

# COLORADO

# Colorado Water Conservation Board

Department of Natural Resources

# **DIRECTOR'S REPORT**

January 2018



TO: Colorado Water Conservation Board Members

FROM: Rebecca Mitchell

Erik Skeie

DATE: January 22-23, 2018

SUBJECT: Agenda Item 5d, January 2018 CWCB Board Meeting Director's Report

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#### ~STATEWIDE~

#### CWCB SMALL FEASIBILITY STUDY GRANT FUND UPDATE—

Two grant applications were received and approved:

- Amity Mutual Ditch Company Queens Reservoir Feasibility Study (\$42,500.00)
- Town of Georgetown Georgetown Reservoir Dredging Feasibility Study (\$32,395.50)

Previously approved grants in FY17/18:

• Central Colorado Water Conservancy District – Klug Lake Storage Feasibility Study (\$16,500) Total funds approved for feasibility study grants in FY17/18: \$91,395.50. (*Anna Mauss*)

2015 IRRIGATED LANDS GIS UPDATE TO COLORADO DECISION SUPPORT SYSTEM— CWCB and DWR staff have completed extensive analysis and data processing of satellite imagery of irrigated lands across the state for 2015. More than 3.3 million acres were irrigated in 2015, down from 3.6 million in 2010. CWCB and DWR update the GIS coverage of irrigated lands in the state every five years (more often in certain basins), using LandSat satellite imagery provided by the USGS. The GIS datasets will be used in basin modeling, consumptive use estimates for individual projects, and other efforts. Users can download the GIS datasets from the CDSS website or view them on the CWCB Data Viewer and CDSS Map Viewers available at <a href="http://cdss.state.co.us">http://cdss.state.co.us</a>. (Carolyn Kemp)

#### ~COLORADO RIVER BASIN~

#### COLORADO RIVER WATER USE—

2018 Colorado River Storage as of January 8, 2018			
	Elevation (feet above mean sea level)	Storage (MAF)	Percent of Capacity
Lake Mead	1,083.19	10.277	39%
Lake Powell	3,622.10	13.987	58%
Total System Active Storage		31.994	54%
2017 Total Active Storage		29.448	49%
		Flow (MAF)	Percent of Average
Forecasted Unregulated Inflow into Powell		6.750	62%

Forecasted CY 2018 Lower Basin Consumptive Use				
State	Us	se (MAF)	Total (MAF)	
Arizona		2.520		
California				
California Agricultural	3.345	4.022	6.786	
Metro. Water District	0.677			
Nevada		0.244		

<sup>\*</sup>Note MAF = million acre-feet (*Erik Skeie*)

#### ~PLATTE RIVER BASIN~

**PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM**— The Platte River Recovery Implementation Program's Governance Committee (GC) held its quarterly meeting on December 5, 2017 in Denver. The GC adopted a budget and work plan for FY18. Additionally, the GC came to an agreement regarding the Program's land acquisition obligations that will help give a head start to requirements under the extension of the Program's first increment. The agreement will help meet 120 acres of the 1,500 acres of required complex habitat specified in the extension, which is planned for implementation starting in 2020 following gubernatorial and congressional approval. (*Carlee Brown*)

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

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

Four grant applications have been received since the November 2017 Director's Report

- Town of Olathe –Water Efficiency Plan
- 4CORE Best Practices for Water Meter Retrofit Projects
- City of Fort Collins Commercial Programming Workshop
- Denver Water Pure Water Colorado Demonstration Project

One grant has been approved since the November 2017 Director's Report:

• City of Fort Collins – Commercial Programming Workshop (\$14,540)

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

- Town of Castle Rock Drought Management Plan 25% Progress Repport
- Eagle River Water & Sanitation District Regional Water Efficiency Plan 50% Progress Report
- 4CORE Home H2O Program Final Report
- City of Monte Vista Water Efficiency Plan Update 50% Progress 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:

#### **DROUGHT MANAGEMENT PLANS:**

#### **Approved Plans**

No new plans approved since last board meeting

#### WATER EFFICIENCY PLANS:

#### **Approved Plans:**

• No new plans approved since last board meeting

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.

- City of Brighton
- Morgan County Quality Water District
- Thornton

#### Water Efficiency Plans in review:

- Widefield Water & Sanitation District
- North Weld County Water District
- Evans
- Town of Severance
- City of Longmont (Kevin Reidy & Ben Wade)

**GOVERNOR'S WATER AVAILABILITY TASK FORCE**— The next Water Availability Task Force meeting will be on January 18th from 9:30am-11:30am at the Colorado Parks & Wildlife Headquarters, 6060 Broadway, Denver, CO in the Red Fox Room. Please check the website (<a href="http://cwcb.state.co.us/public-information/flood-water-availability-task-forces/Pages/main.aspx">http://cwcb.state.co.us/public-information/flood-water-availability-task-forces/Pages/main.aspx</a>) for additional information. (*Ben Wade*)

**DROUGHT UPDATE**— Conditions across much of Colorado are well below average for precipitation, with statewide snowpack at only 55percent of average for this time of the year. Southern Colorado has been particularly dry with the SW basins seeing on 24 percent of their average annual precipitation and the Upper Rio and Gunnison at 30 and 38 percent respectively. The South Platte is the highest in the state at 84 percent of average. In addition to low snowpack much of the state has seen above average temperatures over the last few month further compounding concerns. Reservoir storage however, is above average in all basins. Conditions will continue to be monitored very closely and further action will be taken as needed. (*Taryn Finnessey*)

**CLIMATE CHANGE**— CWCB staff sits on and leads numerous working groups that have formed to implement Executive Order 2017-015 on climate action. The executive order sets forth the following goals for the State of Colorado to achieve:

- Reduce statewide greenhouse gas emissions by more than 26 percent from 2005 levels by 2025;
- Reduce carbon dioxide emissions from the electricity sector by 25 percent by 2025 and 35 percent by 2030 from 2012 levels; and
- Achieve electricity savings of two percent of total electricity sales per year by 2020.

The State will co-host a symposium for local governments January 31-February 1, 2018. The Symposium will serve as a forum for state agency and local government leaders to convene their peers from higher education institutions, non-profit organizations and the private sector for a series of discussions and events related to the executive order. The Colorado Communities Symposium will feature a series of plenary sessions, breakout tracks with interactive scenario planning sessions, training events and roundtable discussions, tabletop exhibition, post-conference workshops and meetings, networking events and an awards dinner. Additional information can be found at <a href="https://www.coloradocommunities.org/">https://www.coloradocommunities.org/</a>.

In addition staff has updated the Colorado Climate Plan to incorporate the goals of the EO and reflect changes since it came out in 2015. The plan was posted for public comment Oct2- Nov 3<sup>rd</sup> of this year. Public comments will be addressed and incorporated where appropriate and finalized in early 2018.

Staff is also working to develop a resource guide for local government on climate change, help to finalize an electric vehicle plan by January 1. To view the complete executive order, <u>click here.</u> (*Taryn Finnessey*)

**WATER AND GROWTH DIALOGUE**— Through a Water Efficiency Grant, the Keystone Center is facilitating a dialogue to quantify water use through different land use patterns as well as bringing together land use and water managers to discuss where integration can occur. Staff serves on the technical advisory group as well as the steering committee. The steering committee is reviewing a final report for dissemination with all the results to date. At present, the group is determining the path forward and how to disseminate the results of the project once complete. (*Kevin Reidy*)

**SB15-008 IMPLEMENTATION**— CWCB Staff 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. Additionally, CWCB and DOLA are working with the Babbitt Water Center, out of AZ, to develop more guidance on integrating land and water use planning in CO and to assess which communities are doing this already. CWCB and DOLA also hosted a full day workshop on December 11, 2017for a group of involved parties who have been working in the land use-water integration field. The individuals shared what they were working on, planned on how to execute trainings across the state and figure out next steps for the land-water integration in CO. (*Kevin Reidy*)

**CO WATER LOSS INITIATIVE**— CWCB Staff 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. CWCB convened a small advisory group to weigh in on the scope of work and to assist with the development of the programming. A scope of work has been developed and submitted to procurement to issue an RFP in late January-early February. The aim is to kick of the program with a contractor in place in April. (*Kevin Reidy*)

#### CONFERENCES AND WORKSHOPS/OUTREACH—

**NATIONAL WESTERN CENTER WATER STRATEGY ADVISORS GROUP**— Staff has been asked to participate in the water advisory group for redeveloping the National Western Center. Other advisors represent Colorado State University, Denver Water, City and County of Denver and Metro Wastewater. (*Kevin Reidy*)

**ONE PLANET SUMMIT, PARIS**— Governor Hickenlooper was asked to speak at President Emmanuel Macron's One Planet Summit in Paris, France on December 12<sup>th</sup> regarding Colorado's efforts on GHG emission reductions. CWCB staff provided technical expertise. (Taryn Finnessey).

#### ~WATERSHED AND FLOOD UPDATES~

#### MAPPING UPDATE—

**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. The State Task Order is being finalized and work will begin in early 2018.

Because of the State funded Hazard Mapping Program, the CWCB was able to leverage \$929,729 from FEMA to update streams across seven counties in northeast Colorado. This update involves 233 panels and covers areas located in Boulder, Logan, Larimer, Morgan, Weld, Washington, and Sedgwick Counties. The State Task order is being processed and work will begin in Spring 2018.

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 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. The State Task order is in process and a kick off meeting will be held in late January/early February 2018.

**FY16 Activities:** Upper White Watershed Risk Map Phase II is on track. The preliminary map distribution is scheduled for the Fall 2017. St. Vrain Risk Map Phase III is also well under way. The hydraulic tasks and floodplain mapping tasks have been submitted to FEMA.

CWCB received \$3.4 million FEMA grant for LiDAR acquisition in Colorado for future floodplain mapping projects. CWCB has selected the vendors and the first flight for data collection will occur in the Fall 2017. A State task order was recently approved to fund a regional hydrology study update on the Colorado River near Granby to the border with Utah. Preliminary results are now available. This data will be submitted to FEMA for review and approval.

**FY15 Activities:** The Cache La Poudre Phase III project will begin shortly after the hydraulic and floodplain mapping tasks are completed. The hydraulic analysis will be reviewed a second time by FEMA, but the project is delayed until the levee issues in Fort Collins is resolved. The purchase of the IFSAR data is in progress and the data should be delivered in May 2017. This purchase was delayed due to contracting language revisions and additional approval processes. The Middle South Platte Watershed delineation project will begin shortly after we receive the IFSAR data. Upper Gunnison Risk Map Project schedule was revised due to a slight delay in locating topographic data near Crested Butte.

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

A Flood Risk Review meeting was held in early April with the community officials to provide a sneak preview of the draft floodplain maps. This project will continue through post processing tasks with a new FEMA grant which was awarded in FY 16.

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.

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 have been completed and approved by FEMA.

**FY13 Activities:** The El Paso County as a partial Countywide DFIRM project is now in the post appeal period and will be completed as a revised preliminary project due to the number of issues found in the mapping. Purgatoire Watershed Risk Map project has gone through the preliminary phase and the preliminary maps have been sent to communities for review. The next step will be to schedule a meeting with the local officials to review maps and obtain any comments from the community officials. This project includes Las Animas County and the City of Trinidad.

The Pueblo County DFIRM is now in the post-preliminary phase. The appeal period started on January 17, 2017. Thus far no appeals have been received by the communities.

**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.

**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. Documents are currently being finalized to request Federal Register and the next step will be the local newspaper publications and appeal period.

**FY10 Activities:** Chaffee and Pitkin Counties are now in the post preliminary phase. The appeal period has ended for both of these projects and there were several appeals that were received. The appeal resolution and community response letters are being finalized. Pitkin County may be extended into a revised preliminary project due to the number and scale of appeals that were received. Chaffee County DFIRM is moving forward toward effective and the Letter of Final Determination (LFD) will be determined in the next few weeks, depending on FEMA HQ approval.

**FY09 Activities:** The Morgan County DFIRM appeal period started on February 22, 2017. There has been some local questions and concerns about the updated mapping and CWCB and FEMA are working with the local constituents and community officials.

The Prowers County DFIRM appeal period has ended and the LFD letters were distributed on October 19, 2015. The maps became effective on April 19, 2016. (*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 during flood events. 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 Amec Foster Wheeler 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. A Kickoff Webinar was held for communities on June 28, 2017 and field work begun in September 2017 and will conclude in mid-November 2017. Map products and a model land use code will be available for voluntary adoption by communities by the end of June 2018. (*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, several communities have not completed the adoption or provided documentation to CWCB. There are 5 out of 252 total communities that participate in the National Flood Insurance Program and have Special Flood Hazard Areas identified that have not yet provided documentation of adopting the Rules. In accordance with the procedure outlined in Rule 16, staff is continuing to provide outreach and technical assistance to these communities.. (Stephanie DiBetitto)

**FLOODPLAIN HAZARD MAPPING UPDATE**— We are underway into our third and final year of the Colorado Hazard Mapping Program (CHAMP), funded under Senate Bill 15-245. Phase 1 of CHAMP involves conducting new flood hazard analyses and floodplain delineations for streams particularly affected by the September 2013 flood event. These primarily include streams in Boulder, Larimer, and Weld Counties, CO, and small portions of Jefferson and Gilpin Counties, CO. The CWCB has been coordinating with FEMA in order to leverage the CHAMP study in order to secure federal funds for the regulatory FEMA map update. Currently, the hydraulic analyses and floodplain mapping tasks have been completed and submitted to FEMA for review. In addition, Phase 2 and 3 of the program are now in full swing.

CHAMP Phase 2 includes streams excluded from Year 1 in the Big Thompson and St. Vrain Hydrologic Unit Code 8 (HUC8) Watersheds and an update of the South Platte River from the Weld-Adams County line to the Colorado-Nebraska State line. Larimer County held three public open houses in October to introduce the CHAMP effort and the floodplain mapping update for the County. A CHAMP Quarterly Meeting was also held on October 19<sup>th</sup> in Longmont, CO. The CHAMP team provided an update for the flood hazard analyses being conducted for the Big Thompson and St. Vrain Watersheds. Several community representatives involved in the study area reaches were in attendance to discuss current projects and looked for coordination opportunities with the team. Boulder and Larimer counties also shared their public outreach success stories. The CHAMP team covered 2D modeling and regulatory approaches to managing a 2D model. Flood Risk Review meetings for communities included in Phase 2 were held in late November and early December 2017. The CHAMP team continues to meet and provide support to local and County officials within Boulder, Larimer, and Weld counties. Coordination and data sharing among communities and the CWCB will continue as local recovery efforts continue to advance.

Phase 3 of CHAMP focuses on counties and communities that are still utilizing paper FEMA floodplain maps. This scope includes digitizing existing Flood Insurance Rate Maps (FIRM) panels in select communities and jurisdictions and wherever topographic data is available, updated flood risk information will be provided as best available information for local communities to utilize. A kick-off webinar meeting was held on June 27, 2017 to provide the participating communities with an overview of the program and the project specifics. Hydrologic analyses for Bent, Costilla, Lincoln, Moffat, Mineral, Saguache, and Otero Counties were submitted to FEMA for review. Bent and Phillips County hydrology have been approved. Funding for Phase 3 is limited and therefore, the communities selected and prioritized were based on interest level, local mapping needs and available topography data. All project information can be found at <a href="http://coloradohazardmapping.com/">http://coloradohazardmapping.com/</a>. (*Thuy Patton*)

# CWCB – NATURAL RESOURCES CONSERVATION SERVICE (NRCS) EMERGENCY WATERSHED PROTECTION (EWP) PROGRAM UPDATE—

The Colorado Emergency Watershed Protection (EWP) Program for the 2013 Flood Recovery provides funding to implement emergency recovery measures to address hazards to life and property in watersheds impaired by the 2013 Colorado flood event. The program provides financial and technical assistance to local project sponsors to reduce erosion and threats from future flooding, protect streambanks, repair conservation practices, remove debris, and more.

The Colorado EWP Program, 2013 Flood Recovery Phase II is funded and administered by the USDA Natural Resources Conservation Service and managed by the Colorado Water Conservation Board on behalf of the State.

<u>Project Updates:</u> Information on the EWP program, construction progress, weekly project updates, and upcoming projects may be accessed at <u>www.coloradoewp.com</u>.

Project Update: Waltonia, Mountain Shadows

Watershed: Big Thompson River

**Project Sponsor:** Big Thompson Watershed Coalition

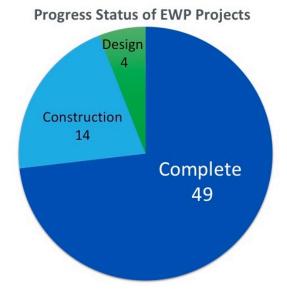
**County:** Larimer

A large amount of hillside and bank erosion caused by the 2013 flooding along the Big Thompson still impacts residences, structures, and bridges. The project proposes to use rip-rap and bioengineering to stabilize streambanks and in-stream structures to provide grade control. Additionally, where feasible, a floodplain will be

shaped to lower flood surfaces and store excess sediment. A low-flow channel, rock clusters, and woody material will be added to create channel complexity and enhance fish habitat, and disturbed areas will be planted with willows, trees, and shrubs, and/or will be seeded and mulched. The project is expected to be constructed with the ongoing CDOT work for permanent repairs on US Hwy 34.

#### **Completed Work**

- Waltonia bank protection BP1 completed to do wnstream end of project.
- Linger Longer bank protection BP3 completed.
- Access to downstream of the bridge at Linger L onger was cut in.
- Rock staged at Linger Longer downstream of the bridge for use in the boulder cascade.
- Pictured: Shaping at D/S end of Waltonia.





#### **Work in Progress**

• River right bank filling and bank protection BP1 upstream of the Mountain Shadows 1 bridge.

#### **Upcoming Work**

- Bank Protection 1 upstream of the Mountain Shadows 1 bridge.
- Common fill to fill the voids on the riprap downstream of the Mountain Shadows 1 bridge.
- Boulder Cascade downstream of the Linger Longer Bridge.
- River work downstream of the Mountain Shadows 1 bridge.

**Project Update: Saint Vrain Restoration at the Breaches** 

Watershed: Saint Vrain Creek
Project Sponsor: Boulder County

**County: Boulder County** 

Stream bank erosion, levee failures, and sedimentation from the 2013 flood are still impacting residences, businesses, structures, and bridges along this reach of St Vrain Creek. The The project proposes to remove and rework unstable sediment to create and reconnect floodplains, and to repair and replace the protective levee/dike systems with planned spillways to the floodplain to reduce erosive forces and allow the spreading and storage of floodwaters. The project also proposes to use rip-rap and bioengineering, as appropriate, to stabilize streambanks and in-stream structures to provide grade control, as well as debris removal to prevent further damage to the system. Additionally, disturbed areas will be planted with willows, trees, and shrubs, and/or will be seeded and mulched.

#### **Work In Progress/Completed**

- Bank Protection 1 upstream of the Mountain Shadows 1 bridge.
- Common fill to fill the voids on the riprap downstream of the Mountain Shadows 1 bridge.
- Boulder Cascade downstream of the Linger Longer Bridge.
- Gage: In-stream structure grading with tie-in to existing bank features;
- Gage: Bank stabilization topsoil/blanket bench installation continues;
- Hepp: Continued excavation of borrow area for embankment fill on both the west and east sides of the 7a Bre ach Repair clay core;
- No work on 12-25-17 due to ACC holiday.
- Pictured: 12-28-2017 Boulder cluster installation.



#### **Upcoming Work**

- Gage: Finishing the in-stream grading of riffle/ pool feature #2;
- Hygiene Road bridge: clearing and grubbing fo r riprap installation;
- Breach 7a repair completion of clay core and c ontinued embankment fill;
- Breach 1: Clearing and grubbing;
- Bank stabilization North of Hygiene Road;
- Breach 6 repair preparation/planning;
- Maintenance of access/erosion/pollution prevention measures.
- Pictured: 12-29-17: View looking south along the top of the Breach 7a Repair embankment



<u>Upcoming Projects</u> – all watershed recovery projects may be accessed at <u>www.colorado/places</u>.

**Upcoming Project:** Little Thompson River Restoration at Parrish Ranch

Watershed: Little Thompson River

County: Boulder

**Project Sponsor:** Little Thompson Watershed Coalition

The flood of 2013 caused streambank erosion and sedimentation along the Little Thompson River, impacting residences, businesses, and other structures. The project proposes to remove and rework unstable sediment and create a floodplain, where possible, to lower flood surfaces and provide areas for future sediment deposition. The project also proposes to use rip-rap and bioengineering to stabilize streambanks and in-stream structures to provide grade control. Additionally, a low-flow channel, rock clusters, and woody material will be added to create channel complexity and enhance fish habitat, and disturbed areas will be planted with willows, trees, and shrubs, and/or will be seeded and mulched.

(Jeff Conboy)



#### FLOOD SECTION ASSISTS TOWN OF CREEDE WITH FLOODPLAIN MAP UPDATE AND INFRASTRUCTURE

**UPGRADES**— The Town of Creede reached out to CWCB staff for assistance in repairing their concrete flume through town that was built decades ago but has fallen into disrepair. The flume carries Willow Creek through the Town and was built as a flood control project by the Corps of Engineers. The Town has also enlisted support from CWCB staff to update the floodplain map associated with Willow Creek through the town.

Because the flume is in poor physical condition, the Corps of Engineers has removed it from its PL 84-99 program until it is brought back into proper condition by the non-federal sponsor (in this case, the Town of Creede). CWCB staff have assisted the Town with studies and designs that indicates it will cost between \$1 million and \$2 million to perform the needed repairs. Creede is a town with a population of 300 people and does not have the funds to support this effort. They have begun a comprehensive search for grant funds from various sources, a process which is still ongoing.

In addition, the regulatory flood map for the Town is over 40 years old and does not accurately reflect the hydraulic conditions in the Town, leading to onerous floodplain regulations and insurance requirements. CWCB staff is assisting the Town with a comprehensive update to this map. Currently, the data is being reviewed by FEMA and it is anticipated that the updated map will become effective sometime in 2018. Preliminary indications show that the 100-year flood is contained within the flume channel with no overbanking flooding, confirming early predictions by CWCB engineers. The current floodplain map shows considerable overbank flooding through Town. (*Kevin Houck*)

WATER FORECASTING PARTNERSHIPS UPDATE— On December 9<sup>th</sup> the CWCB, Rio Grande WCD, and Alamosa County went before the State of Colorado Capitol Development Committee and requested \$300,000 to partner with already pledged funding by CDOT and CWCB for a weather radar for the Alamosa airport. The CWCB is nearing completion of a contract with the NASA Aerial Snow Observatory to map the snowpack in the Gunnison Basin. USFS Permits are secured for the Conejos Basin and Gunnison basin to deploy six new "SNOTEL lites" during summer 2018 that will help provide snowpack data for water supply forecasting.

The CWCB, Tri County WCD, Colorado River WCD, and Southwestern WCD are nearing completion of a project to purchase land and preserve the NRCS Snow Survey SNOTEL site on Red Mountain Pass. Colorado's first SNOTEL in 1979 was on private land but most all of them are on USFS land. This private land owner was looking to sell 10 acres of land. Funding from the four agencies will be used to purchase the parcels and put a permanent conservation easement on them to enable the Red Mountain SNOTEL to continue on. This data point was important to water supply forecasts for Southwestern and Uncompaghre basins. There were only two data points to forecast inflows into Ridgway dam so preserving this long term data record and the values used year in and year out for water forecasts was important.

