



**COLORADO**

**Colorado Water  
Conservation Board**

Department of Natural Resources

# **DIRECTOR'S REPORT**

**November 2017**

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



**COLORADO**

**Colorado Water  
Conservation Board**

Department of Natural Resources

TO: Colorado Water Conservation Board Members

FROM: Rebecca Mitchell  
Erik Skeie

DATE: November 15-16, 2017

SUBJECT: **Agenda Item 5d, November 2017 CWCB Board Meeting Director's Report**

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## ~INTERSTATE AND FEDERAL~

**MINUTE 323 SIGNED** – On September 27, representatives of the United States and Mexico confirmed the signing of Minute 323 to the 1944 water treaty between the two countries. The official title of the Minute is “Extension of Cooperative Measures and Adoption of a Binational Water Scarcity Contingency Plan in the Colorado River Basin,” which extends provisions of Minute 319, which was scheduled to conclude on December 31, 2017. Minute 323 allows Mexico to continue to store water in Lake Mead, maintaining reservoir levels which avoid curtailment to Colorado River water users. The Minute also provides for voluntary water use cutbacks in both the United State and Mexico in times of drought, and commits U.S. parties to the investment of \$31.5 million in water efficiency in Mexico to the benefit of water conservation programs and improved infrastructure. Finally, the Minute demonstrates the U.S. and Mexico’s ongoing commitment to providing water and funding for habitat restoration and monitoring in the Colorado River Delta. (Brent Newman)

**WESTERN STATES WATER COUNCIL**– The Western States Water Council (WSWC) held its fall 2017 meetings in Albuquerque, New Mexico on October 18-20. The WSWC passed a policy position supporting prompt reauthorization of the Farm Bill in 2018 which highlights the importance of conservation programs including the Colorado River Basin Salinity Control Program and the Regional Conservation Partnership Program. The WSWC also renewed policy positions supporting Indian water rights settlements and asserting state primacy on protecting groundwater quality. Presentations and proceedings from the meeting are available at [westernstateswater.org](http://westernstateswater.org). (Carlee Brown)

**NATIONAL PARKS SERVICE POTENTIAL NON-NATIVE FISH EXPANDED ENVIRONMENTAL ASSESSMENT**– A recent uptick of harmful non-native fish species between Glen Canyon Dam and Lake Mead – especially green sunfish and brown trout – has raised concerns among state, federal, and stakeholder partners in the Glen Canyon Dam Adaptive Management Program. The National Parks Service (NPS) is responding by preparing an Environmental Assessment (EA) for an Expanded Non-native Fish Management Plan in Glen Canyon National Recreation Area and Grand Canyon National Park. This EA will explore the existing treatment and management options approved in current management plans (the Long Term Experimental Management Plan, or LTEMP, and the Comprehensive Fisheries Management Plan), as well as expanded options to control the populations of non-natives.

The Upper Colorado River Commission (UCRC) is participating in the EA as a Cooperating Agency (CA). Colorado, along with the other three Upper Basin states, is participating in the process through the UCRC’s status as a CA. This status allows the opportunity to comment on drafts and management alternatives prior to full public release. NPS intends to finalize its compliance activities by August 2018. (Carlee Brown)

## ~STATEWIDE~

**GROUND WATER COMMISSION MEETING**— The Ground Water Commission (GWC) has not held a regular meeting since the last CWCB meeting. The Ground Water Commission will hold its next regular meeting on November 3, 2017 in Castle Rock, CO. For more information, visit: <http://water.state.co.us/groundwater/CGWC/Pages/default.aspx>. (Suzanne Sellers)



**REQUESTS FOR ADMINISTRATION OF ISF WATER RIGHTS**— From September through October 2017, staff reacted to low flow alerts from the satellite monitoring system and placed four requests for administration of instream flow (ISF) water rights. The Division Engineers and their staffs have worked diligently to enforce the calls through the curtailment of junior rights and/or through the implementation of various augmentation plans.

STREAM NAME	CASE NUMBER	DATE OF FORMAL WRITTEN CALL	Outcome
Beaver Creek	5-75W2719	September 7, 2017	Curtailment, Augmentation Plan Activated
Cross Creek	5-78W3795	September 7, 2017	Curtailment, Augmentation Plan Activated
Dallas Creek	4-98CW0234	September 7, 2017	Curtailment: 3 ditches running above decreed amount, returning 6.36 cfs to the creek.
Slate River	4-80CW0092	September 7, 2017	Augmentation Plan Activated: Water released according to Upper Gunnison's accounting and according to individual plans as required.

The call letters and detailed information on the Board's rights that were administered can be found on the CWCB's web page at: <http://cwcb.state.co.us/public-information/instream-flow-administrative-calls/Pages/main.aspx> (Jeff Baessler)

**COLORADO ASSOCIATION OF CONSERVATION DISTRICTS ANNUAL MEETING** – The Colorado Association of Conservation Districts will be holding their Annual Meeting in Loveland, Colorado at the Embassy Suites Hotel and Conference Center on November 27-29<sup>th</sup>. The theme of this year's Annual Meeting is "Conservation... Climbing the Mountain Together." CWCB staff will be in attendance to discuss programming and funding opportunities with conference attendees. Director Mitchell and State Engineer Rein will be participating in a Water Panel Discussion on the 28<sup>th</sup>, commencing at 8:45 AM. For more information visit <http://www.coloradoacd.org/2017-annual-meeting.html>. (Brent Newman)

#### ~ARKANSAS RIVER BASIN~

**ARKANSAS RIVER COMPACT ADMINISTRATION** – The Arkansas River Compact Administration (ARCA) will be meeting at the Lamar Community College in Lamar, Colorado on December 6th and 7th. The Engineering, Operations, and Administrative/Legal Committees will meet on Wednesday the 6th, starting at 1:30 PM. The public is invited to attend the Committee meetings, though the time for comments may be limited. The Annual Meeting of the Administration will be held on Thursday the 7th, commencing at 8:00 AM. For more information about ARCA or the Arkansas River Compact, visit the Administration's website at <http://www.co-ks-arkansasrivercompactadmin.org/>. (Brent Newman)

**TRINIDAD 10-YEAR REVIEW**— The US Bureau of Reclamation (USBR) has released a draft of its 10-Year Review of Operating Principles and Project Operations for the Trinidad Lake Project, covering the years 2005-2014. The Trinidad Project is located on the mainstem of the Purgatoire River upstream of the city of Trinidad. As the draft document states, USBR reviews the Operating Principles every 10 years to determine if the project was operated in a manner to ensure the greatest benefits through regulation and use of the water available to the project,

consistent with the laws of the State of Colorado, the United States, and the Arkansas River Compact. The draft is available online at [https://www.usbr.gov/gp/eca/trinidad/draft\\_review\\_trinidad.pdf](https://www.usbr.gov/gp/eca/trinidad/draft_review_trinidad.pdf). Comments are due by Nov. 20. (Carlee Brown)

