late policy. Hence, the date the payment was received was compared to the last day allowable prior to the payment being considered late.

Repayments due for the first eight months of Fiscal Year 2019 totaled 213. No loan payments were late during this period that have not been addressed in prior reports.

### LOAN FINANCIAL ACTIVITY

Loan Financial Activity relative to the Water Project Construction Fund and Severance Tax Perpetual Base Fund for Fiscal Year 2019 is summarized as follows: Funds received relative to loans in repayment totaled \$19.3M for this year. Funds disbursed relative to new project loans totaled \$59.3M for this year. Net activity resulted in \$40M disbursed by the CWCB Construction Fund and the Severance Tax Perpetual Base Fund (STPBF) over the total received.

Further breakdown is summarized as follows: The Construction Fund portion consists of \$12.2M in receivables and \$6.2M in disbursements for a total net activity of \$6M received over disbursed. The STPBF consists of \$7.1M in receivables and \$53.2M in disbursements for a total net activity of \$46.1M disbursed over received.

Period	Principal	Interest	Total	Disbursements	Net Activity
July 2018	\$519,412	\$91,022	\$610,435	\$-	\$610,435
August 2018	\$1,991,498	\$332,868	\$2,324,365	\$327,219	\$1,997,146
September 2018	\$605,071	\$1,233,446	\$1,838,517	\$132,471	\$1,706,047
October 2018	\$581,715	\$282,065	\$863,780	\$439,324	\$424,456
November 2018	\$1,864,102	\$736,156	\$2,600,258	\$680,128	\$1,920,129
December 2018	\$892,473	\$581,738	\$1,474,212	\$1,787,365	\$(313,153)
January 2019	\$573,867	\$573,549	\$1,147,417	\$1,304,940	\$(157,523)
February 2019	\$1,061,852	\$271,668	\$1,333,520	\$1,478,577	\$(145,057)
March 2019	\$-	\$-	\$-	\$-	\$-
April 2019	\$-	\$-	\$-	\$-	\$-
May 2019	\$-	\$-	\$-	\$-	\$-
June 2019	\$-	\$-	\$-	\$-	\$-
			·		•
FY 2019 Totals	\$8,089,991	\$4,102,513	\$12,192,504	\$6,150,024	\$6,042,479

### CONSTRUCTION FUND

### SEVERANCE TAX TRUST FUND PERPETUAL BASE ACCOUNT

Period	Principal	Interest	Total	Disbursements	Net Activity
July 2018	\$14,077	\$10,745	\$24,822	\$3,032,872	\$(3,008,050)
August 2018	\$3,084,903	\$883,026	\$3,967,929	\$4,060,124	\$(92,195)
September 2018	\$93,782	\$22,836	\$116,618	\$5,915,536	\$(5,798,918)
October 2018	\$639,622	\$624,190	\$1,263,811	\$4,109,500	\$(2,845,689)
November 2018	\$192,427	\$109,134	\$301,561	\$17,202,375	\$(16,900,814)
December 2018	\$501,149	\$181,292	\$682,441	\$6,563,431	\$(5,880,990)
January 2019	\$223,116	\$189,283	\$412,399	\$6,253,142	\$(5,840,743)
February 2019	\$209,909	\$131,978	\$341,887	\$6,038,970	\$(5,697,083)
March 2019	\$-	\$-	\$-	\$-	\$-
April 2019	\$-	\$-	\$-	\$-	\$-
May 2019	\$-	\$-	\$-	\$-	\$-
June 2019	\$-	\$-	\$-	\$-	\$-
FY 2019 Totals	\$4,958,984	\$2,152,483	\$7,111,467	\$53,175,950	\$(46,064,483)
GRAND TOTALS	\$13,048,975	\$6,254,996	\$19,303,971	\$59,325,974	\$(40,022,004)