The CWCB has been measuring snowpack manually on Willow Creek Pass for the last three years. Many Front Range water interests adopted NRCS snowcourses after federal budget decreases threatened the ongoing collection of this valuable data. This year, the CWCB has picked up two more on the same pass. Grandview Snowcourse is on the North Platte side of the Willow Creek Pass. Granby Snowcourse is also on Willow Creek pass. All three data points are important to and used in water supply forecasts. Many of the CWCB staff will participate and make snowpack data for water forecasting an agency responsibility. Four times a year during the last week of the month in late winter and spring, agency staff will collect snow data and upload it to the NRCS databases to support NRCS and River Basin Forecast center water forecasts. (Joe Busto)

WEATHER MODIFICATION UPDATE— The Weather Modification Association 2018 Annual Meeting will be held in Estes Park April 24-27, 2018. The meeting will feature technical sessions about current research and operations occurring in the field of weather modification. On Thursday afternoon, a workshop will be held in conjunction with ASCE to discuss the latest Standard Practice for Design, Conduct and Evaluation of Operational Precipitation Enhancement Projects (ASCE document 42-17). Details on the workshop will be posted as they become available. http://weathermod.org/meetings/. All Coloradoans interested in cloud seeding operations and research and program sponsors are encouraged to attend as all the U.S states that have seeding programs are there. The Lower Basin has provided \$250,000 to match with the \$175,000 in CWCB funding to support locally sponsored programs this year. One key highlight will be a new remote operated high elevation ice nucleus generator for one of the Summit County Ski area partners. Vail/and Beaver Creek have a strong tradition of cloud seeding continuously since 1976 but this will be the first remote operated unit in the region and was purchased by CWCB and Lower Basin funding. A new Colorado River nine year agreement will be signed by all seven states and will budget up to \$500,000 per year for Utah, Colorado, and Wyoming for the CWCB to leverage on behalf of our cloud seeding programs. The CWCB, Desert Research Institute, and Winter Park Ski Area did an onsite cloud seeding story with H20 radio the link is <a href="http://h2oradio.org/CloudSeeding.html">http://h2oradio.org/CloudSeeding.html</a>. (Joe Busto)

**COLORADO WATERSHED RESTORATION PROGRAM UPDATE**— The Colorado Watershed Restoration Program (CWRP) is designed to provide planning and project implementation funding for watershed and stream restoration and protection efforts. The program supports stakeholder driven collaboratives committed to restoring and protecting the ecological processes that connect land and water. The CWRP guidance document and application was approved by the Board in September of 2008. The Board approved revisions to the program in May 2012 and July 2015. The latest revision added Stream Management Plans (SMP) as a specific grant type. Other grant types include Watershed/Stream Restoration, Flood Mitigation, and Monitoring grants.

Since 2008, the program has funded 59 projects with over \$2.3 million. This does not include applications chosen for funding in 2018. Every CWCB dollar contributed to the program has leveraged \$4 from other local, state, and federal sources. The CWRP guidance has served as a template for several other grant programs developed since the September 2013 floods. This includes the Special Release of the CWCB Colorado Watershed Restoration Program (\$1,925,000), the CWCB Senate Bill 14-179 River Restoration Program (\$2,500,000), the Department of Local Affairs Community Development Block Grant – Disaster Recovery, Watershed Resilience Program (\$25,000,000), and the NRCS – CWCB Emergency Watershed Protection Program (\$60,000,000).

In early 2018, CWCB staff met to discuss the 38 applications submitted for review in November 2017. Each application was scored by a minimum of three staff members. Stream Management Plan applications were scored by seven staff members, including a representative from CPW. Only one SMP application out of 11 was not recommended for funding. Applications requesting less than \$100,000 are approved for funding by the CWCB Deputy Director. Funding recommendations for applications over \$100,000 will be presented to the Board on January 23, 2018. There are 22 applications requesting less than \$100,000 and 16 applications requesting more than \$100,000. The funding approvals for the 22 applications are in the table below. Two applications were approved for partial funding because some budget items were ineligible for CWRP funding. Six of the 22 applications were not approved for funding. These applications had average scores much lower than the funded applications. Staff will make recommendations to these applicants on how best to improve their planning or project efforts in the future. (*Chris Sturm*)

#### ~AGENCY UPDATES~

#### STAFFING—

**CWCB Bids Farewell to Andy Moore:** Andy Moore, the manager of Colorado's Decision Support Systems (CDSS), has retired after nearly 23 years of service to the state of Colorado. Andy was pivotal to the development and management of the CDSS and was CWCB's in-house groundwater expert. CWCB sends best wishes to Andy, along with gratitude for his decades of excellent work.

#### Suzanne Sellers Embarks on New Career

Suzanne Sellers, Program Manager in the Interstate, Federal and Water Information Section, has decided to leave CWCB and pursue a new career in the mental health field. Suzanne was the Program Manager responsible for Colorado's role on the Platte River Recovery Implementation Program. Suzanne also managed issues related to Wild and Scenic alternatives and Recreational In-Channel Diversions. CWCB wishes Suzanne the best of luck in her new path, with many thanks for her contributions during the more than seven years she spent at the agency.

**RECENTLY DECREED ISF WATER RIGHTS**— On November 10, 2017, the Division 6 Water Court decreed instream flow water rights to the CWCB on a reach of East Douglas Creek in Case No. 15CW3049 for 0.50 cfs (5/1-10/15), with an appropriation date of January 26, 2015. The upstream terminus is the confluence with Brush Creek, and the lower terminus is the confluence with Cathedral Creek. This ISF reach is approximately 14.22 miles long and flows in a northeasterly direction through parts of Rio Blanco County. This right is in addition to an existing instream flow right on East Douglas Creek from the confluence with Brush Creek to the confluence with Cathedral Creek, in the amount of 1.5 cfs (1/1 - 12/31), decreed in Case No. 85CW0258 with an appropriation date of 5/3/1985. To reach settlement in this matter, stipulations were entered into with the Michael K. Brady Family Trust, and Nona Powell.

On November 12, 2017, the Division 6 Water Court decreed instream flow water rights to the CWCB on a reach of Soldier Creek in Case No. 15CW3051 for 0.40 cfs (4/1-9/30), with an appropriation date of January 26, 2015. The upstream terminus is the confluence of Right Fork and Middle Fork Soldier Creek, and the lower terminus is the confluence with Cathedral Creek. This ISF reach is approximately 3.67 miles long and flows in a northeasterly direction through parts of Rio Blanco County. This right is in addition to an existing instream flow right on Soldier Creek from the confluence of Right Fork and Middle Fork Soldier Creek to the confluence with Cathedral Creek, in the amount of 1.5 cfs (1/1 - 12/31), decreed in Case No. 85CW0256 with an appropriation date of 5/3/1985. To reach settlement in this matter, stipulations were entered into with the Michael K. Brady Family Trust, and Nona Powell. (*Rob Viehl*)

**INSTREAM FLOW (ISF) WORKSHOP 2018**— The CWCB will hold its ISF workshop on January 24, 2018 at the Hyatt Regency Denver Tech Center as part of the Colorado Water Congress Annual Convention Workshops. The workshop provides state and federal agencies and other interested persons an opportunity to recommend certain stream reaches or natural lakes for inclusion in the State's Instream Flow (ISF) Program. The entities that make ISF recommendations will present information regarding the location of new recommendations as well as preliminary data in support of the recommendation. There will be an opportunity for interested stakeholders to provide input and ask questions. CWCB staff will provide an overview of the ISF Program and the new appropriation process, along with an update of pending ISF recommendations from previous years.

The second half of this workshop will focus on a partnership between the Colorado Water Trust (Water Trust), and the Colorado Water Conservation Board (CWCB) on a pilot strategic approach to ISF water acquisitions to preserve

or improve the natural environment. This new Request for Water Acquisitions Pilot Process (Process) is intended to accomplish several goals: to proactively invite voluntary water right offers for ISF use from willing water rights owners; to provide a user-friendly mechanism for water rights owners to investigate working with CWCB and the Water Trust on ISF acquisitions; to streamline transaction processes and utilization of resources; to facilitate implementation of Colorado's Water Plan objectives; and to add flows to river segments in need while coordinating with agricultural and other uses. Topics covered will include the Process timeline, available stream restoration and transaction tools, and information a water right owner needs to provide to initiate participation in the Process. (*Rob Viehl*)

#### ~GENERAL ATTACHMENTS~

- Instream Flow and Natural Lake Level Program Summary of Resolved Opposition Cases
- 02 WSRF Grant Balance Summary

#### ~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

## January 22-23, 2018 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).

### A. Statements of Opposition

(1) Case No. 15CW3183 (Water Division 1) - Application of Rainbow Falls Mountain Trout Inc.

The Board ratified this Statement of Opposition at its March 2016 meeting. The Board's main objective in filing the Statement of Opposition in this case was to ensure that the Applicant's proposed change of water rights and plan for augmentation do not injure the Board's instream flow water right on Horse Creek and Trout Creek. In addition, some of the water rights were claimed with senior appropriation dates under section 37-92-102(3)(b), C.R.S., and some of the ponds have inundated portions of the instream flow reaches. At its January 23, 2017 Board meeting, the CWCB approved the small inundations. 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 Court entered a Decree in this case on January 2, 2018. The court case is closed.

The CWCB holds the following instream flow water rights in Water Division 1 in the Upper South Platte watershed that could be injured by this application:

Case Number	Stream	Upper Terminus	Lower Terminus	CFS Rate (Dates)	Approp. Date
80CW0210	Horse Creek		confl South Platte River	5 (1/1 - 12/31)	05/07/1980
77W8731			confl Horse Creek	2 (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:

• The Applicant has submitted to the CWCB, pursuant to its Instream Flow and Natural Lake Level Program Rules and Regulations, a request to inundate an instream flow. Although this application involves nine lakes, only two of the nine are at issue under the CWCB ISF Inundation Rule 7, because only two were built after the ISF appropriations and after

promulgation of Rule 7. At its January 23, 2017, Board meeting, the CWCB determined that the small inundations of Bear Lake and Cougar Lake do not significantly interfere with the instream flow water right on Trout Creek, and therefore the natural environment of Trout Creek can continue to be preserved to a reasonable degree and approved the inundation request for Bear Lake and Cougar Lake.

- As part of the CWCB's stipulation regarding the inundation issue in this case, the Applicant and the CWCB have agreed that Applicant shall make its best effort to maintain the sediment control structures around the lakes and stream that it has installed. Applicant also plans to retrofit some of the dams to release cool water from the bottom of the lake rather than the warmer water over the spillway.
- Pursuant to section 37-92-102(3)(b), C.R.S., in recognition of Applicant's historical water uses and practices that preceded the appropriations of the Trout Creek ISF and Horse Creek ISF, Applicant may divert into the structures as shown in the tables found in decree Paragraphs 20 and 25, regardless of the amount of flow in the Trout Creek ISF and Horse Creek ISF reaches. Applicant may divert at the Big Spring Pipeline (whether by the new junior water right appropriated herein or the senior right decreed in Case No. W-6138 [Div. 1]) as senior to the CWCB instream flow rights listed in the decree only in the amounts and for the uses specified in the decree.

# (2) Case No. 15CW3044 (Water Division 4) - Application of Crystal Creek Homeowners Association

The Board ratified this Statement of Opposition at its September 2015 meeting. Applicant's claim to make its conditional right absolute for in-ditch piscatorial and recreational use was problematic under *St. Jude's Co. v. Roaring Fork Club, LLC*, 351 P.3d 442 (Colo. 2015) (holding that private diversions for in-ditch recreational and piscatorial use are not beneficial uses under Colorado water law). However, pursuant to House Bill 17-1190, signed by Governor Hickenlooper on May 25, 2017, the provisions of the Colorado Supreme Court's decision in *St. Jude's Co. v. Roaring Fork Club, LLC* do not apply to the decree entered for the Summerville Ditch Enlargement in Case No. 99CW182, because that decree was entered prior to July 15, 2015. *See* section 37-92-305(20), C.R.S. (2017). Staff, in cooperation with the Attorney General's Office, has negotiated a settlement to ensure that its exclusive authority is protected and that the CWCB's instream flow water rights will not be injured. The Court entered a Decree in this case on November 27, 2017. The court case is closed.

The CWCB holds the following instream flow water rights in Water Division 4 in the East-Taylor watershed that could be injured by this application:

Ī	Case Number	Stream	Upper Terminus	Lower Terminus	CFS Rate (Dates)	Approp. Date
		Taylor River	gage below Taylor Park Res	confl Spring Creek	50 (10/1 - 4/30) 100 (5/1 - 9/30)	10/02/1987
		Taylor River	confl Spring Creek	confl East River	80 (10/1 - 4/30) 200 (5/1 - 9/30)	10/02/1987

Applicant has applied to the Upper Gunnison River Water Conservancy District
 ("UGRWCD") for inclusion of the Summerville Ditch Enlargement in the UGRCWD's plan
 for augmentation decreed in Case No. 03CW49, District Court, Water Division No. 4,
 Colorado. The inclusion procedures required by Paragraph 34 of said 03CW49 decree,
 including notice to and review by the CWCB, are still being completed as of the date
 of this Stipulation. Until such procedures have been complied with, the Summerville
 Ditch Enlargement is not covered by any plan for augmentation.

# (3) Case No. 16CW3164 (Water Division 5) - Application of Redstone Water and Sanitation District

The Board ratified this Statement of Opposition at its March 2017 meeting. The Board's main objective in filing the Statement of Opposition in this case was to ensure that the Applicant's proposed change of water rights does not injure the Board's instream flow water rights on the Crystal River and East Creek by expansion of use or altering the time, place and amount of historical return flows. 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 the following instream flow water rights in Water Division 5 in the Roaring Fork watershed that could be injured by this application:

Case Number	Stream	Upper Terminus	Lower Terminus	CFS Rate (Dates)	Approp. Date
75W2721	Crystal River	confl Carbonate Creek	confl Avalanche Creek	40 (10/1 - 4/30) 80 (5/1 - 9/30)	05/01/1975
75W2720	Crystal River	confl Avalanche Creek	confl Roaring Fork River	60 (10/1 - 4/30) 100 (5/1 - 9/30)	05/01/1975
87CW0275	East Creek		confl Crystal River	1.5 (1/1 - 12/31)	10/02/1987

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

- As decreed in Case No. W-2721, the Colorado Water Conservation Board holds a minimum stream flow right in the "Crystal River Lower Middle Reach," which spans the Crystal River from its confluence with Carbonate Creek downstream to its confluence with Avalanche Creek, for 40.0 cfs between October 1st and April 30th and for 80.0 cfs between May 1st and September 30th. Applicant may not divert its East Creek Reservoir and Pipeline water right at the Plank Spring and Pipeline point of diversion when CWCB's ISF water right on the Crystal River decreed in Case No. W-2721, Water Division No. 5, is not satisfied and the river is being administered within the reach of Crystal River between the Plank Spring and Pipeline point of diversion and the confluence with East Creek.
- Total diversions from all points of diversion are limited to the amount of water physically and legally available at the decreed point of diversion of the East Creek Reservoir and Pipeline water right.

# (4) Case No. 16CW3042 (Water Division 6) - Application of Elk Creek Ranch Owners Association

The Board ratified this Statement of Opposition at its March 2017 meeting. The Board's main objective in filing the Statement of Opposition in this case was to ensure that the Applicant's proposed change of water rights does not injure the Board's instream flow water right on the White River by expansion of use or altering the time, place and amount of historical return flows. Applicant's claim for diligence and to make its conditional right absolute for in-ditch piscatorial and recreational use was problematic under *St. Jude's Co. v. Roaring Fork Club, LLC*, 351 P.3d 442 (Colo.2015) (holding that private diversions for in-ditch recreational and piscatorial use are not beneficial uses under Colorado water law). However, pursuant to House Bill 17-1190, signed by Governor Hickenlooper on May 25, 2017, the provisions of the Colorado Supreme Court's decision in *St. Jude's Co. v. Roaring Fork Club, LLC* do not apply to the direct flow water rights in this case. *See* section 37-92-305(20), C.R.S. (2017). After Applicant dropped its claim for a change of water rights, Staff, in cooperation with the Attorney General's Office, negotiated a settlement to ensure that its exclusive authority is protected and that the CWCB's instream flow water rights will not be injured. A Ruling of the Referee was entered 12/11/17.

The CWCB holds the following instream flow water right in 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
77W3652C			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:

• The provisions in St. Jude's Co. v. Roaring Fork Club, LLC, 351 P.3d 442 (Colo. 2015), interpreting C.R.S. § 37-92-103(4) do not apply to the direct flow water rights described in paragraph 6 because they were decreed prior to July 15, 2015. See C.R.S. § 37-92-305(20).

## (5) Case No. 17CW3000 (Water Division 6) - Application of Kimberly Kelly Weinstein

The Board ratified this statement of opposition at its March 2017 meeting. The Board's main objective in filing the statement of opposition in this case was to ensure that the Applicant's Petition for Declaratory Judgment and Injunctive Relief Regarding Administration of Water Rights in Water District 58 of the Upper Yampa River Basin does not injure the Board's instream flow water rights on Hunt Creek and the Yampa River by expansion of use of senior rights or altering the time, place and amount of historical return flows. 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 Court granted the Joint Motion of Petitioner and State and Division Engineers for Summary Judgment on October 29, 2017. The Court dismissed this case by Order dated November 25, 2017. The court case is closed.

The CWCB holds the following instream flow water rights in Water Division 6 in the Upper Yampa watershed that could be injured by this application:

		_
CFS Rate (Dates)	Approp. Date	

Case Number	Stream	Upper Terminus	Lower Terminus	CFS Rate (Dates)	Approp. Date
79CW0221	Hunt Creek	confl SF Hunt	confl Yampa	5 (1/1 - 12/31)	12/05/1979
		Creek	River		
01CW0106	Yampa River		inlet Lake Catamount Res	72.5 (4/1 - 8/14) 47.5 (8/15 - 3/31)	07/24/2001
		CIECK	Catamount Res	47.3 (0/10 - 3/31)	

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 court granted three points of diversion for irrigation limited to 94 acres.



Department of Natural Resources

1313 Sherman Street Denver, CO 80203

P (303) 866-3441 F (303) 866-4474 John Hickenlooper, Governor

Robert Randall, DNR Executive Director

Rebecca Mitchell, CWCB Director

TO: Colorado Water Conservation Board Members

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

**Board Meeting:** January 22-23, 2018 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:

1.65% - Agricultural

2.35% - Low-income Municipal

2.70% - Middle-income Municipal

3.00% - 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 0.80% 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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Robert Randall, DNR Executive Director

Rebecca Mitchell, CWCB Director

TO: Colorado Water Conservation Board Members

FROM: Anna Mauss, P.E., Marketing

Finance Section

DATE: January 22-23, 2018 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.



# Prequalified Project List

BORROWER	PROJECT NAME	APPLICATION DATE	BASIN	PROJECT DESCRIPTION	PROJECT COST/LOAN AMOUNT
Previously Ap	proved Applica	ations			
Grand Valley Drainage District	Buthorn Drain	Jan 1, 2017	Colorado	The District identified the Buthorn Drain as its top capital improvement project need to address irrigation return flows and stormwater conveyance.	\$5,000,000
Totals					\$5,000,000

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

•Borrower	Project	Potential Loan Amount
•NISP Participants	NISP	\$100,000,000
•Central CO WCD	Pipeline Project	\$4,000,000
<ul> <li>Parker Water &amp; Sanitation District</li> </ul>	Water Meter Project	\$5,000,000
<ul> <li>Henrylyn Irrigation District</li> </ul>	Reservoir Rehabilitatio	n \$6,000,000
Bijou Irrigation District	Reservoir Rehabilitatio	n \$600,000
•Upper Platte & Beaver Irrigating Co.	Diversion Structure	\$7,000,000
•Woods Lake Mutual Ditch Co.	Culvert Replacement	\$150,000
•Town of Kersey	Raw Water Line	\$TBD
<ul> <li>Roxborough Metro District</li> </ul>	Transmission Connection	on \$1,000,000
• Julesburg Irrigation District	Diversion Structure	\$3,000,000
•Subtotal		\$126,750,000

#### Arkansas River Basin

•Stonewall Springs, LLC	Reservoir Construction	\$5,500,000
Oxford Ditch	Siphon Repair	\$1,800,000
•Town of Manitou Springs	Raw Water Pipeline	\$3,000,000
City of Woodland Park	Storage Project	\$1,000,000
•Fort Lyon Canal Company	Adobe Creek Enlargement	\$8,000,000
<ul> <li>Amity Mutual Irrigating Co.</li> </ul>	Reservoir Rehabilitation	\$TBD
•Subtotal		\$19,750,000

#### San Miguel/San Juan River Basin

<ul> <li>Town of Bayfield</li> </ul>	Ditch Piping	\$500,000
<ul><li>Subtotal</li></ul>		\$500,000

#### Colorado River Basir

<ul> <li>Kendall Reservoir</li> </ul>	Reservoir Rehabilitation	\$400,000
<ul><li>Private Borrower</li></ul>	Reservoir Rehabilitation	\$250,000
•Town of Breckenridge	Goose Pasture Tarn Dam	\$18,000,000
<ul> <li>Orchard Mesa Irr. Dist.</li> </ul>	Lateral Piping	\$300,000
<ul><li>Subtotal</li></ul>	. •	\$18,950,000

#### Gunnison River Basin

	<ul> <li>Gunnison Count</li> </ul>	v Electric	Hydroelectric Pro	iect \$	1,000,000
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#### Rio Grande Basin

•Manasa Land & Irrigation Co.	Ditch Rehabilitation	\$6,000,000
•Baca Grande Water and San District	Water Rights Purchase	\$1,000,000
<ul> <li>Sanchez Ditch and Reservoir Co.</li> </ul>	Dam Rehabilitation	\$4,000,000
•Rio Grande WCD	Water Rights Purchase	\$5,000,000
•Trinchera Water Conservancy District	t Water Rights	\$2,000,000
•Subtotal	-	\$18,000,000

## Yampa River Basin

•Town of Oak Creek Reservoir Rehabilitation \$500,000

#### North Platte Basin

•No projects at this time



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Robert Randall, DNR Executive Director

Rebecca Mitchell, Director

TO: Colorado Water Conservation Board Members

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

Jessica Halvorsen, Program Assistant

Board Meeting: January 22-23, 2018 Board Meeting

**Directors Report**: Water Project Loan Program

Design & Construction Status Report

The CWCB Loan Program has Substantially Completed nineteen (19) projects in Calendar Year 2017 as shown in Table 1. There are currently fifty one (51) projects authorized to receive loan funding totaling \$356 million. There are forty two (42) projects currently under contract and in the Design and Construction phase totaling \$186 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	Cottonwood W&S District	WISE - ECCV Pipeline Purchase	Douglas & Arapahoe	\$ 342,921	01/01/2017
2	Inverness W&S District	WISE - ECCV Pipeline Purchase	Douglas & Arapahoe	\$ 1,845,270	01/01/2017
3	Gypsum, Town of	LEDE Ditch and Reservoir Rehabilitation	Eagle	\$ 2,689,731	01/01/2017(a)
4	Plum Valley Heights Subdistrict	Raw Water Supply Project	Douglas	\$ 2,248,260	02/01/2017
5	Windsor, Town of	Kyger Reservoir Project	Larimer & Weld	\$ 4,545,000	02/01/2017(b)
6	Grand Junction, City of	Hallenbeck Reservoir No. 1 Dam Rehabilitation	Mesa	\$ 1,010,000	03/01/2017(c)
7	Julesburg Irrigation District	Reconstruction of the Harmony No. 1 Dam Structure	Sedgwick	\$ 203,616	03/01/2017
8	Bellyache Ridge Metro District	Well Replacement Project	Eagle	\$ 169,175	04/01/2017
9	Oligarchy Irrigation Company	Dam Outlet Works Rehabilitation	Boulder	\$ 901,930	04/01/2017(d)
10	Uncompahgre Valley Water Users Association	Drop 5 Hydroelectric Project	Montrose & Delta	\$ 6,999,300	04/01/2017
11	North Poudre Irrigation Co	Reservoir No. 4 Rehabilitation	Larimer	\$ 2,263,410	05/01/2017(e)
12	San Luis Valley Water Conservancy District	Anaconda Ditch Water Right Acquisition	Alamosa	\$ 1,123,575	05/01/2017
13	Sanford Canal Company	Sanford Diversion and Headgate Rehabilitation	Conejos	\$ 101,000	05/01/2017
14	Central Colorado WCD - Water Augmentation Subdistrict	Water Rights Purchase and Gravel Pit Strorage	Weld, Adams, Moran	\$ 1,651,904	6/1/2017
15	West Reservoir & Ditch Company	Repair of West Reservoir No. 1 Outlet Works	Delta	\$313,018	7/1/2017(f)
16	North Poudre Irrigation Co	Rehabilitation for the Livermore Tunnel	Larimer	\$1,451,673	07/01/2017
17	Upper Arkansas Water Conservancy District	Reservoir Rehabilitation	Chaffee/Custer	\$3,009,800	10/01/2017 <sup>(g)</sup>



18	Thunderbird W&S Dist	Lambert Ranch Water Rights Purchase	Douglas	\$318,150	11/01/2017
19	Chilcott Ditch Company	Jimmy Creek Siphon Reconstruction	El Paso	\$580,750	11/01/2017
20			Total	\$33,146,579	

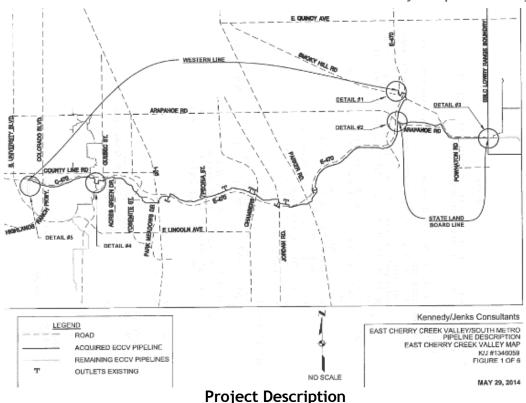
Calendar Year 2017 has added or preserved 8463 acre-feet of reservoir storage (a) 939; (b) 1,257; (c) 699; (d) 1,737; (e) 1781; (f) 455; (g) 1595



# Water Infrastructure and Supply Efficiency Project (WISE) ECCV Pipeline Purchase

Cottonwood Water and Sanitation District Contract No. CT2015-102

Substantially Complete January 1, 2017



The WISE Project is a collaborative effort by multiple south metropolitan water entities (the WISE Authority), Denver Water, and Aurora water to supplement existing water supplies by bringing reusable water supplies southward through Aurora's Prairie Waters pipeline to the East Cherry Creek Valley (ECCV) Pipeline. The WISE Authority purchased an 85% ownership share in the existing ECCV Pipeline, while the remaining 15% was purchased by Denver Water. The WISE Authority will operate and maintain the ECCV pipeline. Each WISE Authority member's cost obligations for the project are dictated by an Organizational Agreement between the WISE Authority and WISE Authority member entities, and are dependent upon each member's subscription share for water deliveries.