**LOWER ARKANSAS WATER QUALITY WORKING GROUP**– The Lower Arkansas River Water Quality Working Group met on October 18, 2017 in Colorado Springs. The group discussed pollutant loading in the Arkansas River -- particularly selenium -- and water quality trading concepts as a means to address that issue. The next Working Group meeting will be scheduled for December 1. (Carlee Brown)

~COLORADO RIVER BASIN~

**COLORADO RIVER WATER USE—**

2017 Colorado River Storage as of October 30, 2017			
	Elevation (feet above mean sea level)	Storage (MAF)	Percent of Capacity
Lake Mead	1,082.34	10.206	39%
Lake Powell	3,627.20	14.542	60%
Total System Active Storage		32.634	55%
2016 Total Active Storage		29.894	50%
		Flow (MAF)	Percent of Average
Forecasted Unregulated Inflow into Powell		11.905	110%

Forecasted CY 2017 Lower Basin Consumptive Use			
State		Use (MAF)	Total (MAF)
Arizona		<b>2.469</b>	
California			
California Agricultural	3.381	<b>3.892</b>	<b>6.609</b>
Metro. Water District	0.511		
Nevada		<b>0.248</b>	

\*Note MAF = million acre-feet (Erik Skeie)

**COLORADO RIVER BASIN SALINITY CONTROL FORUM** – The Colorado River Basin Salinity Control Forum held their ninety-seventh meeting on October 24<sup>th</sup> and 25<sup>th</sup> in Sacramento, California. The Forum heard updates from federal program partners, discussed ongoing projects, and approved a letter of recognition for former CWCBC Director James Eklund. The Forum also approved the 2017 Review of the Water Quality Standards for Salinity, a triennial document which was released for public comment last summer. Forum members discussed the status of the Lower Colorado River Basin Development Fund, which plays a major role in funding salinity control projects in the Upper Basin. The next meeting of the Forum and Advisory Council will be held in St. George, Utah the week of May 14<sup>th</sup>, 2018. More information about the Forum and the 2017 Review can be found at <http://www.coloradoriversalinity.org>. (*Brent Newman*)

**UPPER COLORADO RIVER WILD AND SCENIC (UCRW&S) STAKEHOLDER GROUP**— The UCRW&S Group held its quarterly Governance Committee (GC) meeting on October 16, 2017 in Summit County. The Executive Committee provided an update on hiring an administrative support person to assist the GC, changes to the draft Agency MOU being developed between the GC and the USFS and BLM, the BLM's Recreation Area Management Plan, and an overview of the processes available to address concerns under the SG Plan. An informational presentation on macroinvertebrates was given by Ashley Rust followed by a lively discussion of monitoring macroinvertebrates. The GC heard updates from committees refining Provisional ORV Indicators and Resource Guides. The GC also heard committee updates regarding drafting the Annual Monitoring Report and developing cooperative measures. The next GC meeting will be scheduled in January 2018 in Summit County. Additional information on the UCRW&S Group can be found at <http://www.upcowildandscenic.com>. (*Linda Bassi*)

#### ~PLATTE RIVER BASIN~

**PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM**— The Platte River Recovery Implementation Program (PRRIP) Governance Committee (GC) held an internal scoping meeting for the proposed First Increment Extension Environmental Assessment (EA) on September 6, 2017 in Kearney, NE. During the meeting, the GC discussed the process for conducting the EA including defining the purpose and need, the proposed action, issues of concern, agency coordination and public scoping meetings. The GC held its regular meeting on September 12-13, 2017 in Kearney, NE. During the meeting, the GC voted to approve the PRRIP Whooping Crane Habitat Synthesis Chapters, development of publication manuscripts for Whooping Crane Habitat Synthesis Chapters 2 and 3, the Central Nebraska Public Power and Irrigation District (CNPPID) Phelps Canal and Elwood Water Service Agreements, the CNPPID Irrigator Water Leasing Agreement, and the Executive Director's Office entering into a management agreement for Tract 1718 to develop a Moving Complex Approach (MCA) tern and plover island. The GC also held a Pallid Sturgeon Workshop on September 13-14, 2017 in Kearney, NE. During the meeting, the GC agreed to focus on 1) conducting research to address how pallid sturgeon use the Platte River; 2) improve understanding of the PRRIP's effect on pallid sturgeon, including evaluating the connection between hydrology, pallid sturgeon habitat, and pallid sturgeon use; and 3) evaluate management actions that PRRIP could use to enhance conditions for the pallid sturgeon in the 2nd Increment. The GC will hold a special meeting on November 14, 2017 in Denver, CO to discuss next year's proposed budget. The next regular GC meeting is scheduled for December 5 and 6, 2017 in Denver, CO. For more information, please visit: <https://www.platteriverprogram.org/Pages/Default.aspx>. (*Suzanne Sellers*)

## ~SOUTHWEST BASIN~

**LOWER DOLORES PLAN WORKING GROUP UPDATE—** The Lower Dolores Plan Working Group continues to assess the results of the managed releases from McPhee Reservoir that took place this spring. As part of evaluating the releases from an ecological perspective, on October 27, the Monitoring and Recommendation Team met with all of the scientists and fishery biologists who have worked with the M&R Team to share preliminary findings with regard to the wide range of fishery and riparian monitoring conducted during the spill. The boating experience is also being monitored via a survey by American Whitewater. Evaluating and incorporating the monitoring results into the M&R Team's evaluation framework should be complete sometime early in 2018, at which time the results will be widely vetted to the larger Dolores River Dialogue and interested stakeholders. Regarding the proposed National Conservation Area (NCA) legislation, the Drafting Team appointed by the Legislative Subcommittee continues to meet and work to achieve consensus on another version of the draft bill. (*Linda Bassi*)

**INSTREAM FLOW RELEASE ON THE ALAMOSA RIVER—** Pursuant to CWCB's water court decrees in Case Nos. 13CW3013 and 13CW3014, CWCB stored 850 acre-feet of water in Terrace Reservoir this year. The water rights were donated to the CWCB in 2010 and 2012. Subsequently, CWCB changed the donated irrigation water rights to instream flow use after storage in Terrace Reservoir. During the 2017 irrigation season, water was exchanged upstream and stored in Terrace Reservoir for later release at the end of the irrigation season. Beginning on or about November 1, the water will be released at a rate of approximately 14 cfs for 30 days for instream flow use in the Alamosa River. Release of this water will elongate the season of flow, the rate of flow, and the length of the reach of flow to points downstream from where the stream flow previously would have stopped. Use of these water rights is part of a larger program to support degraded conditions in the Alamosa River. (*Kaylea White*)