This Water Project Loan financed the Cottonwood Water and Sanitation District's cost share obligations for the purchase of the ECCV Pipeline by the WISE Authority, resulting in a license agreement for approximately 4.9% capacity of pipeline deliveries.

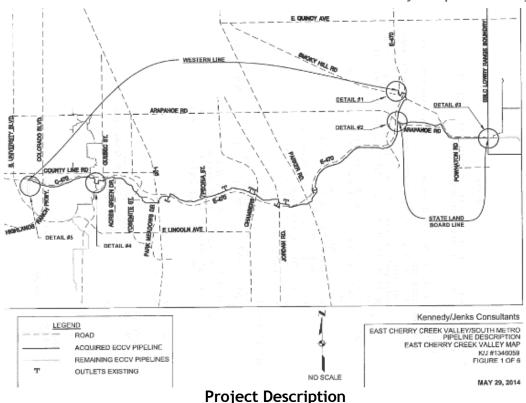
P	rojec	t dat	a	
Sponsor: Cottonwood Water and Sanitation District	County: Douglas	& Arapahoe	Water source: South Platte	
Type of loan: Municipal Water Supply System Board approval date: May 22, 2014				
Terms of loan: 30 years @ 3.00% (Original) \$381,780.00 (Final) \$342,921.05				
Design engineer: No design was financed for this WISE Project element.				
Contractor: No construction was financed for this WISE Project element.				
Project elements: License Agreement for approximately 4.9% capacity in the ECCV pipeline.				
-		•		



# Water Infrastructure and Supply Efficiency Project (WISE) ECCV Pipeline Purchase

Inverness Water and Sanitation District Contract No. CT2015-117

Substantially Complete January 1, 2017



The WISE Project is a collaborative effort by multiple south metropolitan water entities (the WISE Authority), Denver Water, and Aurora water to supplement existing water supplies by bringing reusable water supplies southward through Aurora's Prairie Waters pipeline to the East Cherry Creek Valley (ECCV) Pipeline. The WISE Authority purchased an 85% ownership share in the existing ECCV Pipeline, while the remaining 15% was purchased by Denver Water. The WISE Authority will operate and maintain the ECCV pipeline. Each WISE Authority member's cost obligations for the project are dictated by an Organizational Agreement between the WISE Authority and WISE Authority member entities, and are dependent upon each member's subscription share for water deliveries.

This Water Project Loan financed the Inverness Water and Sanitation District's cost share obligations for the purchase of the ECCV Pipeline by the WISE Authority, resulting in a license agreement for approximately 6.1% capacity of pipeline deliveries.

P	rojec	t dat	a	
Sponsor: Inverness Water and Sanitation District	County: Douglas	& Arapahoe	Water source: South Platte	
Type of loan: Municipal Water Supply System Board approval date: May 22, 2014				
Terms of loan: 20 years @ 2.75% (Original) \$1,874,270.00 (Final) \$1,874,270.00				
Design engineer: No design was financed for this WISE Project element.				
Contractor: No construction was financed for this WISE Project element.				
Project elements: License Agreement for approximately 6.1% capacity in the ECCV pipeline.				



## L.E.D.E Ditch & Reservoir Upgrade Project Town of Gypsum













Figure 4 - Riprap Placement

Figure 5 - Spillway Channel Riprap Armoring

#### **Project Description**

The Town of Gypsum purchased the LEDE Ditch and LEDE Reservoir water rights in 2006. The reservoir is located in the headwaters of Gypsum Creek, south of Gypsum within the White River National Forest. The original water rights were decreed for irrigation uses, and provide storage of up to 947 AF in the reservoir. The Reservoir was originally built to a capacity of 431 AF. In order to accommodate continued agricultural irrigation, and for future water supplies to the Town, the project was designed to increase capacity to 947 AF. This upstream storage is required to assist in managing Gypsum Creek water rights calls and dry year operations. The reservoir storage will become even more important as the Town's population continues to increase.

With this project, the Town repaired and improved the reservoir to utilize its full potential, protecting valuable senior storage rights in the reservoir. Design and permitting commenced in 2009/2010, pipeline construction started in late 2009, and dam construction completed in 2016.

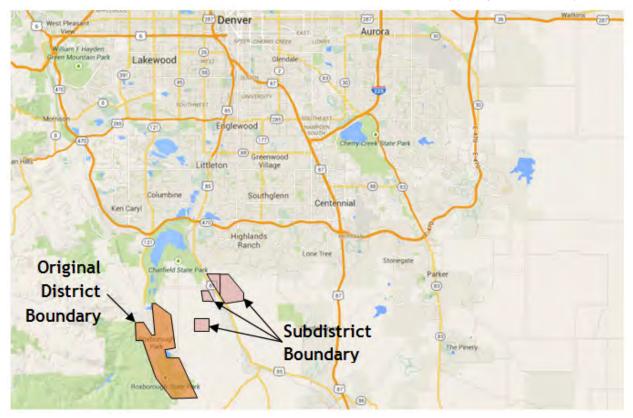
P	R O J E C T D	DATA
Sponsor: Town of Gypsum	County: Eagle	Water Source: Gypsum Creek
Type of Loan: Reservoir Rehabili	itation and Enlargement	Board Approval Date: May 2009
Loan Terms: 4.5% for 30 years (C	Priginal) \$2,689,731 (Final)	) \$2,689,731 WSRF Funding: \$225,000
Design Engineer: Zancanella and	Associates	
Contractor: Hobbs Construction		



# Raw Water Supply Project

Plum Valley Heights Subdistrict of the Roxborough Water and Sanitation District

Substantially Complete February 1, 2017



# **Project Description**

Plum Valley Heights Subdistrict of the Roxborough Water and Sanitation District was recently formed to provide rural communities in Douglas County with a renewable water supply. The communities will be connected to the Roxborough Water and Sanitation District system through an infrastructure project funded by a WSRA grant, CWRPDA loan, and Douglas County. The total project cost (including infrastructure) is approximately \$14.9M. The CWCB loan financed the acquisition of a renewable water supply from the City of Aurora.

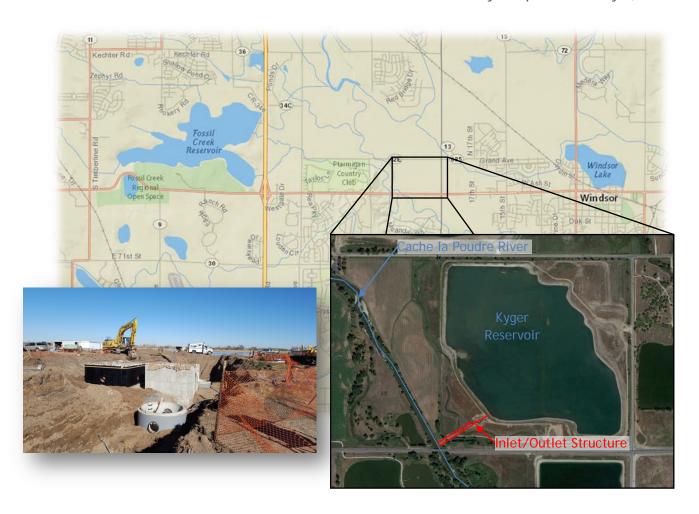
The existing residential developments of Chatfield Acres, Chatfield East, and Plum Valley Heights, and the industrial development of Titan Road Industrial Park, were built in the 1970s and 1980s. These developments are currently served by individual wells completed in the non-tributary Denver Basin aguifers. Water levels in the Denver Basin aguifers are declining, particularly in the margins of the aguifers where these developments are located. As a result, existing wells in these developments have either already failed, or are in danger of failing. The Metro Roundtable had determined this project is an important component of replacing the use of non-tributary groundwater in the South Metropolitan Area of Denver and in solving the water supply gap identified in SWSI.

Р	R O J E C T D A T	A		
Sponsor: Plum Valley Heights Subdistrict of the Roxborough Water & Sanitation District	County: Douglas	Water Source: South Platte River		
Type of Loan: Water Rights Purchase Board Approval Date: May 2015				
Terms of Loan: \$2,248,260 @ 3.05% for 30 years				
Design Engineer: NA				
Contractor: NA				
Project Elements: Purchase of a long term water lease with the City of Aurora for 150 AF per year.				





Substantially Complete February 1, 2017



# **Project Description**

The Town of Windsor was incorporated in 1890 and adopted its Home Rule Charter in 2003. The Town's Water Activity Enterprise was created by a Town Ordinance in 1994 and serves approximately 5,600 taps (2013). The Town has seen tremendous growth over the last decade and has a current population of approximately 18,700 people. The Town purchased a lined gravel pit known as Kyger Reservoir in 2014 to increase its water supply storage. Construction of the inlet, outlet, and conveyance structures occurred from fall 2016 through winter 2017. This infrastructure allows the Town to divert from the river to gravity fill the reservoir, and also to reverse flow and pump to the river from the reservoir to make releases. CWCB Loan funds went to the purchase of the reservoir and infrastructure construction. Based on a sonar survey, the Project added 1,257 acre-feet of usable storage capacity for the Town.

Р	R O J E C	T DAT	A
Sponsor: Town of Windsor	County: Larimer	~ & Weld	Water Source: Cache la Poudre
Type of Loan: Reservoir Construc	tion	Board Approval	Date: September 2013
Terms of Loan: \$4,545,000 at 2.7	5% for 20 years		
Design Engineer: Wenck Associat	es		
Contractor: Moltz Constructors			
Project Elements: Purchase of lined gravel pit. Construction of river diversion with overshot gate, pipelines, pumps, reservoir inlet/outlet structure.			



# Hallenbeck Reservoir No. 1 Dam Rehabilitation

City of Grand Junction

Substantially Complete March 1, 2017



Figure 2 - After Construction

## **Project Description**

Hallenbeck Reservoir No. 1 is one of the City of Grand Junction's 14 reservoirs. It has a capacity of 699 acre-feet. In 2014 the City of Grand Junction developed plans to mitigate seepage through the dam; however, during the evaluation process, seepage increased and an 80-foot crack developed on the downstream face of the dam. Water was immediately released from the reservoir in an effort to relieve hydrostatic pressure within the dam. The City completed a forensic evaluation of the dam that included a geotechnical investigation and structural evaluation.

With this project, the City repaired the dam to allow the City to use all of the storage capacity. Construction involved removal of several feet of material on the downstream face of the dam, removal of the existing toe drain system, installation of a blanket filter on the downstream face, installation of a new toe drain system, installation of a buttress on the downstream face, and installation of new piezometers and monuments. Construction began in August 2016 and was completed in December 2016.

P	ROJECT	DAT.	A
Sponsor: City of Grand Junction	County: Mesa		Water Source: Kannah Creek
Type of Loan: Reservoir Rehabilita	tion	Board App	proval Date: March 2016
Loan Terms: 2.65% for 20 years (Or	iginal) \$1,010,000 (Final)	\$764,820.	93 <i>WSRF Funding</i> : \$100,000
Design Engineer: AECOM			
Contractor: M.A. Concrete Construc	ction, Inc.		



# Reconstruction of Harmony No. 1 Measurement Structure

Julesburg Irrigation District Substantially Complete March 1, 2017



#### **Project Description**

The Julesburg Irrigation District (District), part owner and the operator of the Harmony No. 1 Canal, delivers both Direct Flow rights and Storage water rights to the Julesburg Reservoir. The Canal diverts water from the South Platte River approximately three miles southwest of the town of Crook, Colorado. The Canal delivers direct flow irrigation water, storage water, and augmentation water to approximately 17,000 acres of land controlled by the Harmony Ditch Company and Julesburg Irrigation District. The Canal can also be used to deliver irrigation water to an additional 6,000 acres thru the Julesburg Reservoir rights administered to the Petersen Canal as a supplemental source if supplies at the Petersen head gate are not adequate. The existing 20 foot Parshall Flume experienced structural damage over time to the point of failure. The District demolished the existing structure, replacing it with a new structure located just upstream. The purpose of this project was to provide a reliable measurement structure to accurately measure the flow of the Harmony No. 1 Canal for the various water rights being used by the Julesburg Irrigation District.

PROJECT	DATA
Sponsor: Julesburg Irrigation District County: Sedg	wick Water Source: South Platte
Type of Project: Ditch Rehabilitation Bo	pard Approval Date: May 2016
Loan Terms: 1.70% for 30 years (Original) \$203,616	(Final) \$203,616
Design Engineer: Draht Consulting, LLC	
Contractor: Concrete Specialties and Utilities Construc	ction



## **Well Replacement Project**

Bellyache Ridge Metropolitan District Substantially Complete April 1, 2017



#### **Project Description**

The District is located in Eagle County approximately six miles west of Edwards, Colorado. The District's water system includes three wells (#1R, 2, and 3) that fill two storage tanks. From January through March of 2013, the District had to haul in water because declining well production was not able to keep up with demands. In order to reduce the likelihood of future hauling of water, the District drilled a replacement for well #2. In addition to the CWCB loan, the Department of Local Affairs provided a \$167,500 grant.

Р	R O J E C	T DAT	A
Sponsor: Bellyache Ridge Metropolitan District	County: Eagle		Water Source: Groundwater
Type of Project: Well Replacem	ent	Board Approval	Date: July 2013
Loan Terms: 3.00% for 30 years (0	Original) \$169,17	5.00 (Final) \$140	0,586.73
Design Engineer: Zancanella and	Associates, Inc.		
Contractor: Shelton Drilling			



# **Dam Outlet Works Rehabilitation Project**

Oligarchy Irrigation Company

Substantially Complete April 1, 2017



## **Project Description**

The Oligarchy Irrigation Company owns and operates the Oligarchy #1 Dam and Reservoir, also known as Burch Lake. The reservoir stores 1,737 acre-feet of water and is classified as a significant hazard dam by the State Engineer's Office Dam Safety Branch (SEO). The purpose of the project was to rehabilitate the aging outlet works per the SEO's recommendation as the existing outlet was pressurized through the embankment, had difficult access for inspection and difficult operation of the valve, and the overall poor condition of the outlet structure. The Project constructed a new outlet works gate vault, outlet works piping, intake structure, and discharge structure. With the new upstream gate there is now a way to inspect the outlet works system without draining the lake. After completing final design and receiving contractor bids, the company sought, and was approved for, a 15% increase to the loan contract at the May 2016 Board Meeting. Construction began in May 2016 and was completed in October 2016.

Р	R O J E C	T DAT	A
Sponsor: Oligarchy Irrigation Company	County: Boulde	r	Water Source: St. Vrain Creek
Type of Project: Dam Rehabilitation Board Approval Date: July 2015			Date: July 2015
Final Terms of Loan: \$901,930 @ 2.40% for 30 years			
Design Engineer: Deere & Ault Consultants			
Contractor: Moltz Constructors			
Project Elements: Outlet Works incl. 24" diameter sluice gate, trash rack, 24" restrained concrete encased outlet pipe, discharge structure			



### **Drop 5 Hydroelectric Project**

Uncompander Valley Water Users Association
Substantially Complete April 1, 2017



#### **Project Description**

The Uncompangre Valley Water Users Association (Association) provides irrigation water to over 85,000 acres in Montrose and Delta Counties. This Hydroelectric Project was developed by the W.U. Drop 5 Inc. a wholly owned Company of the Association. The Project is a 2.2 MW of hydroelectric power plant facility on its existing South Canal. The power will be sold to Delta Montrose Electric Association under a Power Purchase Agreement. The Uncompangre Project Area Federal Irrigation Systems is one of the oldest (1903) Bureau of Reclamation projects. The Association currently has five small-scale hydroelectric facilities on their system. This Project includes a diversion/bypass gate in the existing canal to divert water into the intake/power house structure. Flows are returned to the existing canal and do not affect the delivery of irrigation water. An intake/powerhouse structure houses the generator and mechanical/electrical equipment. The turbine is a vertical double regulated Kaplan turbine. These Kaplan units have been installed in the Association's Drops #1, #3 and #4. A switchyard was constructed at the powerhouse with a transformer capable of stepping up the power generated to the necessary interconnection voltage.

Р	R O J E C	T DAT	A
Sponsor: Uncompangere Valley Water Users Association	County: Delta 8	t Montrose	Water Source: Gunnison River
Type of Loan: Hydroelectric Project		Board Approval Date: May 2015	
Terms of Loan: 2.0% for 20 years	s (Initial) \$6,999,	300.00 (Final) \$6,	426,813.80
Design Engineer: Sorenson Engine	eering		
Contractor: Shavano Falls Hydro,	LLC		



#### Reservoir No. 4 Rehabilitation

North Poudre Irrigation Company Substantially Complete May 1, 2017



#### **Project Description**

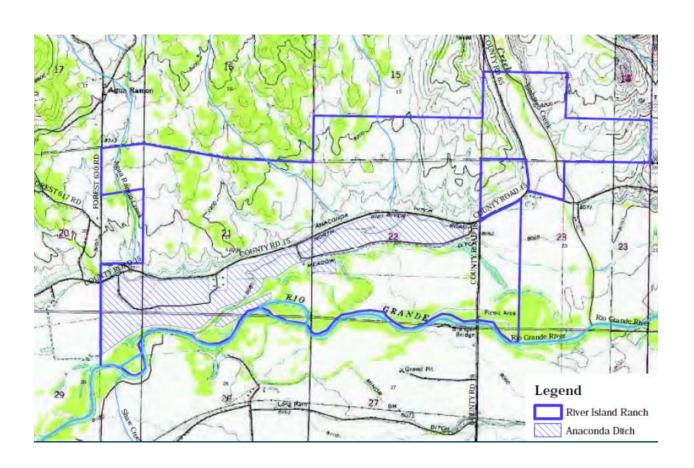
The North Poudre Irrigation Company is a mutual ditch company established in 1901. The Company's office is located in Wellington with a service area of approximately 28,000 irrigated acres of farm land. Reservoir No. 4 is an off stream reservoir constructed in the late 1880s, enlarged in the 1920s, and had the outlet works replaced in the late 1950s. The Reservoir No. 4 Rehabilitation Project modified the dam including its slope, outlet works, drains, spillway, and measurement structure, while also providing a new parking area and floodplain improvements. The primary purpose of the project was to lift the State Engineer's storage restriction on the reservoir and dam and improve the overall reservoir facility. The Project was approved by the SEO and the water storage restriction was lifted on October 11, 2016, restoring 674 AF of water storage.

Р	R O J E C	T DAT	A
Sponsor: North Poudre Irrigation Company	County: Larimer		Water Source: Cache La Poudre
Type of Loan: Reservoir Rehabilit	tation	Board Approval	Date: November 2013
Terms of Loan: (Original) \$2,263,410.00 at 2.35% for 30 years (Final) \$2,189,757.89			
Design Engineer: Ronald H. Slosson, P.E.			
Contractor: Zak Dirt			
	Project Elements: Restoration of 674 AF of storage. New outlet incl. 30" dia. outlet conduit w/ measurement flum, gate tower, spillway drop structures, toe drain w/ measurement weir.		



### **Anaconda Ditch Water Rights Acquisition Project**

San Luis Valley Water Conservancy District Substantially Complete May 1, 2017



#### **Project Description**

The San Luis Valley Water Conservancy District operates an augmentation program servicing portions of Rio Grande, Alamosa, Saguache, Hinsdale and Mineral Counties. The augmentation program was developed to offset river depletions from wells serving residential and commercial uses in the area. To add to the existing augmentation program, the District is purchased a 58% interest in the Anacnoda Ditch, providing an additional 304.8 acre-feet of augmentation water.

P	R O J E C	T DAT	A
Sponsor: San Luis Valley Water	County: Alamos	ú	Water Source: Rio Grande
Conservancy District	County. Alamos	a	River
Type of Project: Water Rights Purchase Board Approval Date: March 2013			Date: March 2013
Loan Terms: 2.5% for 30 years	(Original) \$1,123,574.50 (Final) \$1,123,574.50		
Design Engineer: Davis Engineering Service, Inc.			
Contractor: N/A			



### Sanford Diversion and Headgate Rehabilitation

Sanford Canal Company

Substantially Complete May 1, 2017







#### **Project Description**

The Sanford Canal Company was incorporated in 1892 as a "Colorado Water Company" and later became a Mutual Ditch Company in 1912. Its diversion is located on the Conejos River just below the confluence with the San Antonio River and has a service area covering approximately 3,000 irrigated acres. The purpose of this Project was to address the need for a well-designed diversion structure that will reduce maintenance, improve water management efficiencies, and allow for the accurate control of compact-entitled waters. The core of the Sanford Canal diversion structure had been washed away over time, contributing to decades of limited diversion to irrigators and potential over payment to the Compact. This Project removed and replaced the diversion and headgate structures and installed automated headgates and four gauging stations.