## ~ WATER CONSERVATION AND DROUGHT PLANNING UPDATES ~

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

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

- Metro State University of Denver, One World One Water Center – Colorado Water Collaboratory Phase 2 – Water Action Planning
- Western Resource Advocates – Best Practices for Water Meter Retrofit Projects
- Central Weld County Water District – Water Efficiency Plan
- Western Resource Advocates – Tap Fee Design: Calculation Methodologies for Achieving Conservation & Utility Objectives

No grants have been approved since the September 2017 Director's Report:

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

- Town of Severance – Water Efficiency Plan Update – *Final Plan submitted for review*
  - Western Resource Advocates – Building Retrofit Best Practices Project – *Final Report*
  - Town of Frisco – Blue River Watershed Regional Water Efficiency Plan – *75% Progress Report*
  - Town of Firestone – Parks Irrigation Controls & Clocks Retrofit Project – *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

Water Efficiency Plans in review:

- Widefield Water & Sanitation District
- North Weld County Water District
- Thornton
- Evans
- Town of Severance

*(Kevin Reidy & Ben Wade)*

**GOVERNOR'S WATER AVAILABILITY TASK FORCE**— The next Water Availability Task Force meeting will be on November 14th from 9:00am-11:00am at the Colorado Parks & Wildlife Headquarters, 6060 Broadway, Denver, CO in the Red Fox Room. Please check the website (<http://cwcb.state.co.us/public-information/flood-water-availability-task-forces/Pages/main.aspx>) for additional information. *(Ben Wade)*

**DROUGHT UPDATE**— Water year 2017 concluded on September 30th. Annually temperatures were warmer than average across the state, tying for the 3rd warmest year on record. Record warmth was recorded in higher elevations. Precipitation was near normal across most of the state with southeastern portions of the state seeing record wetness, and parts of the western slope experiencing drier than normal conditions. As of October 26, 27 percent of the state, predominantly on the western slope, is experiencing abnormally dry conditions, while just over 1 percent along the Utah border is categorized in moderate drought. NOAA has issued a La Nina watch and La Nina conditions are favored throughout the fall and winter. If La Niña conditions develop, mountain snows are often enhanced during the winter season, but fall and spring tend to be dry. *(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 <https://www.coloradocommunities.org/>.

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, [click here](#). (*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. Kevin Reidy is 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—** Staff is working with counterparts from DOLA to create trainings 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. On September 11-13, in Keystone, CO. Kevin presented at and helped facilitate a two and a half day training for several communities on integrating water efficiency into their land use planning. The communities applied through a competitive process to gain a spot in the program. The trainings will be executed by the Sonoran Institute and Lincoln Institute of Land Policy. Kevin and DOLA are also convening a group of involved parties who have been working in the land use-water integration field to plan on how to spread the trainings across the state and figure out next steps for the land-water integration. (*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*)

**UN FRAMEWORK ON CLIMATE CHANGE COP 23—** Staff will be attending this week long meeting in Bonn, Germany on behalf of the State of Colorado. She will speak on a number of panels highlighting Colorado's approach to addressing climate change (*Taryn Finnessey*).

## ~WATERSHED AND FLOOD UPDATES~

### MAPPING UPDATE—

**FY17 Activities:** The CWCB was awarded \$212,558 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 final scope of work will be submitted to CWCB this winter.

As a result of the State funded Hazard Mapping Program, the CWCB was able to leverage \$929,729 from FEMA to update streams across 7 counties in northeast Colorado. This update involves 233 panels and covers areas located in Boulder, Logan, Larimer, Morgan, Weld, Washington, and Sedgwick Counties.

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, which have been documented in a final report. This year, FEMA has awarded CWCB \$654,717 to fund the proposed projects that were identified. 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.

**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 6 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. The conclusion of the meeting provided a demo of 3D software to assist in visually communicating risk. 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.

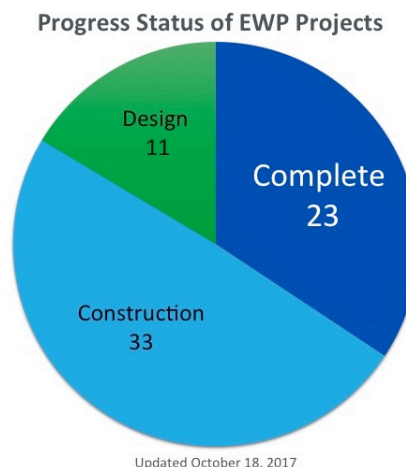
Phase 3 of CHAMP focuses on counties and communities that are still utilizing paper FEMA floodplain maps. This scope includes digitizing existing Flood Insurance Rate Maps (FIRM) panels in select communities and jurisdictions and wherever topographic data is available, updated flood risk information 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 and Costilla Counties have been submitted to FEMA for review. Funding for Phase 3 is limited and therefore, the

communities were selected and prioritized based on interest level, local mapping needs and available topography data. All project information can be found at <http://coloradohazardmapping.com/>. (Thuy Patton and Corey Elliott)

## **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.



**Project Updates:** Information on the EWP program, construction progress, weekly project updates, and upcoming projects may be accessed at [www.coloradoewp.com](http://www.coloradoewp.com).

**Project Update: Bielins-Hock Stream Restoration**

**Location:** Bielins-Hock Open Space – Left Hand Creek

**Project Sponsor:** Boulder County

**County:** Boulder County

This project proposes to grade back an actively eroding vertical bank on the north-west side of Left Hand Creek and re-establish upland vegetation on the newly graded slope. Near the creek, the project proposes to create topographic benches where willows, water birch, and cottonwood trees will be planted in an attempt to re-establish the immediate floodplain. A continuous section of buried set back riprap will be placed 20-30' off of the channel into the newly graded bank for secondary flood protection that will stop very high and erosive flows from undermining the adjacent infrastructure and private property.

### **Work in Progress/Completed**

- Work includes continuing to plant wetland plugs, trees, and shrubs.
- Hand seeding and raking of area on west side of project
- Finished mulching west side of project
- Ripping, seeding and mulching staging area

### **Upcoming Work**

- Final demobilization and project closeout



- Walkthrough with engineer and project managers
- Contractor to complete final punch list items
- Final walkthrough with technical assistance team on October 26

**Project Update: State Highway 60**

**Location: State Highway 60 and South Platte River**

**Project Sponsor: Middle South Platte River Alliance**

**County: Weld**

This project seeks to protect property and infrastructure in the vicinity of the SH 60 bridge on the Middle South Platte River. Active streambank erosion will be stabilized through a combination of river training structures and bioengineering bank stabilization. The project seeks to stabilize the stream channel in the vicinity of the bridge and improve sediment and debris transport. Existing cottonwood galleries will be protected by these stabilization measures, and near bank plantings will increase the stability and habitat value of the reach.



**Work In Progress/Completed**

- Seed and blanket installed
- Sandbar shaping
- Final Landowner site walk

**Upcoming Work**

- Revegetation irrigation
- Revegetation (seed, blanket, planting)
- Final walkthrough October 30

**Upcoming Project** – all watershed recovery projects may be accessed at [www.colorado/places](http://www.colorado/places) .

**Watershed: Saint Vrain Creek**

**County: Boulder**

**Project Sponsor: Saint Vrain Creek Coalition**

This project proposes to remove debris and 1-3 feet of deposited sediment to promote floodplain reconnection and reduce damage caused by this debris if it were to move downstream. The site also has several very large failing banks and proposes to use a combination of large wood structures, bioengineering, and rock to stabilize the toes of the failing slopes.

*(Jeff Conboy)*



## **FLOOD SECTION ASSISTS MORGAN COUNTY COMMUNITIES WITH BEAVER CREEK FLOODPLAIN ALTERNATIVE**

**ANALYSIS—** Flood Section staff and their consultant have begun a project to analyze alternatives to address floodplain problems associated with Beaver Creek in the City of Brush and Morgan County. Recent map updates have shown that the floodplain associated with Beaver Creek is much larger and represents more risk than previously realized.

This information initially became known during a remodeling of the stream associated with a CDOT bridge replacement. During this effort, it was realized that the previous hydraulic study, performed by FEMA, neglected to include numerous embankments and bridge crossings at the downstream end of the study reach. When these restrictions were added, flood elevations were increased due to the presence of these “bottlenecks”.

Morgan County and the City of Brush reached out to CWCB staff with a request for a study to attempt to address this problem that affects a large number of landowners. The kickoff meeting for this project was held on Friday, October 27<sup>th</sup>. Final results are expected by Summer 2018. *(Kevin Houck)*

**CWCB STREAM RECOVERY WORK NEARS COMPLETION FOUR YEARS AFTER 2013 FLOODS—**The text below is a press release issued by DNR on September 15, 2017...

*Colorado Water Conservation Board joins partners for innovative approach to restore stream channels, protect property and improve ecological conditions*

The record-smashing floods of 2013 ravaged Front Range waterways, rerouting and flattening stream channels, eroding streambanks, degrading fish habitat and stripping trees and vegetation from riparian areas.

Four years later, many of those waterways have been repaired, restored and even improved due to efforts led by the Colorado Water Conservation Board and myriad partners at the state, federal and community level.

With most attention properly focused on the recovery of communities, reconstruction of homes and property as well as road, bridge and infrastructure repair, CWCB and its partners have quietly redesigned and rebuilt stream channels in a way that has improved stream flows, boosted fish habitat and created more resilient waterways in the event of future floods.

Work is expected to be largely complete by the spring of 2018 on numerous waterways well-known and important to many communities. Coal Creek, Fountain Creek, the St. Vrain, Fish Creek, Fall River, the South Platte and other streams have benefited from intensive planning and channel construction work that reflects unprecedented collaboration to recreate streams in a way not only protective of nearby property, but with high ecological function.

That meant not only repairing and replanting streamside habitat but also creating stream channels that work for a variety of flows. A narrow interior channel allows for better passage of sediment and healthier flows even during periods of low water, a feature that can also benefit aquatic life. Those channels were constructed within wider channels to accommodate larger flows that might fill the banks or extend onto floodplains.

“This was a new way of doing business,” said Kevin Houck, chief of CWCB’s watershed and flood protection section. “Typically, after events like this, you’ll see efforts to simply armor the stream bank quickly, for purpose of

safety and protecting property. We took a different, more holistic approach and we're excited to see the results on the ground."

Shortly after the floods, the CWCB assembled a team of experts at all levels of government to help communities develop short-term and long-term plans to stabilize and recreate damaged stream channels. This team quickly determined that stream rehabilitation would best be guided by a master-planning process at the watershed level, directed by an array of local stakeholders.

Master plans were developed for Fish Creek and Fall River by the Estes Valley Watershed Coalition, Big Thompson River (Big Thompson River Coalition), Little Thompson River (Little Thompson River Coalition), St. Vrain Creek (St. Vrain Creek Coalition), Left Hand Creek (Left Hand Watershed Oversight Group), Fourmile Creek (Fourmile Creek Coalition), Coal Creek (Coal Creek Canyon Watershed Partnership), Middle South Platte (Middle South Platte Watershed Alliance), and Fountain Creek (Fountain Creek Watershed Flood Control and Greenway District).

Since the development of the master plans, the CWCB has partnered with the State Department of Local Affairs (DOLA), the Natural Resources Conservation Service (NRCS), and local sponsors to implement projects identified within the plans. The CWCB and DOLA are managing over \$100 million in recovery funds directed towards stream rehabilitation. Money for the work has come from the U.S. Departments of Agriculture (NRCS) and Housing and Urban Development, state and local entities and private foundations. The majority of the funding is going towards implementation, but some of it has supported project design and capacity for the local watershed coalitions that are managing many of the projects.

As of the four-year anniversary, most of the projects are complete or under active construction at this time. A detailed description of all projects and many images of the work can be found at the website for the Colorado Emergency Watershed Protection Plan, [www.coloradoewp.com](http://www.coloradoewp.com). The public can also follow progress on Twitter by following @ColoradoEWP.

End of press release.

The CWCB Emergency Watershed Program (managed in partnership with the NRCS) is implementing 68 river rehabilitation projects. As of the end of October 2017, 23 are complete, 11 are mobilizing, 24 are nearing completion, and 10 are under construction. The majority of these projects began construction in 2017.  
(Chris Sturm)

**WATER FORECASTING PARTNERSHIPS UPDATE—** The CWCB has a new program in its second year to help water users with water supply forecasting issues. This was based on success in the Rio Grande developing projects and methods to increase the accuracy of forecasted water volumes in the Rio Grande (April – October).