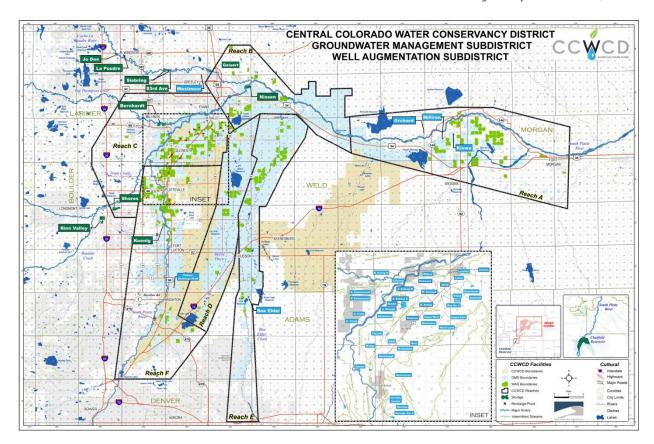
This Project is one of three projects collectively known as the Conejos River System Confluence Management Project, managed by the Conejos Water Conservancy District. The District has taken a proactive "whole river" system approach to water management and over the past few years have improved the efficiency and stability of many diversions, developed real-time water management data, and studied the effects on return flows from irrigated areas from groundwater withdrawals. The Confluence Management Project extended this whole river strategy to the Confluence, specifically to the Sanford Canal, Ephraim Ditch, and East Bend Ditch.

Р	R O J E C	T DAT	A
Sponsor: Sanford Canal Company	County: Conejos	;	Water Source: Conejos River
Type of Loan: Ditch Rehabilitation	n	Board Approval	Date: May 2014
Terms of Loan: \$101,000 at 1.75% for 30 years			
Design Engineer: Natural Resources Conservation Service (NRCS)			
Contractor: Natural Progression Homes, LLC			
Project Elements: Diversion Dam	(core), sluice gate	e, headgates, aut	omation, 4 gauging stations



# Water Rights Purchase and Gravel Pit Storage Project

Well Augmentation Subdistrict of the Central Colorado Water Conservancy District Substantially Complete June 1, 2017



#### **Project Description**

The Well Augmentation Subdistrict (WAS) of the Central Colorado Water Conservancy District is located in Adams, Weld, and Morgan counties. WAS is a special district created by the Weld County District Court on January 8, 2004, pursuant to the applicable provisions of the "Water Conservancy Act", Section 37-45-101, C.R.S. It has the power to acquire and sell water rights, construct and operate facilities, exercise eminent domain, levy taxes, and contract with other agencies. WAS has operated an augmentation plan since 2004, covering approximately 78 square miles and 214 predominantly agricultural member wells. WAS has an average annual depletion of 20,400. WAS received this loan to finance the purchase of water rights and explore gravel pit storage projects. Loan funds were ultimately used to purchase 80 shares of Lupton Meadows Ditch Company, and 1 share in the Platte Valley Irrigation Company.

P	R O J E C	T DAT	A
System of the Central Colorado Water Conservancy District	County: Weld, A	Adams, Morgan	Water Source: South Platte Basin
Type of Loan: Water Rights Purcl Augmentation Facility	hase & Board Approval		Date: September 2012
Terms of Loan: (Original) \$3,030,000 at 1.75% for 30 years (Final) \$1,651,904.79			
Design Engineer: Leonard Rice Engineers, Inc.			
Contractor: NA	_	_	



### Repair of West Reservoir No. 1 Outlet Works

West Reservoir and Ditch Company Substantially Complete July 1, 2017



#### **Project Description**

The West Reservoir and Ditch Company operates West Reservoir No. 1, providing water seven miles eastward via Wakefield Ditch to Wakefield Mesa. The water is available for livestock as it traverses east Oak Mesa, and irrigates approximately 600 acres of hay and pasture. The current landowners use the Oak Mesa Reservoir and Ditch water for spring irrigation, and, when those flows are exhausted, use the West Reservoir flows for mid-summer to fall irrigation. The West Reservoir was improved in the early 1950s, but came to be under a storage restriction order from the Office of the State Engineer due to deterioration of the outlet pipe. The reconstruction of the dam project included a low-level outlet sized to meet SEO release requirements, an outlet stilling basin structure downstream of the dam for energy dissipation, an intake structure for a manually-operated slide gate and trash racks, and new riprap armoring on the upstream face of the dam.

P	R O J E C	T DAT	A
Sponsor: West Reservoir and Ditch Company	County: Delta		Water Source: Jay Creek
Type of Loan: Reservoir Rehabilitation		Board Approval Date: November 2014	
Terms of Loan: \$248,378.00 (Original) \$313,018.19 (Final) at 2.0% for 30 years			
Design Engineer: RJH Engineers			
Contractor: Rundle Construction			



#### **Livermore Irrigation Tunnel Rehabilitation**

North Poudre Irrigation Company Substantially Complete July 1, 2017



**Project Description** 

The North Poudre Irrigation Company service area encompasses approximately 300 square miles, including 160 square miles of service area under the North Poudre Canal ( 36 square miles of irrigated acreage), as well as additional service areas covering 14 communities and municipal water providers that own NPIC shares.

The Livermore Tunnel carries water diverted from the North Poudre Canal headgate, located on the north side of the North Fork Cache la Poudre River, for approximately 4, 900 feet before it is discharges into an earth-lined open canal and flows on toward the Buckeye Lateral, Park Creek Reservoir, and the Company's downstream delivery infrastructure. The Livermore Tunnel consists of two tunnels connected by a short section of open channel. The tunnels are approximately 8. 5 feet high and 8 feet wide with a concrete invert along the entire tunnel length. The tunnels are considered generally stable with the exception of six collapse zones where large piles of rock and debris had accumulated in the base of the tunnel, ponding up to three feet of water and restricting the overall flow capacity. Construction activities consisted of repairing those six collapse zones, and installing a concrete liner plate base, overhead and side liner plates, and filling in the voids between the wall and new liner plates.

P	ROJECT	DAT	E	
Sponsor: North Poudre Irrigation Company	County: Larimer		Water Source:	Cache La Poudre
Type of Project: Ditch Rehabilitation Board Approval		Date: July 2016	ı	
Loan Terms: 2.25% for 30 years (0	Original) \$1,451,673	(Final) \$1,45	1,673	
Design Engineer: AECOM				
Contractor: Rock Solid Solutions				



#### North Fork Reservoir Rehabilitation/Expansion

Upper Arkansas Water Conservancy District Substantially Complete October 1, 2017



#### **Project Description**

The Upper Arkansas Water Conservancy District is located in Salida, Colorado, and serves to protect and develop water supplies in Chaffee, Western Fremont and Custer Counties. The District has operated the North Fork Reservoir since 1979 for domestic, municipal, industrial, recreational and augmentation purposes. The reservoir is located in the San Isabel National Forest near the headwaters of the North Fork of the South Arkansas River at elevation 11,400 feet. The project repaired the outlet pipe/gate structure and improved the access for construction. After repairs were complete, access to an additional 67 acre-feet of storage was made available.

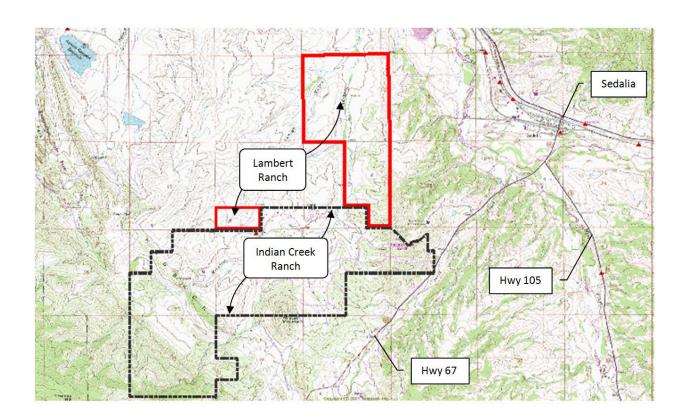
The enlargement phase of the loan was planned to increase the Reservoir capacity from 500 acre-feet to 1095 acre-feet. This required an increase in the dam height by 15 feet. After several years of permitting efforts the District decided not to continue the enlargement effort under this loan authorization.

P	R O J E C	T DAT	A
Sponsor: Upper Arkansas Water	County: Chaffee	ے	Water Source: North Fork of
Conservancy District	obanty. Onance		the South Arkansas River
Type of Loan: Reservoir Rehabilitation Board Approval Date: November 2004			Date: November 2004
Terms of Loan: 3.0% for 30 years	(Original) \$3,00	9,800 <i>(Final)</i> \$9	902,642.40
Design Engineer: Colorado River Engineering			
Contractor: ASI Constructors, Inc.	•		



### **Lambert Ranch Water Rights Purchase**

Thunderbird Water & Sanitation District Substantially Complete November 1, 2017



# **Project Description**

The Thunderbird Water and Sanitation District (District) provides potable water service for the Indian Creek Ranch subdivision, consisting of 2,420 acres and 175 customers. On average, the District delivers approximately 55 AF annually. The District used loan funds to purchase Denver Basin decreed ground water rights with a total average annual acre-foot amount of 895.9 AF. This water right underlies the property known as Lambert Ranch. The easement acquisition for a well site is ongoing. The increase would enable the District to enlarge its available supply; thereby increasing system reliability, providing the redundancy necessary to allow for system maintenance and protect against aquifer depletions.

Р	R O J E C	T DAT	A
Sponsor: Thunderbird Water	County: Douglas		Water Source: Denver Basin
and Sanitation District	County. Douglas		Aquifer
Type of Loan: Water Rights Purchase Board Approva		Date: July 2011	
Terms of Loan: 4.25% for 20 year	s (Original) \$318	,150 <i>(Final)</i> \$318	,150
Design Engineer: Leonard Rice Er	ngineers, Inc.		
Contractor: NA			



### **Jimmy Camp Creek Siphon Reconstruction**

**Chilcott Ditch Company** 

Substantially Complete November 1, 2017



**Project Description** 

The Chilcott Ditch Company, located in El Paso County, operates 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 deliveries are made through the Company's eight mile ditch to service historically irrigated areas under the ditch, as well as to an augmentation station that measures direct flow water returning back to Fountain creek on behalf of shareholders. The original 42-inch diameter 1,300 foot long siphon conveyed ditch water flows under Jimmy Camp Creek to historically irrigated farmland to the south of the City of Fountain. During the 1940's the siphon was constructed from asphalt dipped corrugated steel pipe and served for nearly 76 years. In reviewing the siphon's age, maintenance history and number of failures, the Company rebuilt the siphon with new 42-inch PVC piping.

Р	R O J E C	T DAT	A					
Sponsor: The Chilcott Ditch	County: El Paso		Water Source: Fountain Creek					
Company	oounty. Li i uso		water source. Touritain oreck					
Type of Loan: Ditch Rehabilitation	Type of Loan: Ditch Rehabilitation Board Approval Date: January 2017							
Terms of Loan: (Original) \$580,7	50 at 2.20% for 20	years (Final) \$4	59,991.12 at 2.20% for 20 years					
Design Engineer: JPS Engineering								
Contractor: Backhoe Services, LL	C							

	Contract Borrower	County	Loan Amount	Design Status	Const. Start/End	Proj. Status	PM	Status Description/Update
	Projects in Design or Construction							
1	Bennett, Town of  >Wells #3 and #6 Replacement Project CT2015-161	Adams Arapahoe	\$1,454,000	100%	May 2015 - Dec 2017	99%	AM	Town is in the process of bringing the wells online.
2	Big Elk Meadows Association > Emergency Raw Water Storage Repair C150391	Boulder/ Larimer	\$2,020,000	60%	July 2014 - Sept 2018	60%	JH	Project includes the reconstruction of 5 dams in series. Mirror Dam completed April 2015. Rainbow Dam completed December 2016. Willow Dam completed November 2017. Sunset and Meadow Dams final design and construction pending. Association was approved for a loan increase at March 2017 Board Meeting to help with cash flow, and an increase to the zero percent window as construction window has been extended.
3 -	CHATFIELD Reallocation Project - First Cost of Storage							\$54,633,223
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	
4 - 1	CHATFIELD Reallocation Project - Phase 1 Mitigation							\$37,786,120
а	Castle Pines North Metropolitan District >(C150404B) CT2018-1616 *\$	Arapahoe Douglas Park Weld	\$4,143,020	95%	Sept 2017 - Fall 2019	10%	JH	This contract is to provide reimbursement for the Chatfield Reallocation
b	Centennial Water & Sanitation District >(C150405B) CT2016-2055	Arapahoe Douglas Park Weld	\$28,527,450	95%	Sept 2017 - Fall 2019	10%	JH	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.
С	Center of Colorado Water Conservancy District >(C150406B) CT2016-2048	Arapahoe Douglas Park Weld	\$511,363	95%	Sept 2017 - Fall 2019	10%	JH	Preliminary Design of environmental and recreation activities, and Army Corps review of preliminary design has been completed. Final Design is nearing completion. There are 12 identified individual projects for recreation modification and environmental mitigation with various schedules. The first projects began construction in September 2017. It is currently anticipated
d	Central Colorado Water Conservancy District >(C150407B) CT2016-2058	Arapahoe Douglas Park Weld	\$18,263,830	95%	Sept 2017 - Fall 2019	10%	JH	that Phase 1 could be completed by fall 2019.
5 - 1	CHATFIELD Reallocation Project - Phase 2 Mitigation							\$7,000,310

	Contract Borrower	County	Loan Amount	Design Status	Const. Start/End	Proj. Status	РМ	Status Description/Update
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.
6	Centenial Irrigating Ditch Company > Centenial Diversion Replacement CT2108-1999	Rio Grande	\$232,300	100%	Jan 2018 - Mar 2018	0%	JH	This project is part of the Rio Grand Five Ditches WSRF Project and will consist of replacing the existing diversion dam with a new grouted rock diversion. Contractor mobilized to site in January 2018 and construction is planned to be complete before the 2018 irrigation season.
7	Church Ditch Water Authority > Ditch System Improvements CT2018-1335	Jefferson	\$3,615,000	75%	Dec 2017 - Spring 2019	0%	RP	Loan covers 5 individual projects within the Church Ditch system. The Leyden Flushing Structure awarded DEC2017and Headgate 53 Retaining Wall projects will be awarded JAN2018. The Area 15 Ditch Lining, Ford Street Siphon, and Legacy Farms Culvert will be completed after the 2018 irrigation season.
8	Consolidated Ditch > Consolidated Diversion and Headgate Replacement CT2018-1017	Rio Grande	\$1,010,000	100%	Jan 2018 - Mar 2018	0%	JH	This project is part of the Rio Grand Five Ditches WSRF Project and will consist of replacing the existing diversion dam and headgate. Project was put out to bid, Robbins was successful bidder. Construction was delayed as final designs weren't completed until December 2017.
9	Corsentino Dairy Farms, Inc. > Holita Dam Rehibilitation CT2018-980	Walsenburg	\$85,446	100%	Jan 2018 - March 2018	5%	AM	Loan contract was executed at the end of August. Construction began in January 2018.
10	Dixon Canon Ditch & Reservoir Company >Dixon Reservioir Dam Improvements CT2017-914	Larimer	\$278,100	100%	Jan 2018 - Mar 2018	0%	JH	Bids were opened December 2016. Company work with low bidder Zak dirt to reduce bid by splitting work into 2 phases: 1st phase will include only the dam safety issues such as the seepage collection system. The 2nd phase to be done at a later time will include the dam outlet pipe improvements. Contractor mobilized to begin construction in January 2018.
11	Duke Ditch Company >Piping the Duke Ditch CT2017-915 CTGG1 2017-212	Delta	\$90,000	90%	Fall 2018 - Spring 2019	0%	AM	NRCS began design work in August 2017. Construction will begin in fall 2018.
12	Fort Lyon Canal Company > Adobe Creek Dam Rehabiliatation CT2018-1960 CTGG1 2018-806	Bent	\$8,181,000	30%	Fall 2017 - Spring 2018	0%	RP	NRCS began design work in August 2017. The Company hopes construction can begin in early 2018.
13	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. Will have project update April 2018.

	Contract Borrower	County	Loan Amount	Design Status	Const. Start/End	Proj. Status	PM	Status Description/Update
14	Georgetown, Town of  > Outlet Works Modification Project C150321 (CT2015-055)	Clear Creek	\$2,976,975	100%	Aug 2014 - July 2017	99%	АМ	Construction is complete. Substantial completion of loan is scheduled for April 1, 2018.
15	Grand Mesa Water Conservancy District > Peak Res. & Blanche Park Res. Rehabilitation C150354 (CT2015-061)	Delta	\$227,250	100%	Mar 2013 - Sept 2018	50%	AM	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. Construction is expected to begin in summer of 2018.
16	Grand Valley Water Users Association > Government Highline Canal Lining CT2017-2258 CTGG1 2017-770	Mesa	\$151,500	100%	Nov 2017 - Feb 2018	0%	AM	Construction on the canal began in Nov 2017.
17	Grand Valley Water Users Association >Grand Valley Power Plant Rehabilitation CT2017-2875 - SCTF	Mesa	\$1,717,000	100%	Spring 2018 - Spring 2019	0%	JH	Project is on hold as all Dept of Interior agreements must go through a review by the Secretary of Interior. It is anticipated construction may be able to start Spring 2018 but it dependent on the Dept of Interior review.
18	Huerfano County Water Conservancy District > Regional Augmentation Project C150364 (CT2015-047) CTGG1 2015-528	Huerfano	\$2,222,000	100%	Jan 2014 - Mar 2019	60%	AM RP	Land and water rights purchase occurred in January 2014. Camp Ranch augmentation site construction is complete. Phase I of III at Sheep Mountain Ranch augmentation site was completed in Oct 2017.
19	Lake Durango Water Authority > Source Water Supply Project C150317 (CT2015-013) CTGG1 2015-370	LaPlata	\$2,525,000	100%	Oct 2016 - Feb 2018	90%	KR	Access road constructed from highway to the outlet tower. Several road crossings complete with approxametly 90% of pipeline installed
20	Lake McIntosh Reservoir Company >Lake McIntosh Outlet Works Repair CT2016-2794	Boulder	\$1,727,100	100%	Jan 2017 - Feb 2018	75%	JH	Phase 1 construction includes pipeline from ditch crossing to downstream manhole; was completed in April 2017. Phase 2 includes piping under roadway and Platte Rive Power Authority substation. Phase 2 began in November 2017 and is scheduled to be complete by February 2018.
21	Lamar, City of >Repurposing of Wells 12 and 13 CT2017-917 CTGG1 2017-211	Prowers	\$101,000	100%	Jun 2017 - Sept 2018	5%	RP	Precon mtg held 5/23/17. City staff is doing construction. Work has been postponed due to staffing/workload issues.
22	Larimer & Weld Irrigation Company >Headgate Structure Replacement CT2017-2253	Larimer & Weld	\$681,750	100%	Nov 2017 - Apr 2018	50%	JH	Bids received in September 2016 exceeded budget and the Company elected not to award the project at that time. Project was rebid in March 2017 and awarded to Moltz. Constructin began in November 2017 and is scheduled to be complete by 2018 irrigation season.
23	Lookout Mountain Water District > Upper Beaver Brook Dam Spillway CT2016-2515	Clear Creek	\$3,099,690	100%	June 2016 - June 2017	99%	KR	Project Complete. Substantial Completion 1/2018
24	Monte Vista, City of  > Augmentation Water Rights Acquisition C150309 (CT2015-011)	Rio Grande	\$1,693,770	N/A	N/A	50%	AM	The City purchased Anderson Ditch rights and will file a water court application to enable the use of those rights to replace depletions.  Contracted with the San Luis Valley Irr. Dist. for storage space in the Rio Grande Res. City continues negotiations to purchase additional water.

	Contract Borrower	County	Loan Amount	Design Status	Const. Start/End	Proj. Status	PM	Status Description/Update
25	North Poudre Irrigation Company >Mountain Supply Reservior No. 10 Repairs CT2017-3641	Larimer	\$802,950	100%	Nov 2017 - Mar 2018	30%	JH	Final design complete and SEO has approved for construction. Construction begain in November 2017 and will be complete by March 2018. Company was approved for a loan increase at the November 2017 board meeting.
26	North Poudre Irrigation Company > Fossil Creek Res. Diversion Structure Repair C150368 (CT2015-024)	Larimer	\$876,680	100%	Nov 2015 - March 2016	99%	JH	The was an emergency loan due to the September 2013 flood. Construction began in November 2015 and was completed in March 2016. FEMA funding is pending. Per terms of the emergency loan contract, the loan will be closed out, and interest will begin accruing, on November 1, 2018.
27	Orchard Mesa Irrigation District >Grand Valley Power Plant Rehabilitation CT2017-2878 - SCTF	Mesa	\$1,717,000	100%	Spring 2018 - Spring 2019	0%	JH	Project is on hold as all Dept of Interior agreements must go through a review by the Secretary of Interior. It is anticipated construction may be able to start Spring 2018 but it dependent on the Dept of Interior review.
28	Orchard Ranch Ditch Company >Orchard Ranch Ditch Pipe Project CT2016-2795 POGG1 2017-493	Delta	\$151,500	75%	Fall 2018 - Mid 2019	0%	RP	Design and permitting work is underway. Construction is expected to begin in Fall 2018.
29	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. Meeting scheduled to review current loan and project advancement.
30	Riverside Ditch and Allen Extension Company > Ditch System Rehabilitation C150301 (CT2015-050)	Chaffee	\$186,345	100%	Jul 2010 - May 2017	99%	AM	Ditch lining phase of the project was completed in December 2010. NRCS completed design for replacment of the river diversion structure & construction occured in Nov 2016. Additional ditch work was completed in May 2017.
31	Riverside Reservoir and Land Company > Riverside Reservoir Spillway Enlargement C150291 (CT2015-026)	Weld	\$2,838,100	90%	Spring 2019	0%	RP	Plans under review by SEO. Construction timing indeterminate. Contract extension in progress.
32	Sanchez Ditch and Reservoir Company > Sanchez Reservoir Outlet Rehabilitation Project C150342 (CT2015-012)	Costilla	\$1,502,476	100%	Oct 2014 - March 2018	99%	AM	Construction began in Oct 2014. Outlet works work was completed in Jan 2015. Seepage and monitoring work is currently ongoing.
33	St. Vrain & Left Hand Water Conservation District >Lake No. 4 Outlet Pipeline Repair CT2017-3213	Boulder	\$619,130	95%	Fall 2018 - Spring 2019	0%	JH	Project is being done in partnership wtih Emergency Rock'n WP Ranch Lake No. 4 Repair, as well as repairs to West Lake and A-Frame Lake. Significant coordination with Boulder County, FEMA, and HUD has delayed final design and final funding package. County plans to bid all projects under one contract in Summer 2018 for a construction start of fall 2018.
34	St. Vrain and Left Hand Water Conservancy District > Emergency Rock'n WP Ranch Lake No. 4 Repair CT2016-2452	Boulder	\$4,545,000	95%	Fall 2018 - Spring 2019	0%	JH	Project is being done in partnership wtih Lake 4 Outlet Pipeline Repair, as well as repairs to West Lake and A-Frame Lake. Significant coordination with Boulder County, FEMA, and HUD has delayed final design and final funding package. County plans to bid all projects under one contract in Summer 2018 for a construction start of fall 2018.
35	Southeastern CO Water Conserv. District >Pueblo Dam Hydroelectric Project CT2018-833	Pueblo	\$16,725,600	100%	June 2017 - Spring 2018	20%	RP	Construction beginning fall 2017. District anticipates power production by summer of 2018.