**Rio Grande -** Five new data sites are permitted through the Conejos Ranger District to be sited on USFS lands and installed next summer. National Center for Atmospheric Research (NCAR) will continue to provide national water model forecast numbers for water users in the Rio Grande. The CWCB has budgeted \$350,000 for the purchase of weather radar for the Alamosa airport. This weather radar will provide valuable data for water supply modeling and provide many other benefits. The Colorado Department of Transportation also sees the value in weather radar in the San Luis Valley and has authored an application to the State of Colorado Capitol Development Committee (CDC). The Rio Grande WCD, Alamosa County, and CWCB staff member Joe Busto have been requested to attend this Capitol Development Committee hearing on this application on December

19<sup>th</sup>. The Rio Grande WCD has taken a strong leadership role locally and they have an MOU for ownership, maintenance, and repair if the funding for the radar purchase can be secured. *(Joe Busto)*

**Southwest Basins** – The Red Mountain SNOTEL site is also called the Aurora Mining Claim and is unlike the rest of Colorado’s NRCS Snow Survey SNOTEL sites. Most all SNOTEL sites are on USFS lands with federal permits but this site is on private land. It is an important long term climate record used in water modeling for several basins, and also used in cloud seeding target control analysis. It is one of only two forecast points used for Ridgway dam which makes it an important issue for Tri-County Water. The CWCB, Colorado River WCD, Upper Gunnison River WCD, Southwestern WCD, Tri-County Water and the Trust for Land Restoration are working on the end of a deal to purchase the ten acre parcel at fair market value and then preserve the snow data record. Inaccurate water supply forecasting creates impacts and this can be seen all over the state. The purchase price has been negotiated, environmental assessment reports completed, a land appraisal completed, and there is a draft agreement with the private land owner. What is still needed is to determine land ownership, continue fundraising, and get all the pledged funding from all sources in one place to complete the deal. Why this is important is that the backup site available has different characteristics than the original site so the long term record will be lost and water supply modeling accuracy will worsen. The CWCB is not interested in owning the land but will provide some grant money and provide a coordination and facilitation role with the Trust for Land Restoration to complete this project. This is another example of how the CWCB water forecasting partnerships authorization is being used to address water forecasting issues. *(Joe Busto)*

**Gunnison** - The Gunnison also has water supply forecasting issues between Taylor Reservoir and Blue Mesa Reservoir. To replicate successes from the Rio Grande in the Gunnison CWCB, staff is facilitating the following activities: a new contract to map the Gunnison Basin with the NASA Aerial Snow Observatory, four SNOTEL-lites that will be sited, permitted, and turned over to the NRCS Snow Survey Program, and providing national water model forecasts to local water users. The new snow data in the Taylor will triple the amount of data for water modeling and forecasts. *(Joe Busto)*

**The Center for Snow and Avalanche Studies (CSAS) Colorado Dust-on-Snow Program (CODOS)** - CODOS is an applied science effort to issue a series of “Update” analyses of how dust-on-snow is likely to influence snowmelt timing and rates during the runoff season. With direct funding from stakeholders, CSAS monitors the presence/absence of dust layers at 11 mountain pass locations throughout Colorado. The Senator Beck Basin study area at Red Mountain Pass is the primary sentry site for the CODOS program, which combines the present/absent data, nearby SNOTEL data, and weather forecasts to generate the final updates. Moxiecran Media was recently hired to produce a marketing video for CSAS was to explain the importance of this work. It can be viewed here: <https://vimeo.com/235973696> (password csas2017). This video, along with four display cases of information, will be in Concourse A (between the Main Terminal and security) in the Denver International Airport now through January 2018. *(Joe Busto & Erik Skeie)*

**Methodology Development** - The National Severe Storms Laboratory (NSSL) is developing its next generation precipitation storm scale hydrometeorology products for water resource management and flash flood prediction. Expanding upon winter field activities, in partnership with the CWCB, NOAA-NSSL is testing new techniques to combine satellite, atmospheric models, radars, and surface observations to derive snow fall and snow water equivalent seamless across the west with a focus on watersheds with no or limited radar coverage. NSSL will be ingesting SNOTEL to assess the performance of these new techniques and incorporating SNOTEL for calibrating satellite, radar and atmospheric models for increased accuracy in SWE at high spatial resolution (1 km) across Colorado and the western U.S. *(Ken Howard NOAA NSSL & Joe Busto)*



**Snow Course** - CWCB staff has been measuring snow depth and water content at the Willow Creek Pass snow course since 2015. Snow course measurements are key data that began in 1906, and are the oldest record for snow depth and snow water equivalent measurements. CWCB staff has adopted a new snow course near Willow Creek Pass called Parkview Snow Course (est. 1936) on the North Platte side of the pass, and will potentially be adopting a third near Granby (est. 1949). These courses were previously measured by now retired volunteers, and CWCB staff recognizes the need to continue this long term dataset in order to maintain accurate snow measurements for water supply forecasting. For more information on snow courses, please visit the [NRCS Website](#). *(Erik Skeie)*

**WEATHER MODIFICATION UPDATE**— CWCB staff operates both the DNR Weather Modification Permitting Program and the CWCB weather modification grants and technical assistance program. The CWCB has issued grants since 2004 after the drought of the early 2000s and regional grants for cloud seeding were developed following water level woes at Lake Powell and Lake Mead with formal state to state agreements developed in 2007.

**1972 WM Act Sunset Review** - The Colorado Office of Policy, Research, and Regulatory Reform also has completed a Sunset Review of the DNR Weather Modification Permitting Program also known as the 1972 Weather Modification Act. The report can be found at: [https://www.colorado.gov/pacific/dora-oprrr/node/143196/](https://www.colorado.gov/pacific/dora-oprrr/node/143196). The DNR program is unique in that it periodically expires automatically and needs positive legislative action through a sponsored bill to be renewed. The program is being recommended to be renewed predominantly from the environmental monitoring for public safety aspect. The CWCB/DNR has criteria to suspend seeding when snowpack and avalanche danger are high. The report recommends continuing the Act for 15 years until 2033. The report also recommends repealing language from the Colorado Revised Statutes that prohibits weather modification unless there is a quid pro quo. The act states that Colorado only prohibits weather modification “if” another state prohibits them. In essence this section of the statutes embodies and legalizes coercion by threatening to withhold water. It represents highly restrictive regulation without definite public interest. *(Joe Busto)*

**Permit Renewals** - Three ground based wintertime cloud seeding permits are expired and contractors and local sponsors have applied to renew them. They are valid for five years. The Central Colorado Mountains Basin Program, Gunnison Basin Program, and Western Dolores/Telluride programs have applied to the CWCB/DNR to renew their permits. Public hearings were held in Cortez, Gunnison, Eagle, and Silverthorne that were attended by the Colorado Attorney General’s Office, CWCB staff, and the applicants and their sponsors. Of the five hearings listed only one member of the public attended the hearings and no one was in strict opposition to ground based wintertime cloud seeding but a few public requested materials via phone and email. CWCB is recommending all three permits be renewed and is developing final documents for Director Mitchell’s signature. *(Joe Busto)*

**CWCB & Colorado River Lower Basin States Grants** - The CWCB has \$294,000 to match with the Lower Basin and has requested \$290,000 of the Lower Basin. The CWCB \$294,000 is a mix of CWCB WM appropriation \$175,000, payments from Winter Park and Telluride Ski Area to the CWCB of \$70,000, and a \$49,000 plume dispersion modeling study funded by the Southwestern Basin Round Table. CWCB staff is grateful to the forty plus cloud seeding sponsors as the 50/50 match requirement needs to be state funds spent in order to leverage match through Lower Basin funding. Approval of the requested funds is still being decided and the final funding results will be known by early November. If approved, the activities funded will include grants to the six locally sponsored programs, grants to operate new high elevation remote operated seeders, a final lease-to-own arrangement for a radiometer, and two new proposed high elevation remote operated seeders. The radiometer



will spend the winter and spring in Cortez, Colorado, an area well known for lack of radar coverage. In reporting back to the Lower Basin, staff recounted that fifteen new modern machines have been purchased and are in operation. *(Joe Busto)*

**Seven State Cloud Seeding Agreement** - Karen Kwon of the AGO, Erik Skeie, Joe Busto, and Brent Newman are working with water users in the seven states along the Colorado River to develop a nine year agreement that budgets up to \$500,000 per Upper Basin State per year. This agreement will be signed by all seven states and is developing a programmatic approach. Previously the Lower Basin (comprised of California Six Agency Committee, Southern Nevada Water Authority, and Central Arizona WCD) had their own agreements with each state of Utah, Wyoming, and Colorado. The CWCB also has an agreement with New Mexico Interstate Stream Commission that allowed the NMISC to provide \$20,000 to cloud seeding programs in the Southern San Juan Mountains. Once the negotiations are completed and language is finalized CWCB staff will recommend Director Mitchell sign the new Seven State agreement. *(Joe Busto)*

**H2O Radio Cloud Seeding Story** - On October 26<sup>th</sup>, CWCB staff, Winter Park Ski Area, the Desert Research Institute, Maria Pastore for the Central Colorado Mountains Basin Cloud Seeding Program, and H2O radio met at a high elevation generator west of Fraser, Colorado to discuss modern seeding machines and the cloud seeding program goals of Winter Park Ski Area and CCMBP. Although no publishing date was given based on the talk radio interview, staff believes board members would find all of the water articles interesting through the H2O newsletter and you can sign up for email news stories at

<http://www.h2oradio.org/index.html>. *(Joe Busto & Erik Skeie)*



## ~AGENCY UPDATES~

**RECENTLY DECREED ISF WATER RIGHTS**—On October 7, 2017, the Division 6 Water Court decreed instream flow water rights to the CWCB on two reaches of Yellow Creek in Case No. 16CW3040, both having an appropriation date of January 26, 2016. The upper ISF reach was decreed for 0.82 cfs (3/1-6/15) and 0.4 cfs (6/16-2/29), from the confluence with Barcus Creek down to the confluence with Lambert Springs, being a distance of approximately 3.66 miles. The lower ISF reach was decreed for 1.8 cfs (3/1-6/15) and 1.2 cfs (6/16-2/29), from the confluence with Lambert Springs down to the confluence with the White River, being a distance of approximately 3.45 miles. These ISF reaches flow in a northwesterly direction through parts of Rio Blanco County. To reach settlement in this matter, stipulations were entered into with TerraCarta Energy Resources LLC, Mountain Water LLC, and Exxon Mobil Corporation, with terms and conditions included in the decree. *(Rob Viehl)*

**INSTREAM FLOW (IS) 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. This 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 ISF and Natural Lake Level Program. The entities that make ISF recommendations will present information regarding the location of new recommendations as well as any other preliminary data collected to date. This workshop will also serve as the kickoff of the collaborative water acquisition initiative with the Colorado Water Trust entitled "Request for Water Acquisition Pilot Program." This initiative will be discussed more fully as a separate agenda item during the CWCB November meeting. *(Rob Viehl)*

**COLORADO WATER OFFICIALS ASSOCIATION CONFERENCE**— Several CWCB staff members attended the Colorado Water Officials Association (CWOA) annual conference on September 28-29 in Estes Park. Each year, CWOA holds a conference in different locations around the state to raise money for local scholarships and other causes, while simultaneously promoting its mission. The mission of CWOA is to educate Colorado's citizens to the importance of water rights administration, water issues and to further the professional development of its members, comprised of DWR and CWCB employees. The conference theme this year was "Evolving Water Administration in Division One" and featured presentations from Justice Hobbs, DWR and Northern Colorado Water Conservancy District staff. *(Rob Viehl)*

**STAFFING UPDATE**—CWCB is excited to welcome Rachel Pittinger to the agency. Rachel is a professional engineer and will be working in the Finance Section as a Loan Program Project Manager with a focus on the Arkansas River Basin. Rachel has 14 years of professional engineering experience in the water resources field. She is a University of Colorado graduate. Past experience includes consulting engineering work with Wright Water Engineers, AECOM and Brown and Caldwell. Additionally, her experience with projects in the Arkansas River Valley including the Super Ditch Project and water project permitting efforts will be make her a valuable addition to the CWCB. *(Kirk Russell)*

**~GENERAL ATTACHMENTS~**

- 01 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

**November 15-16, 2017 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. 16CW3047 (Water Division 4) - Application of Specie Wilderness Water, LLC**

The Board ratified this Statement of Opposition at its September 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 rights on Fall Creek, Saltado Creek, San Miguel River, and Specie Creek by expansion of use, altering the time, place and amount of historical return flows, or not replacing out-of-priority depletions in time, place and amount. 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. This case is not yet decreed as of October 31, 2017. Two other opposing parties remain active in the case.

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

Case Number	Stream	Upper Terminus	Lower Terminus	CFS Rate (Dates)	Approp. Date
84CW0436	Fall Creek	headwaters in vicinity	confl San Miguel River	5 (1/1 - 12/31)	07/13/1984
93CW0267	Saltado Creek	confl unnamed tributary	confl San Miguel River	1 (7/1 - 4/30) 2 (5/1 - 6/30)	11/09/1993
02CW0277	San Miguel River	confl Fall Creek	pt immed u/s of confl Horsefly Cr	93 (5/1 - 10/14) 61 (10/15 - 4/30)	01/23/2002
02CW0279	Specie Creek	confl unnamed tributary	confl San Miguel River	1.6 (4/1 - 4/30) 4.3 (5/1 - 5/31) 0.2 (6/1 - 3/31)	01/23/2002

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

- During irrigation seasons in which the Specie Ponds either are not constructed or will not be filled, the changed right may continue to be used for irrigation within the historically irrigated land. Applicant shall notify the Division Engineer before May 1 of such year whether the Ponds be filled or whether the changed right will be used for irrigation or for pond filling, not both.
- Regarding the CWCB instream flow rights: Because the specific source(s) of water entering the ditch could include several tributaries to the San Miguel River, and may enter the ditch along its entire length, any of the four instream flows downstream could potentially be depleted by Applicant's 2016 water right. Accordingly, all four of the instream flows listed [in the decree] must be satisfied before the Applicant may fill the Ponds under their 2016 priority, as claimed during the non-irrigation season. During the irrigation season, if the Applicant's HCU credits become insufficient to cover evaporative depletions from the Ponds, and any of the four instream flows listed below are not satisfied, then the Applicant shall not impound any additional water in the Ponds.