	Contract Borrower	County	Loan Amount	Design Status	Const. Start/End	Proj. Status	PM	Status Description/Update
36	Supply Irrigating Ditch Company >Emergency Supply Irrigating Ditch Repair Project CT150142	Boulder	\$324,210	100%	March 2014 - May 2015	99%	JH	The was an emergency loan due to the September 2013 flood. Construction began March 2014 was completed in May 2015. FEMA funding is pending. Per terms of the emergency loan contract, the loan will be closed out, and interest will begin accruing, on March 1, 2018.
37	Town of Firestone >Storage Development and Water Rights Purchase CT2017-2880	Weld	\$10,000,000	50%	May 2018 - Mar 2019	0%	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 at filling reservoir via wells/pipelines instead of diversion off river. Change case application to be filed 2nd half of 2017 for reservoir water rights.
38	Tunnel Water Company >Laramie-Poudre Tunnel Rehabilitation CT2016-2001	Larimer	\$1,111,000	100%	Sept 2015 - 2018	70%	JH	Phase 1 (Inlet) construction started September 2015 and is complete. Phase 2 (outlet) construction is delayed due to site inaccessibility for concrete trucks. Company working with Forest Service to reroute access road to lessen the steepness. Environmental consultant has been retained as Forest Service will require an environmental assessment for the new access road.
39	Wiggins, Town of >Wiggins Recharge Facility at Glassey Farms CT2017-3609	Morgan	\$2,408,850	60%	Fall 2018 - Spring 2019	0%	JH	Town purcahsed Galssey Farms. Final design is still underway.
40-V	VISE Project - Phase 1 Infrastructure							\$16,802,501
а	Cottonwood W&S Dist - C150408B (CT2015-106)	Douglas/ Arapahoe	\$2,636,100	100%	Spring 2015 - Jan 2018	80%	RP	
b	Inverness W&S Dist - C150409B (CT2015-118)	Douglas/ Arapahoe	\$1,181,700	100%	Spring 2015 - Jan 2018	40%	RP	Infrastructure to treatment plant completed. 42-inch Pipeline construction on
С	Parker W&S Dist - C150410B (CT2015-108)	Douglas/ Arapahoe	\$6,785,321	90%	Spring 2015 - Jan 2018	60%	RP	Ridgeway line continues. E470 bore complete.
d	Pinery (Denver SE Sub W&S Dist) C150411B (CT2015-085)	Douglas/ Arapahoe	\$6,199,380	90%	Spring 2015 - Jan 2018	60%	RP	
41-	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	

	Contract Borrower	County	Loan Amount	Design Status	Const. Start/End	Proj. Status	PM	Status Description/Update
С	Parker W&S Dist - C150410C (CT2015-109)	Douglas/ Arapahoe	\$3,418,658	0%	Spring 2018 - Fall 2021	0%	RP	
d	Denver SE Sub W&S Dist - C150411C (CT2015-086)	Douglas/ Arapahoe	\$1,427,130	0%	Spring 2018 - Fall 2021	0%	RP	
42-	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	46%	N/A	46%	RP	indicates percent of funds disbursed to date.
d	Denver SE Sub. W&S Dist (Pinery) - C150411D (CT2015-087)	Douglas/ Arapahoe	\$454,500	46%	N/A	46%	RP	
	Projects Ur  *= No Option Ltr    \$= 1% SF in CORE    90%= Contract Restriction	nder Contract	\$185,842,936	100%				
	= NO OPHON LU    \$= 1% SF III CORE    90%= Contract Restriction							
	Approved Projects - Not Under Contract							
а	Florida Consolidated Ditch Company >Hess Lateral Improvement CT2018-83	La Plata	\$1,085,750		In Contracting		АМ	
b	San Juan Water Conservancy District >Dry Gultch Reservior Land Acquistion CT2018-839	Archuleta	\$2,000,000		In Contracting		JH	Board approval is conditioned on voters approving debt. Debt approval failed at November 2017 election.
С	Southeastern CO Water Conserv. District > Arkansas Valley Conduit C150238	Crowley	\$40,000,000		In Contracting		KR	Pending Federal Appropriation. Southeastern's Pueblo Dam Hydro project was taken out of these loan funds.

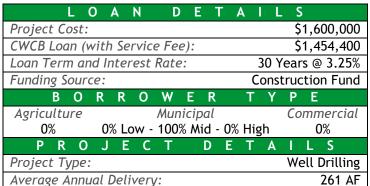
	Contract Borrower	County	Loan Amount	Design Status	Const. Start/End	Proj. Status	PM	Status Description/Update
d	City of Walsenburg  > City Lake Dam Rehabilitation & Enlargement CT2018-837 Grant in Contracting	Huerfano	\$6,889,210		In Contracting		AM RP	Waiting for IGA from City
е	Bonus Ditch Company > St. Vrain Diversion Replacement CT2018-2081	Longmont & Boulder	\$1,309,970		In Contracting		JH	
f	Fruitland Irrigation Company > Tunnel and Canal Renvation CT2018-2125 CTGG1 2018-921	Delta & Montrose	\$1,746,000		In Contracting		RP	
g	Left Hand Water District > Participation in Southern Water Supply Project II CT2018-2028	Broomfield & Weld	\$10,000,000		In Contracting		JH	
h	Pueblo Consevancy District > Arkansas River and Wildhorse Creek Levees	Pueblo	\$17,170,000		In Contracting		RP	
i	Municipal Subdistrict > Windy Gap Project CT2018- 2382	Larimer	\$90,000,000		In Contracting		JH	
	Not Under Contract	ct SubTotal =	\$170,200,930					
		Grand Total =	\$356,043,866					



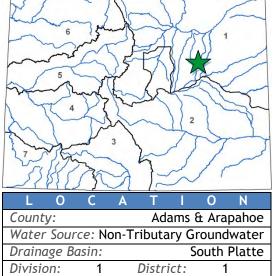
# Wells #3 and #6 Replacement Project

**Town of Bennett** 

November 2014 Board Meeting



The Town of Bennett provides water to its 2,500 residents from the Denver, Upper Arapahoe and Lower Arapahoe, and Laramie-Fox Hills aquifers. A recent study revealed the need to address operational reliability, efficiency, and safety of the Town of Bennett's well #3 and well #6. The Town currently has 11 wells. The replacement of wells #3 and #6 will provide the Town with additional



supply to meet demands and needed redundancy in its water supply system. Both wells need to be replaced due to the age of the existing wells. Construction is expected to occur during the spring of 2015.



C150391

**Project Name:** Emergency Raw Water Storage

Repair Project

**Drainage Basin/ District:** South Platte / 4

**Total Project Cost:** \$1,900,000

**Type of Borrower:** Middle-Income Municipal

**CWCB Loan:** \$1,515,000

(with 1% service fee)

**Project Type:** Reservoir Rehabilitation

Water Source: West Fork of the Little

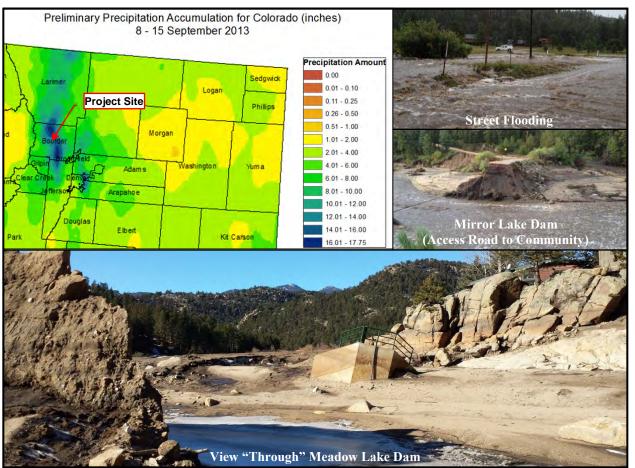
Thompson River

**Funding Source:** Severance Tax PBF

Water Storage: 108 AF

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

During the unprecedented flood of September 2013 in the tributaries to the South Platte River, a significant number of diversion structures and dams along the river corridor were damaged. Measured rainfall in and around Big Elk Meadows exceeded the 1,000-year Average Recurrence Interval for rainfall. Flow along the West Fork reached historic levels and resulted in the destruction of all five dams; both flow monitoring stations; the community's access road (CR-47); the majority of interior roads; and the water, power, and telephone services. The purpose of this project is to restore the community's water supply by reconstructing the five dams and two monitoring stations.



County: Douglas

C150404

**Borrower:** Castle Pines North

Metropolitan District

**Project Name:** Chatfield Reallocation Project **Project Type:** Reservoir Storage

**Drainage Basin:** South Platte Water Source: South Platte River

Plum Creek

**Total Project Cost:** \$7,100,000 **Funding Source:** Severance Tax Perpetual

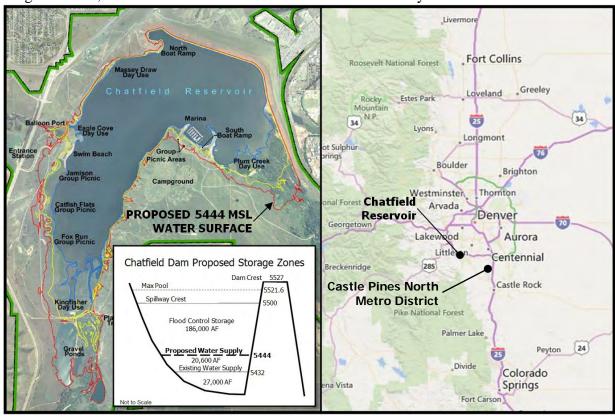
Base Fund

**Type of Borrower:** High-income Municipal **Average Annual Delivery:** 1,300 AF

**Added Water Supply Storage:** 1005.8 AF

CWCB Loan: \$6,453,900 (with 1% service fee) Interest Rate: 3.0% Term: 30-years

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 1005.8 acre-feet 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.



C150405

Borrower: Centennial Water & Sanitation District County: Douglas

Project Name: Chatfield Reallocation Project Project Type: Reservoir Storage

**Drainage Basin:** South Platte **Water Source:** South Platte River

Plum Creek

**Total Project Cost:** \$48,888,000 **Funding Source:** Severance Tax Perpetual

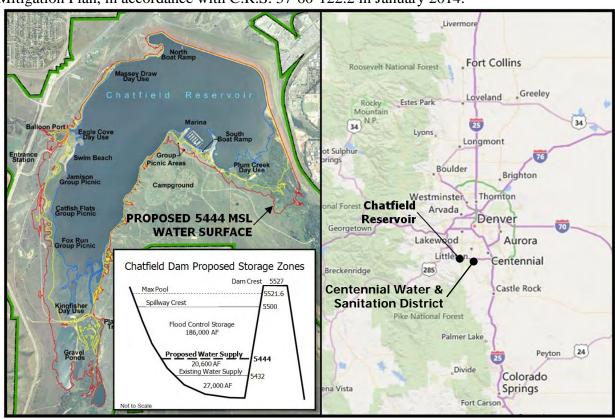
Base Fund

**Type of Borrower:** High-income Municipal **Average Annual Delivery:** 17,500 AF

**Added Water Supply Storage:** 6,922.1 AF

CWCB Loan: \$44,440,000 (with 1% service fee) Interest Rate: 3.0% Term: 30-years

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 acrefeet proposed to be reallocated, the District would receive 6,922.1 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.



County: Park

C150406

**Borrower:** Center of Colorado Water

**Conservancy District** 

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

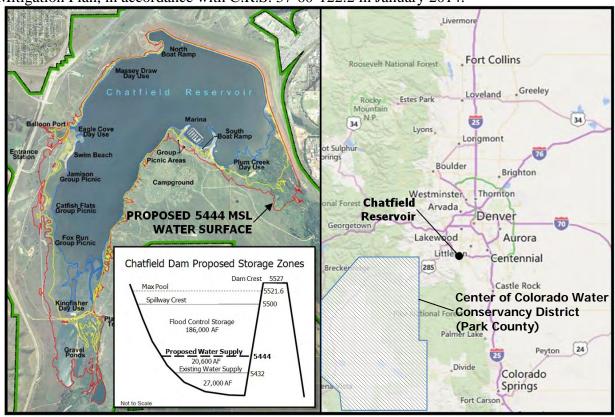
Base Fund

**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.



C150407

**Borrower:** Central Colorado Water

**Conservancy District** 

Project Name: Chatfield Reallocation Project Project Type: Reservoir Storage

**Drainage Basin:** South Platte **Water Source:** South Platte River

Plum Creek

County: Adams, Weld

**Total Project Cost:** \$28,170,000 **Funding Source:** Severance Tax Perpetual

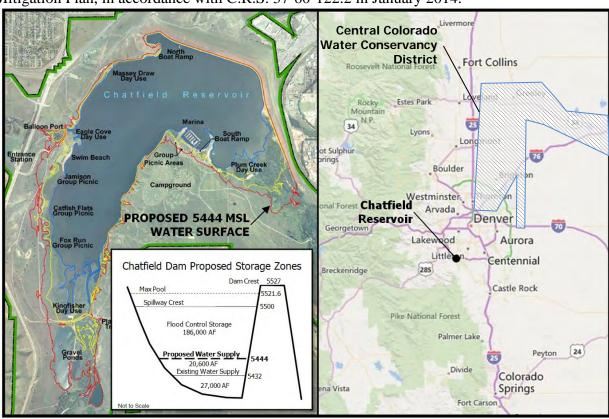
Base Fund

**Type of Borrower:** Agricultural **Average Annual Delivery:** 24,600 AF

**Added Water Supply Storage:** 4,274 AF

CWCB Loan: \$28,451,700 (with 1% service fee) Interest Rate: 1.75% Term: 30-years

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.





#### **Centenial Diversion Replacement**

Centenial Irrigating Ditch Company September 2017 Board Meeting

LOAN DET.	AILS
Project Cost:	\$512,000
CWCB Loan (with Service Fee):	\$232,300
Loan Term and Interest Rate:	20 Years @ 1.50%
Funding Source: Severance Tax	PBF and WSRF Grant
BORROWER	TYPE
Agriculture Municipal	Commercial
1000/ 00/ Law 00/ Mil 00/	
100% 0% Low - 0% Mid - 0%	High 0%
P R O J E C T D E	High 0% T A I L S
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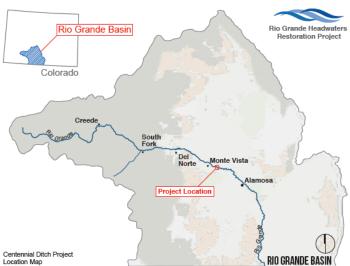
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The Company's diversion and headgate structures are located four miles east of Monte Vista on the Rio Grande. 8,500 acres are irrigated under the system. The diversion was highlighted as a river rehabilitation priority in a 2001 study titled "Rio Grande Headwater Restoration Project." That study analyzed the condition of riparian habitats and

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Count	y:					Rio (	Grande
Water	Sour	ce:				Rio (	Grande
Draina	age B	asin:				Rio (	Grande
Divisio	on:	3		Distri	ct:	2	.0

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.

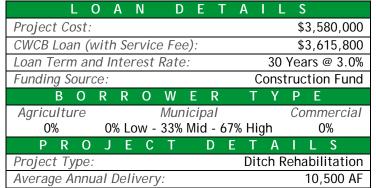


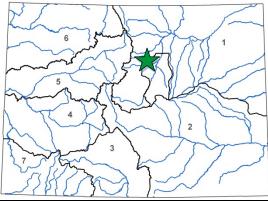




# **Ditch System Improvements**

Church Ditch Water Authority
July 2017 Board Meeting





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.

L O C A T I O N

County: Jefferson

Water Source: Clear Creek

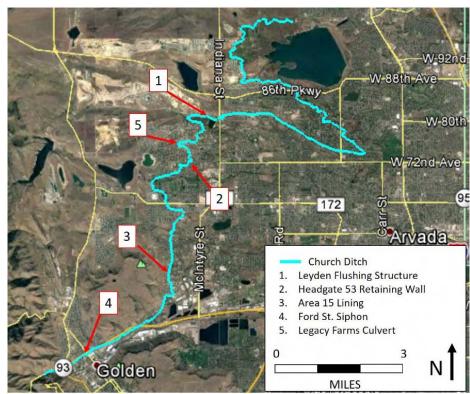
Drainage Basin: South Platte

Division: 1 District: 7

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.

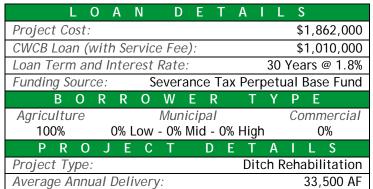


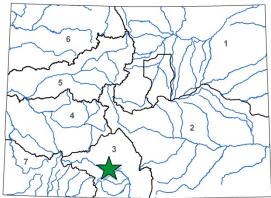


# Consolidated Diversion and Headgate Replacement

Consolidated Ditch and Headgate Company

July 2017 Board Meeting



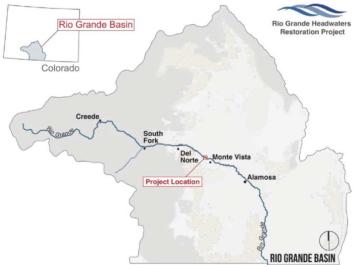


The Company is a Mutual Ditch Company formed in 1910. Its diversion and headgate structures are located five miles northwest of Monte Vista on the Rio Grande. The company serves 38 shareholders made up of water right owners who use the ditch as a carrier ditch. The diversion dam and headgate structures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

L	0	С	Α	T		0	N
Count	y:					Rio C	Grande
Water	- Sour	ce:				Rio C	Grande
Draina	age B	asin:				Rio C	Grande
Divisio	on:	3		Distri	ct:	2	0

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.







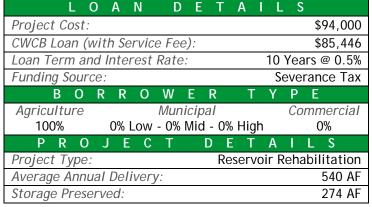
#### Holita Dam Rehabilitation

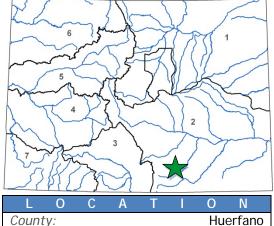
Corsentino Dairy Farms
July 2017 Board Meeting

**Cucharas River** 

16

Arkansas





District:

Water Source:

Division:

Drainage Basin:

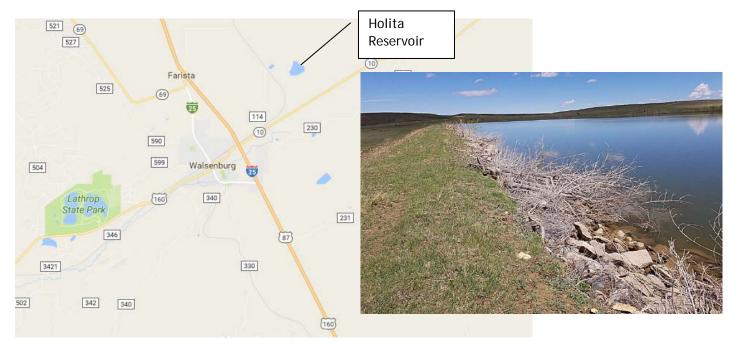
2

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. If the dam safety issues are not addressed by December 2017, the Dairy could be required to breach the dam.

The intent of the SEO storage restriction is to eliminate uncontrolled seepage from the dam. The SEO also identified the spillway as unsafe and is requiring a permanent lowering that will result in a storage volume of 274 acre-feet. Through this loan, the Dairy plans to rehabilitate the dam in the fall/winter of 2017.



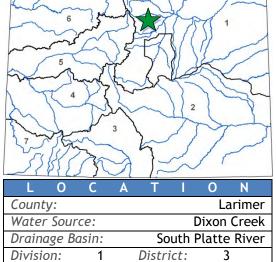
Water Project Loan Program - Project Data Sheet



### **Dixon Reservoir Dam Improvement**

Dixon Canon Ditch and Reservoir Company
May 2016 Board Meeting

LOAN DET.	A I L S
Project Cost:	\$309,000
CWCB Loan (with Service Fee):	\$278,100
Loan Term and Interest Rate:	30 years @ 2.55%
Funding Source:	Construction Fund
BORROWER	TYPE
Agriculture Municipal	Commercial
7.3. reactare marrierput	Commercial
17% 0% Low - 83% Mid - 0%	
,	
17% 0% Low - 83% Mid - 0%	High 0%
17% 0% Low - 83% Mid - 0% P R O J E C T D E	High 0% T A I L S



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. Dixon Reservoir is directly east of Horsetooth Reservoir. 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 water is typically used to irrigate turf, agricultural crops, and the City of Fort Collins parks and open space. 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. The purpose of this project is to address seepage issues and improve the dam outlet works so the Company can continue providing an adequate amount of irrigation water to shareholders while minimizing the risk of dam failure. Construction is expected to begin in late 2016.



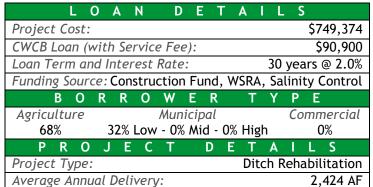


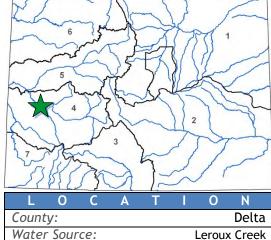
# Piping the Duke Ditch **Duke Ditch Company**

March 2016 Board Meeting

Gunnison

42





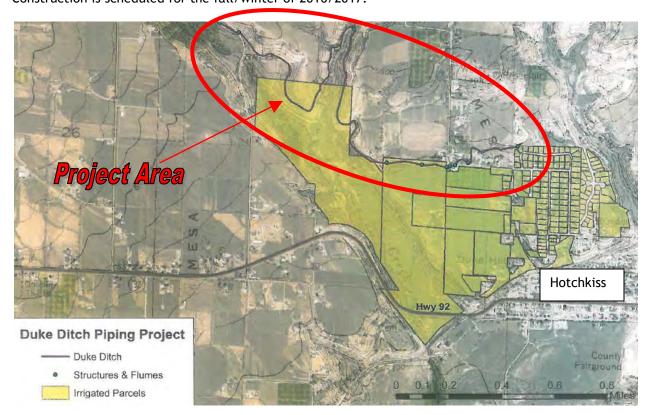
District:

Drainage Basin:

Division:

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

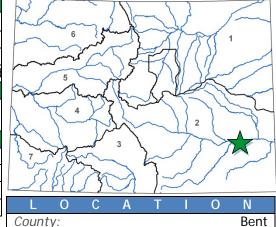
Fort Lyon Canal Company September 2017 Board Meeting

**Arkansas River** 

17

Arkansas

LOAN DETA	\
Project Cost:	\$9,200,000
CWCB Loan (with Service Fee):	\$8,209,381
Loan Term and Interest Rate:	40 years @ 1.50%
Funding Source: WSRF & Severance Tax	Perpetual Base Fund
BORROWER	TYPE
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
Preserved Storage:	81,692 AF



District:

Water Source:

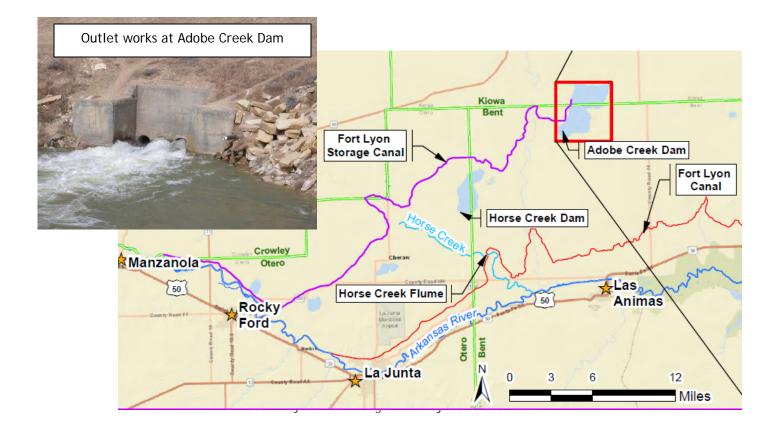
Division:

Drainage Basin:

Adobe Creek Reservoir (also known as Blue Lake) is owned by the Fort Lyon Canal Company. The dam is a 32-foot-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.



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

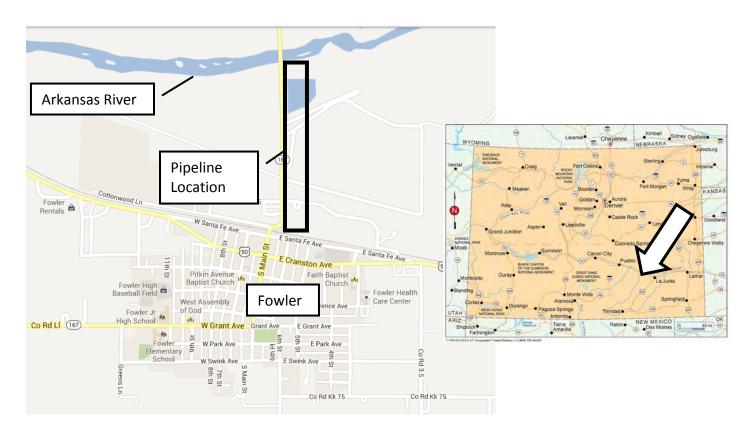
**Total Project Cost:** \$305,000 **Funding Source:** Construction Fund

**Type of Borrower:** Municipal (Low) **Average Annual Diversion:** 157 AF

CWCB Loan: \$277,245 Interest Rate: 2.25% Term: 30 years

(with 1% Service Fee)

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.



**Borrower:** Town of Georgetown County: Clear Creek County

(Water and Sewer Enterprise)

**Project Name:** Outlet Works Modification Project **Project Type:** Dam Rehabilitation

**Drainage Basin/District:** South Platte / 7 Water Source: Clear Creek

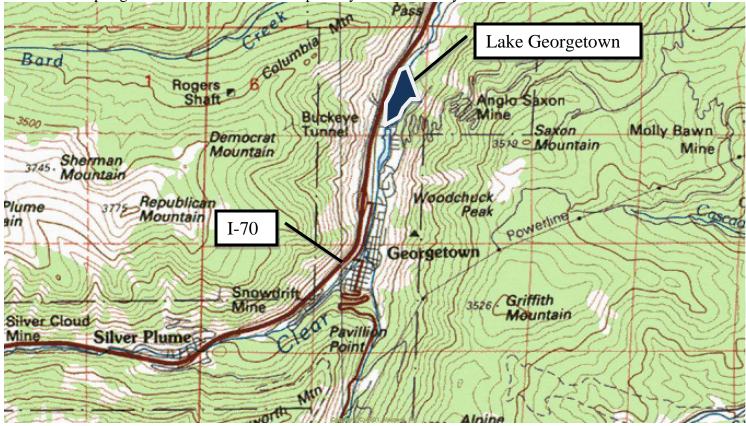
Total Project Cost: \$3,275,000 **Funding Source:** Construction Fund

**Type of Borrower:** Middle-Income Municipal **Average Diversion: 208 AF** 

**CWCB Loan:** \$2,976,975 (w/ 1% service fee) **Interest Rate:** 4.5% **Term:** 30 years

The Town of Georgetown is located on Clear Creek, along the I70 corridor, east of the continental divide. The Town needs to increase the outlet works capacity at Georgetown Lake Dam. The outlet works currently can release up to 260 cfs. In order to comply with an October 2010 court order regarding Georgetown Lake operations, up to 500 cfs must be released so the Town can meet the terms of its augmentation plan. The CWCB loan will be used to pay for the engineering costs and for the construction costs associated with the outlet works project. Construction is expected to begin

in the spring of 2012 and should be complete by the end of the year.





County: Delta

**Borrower:** Grand Mesa Water Conservancy

District

Project Name: Peak Reservoir and Blanche

Park Reservoir Rehabilitation

**Drainage Basin/ District:** Gunnison / 40 **Water Source:** Surface Creek

**Total Project Cost:** \$640,000 Funding Source: Construction Fund/

WSRA Gunnison Basin Funds

**Project Type:** Reservoir Rehabilitation

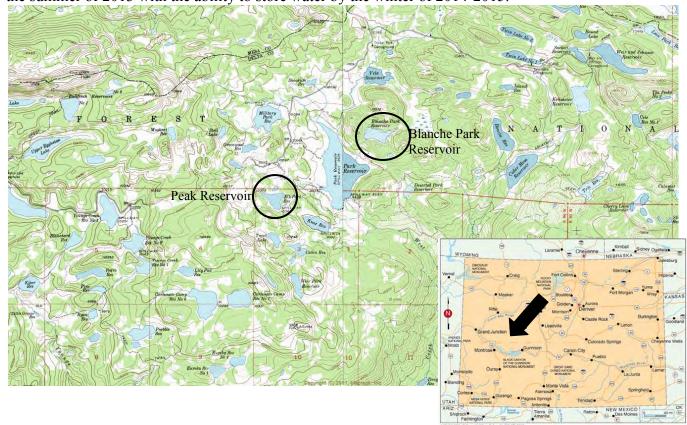
**Type of Borrower:** Municipal/Agricultural **Average Annual Diversion:** 400 AF

Storage Added: 155 AF

CWCB Loan: \$227,250 Interest Rate: 1.55%\* Term: 20 years

(with 1% Service Fee) (Reduced from 1.8% blended rate)

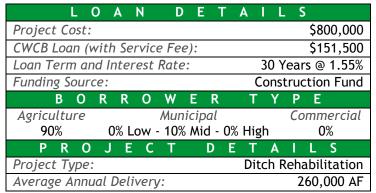
The Grand Mesa Water Conservancy District owns several reservoirs and a network of ditches to service agricultural users and municipal users including the Town of Orchard City and Cedaredge. It is requesting a loan to rehabilitate Peak Reservoir and Blanche Park. Both reservoirs are located in the Grand 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.

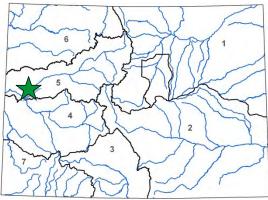




### **Government Highline Canal Lining**

Grand Valley Water Users Association September 2016 Board Meeting

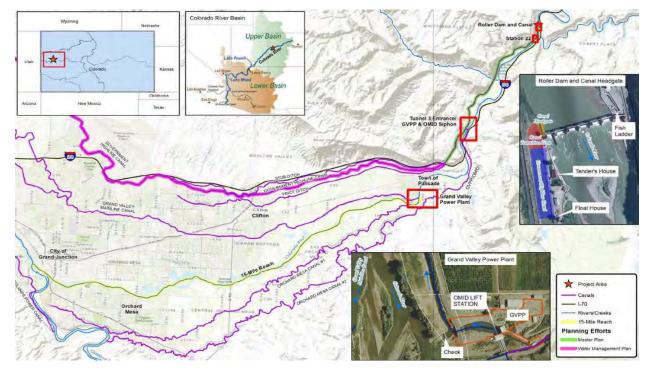




The Grand Valley Water Users Association (Association), is requesting funding for the Government Highline Canal Lining Project. The Association is the managing entity of the Bureau of Reclamation's Grand Valley Project. The Grand Valley Project facilities include the Grand Valley Diversion Dam (also known as the Roller Dam) on the Colorado River in De Beque Canyon, the

LOCATIONCounty:MesaWater Source:Colorado RiverDrainage Basin:ColoradoDivision:5District:72

55-mile-long Government Highline Canal,150 miles of project operated laterals, 100 miles of drainage ditches, and a hydroelectric power plant. 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 has slumped, settled and degraded. Occasional erosion within the embankment has led to material loss and sinkholes. As a result of canal degradation, water flow is restricted and the canal cross section has been reduced, causing a reduction in capacity of the canal channel. The canal is currently physically restricted to approximately 1,600 cfs while the water rights are for 1,730 cfs. To increase the capacity, the Association intends to improve first 500 feet of the canal. Permitting and final design are scheduled for completion by March 2017. Construction is anticipated in summer and fall of 2017.

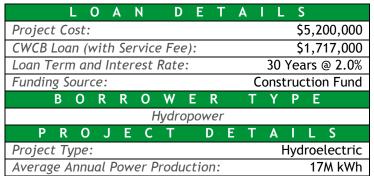




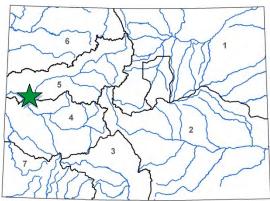
### **Grand Valley Power Plant Rehabilitation**

**Grand Valley Water Users Association** 

November 2016 Board Meeting



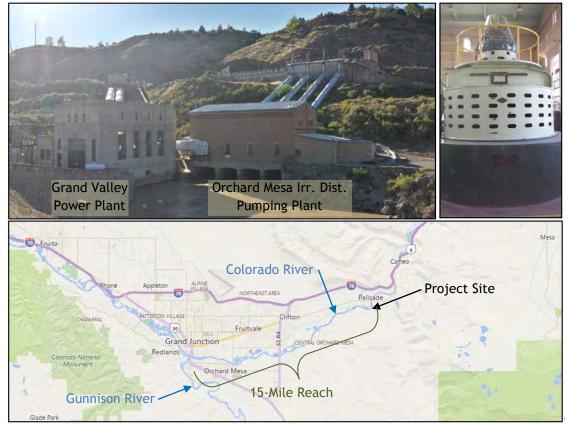
The Grand Valley Water Users Association (Association) and Orchard Mesa Irrigation District (District) are each seeking a loan to cover its cost share for the Grand Valley Power Plant (GVPP) Rehabilitation Project. The GVPP is owned by the Bureau of Reclamation and originally operated by Public Service 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



L O	С	Α	T		0	N
County:						Mesa
Water Sou	ırce:			Col	orado	River
Drainage I	Basin:				Co	lorado
Division:	5		Distr	ict:	7	2

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 importnant 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



**Borrower:** Huerfano County Water Conservancy **County:** Huerfano

District

Project Name: Regional Augmentation Project Project Type: Water Rights Acquisition

and Augmentation

**Drainage Basin:** Arkansas / District 67 **Water** Huerfano River

**Source:** 

**Total Project** \$3,050,000 **Funding** Construction Fund

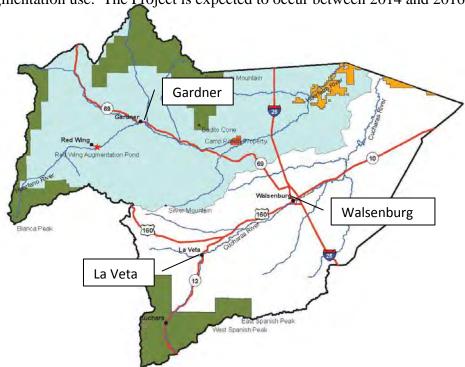
Cost: Source:

Type of Low-Income Municipal Avg. Annual 19.5 AF

Borrower: Diversions:

**CWCB 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.



**Borrower:** Lake Durango Water Authority County: La Plata

**Project Name:** Source Water Supply Project **Project Type:** Water Rights

Purchase/Infrastructure

**Drainage Basin:** San Juan / Dolores **Water Source:** ALP

**Total Project Cost:** \$3,000,000 **Funding Source:** Construction Fund and

WSRA Statewide Funds

**Type of Borrower:** Low-income Municipal **Average Delivery:** 309 AF

**CWCB Loan:** \$2,525,000 (w/ 1% service fee) **Interest Rate:** 4.0% **Term:** 30 years

**WSRA Statewide Grant:** \$500,000 \$450,000

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).



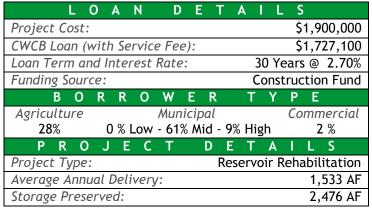


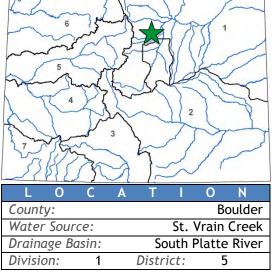




### Lake McIntosh Outlet Works Repair

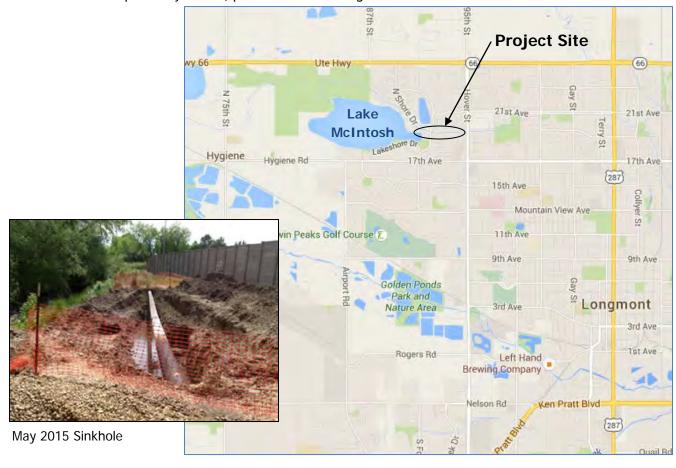
Lake McIntosh Reservoir Company January 2016 Board Meeting





Lake McIntosh Reservoir Company is a mutual irrigation reservoir company formed in 2001. The Company owns Lake McIntosh Reservoir which is used as part of an exchange between the Highland Ditch Company and the Oligarchy Ditch Company.

The reservoir was constructed in 1890 and enlarged in 1902. In May 2015, a section of the reservoir's outlet pipe collapsed, creating a sinkhole which deposited soil in the outlet works pipes downstream for approximately 300 feet. This has rendered the reservoir's outlet works unusable and thus water cannot be delivered without the use of a temporary pump. The goal of this project is to restore the reservoir's functionality by repairing its damaged outlet works. Construction is planned to begin in summer 2016 and completed by winter, prior to the 2017 irrigation season.

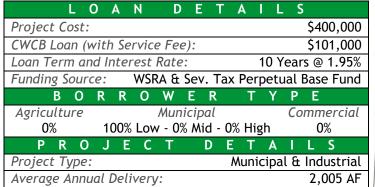


### Repurposing of Wells 12 and 13

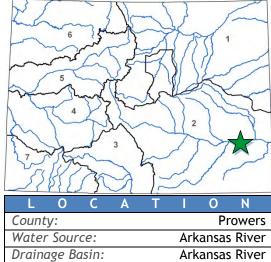
City of Lamar

September 2015 Board Meeting





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



District:

67

2

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.

Division:



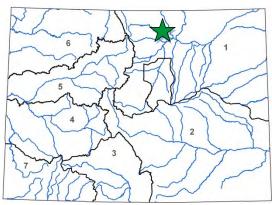
Water Project Loan Program - Project Data Sheet



### **Headgate Structure Replacement**

Larimer and Weld Irrigation Company September 2016 Board Meeting

LOAN DET	AILS
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	TYPE
Agriculture Municipal	Commercial
96% 0% Low - 4% Mid - <1%	High 0%
	J
PROJECT DE	
PROJECT DE Project Type:	



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

L O C A T I O N

County: Larimer & Weld

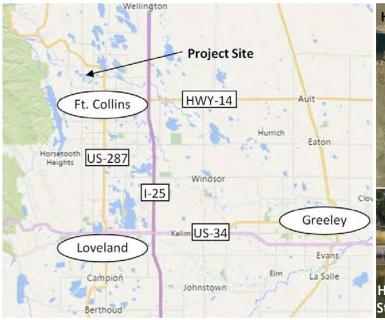
Water Source: Cache la Poudre River

Drainage Basin: South Platte

Division: 1 District: 3

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.







### **Upper Beaver Brook Dam Spillway**

Lookout Mountain Water District November 2015 Board Meeting

LOAN	D	Е	T /	4	l L	. S				
Project Cost:						\$	3,4	10,000		
CWCB Loan:						\$	3,0	99,690		
Loan Term and Interest Rate: 30 years @ 3.25%										
Funding Source:				C	cons	truc	tio	n Fund		
BORRO	W	E R		T	Υ	Р	Е			
A! I I						_		! . 1		
Agriculture	Muni	icipal				Co	mn	nercial		
	<i>Muni</i> h-inco			)		Co		nerciai )%		
	jh-inco		100%	T	Α	Co				
0% Hig	jh-inco	ome 1	100% E	Т		I	L	)%		
0% Hig	jh-inco T	ome 1	100% E	Т	voir	I Enl	L arg	)% S		

L O C A T I O N

County: Clear Creek

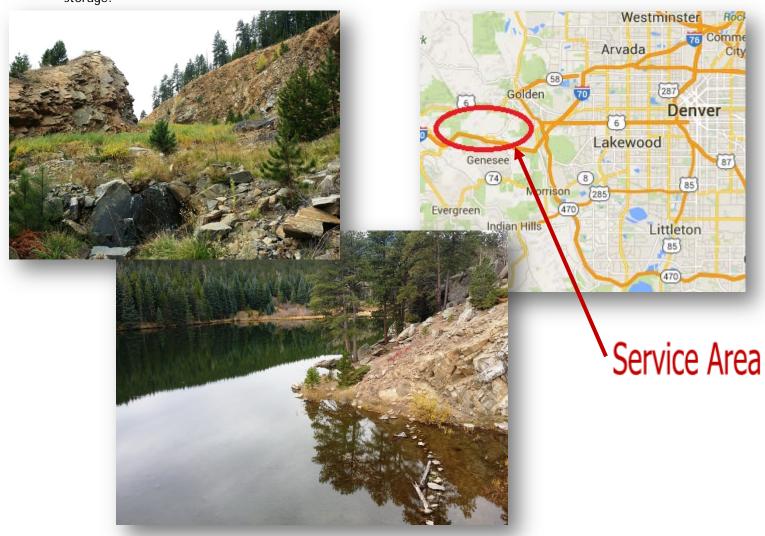
Water Source: South Fork Beaver Brook

Drainage Basin: South Platte River

Division: 1 District: 7

The Lookout Mountain Water District, a drinking water provider with 565 taps in Jefferson County, seeks to increase the storage capacity of the Upper Beaver Brook Dam. By designing and constructing a new labyrinth spillway structure in the location of the existing spillway,

a raise in the normal reservoir pool elevation will provide approximately 140 acre-feet of additional storage.



Water Project Loan Program - Project Data Sheet

#### Water Project Loan Program - Project Data

**Borrower:** City of Monte Vista County: Rio Grande

(Water Activity Enterprise)

**Project Name:** Augmentation Water Rights **Project Type:** Water Rights Purchase

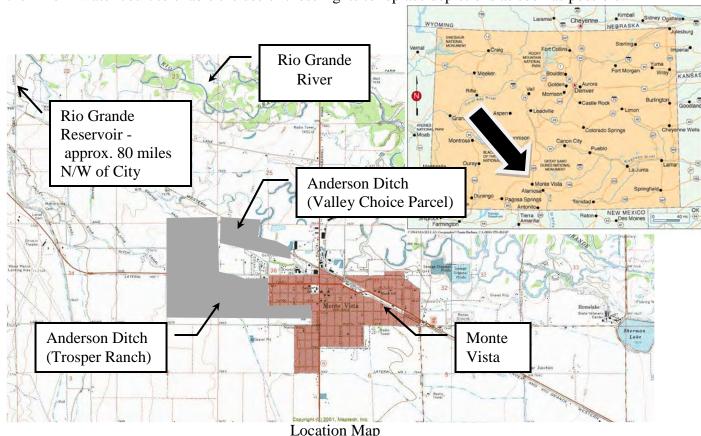
Acquisition **Drainage Basin:** Rio Grande **Water Source:** Rio Grande River

**Total Project Cost:** \$1,863,500 **Funding Source:** Construction Fund

**Type of Borrower:** Low-Income Municipal **Aver. Demand:** 1,212 AF/year

CWCB Loan: \$1,693,770 (incl. 1% loan fee) Interest Rate: 4.0% Term: 30 years

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. Upcoming rules from the Office of the State Engineer will 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. The water rights currently owned by the City are insufficient to fully replace the City's depletions. The City needs an additional 321 AF of replacement water. In order to meet this need, the City is purchasing Anderson Ditch water rights and storage in the Rio Grande Reservoir to store both the excess credits from the water it is purchasing and to store additional water it intends on leasing. Upon loan approval, the City plans on executing purchase agreements with the sellers of the Anderson Ditch rights and will then file in water court to enable the use of those rights to replace depletions as soon as possible.





### Mountain Supply Reservoir No. 10 Repairs

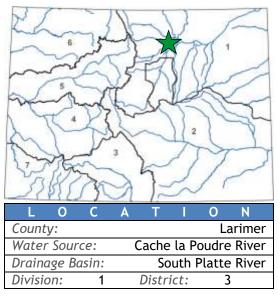
North Poudre Irrigation Company
March 2017 Board Meeting

LOAN DETAIL	S
Project Cost:	\$495,000
CWCB Loan (with Service Fee):	\$499,950
Loan Term and Interest Rate: 30 year	ars @ 2.50%
Funding Source: Severance Tax Perpetua	l Base Fund
D O R R O W E R I I I	PΕ
Agriculture Municipal C	Commercial
26% 0% Low - 73% Mid - 0% High	1%
PROJECT DETAI	L S
Project Type: Reservoir Rel	habilitation
Average Annual Delivery:	88,900 AF
Total Reservoir Storage:	344 AF
Water Storage Preserved:	264 AF

The North Poudre Irrigation Company's service area encompasses approximately 300 square miles, including additional service areas covering 14 communities and municipal water providers owning NPIC shares. The Company operates 22 storage reservoirs, 5 flood control dams, and approximately 200 miles of ditches. Irrigated acreage within the service area supports production of corn, sugar beets, soybeans, hay, and feed crops.

Mountain Supply Reservoir No. 10, owned and operated by the Company, was constructed in 1905, and a major rehabilitation of the dam was completed in 1973. The Company has a storage decree in this reservoir of 344 acre-feet. In August of 2015, the outlet works experienced a failure in the corrugated metal pipe outlet tube downstream of the intake headgate. The reservoir was drained. A subsequent storage restriction by the State Engineer's Office (SEO) was put in place while the Company made temporary repairs. Due to the temporary nature of the repairs, the Company was only permitted to store 80 acre-feet, pending comprehensive repairs to the outlet works. Further engineering investigations found need for additional reservoir infrastructure repairs, including repairs to the headgate and inlet structure from the ditch to the reservoir, grading in the bottom of the reservoir from inlet to outlet, and changes to the outlet works.