**(2) Case No. 16CW3181 (Water Division 5) - Application of Juniper Family Investments, LLC**

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 plan for augmentation does not injure the Board's instream flow water right on the Roaring Fork River and Snowmass Creek by not replacing out-of-priority depletions in time, place and amount. In addition, the Board sought to ensure the proposed water storage right, which appeared to include a flow through diversion, does not injure the CWCB's instream flow water rights because it is fully depletive to a segment of the intervening instream flow water right. 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. This case is not yet decreed as of November 1, 2017.

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
85CW0646	Roaring Fork River	confl Maroon Creek	confl Fryingpan River	30 (10/1 - 3/31) 55 (4/1 - 9/30)	11/08/1985
10CW0184^	Roaring Fork River	confl Maroon Creek	confl Fryingpan River	Varies 0.15 - 3.54 (5/1 - 10/31)	06/30/1904
85CW0639	Roaring Fork River	confl Fryingpan River	confl Crystal River	75 (10/1 - 3/31) 145 (4/1 - 9/30)	11/08/1985
76W2943A	Snowmass Creek	confl W Snowmass Creek	confl Capitol Creek	12 (4/1 - 10/15)	01/14/1976
92CW0280*	Snowmass Creek	confl W Snowmass Creek	confl Capitol Creek	3 (4/1 - 10/15)	09/15/1992
76W2943B	Snowmass Creek	confl Capitol Creek	confl Roaring Fork River	12 (4/1 - 10/15) 11 (10/16 - 3/31)	01/14/1976
92CW0281*	Snowmass Creek	confl Capitol Creek	confl Roaring Fork River	10.5 (4/1 - 10/15)	09/15/1992

\* Increased

^ Donated/Acquired Water Right

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

- Applicant chose to withdraw its claim for plan of augmentation.
- The Parcel B Pond is lined and the pond is constructed with an "Agri-Drain" type outlet. The Agri-Drain shall be capable of passing all Williams No. 5 Ditch and other local inflows through the Parcel B Pond so that no out-of-priority junior water is stored in the Pond. When the Parcel B Pond is not out-of-priority, Applicant shall keep the Parcel B Pond full for use as a forebay for pumping Williams No. 5 Ditch water for irrigation. The surface area of the Parcel B Pond described in Paragraph 10, above, includes the inlet and outlet for the Pond. Applicant is an owner of 0.90 cfs of the Williams No. 5 Ditch, which has historically irrigated Applicant's property. The Parcel B Pond shall only fill when the Williams No. 5 Ditch is otherwise diverting water for irrigation and shall not be diverted during the non irrigation season.

### (3) Case No. 16CW3036 (Water Division 6) - Application of Nona Powell

The Board ratified this Statement of Opposition at its January 2017 meeting. Applicant's proposed changes in water rights on Cathedral Creek, East Douglas Creek and Soldier Creek appear to be claimed with senior appropriation dates. The instream flow water rights might be subject to these water rights under C.R.S. 37-92-102(3)(b) if the Applicant's water rights are sufficiently documented. Applicant and CWCB are working on decree terms to recognize Applicant's existing uses in the context of two CWCB's pending Water Court applications (15CW3049 and 15CW3051, Water Division 6). The Board's main objective in filing the Statement of Opposition in this case was to assure consistent terms among the decrees and to document Applicant's existing uses in relation to other CWCB instream flow water rights in the vicinity. 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. Referee's ruling was entered on September 17, 2017. The decree has not yet been signed by the judge, as of October 31, 2017.

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

Case Number	Stream	Upper Terminus	Lower Terminus	CFS Rate (Dates)	Approp. Date
85CW0257	Cathedral Creek	confl Soldier Creek	confl East Douglas Creek	1.5 (1/1 - 12/31)	05/03/1985
04CW0191^	Cathedral Creek	confl Willow Creek	confl East Douglas Creek	0.15 (5/1 - 7/31)	03/20/1918
85CW0258	East Douglas Creek	confl Brush Creek	confl Cathedral Creek	1.5 (1/1 - 12/31)	05/03/1985
15CW3049*	East Douglas Creek	confl Brush Creek	confl Cathedral Creek	0.5 (5/1 - 10/15)	01/26/2015
85CW0256	Soldier Creek	confl RF & MF Soldier Creek	confl Cathedral Creek	1.5 (1/1 - 12/31)	05/03/1985
15CW3051*	Soldier Creek	confl RF & MF Solider Creeks	confl Cathedral Creek	0.4 (4/1 - 9/30)	01/26/2015

\* Increased

^ Donated/Acquired Water Right

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

- Once the proposed instream flows reaches and Applicant's water rights were fully mapped in relation to one another, parties agreed that no conflict existed among the three cases, thus stipulations were filed in all three simultaneously.

#### **(4) Case No. 14CW3051 (Water Division 7) - Application of Rio Cabana, LLC**

The Board ratified this Statement of Opposition at its March 2015 meeting. The Board's main objective in filing the Statement of Opposition in this case was to ensure that the Applicant's proposed plan for augmentation does not injure the Board's instream flow water right on the Florida River by not replacing out-of-priority depletions in time, place and amount. In addition, the Board sought to ensure the proposed flow through water right does not injure the CWCB's instream flow because it appeared to be fully depletive to a segment of the intervening instream flow water right. 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 October 12, 2017. The court case is closed.

The CWCB holds the following instream flow water rights in Water Division 7 in the Animas watershed that could be injured by this application:

Case Number	Stream	Upper Terminus	Lower Terminus	CFS Rate (Dates)	Approp. Date
77W1763	Florida River	outlet Lemon Res	confl Salt Creek	14 (10/15 - 6/30) 7 (7/1 - 10/14)	01/19/1977
77W1764	Florida River	confl Salt Creek	confl Animas River	20 (10/15 - 6/30) 12 (7/1 - 10/14)	01/19/1977

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

- Diversion rates for storage in the 0.27 acre-foot pond were limited to 0.25 cfs and Freshening flows were limited to 0.05 cfs (22 gpm) and may only operate during the irrigation season.
- The freshening flows from the Rio Cabana Pond I are directed back to the Florida River approximately 40 feet downstream of the point of diversion through a culvert. In the event of an administered instream flow call on the Florida River, the applicant will curtail the freshening flows and only divert the water necessary to keep the pond full.