The purpose of the Project is to repair the Mountain Supply Reservoir No. 10 inlet and outlet works, removing the SEO storage restriction and restoring the Company's ability to hold their full storage rights.





C150368

**Borrower:** North Poudre Irrigation Company County: Larimer

**Project Name:** Fossil Creek Reservoir Diversion **Project Type:** Diversion Rehabilitation

Structure Repair

**Drainage Basin/ District:** South Platte / 3 **Water Source:** Cache la Poudre

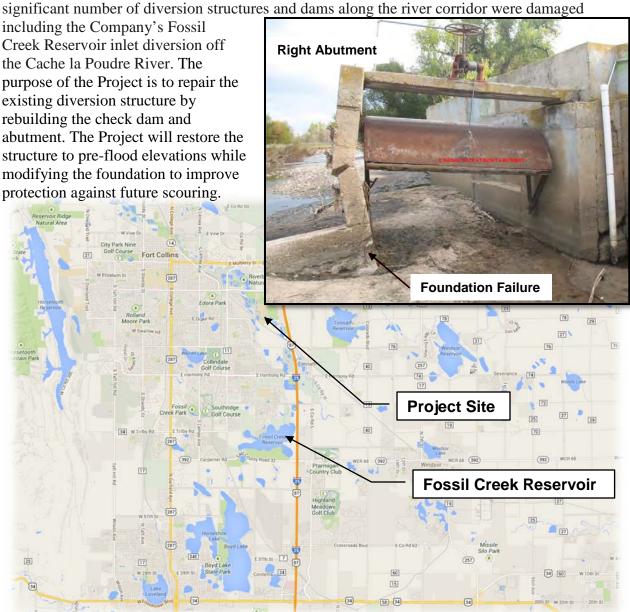
**Total Project Cost:** \$477,000 **Funding Source:** Severance Tax PBF

**Type of Borrower:** Blended **Average Annual Diversion:** 31,700 AF

CWCB Loan: \$481,770 Interest Rate: 2.35% Term: 30-years

(with 1% service fee) (37% Ag, 1% Low, 57% Mid, 4% High, <1% Com)

During the unprecedented flood of September 2013 in the tributaries to the South Platte River, a

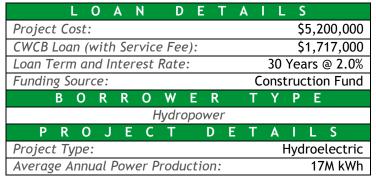




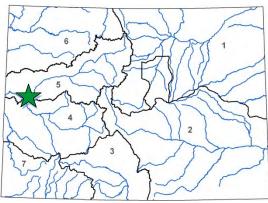
### **Grand Valley Power Plant Rehabilitation**

**Orchard Mesa Irrigation District** 

November 2016 Board Meeting



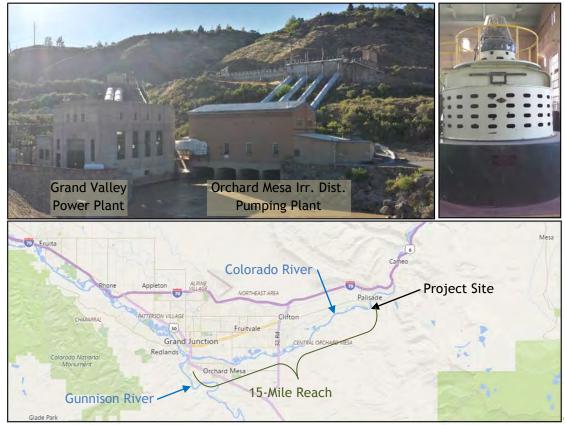
The Orchard Mesa Irrigation District (District) and Grand Valley Water Users Association (Association) are each seeking a loan to cover its cost share for the Grand Valley Power Plant (GVPP) Rehabilitation Project. The GVPP is owned by the Bureau of Reclamation and originally operated by Public Service 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



L 0 (	C A	TI	0 N
County:			Mesa
Water Source	:	Co	olorado River
Drainage Basi	n:		Colorado
Division:	5	District:	72

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 importnant 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



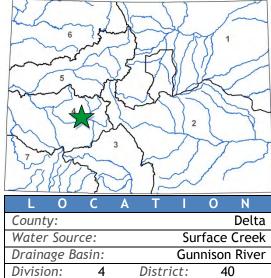
## COLORADO Colorado Water Conservation Board

Department of Natural Resources

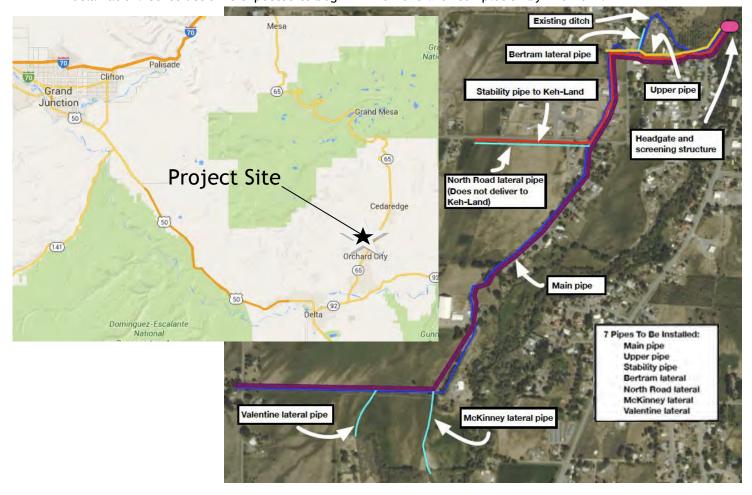
Orchard Ranch Ditch Company January 2016 Board Meeting

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

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



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.



## CWCB Construction Loan Program Project Data Sheet

Borrower: Overland Ditch and Reservoir Co. County: Delta

Project Name: Overland Reservoir Enlargement Project Type: Reservoir Enlargement

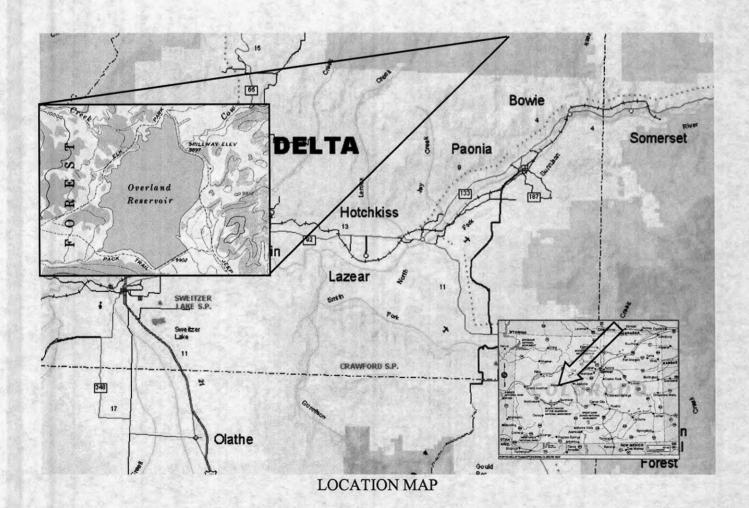
Drainage Basin: Gunnison River Basin Water Source: Cow Creek

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.



#### Water Project Loan Program - Project Data

**Borrower:** Riverside Ditch & Allen Extension Co. County: Chaffee

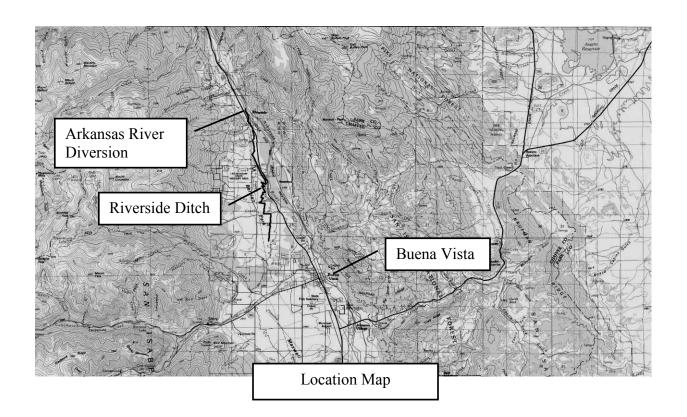
**Drainage Basin:** Arkansas River

**Total Project Cost:** \$205,000 Funding Source: Construction Fund

Type of Borrower: Agricultural Average Diversion: 3,250 acre-feet

CWCB Loan: \$186,345 (Including 1% fee) Interest Rate: 2.75% Term: 30 years

The Riverside Ditch and Allen Extension Company (Company), located near Buena Vista, owns and operates the Riverside Ditch (canal) that provides irrigation water to a 450 acre service area within Chaffee County. A significant portion of the Company's structures along the 125 year old canal are aged and in need of repair or replacement. The Company intends to complete a number of phased improvements to the canal that include: repairs to the river diversion; lining of portions of the canal to reduce seepage; installation of canal monitoring using SCADA equipment; phreatophyte removal; repair/replacement of aging headgates; and installation of standardized flumes. The proposed improvements would benefit the shareholders by improving overall canal efficiency, thereby increasing the consistency of shareholder headgate deliveries. These improvements will also benefit the Company through increased operator safety. Improvements are expected to be completed between the winter of 2009 and spring of 2012.



### 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 **Funding Sources:** Severance Tax Trust Fund

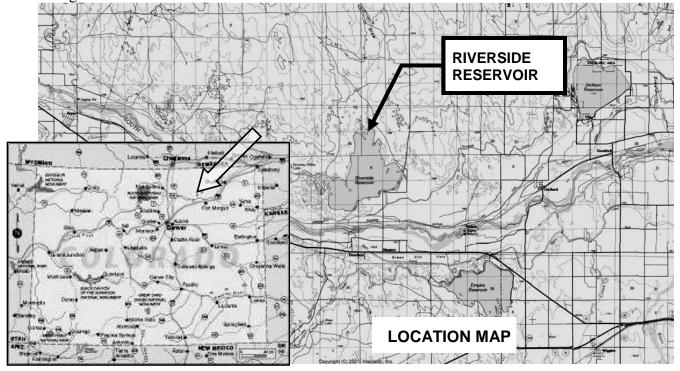
Perpetual Base Account

Type of Borrower: Agricultural Average Delivery: 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.



# CWCB Construction Loan Program Project Data Sheet (Increase)

Borrower: Sanchez Ditch and Reservoir Co.

County: Costilla

Project Name: Sanchez Reservoir Outlet

Project Type: Dam Rehabilitation

Rehabilitation Project

Water Source(s): Ventero Creek

Basin / District: Rio Grande / 24

Funding Sources: Construction Fund & WSRA

(Basin & Statewide funds)

Total Project Cost: \$2,282,000

Average Diversions: 15,000 AF

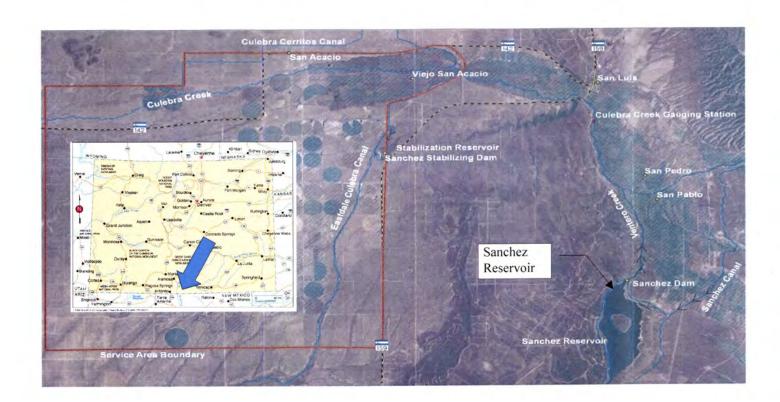
Type of Borrower: Agricultural

(Interest Rate Increased by 0.25% for longer term)

Interest Rate: 2.0% Term: 40 years

Loan Amount: \$1,381,276 (Including 1% fee) Interest Rate: 2 WSRA Grant Amounts: \$55,000 Rio Grande Basin & \$859,400 Statewide

The 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 outlet includes a 135 foot tall concrete gate tower. In order to access the gates to operate the dam, a tramway/gondola runs along a cable and is powered by a portable gasoline generator. Because daily access to the tower is required during irrigation season, the reliability and safety of the gondola system has been a concern of the Company. Using loan and grant funds, the Company intends to address the safety and operational management concerns at the reservoir through the demolition of the gate tower; the installation of new control gates and operators; patching the outlet conduit; repairing the downstream outlet structure; and, installing a new perimeter drain and weir along the right side of the outlet structure to control seepage. The project schedule is estimated as: final design and State Engineer's Office (SEO) approval by August 2014; bid the project in May of 2014; award the bid by August of 2014; start construction in September of 2014; complete construction by March of 2015.



St Vrain Creek

South Platte

5



### Lake 4 Outlet Pipeline Repair

St. Vrain and Left Hand Water Conservancy District
January 2017 Board Meeting

LOAN DETAILS	
Project Cost: \$912,0	00
CWCB Loan (with Service Fee): \$619,1	30
Loan Term and Interest Rate: 30 Years @ 2.8!	5%
Funding Source: Construction Fu	nd
BORROWER TYPE	
Agriculture Municipal Commerci	al
0% 0% Low - 0% Mid - 97% High 3%	
PROJECT DETAILS	
Project Type: Reservoir Rehabilitation	on
Average Annual Delivery: 182	ΑF
Storage Preserved: 600 i	ΑF

L O C A T I O N
County: Boulder

District:

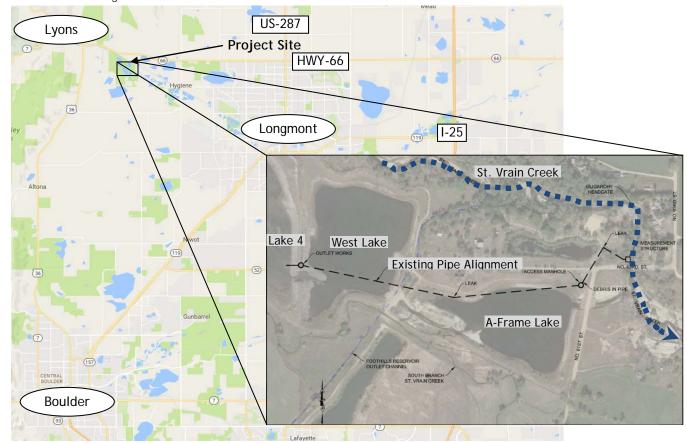
The St. Vrain and Left Hand Water Conservancy District and Boulder County Parks and Open Space jointly own a lined reservoir known as Rock'n WP Ranch Lake No. 4 (Lake 4). Lake 4 was created by reclaiming mined slopes, installing a slurry wall liner around the former gravel pit,

and installing inlet and outlet structures. The outlet works included a half-mile-long 18-inch reinforced concrete pipe approximately extending from the dam to the St. Vrain Creek. The District and County County recently inspected the outletworks pipeline 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 Source:

Division:

Drainage Basin:



Water Project Loan Program - Project Data Sheet

Borrower: St. Vrain and Left Hand Water

**Conservancy District** 

**Project Name:** Emergency Rock'n WP Ranch

Lake No. 4 Repair Project

**Drainage Basin:** South Platte

Total Project Cost: \$9,000,000

Type of Borrower: Blended

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

County: Boulder

Project Type: Reservoir Rehabilitation

Water Source: St. Vrain Creek

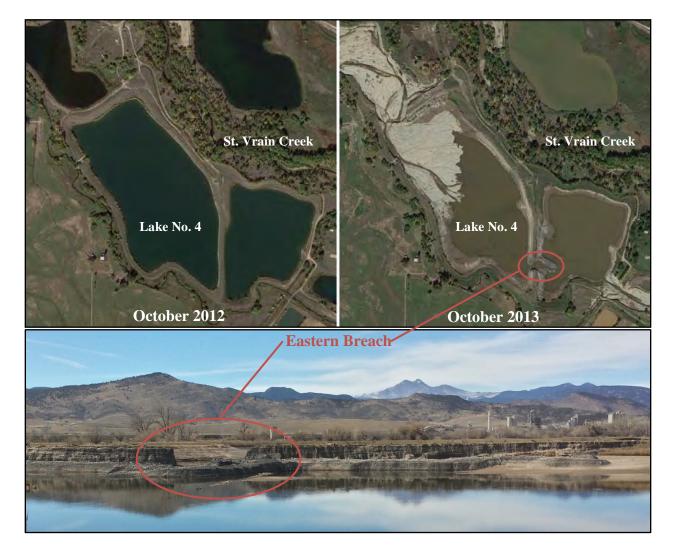
**Funding Source:** Severance Tax Perpetual

Base Fund

Average Annual Augmentation: 200 AF Preserved Water Supply Storage: 600 AF 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.

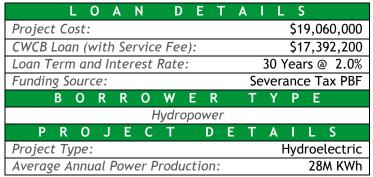




## Arkansas Valley Conduit Phase One Pueblo Dam Hydroelectric Project

Southeastern Colorado Water Conservancy District

July 2016 Board Meeting



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

L O C A T I O N

County: Pueblo

Water Source: Arkansas River

Drainage Basin: Arkansas River

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.

Division:

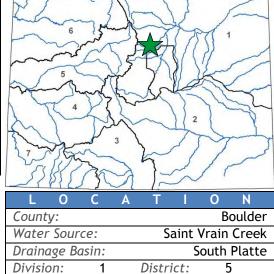
The proposed 7.5 megawatt facility will be located on the North Outlet of Pueblo Dam. A powerhouse would be located at the downstream end of the existing outlet works that supplies water to the Arkansas River and would allow the Dam's authorized releases to generate an annual average 28 million kWh (enough 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.



### **Emergency Supply Irrigating Ditch Repair Project**

Supply Irrigating Ditch Company November 2014 Board Meeting

LOA	N D	E T A	l L	. S	
Project Cost:				\$3	21,000
CWCB Loan (with Se	rvice Fee):			\$3	24,210
Loan Term and Inter	est Rate:		27 \	ears @	2.25%
Funding Source:	Severan	ice Tax P	erpeti	ıal Bas	e Fund
BORR	O W E	R	T Y	PΕ	
Agriculture	Munic	ipal		Comn	nercial
86% 0% L	_ow - 5% M	id - 7% H	igh	2	2%
PROJE	СТ	DΕ	T A	I L	S
Project Type:		[	Ditch I	Rehabil	itation
Average Annual Dive	rsion:			4,	650 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 including the Company's ditch system. Floodwaters destroyed the diversion dam, caused heavy sedimentation in the ditch, and damaged 750 LF of ditch.

Temporary repairs were completed in order to allow the Company to divert a portion of its water rights during the 2014 irrigation season. The Company has received approval of its Project Worksheet from FEMA to fund a portion of the permanent repairs. This loan will cover the remaining cost associated with the repairs and provide upfront funding for the FEMA reimbursement funds. Construction is scheduled to be complete prior to the 2015 irrigation season.





## Storage Development and Water Rights Purchase

**Town of Firestone** 

**November 2016 Board Meeting** 

L O	A	N	D	Ε	Т	Α	1	L	S		
Project Cost:								\$	10	,04	3,150
CWCB Loan (wit	th Se	rvic	e Fee	):				\$	10	,00	0,000
Loan Term and	Inter	rest	Rate:				20	Yec	ırs	@ .	2.35%
Funding Source	:						Cor	ıstru	ct	ion	Fund
B O R	R	0	W	E I	R	1	· )	Y P		E	
1 11											
Agriculture			Muni	cipa	l			С	on	ıme	ercial
-	0% Lo	ow -	Muni 0% M	•		% H	igh	С	on	nme 0%	
-	0% Lo			•	100		igh		on		
0%		C	0% M	id - D	100 E	. 1	· /	\	Į	0%	
0% P R O	J E	C	0% M T Storag	id - D	100 E	. 1	· /	\	Į	0% - Pur	S

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

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County	<b>/:</b>						Weld
Water	Sour	ce:					River /
					Во	ulder	Creek
Draina	ge Bo	asin:		So	uth l	Platte	River
Divisio	n:	1		Distr	ict:	2	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.

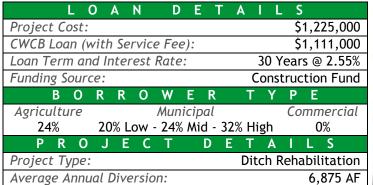


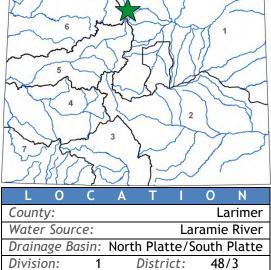
Water Project Loan Program - Project Data Sheet



### **Laramie-Poudre Tunnel Rehabilitation**

The Tunnel Water Company September 2015 Board Meeting

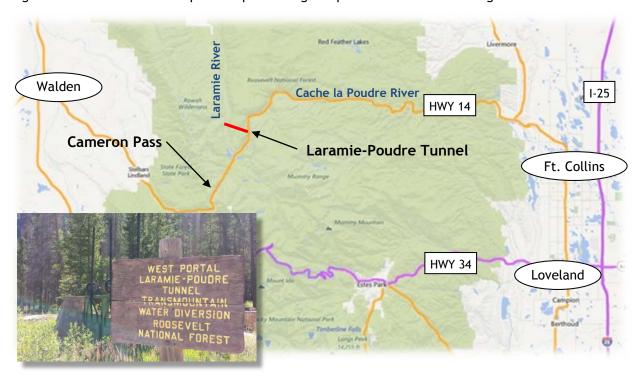




The Tunnel Water Company operates the Laramie-Poudre Tunnel for the benefit of its two shareholders: Water Supply and Storage Company (WSSC) and Windsor Reservoir and Canal Company (WRCC). The tunnel diverts from the Laramie River, about 60 miles west of Fort Collins, and delivers water through a 2.15-mile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

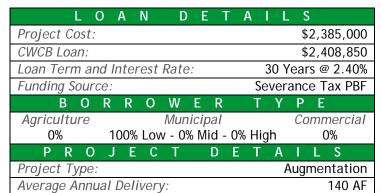


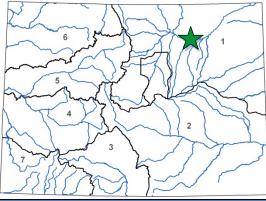


### Wiggins Recharge Facility at Glassey Farms

Town of Wiggins

March 2017 Board Meeting





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.

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County	y:					N	<i>N</i> orgar	า
Water	Sour	ce:		So	uth	Platte	e Rive	r
Draina	ige B	asin:		Sc	uth	Platte	e Rive	r
Divisio	n:	1		Distr	ict:	,	1	

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 aquifer 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.



County: Douglas & Arapahoe

**Project Type:** New Water Supply

C150408

**Borrower:** Cottonwood Water & Sanitation

District

**Project Name:** Water Infrastructure and Supply

(WISE) Efficiency Project

**Drainage Basin/ District:** South Platte / 8 **Water Source:** South Platte

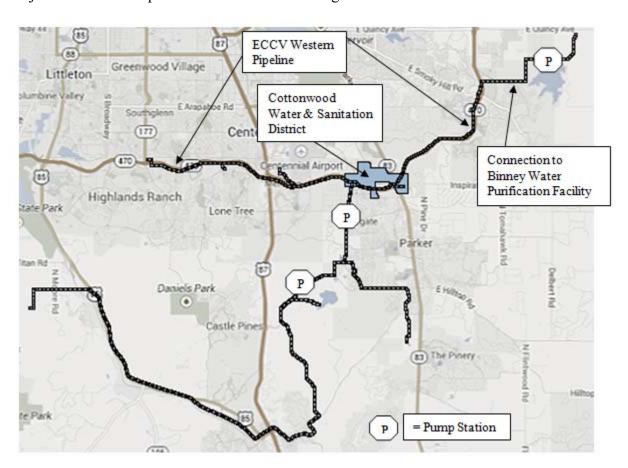
**Total Project Cost:** \$4,960,000 Funding Source: Construction Fund

Type of Borrower: High-Income Municipal Average Annual Delivery: 789 AF

CWCB Loan: \$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.



County: Douglas & Arapahoe

Water Source: South Platte

**Project Type:** New Water Supply

C150409

**Borrower:** Inverness Water & Sanitation

District

**Project Name:** Water Infrastructure and Supply

(WISE) Efficiency Project

**Drainage Basin/ District:** South Platte / 8

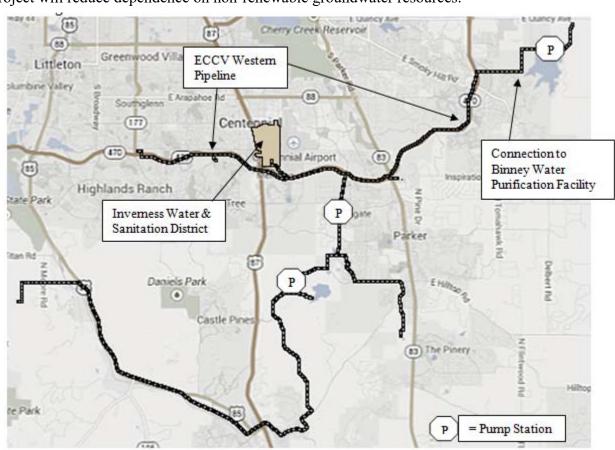
**Total Project Cost:** \$5,400,000 **Funding Source:** Construction Fund

**Type of Borrower:** High-Income Municipal **Average Annual Delivery:** 1,100 AF

CWCB Loan: \$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.



C150410

**Borrower:** Parker Water & Sanitation District County: Douglas & Arapahoe

**Project Name:** Water Infrastructure and Supply **Project Type:** New Water Supply

(WISE) Efficiency Project

**Drainage Basin/ District:** South Platte / 8 **Water Source:** South Platte

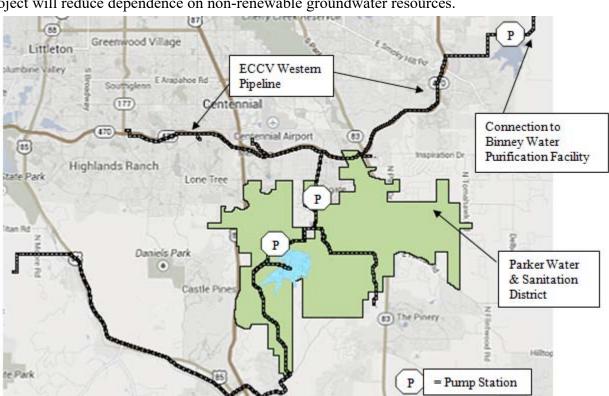
**Total Project Cost:** \$17,305,500 Funding Source: Construction Fund

Type of Borrower: High-income Municipal Average Annual Delivery: 5,000 AF

CWCB Loan: \$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.



County: Douglas

**Project Type:** New Water Supply

C150411

**Borrower:** Denver Southeast Suburban Water

and Sanitation District (dba

Pinery Water and Wastewater District)

**Project Name:** Water Infrastructure and Supply

(WISE) Efficiency Project

**Drainage Basin/ District:** South Platte / 8 **Water Source:** South Platte

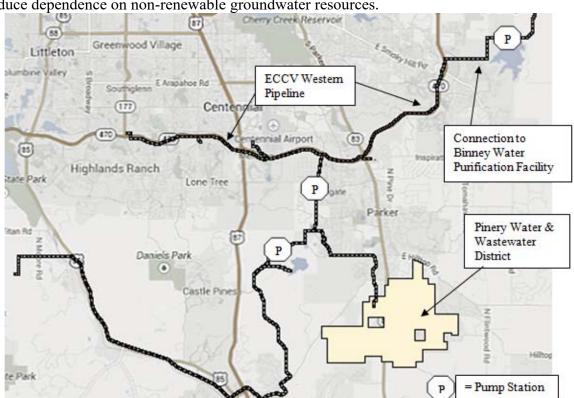
**Total Project Cost:** \$10,920,000 Funding Source: Construction Fund

**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.



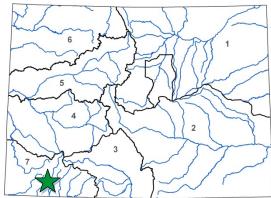
## **Projects Not Under Contract**



### **Hess Lateral Improvement**

Florida Consolidated Ditch Company May 2017 Board Meeting

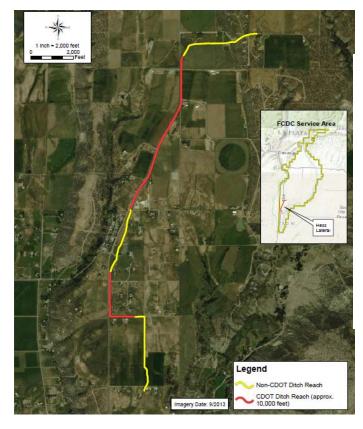
L	0	Α	N	D	Ε	T	Α	I	L	S		
Project Cos	t:									\$2,	800	,000
CWCB Loan.										\$1,	085	,750
Loan Term	and	Inte	eres	t Rate	):			30	-ye	ars	@ 1	.80%
Funding Sou	ırce	:		Sever	ance	Tax	∢ Pe	rpe	tua	al Ba	ise I	und
ВО	R	R	0	W	E R		Т	Υ	P	E		
Agriculture	ò			Mun	icipa	1			(	Com	mei	rcial
100%				0%	)					0%		
P R C	J	Ε	С	T	D	Ε	T	Α	- 1	L	S	
Project Typ	e:			•			Di	tch	Re	hab	ilita	ition
Average Ani	nuai	Div	ersi	ion:						43	3,00	0 AF

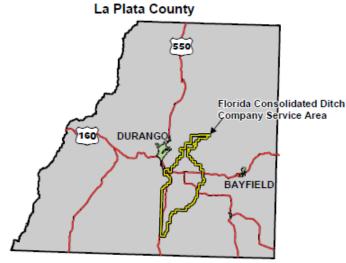


The Hess Lateral, part of the Florida Consolidated Ditch Company water conveyance system, is located 7 miles south of Durango, CO on the Florida Mesa. The lateral serves approximately 67 users irrigating over 1,500 acres of hay and pasture land. The project will replace the open ditch with buried gravity-pressurized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

L	0	С	Α	Т	- [	0	N	
Count	y:					La	Plata	
Water	Sour	ce:	ce: Animas Rive					
Draina	age B	asin:	San Juan/Dolores Rive					
Divisio	on:	7		Distri	ct:	30	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.



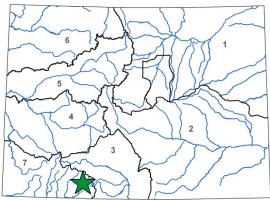




### **Dry Gulch Reservoir Land Acquisition**

San Juan Water Conservancy District
May 2017 Board Meeting

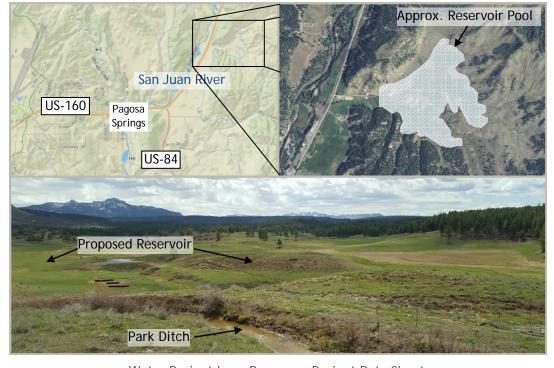
LOAN DETA	I L S
Project Cost:	\$2,000,000
CWCB Loan (with Service Fee):	\$2,000,000
Loan Term and Interest Rate:	30 Years @ 2.55%
Funding Source:	Construction Fund
B O R R O W E R T	Y P E
Agriculture Municipal	Commercial
0% 100% Low - 0% Mid - 0% Hig	gh 0%
PROJECT DET	AILS
Project Type: Water Storage	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.

L	0	С	Α	T	I	0	N			
Count	y:					Arc	huleta			
Water	<sup>-</sup> Sour	ce:		San Juan River						
Draina	age B	asin:				Sout	hwest			
Divisio	on:	29		Distri	ict:	7	1			

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

**Drainage Basin:** Arkansas — Fry-Ark Project

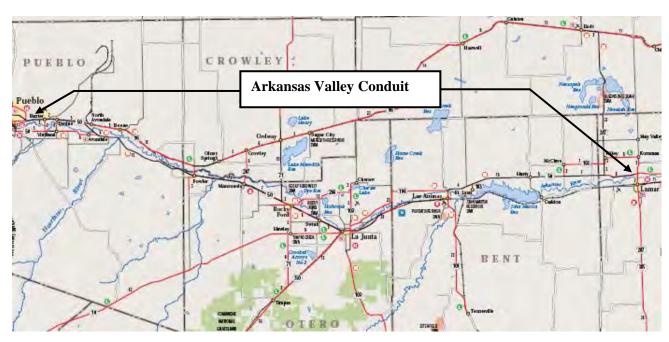
**Total Project Cost:** \$300,000,000 **Funding Sources:** CWCB, Federal

**Type of Borrower:** Municipal/Low **Aver. Delivery:** 6,555 AF (2005 demand)

CWCB Construction Fund Loan: \$60,600,000 Interest Rate: 3.25% Term: 30 years

(incl. 1% loan fee)

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** 



### City Lake Dam Rehabilitation & Enlargement

City of Walsenburg July 2017 Board Meeting

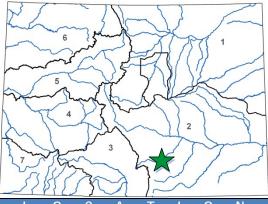
LOAN DETAI	L S							
Project Cost:	\$6,821,000							
CWCB Loan (with Service Fee):	\$6,889,210							
Loan Term and Interest Rate: 30 years @ 2.0%								
Funding Source: Severance Tax								
B O R R O W E R T	Y P E							
Agriculture Municipal	Commercial							
0% 100% Low - 0% Mid - 0% Hig	h 0%							
PROJECT DET	AILS							
Project Type: Reservo	oir 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.





L	0	С	Α	Т	- 1	0	N			
Count	y:			Huerfano						
Water	- Sour	ce:		Cucharas River						
Draina	age B	asin:		Arkansas River						
Divisio	on:	2		Distr	ict:	1	6			

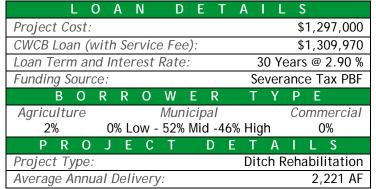


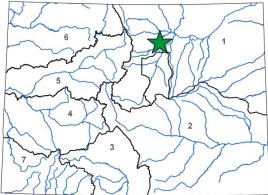


### St. Vrain Diversion Replacement

**Bonus Ditch Company** 

September 2017 Board Meeting



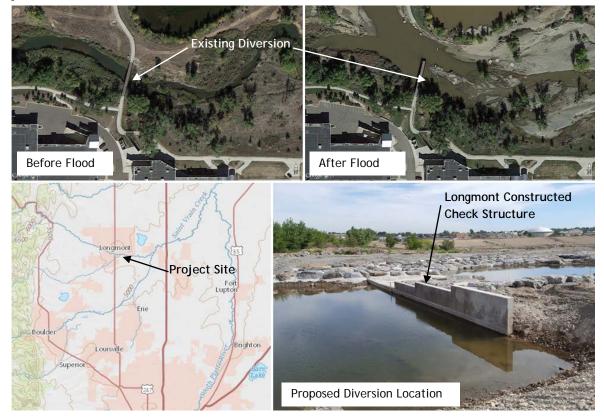


L	0	С	Α	Т	-1	0	N			
Count	ty:					В	oulder			
Water	r Sour	ce:		St Vrain Creek						
Drain	age B	asin:		South Platte						
Divisi	on:	1		Distri	ict:	5				

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.





#### **Tunnel and Canal Renovation**

Fruitland Irrigation Company September 2017 Board Meeting

LOAN DET	AILS
Project Cost:	\$10,509,000
CWCB Loan (with Service Fee):	\$1,774,671
Loan Term and Interest Rate:	40 Years @ 2.0%
Funding Source: Severance Tax	PBF and WSRF Grant
BORROWER	TYPE
	· · · -
Agriculture Municipal	Commercial
Agriculture Municipal 100% 0% Low - 0% Mid -0%	
100% 0% Low - 0% Mid -0%	High 0%

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.

L O C A T I O N

County: Delta & Montrose

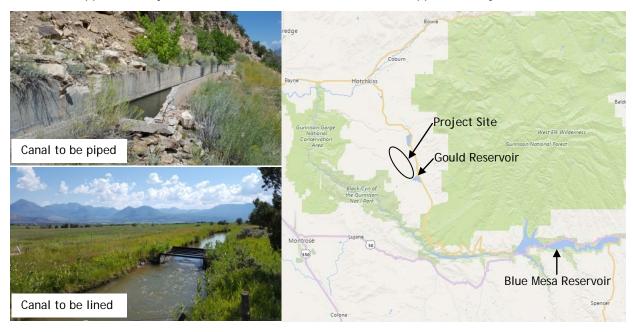
Water Source: Crystal Creek

Drainage Basin: Gunnison

Division: 4 District: 40

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.

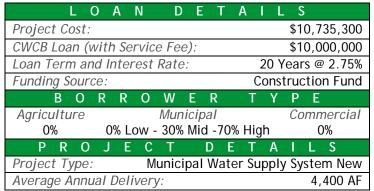




### COLORADO Participation in Southern Water Supply Project II

Left Hand Water District

September 2017 Board Meeting



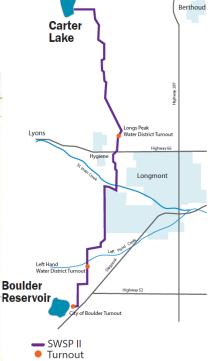
The District provides potable water service within a 108 square mile service area within unincorporated areas of Boulder and Larimer Counties; serving approximately 20,000 people through 7,154 individually metered taps. Water is treated at the Spurgeon Water Treatment Plant (WTP) and Dodd WTP. Spurgeon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

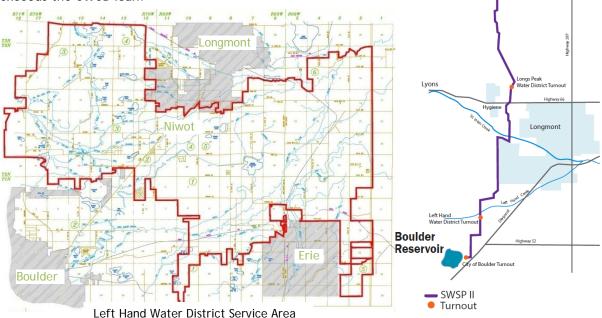
Broomfield, Weld County: Water Source: Drainage Basin: South Platte Division: District: 5

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.

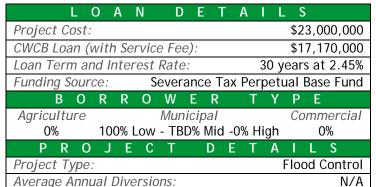






### Arkansas River and Wildhorse Creek Levee Rehabilitation

Pueblo Conservancy District September 2017 Board Meeting

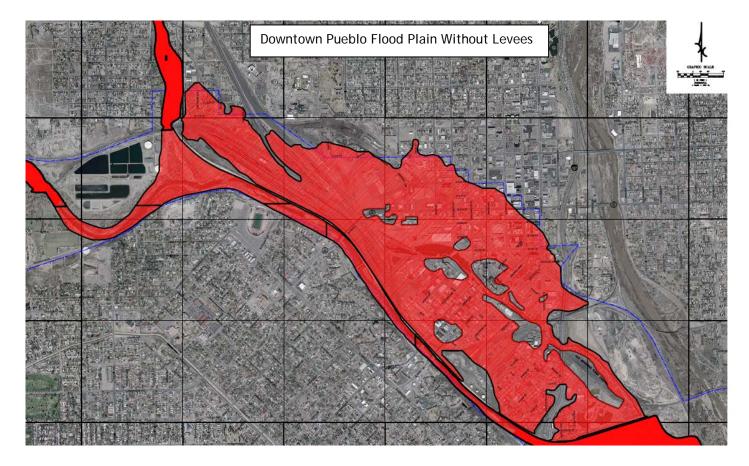


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The District was formed in response to the 1921 flood in Pueblo. Its primary function is flood protection within its designated boundaries. In 2006, the District was advised that unless the Arkansas and Wildlhorse Creek levees were accredited by the Federal Emergency Management Agency (FEMA), the City would lose it protected status which ensures that flood insurance can be provided at

L	0	С	Α	T	-1	0	N
Count	y:					F	Pueblo
Water	- Sour	ce:			Ark	ansas	River
Draina	age B	asin:				Arl	kansas
Divisio	on:	2		Distri	ict:	1	4

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.





### Windy Gap Firming Project

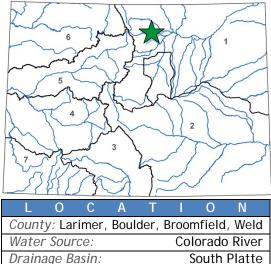
Municipal Subdistrict, Northern Colorado Water Conservancy District Windy Gap Firming Project Water Activity Enterprise

Division:

November 2017 Board Meeting



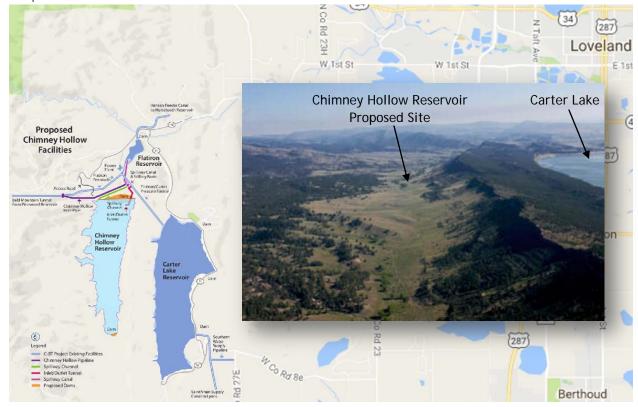
In 1970, six Northern Colorado cities formed the Municipal Subdistrict to plan, finance, and build the Windy Gap project. That project was completed in 1985. The annual delivery of Windy Gap water is not reliable because in dry years the junior water rights may not come into priority, and in wet years, there may not be room in Lake Granby to store Windy Gap water.



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 CONSTRUCTION LOAN PROGRAM LOAN REPAYMENT DELINQUENCY REPORT LOAN FINANCIAL ACTIVITY REPORT JANUARY 2018

#### LOAN REPAYMENT DELINQUENCY

Loan Repayments received relative to the Water Project Construction Loan Program have been reviewed for the period covering July 2017 through December 2017. 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 six months of Fiscal Year 2018 totaled 160. There was one loan payment not received on time during this period. The loan payment from Fuchs Ranches, Inc. was less than 30 days late. Thus, the on-time performance for the total repayments due was 99% in compliance or 1% not in compliance.

#### LOAN FINANCIAL ACTIVITY

Loan Financial Activity relative to the Water Project Construction Loan Program for Fiscal Year 2018 is summarized as follows: Funds received relative to loans in repayment totaled \$19.5 M for this year. Funds disbursed relative to new project loans totaled \$14.2 M for this year. Net activity resulted in \$5.3 M received by the CWCB Construction Fund and the Severance Tax Perpetual Base Fund (STPBF) over the total disbursed.

Further breakdown is summarized as follows: The Construction Fund portion consists of \$12.8 M in receivables and \$2.8 M in disbursements for a total net activity of \$10.0 M received over disbursed. The STPBF consists of \$6.7 M in receivables and \$11.4 M in disbursements for a total net activity of \$4.7 M disbursed over received.

#### COLORADO WATER CONSERVATION BOARD

### FINANCIAL ACTIVITY REPORT FOR FISCAL YEAR 2018

### **CONSTRUCTION FUND**

Period	Principal		Interest		Total Received		Disbursements		Net Activity	
July 2017	\$	860,664	\$	491,568	\$	1,352,232	\$	=	\$	1,352,232
August 2017	\$	4,115,117	\$	164,144	\$	4,279,261	\$	1,811,633	\$	2,467,629
September 2017	\$	1,075,737	\$	1,590,612	\$	2,666,348	\$	211,542	\$	2,454,807
October 2017	\$	766,163	\$	150,209	\$	916,372	\$	395,859	\$	520,513
November 2017	\$	1,836,268	\$	859,264	\$	2,695,532	\$	19,724	\$	2,675,808
December 2017	\$	469,665	\$	471,879	\$	941,544	\$	423,832	\$	517,712
January 2018	\$	-	\$	-	\$	-	\$	-	\$	-
February 2018	\$	-	\$	-	\$	-	\$	-	\$	-
March 2018	\$	-	\$	-	\$	-	\$	-	\$	-
April 2018	\$	-	\$	-	\$	-	\$	-	\$	-
May 2018	\$	-	\$	_	\$	-	\$	-	\$	-
June 2018	\$	-	\$	-	\$	-	\$	-	\$	-
FY 2018 Totals	\$	9,123,613	\$	3,727,676	\$	12,851,289	\$	2,862,589	\$	9,988,700

### SEVERANCE TAX PERPETUAL BASE FUND

Period	Principal		Principal I		Interest Total Received		Disbursements		Net Activity	
July 2017	\$	65,586	\$	33,608	\$	99,194	\$	-	\$	99,194
August 2017	\$	2,963,482	\$	910,785	\$	3,874,267	\$	1,475,304	\$	2,398,963
September 2017	\$	456,050	\$	505,677	\$	961,727	\$	686,539	\$	275,188
October 2017	\$	173,878	\$	151,787	\$	325,666	\$	5,439,351	\$	(5,113,685)
November 2017	\$	283,642	\$	83,985	\$	367,627	\$	1,575,331	\$	(1,207,704)
December 2017	\$	712,814	\$	288,436	\$	1,001,250	\$	2,170,319	\$	(1,169,069)
January 2018	\$	-	\$	-	\$	-	\$	-	\$	-
February 2018	\$	-	\$	-	\$	-	\$	-	\$	-
March 2018	\$	-	\$	-	\$	-	\$	-	\$	-
April 2018	\$	-	\$	-	\$	-	\$	-	\$	-
May 2018	\$	-	\$	-	\$	-	\$	-	\$	-
June 2018	\$	-	\$	-	\$	-	\$	-	\$	-
FY 2018 Totals	\$	4,655,454	\$	1,974,278	\$	6,629,732	\$	11,346,844	\$	(4,717,112)
·		•				·				
GRAND										
TOTALS	\$ 1	3,779,067	\$	5,701,954	\$	19,481,021	\$	14,209,433	\$	5,271,588