#### B. Letter in Lieu

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

##### (1) Case No. 17CW3130 (Water Division 1) - Application of William C. Dudley

During the August 2017 Water Court Resume Review, CWCB staff identified concerns regarding potential injury to CWCB's instream flow water rights decreed in Case Nos. 94CW0250 on North Turkey Creek. This case was resolved with CWCB by a letter agreement, dated October 31, 2017, by which CWCB agreed not to file a Statement of Opposition, provided Applicant incorporates the following terms and conditions into any draft and final decrees and Applicant agrees to not oppose a motion to intervene by CWCB if such terms and conditions are not included.

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

- "Applicant recognizes that the Colorado Water Conservation Board's existing instream flow water right decreed in Case No. 94CW250, WD1 on North Turkey Creek was decreed prior to the filing of this case, 2017CW3130. Applicant shall not operate the augmentation plan by exchange decreed herein when the North Turkey Creek instream flow decreed amount is not met and is being administered."





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**Colorado Water  
Conservation Board**

Department of Natural Resources

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Denver, CO 80203

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John Hickenlooper, Governor

Robert W. Randall, DNR Executive Director

Rebecca Mitchell, CWCB Director

**TO:** Colorado Water Conservation Board Members

**FROM:** Craig Godbout  
Program Manager - Water Supply Reserve Fund Grant Program  
Water Supply Planning Section

**DATE:** October 23, 2017

**Information Item: WSRF Grant Program - November 2017 Balance Summary**

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While there are no WSRF Grant requests coming before the Board this November 2017, staff would like to keep the Board up-to-date on the WSRF Account Balances.

Attached you will find the November 2017 WSRF Grant Program Balance Summary Sheet. The values therein reflect all WSRF Grants approved by CWCB through the September 2017 meeting, and include the July 2017 distribution of Severance Tax funds and Construction Funds authorized by the 2017 Colorado General Assembly.

Note: Construction Funds become available to the Basin Accounts and the Statewide Account coincidental with the Severance Tax 3-part distribution schedule (40% on July, 1; 30% on January 1; and the final 30% on April 1 of the fiscal year).



**COLORADO WATER CONSERVATION BOARD**  
**Water Supply Reserve Fund - Balance Summary**  
**November 2017**

10/11/2012

<b>Fund Appropriation and Receipts</b>				
<b>Fiscal Year</b>	<b>Legislative Appropriation</b>	<b>Funds Received</b>	<b>Statewide Account</b>	<b>Basin Account</b>
2006/2007	\$10,000,000	\$10,000,000	\$5,500,000	\$4,500,000
2007/2008	\$6,000,000	\$6,000,000	\$4,200,000	\$1,800,000
2008/2009	\$10,000,000	\$7,000,000	\$4,300,000	\$2,700,000
2009/2010	\$5,775,000	\$5,775,000	\$4,215,750	\$1,559,250
2010/2011	\$6,000,000	\$6,000,000	\$4,380,000	\$1,620,000
2011/2012	\$7,000,000	\$7,000,000	\$4,732,000	\$2,268,000
2012/2013	\$10,000,000	\$7,157,724	\$4,580,943	\$2,576,781
2013/2014	\$10,000,000	\$10,091,639	\$6,458,649	\$3,632,990
2014/2015	\$10,000,000	\$10,000,000	\$6,400,000	\$3,600,000
2015/2016	\$10,000,000	\$9,103,590	\$5,826,298	\$3,277,292
2016/2017	\$0	\$0	\$0	\$0
2017/2018	\$10,000,000	\$1,455,776	\$931,697	\$524,079
2017/2018 CF	\$10,000,000	\$4,000,000	\$2,560,000	\$1,440,000
Interest	N/A	\$2,857,935	\$1,829,078	\$0
Prior Years Interest Adjustment			\$1,028,856	\$0
2014/2015 Interest	N/A	\$ 240,216	\$240,216	\$0
2015/2016 Interest	N/A	\$ 219,458	\$219,458	\$0
2016/2017 Interest	N/A	\$ 223,936	\$223,936	\$0
2017/2018 Interest		\$ 20,199	\$20,199	\$0
<b>TOTAL</b>	<b>\$104,775,000</b>	<b>\$87,145,472</b>	<b>\$57,647,079</b>	<b>\$29,498,392</b>

Posted 9/22/17

Note: The WSRF is a Severance Tax "Tier II" program with 40% of funds distributed on July 1, 30% on January 1, and the final 30% on April 1.

In FY 2008/2009 the final 30% installment of \$3,000,000 was not received due to the State's budgetary shortfall.

*In January 2012 interest for the program from its inception to date was credited directly to the Statewide Account.*

*Interest from January 2012 on is regularly calculated by the Treasury and credited to the Statewide Account.*

<b>Fund Distribution</b>					
<b>Basin</b>	<b>Approved Basin Grants</b>	<b>Total Basin Funds</b>	<b>Basin Account Balance</b>	<b>Approved State Grants</b>	<b>Statewide Account Balance</b>
Arkansas	\$3,277,482	\$3,277,599	\$117	\$10,753,801	
Colorado	\$2,841,079	\$3,277,599	\$436,520	\$6,283,985	
Southwest *	\$2,900,982	\$3,277,599	\$376,617	\$7,293,244	
Gunnison *	\$2,881,110	\$3,277,599	\$396,489	\$5,608,014	
Metro	\$2,780,031	\$3,277,599	\$497,568	\$7,531,732	
North Platte	\$2,209,668	\$3,277,599	\$1,067,931	\$540,942	
Rio Grande	\$3,013,712	\$3,277,599	\$263,887	\$11,267,323	
South Platte *	\$2,801,575	\$3,277,599	\$476,024	\$7,279,112	
Yampa/White	\$2,350,419	\$3,277,599	\$927,180	\$847,969	
<b>TOTAL</b>	<b>\$25,056,058</b>	<b>\$29,498,392</b>	<b>\$4,442,334</b>	<b>\$57,406,122</b>	<b>\$240,957</b>

**TOTAL APPROVED GRANTS**

**\$82,462,180**

Note: Only includes grants approved by CWCB



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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:** November 15-16 Board Meeting

**Directors Report:** Water Project Loans  
Interest Rates

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### 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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John Hickenlooper, Governor

Robert Randall, DNR Executive Director

Rebecca Mitchell, CWCB Director

**TO:** Colorado Water Conservation Board Members

**FROM:** Anna Mauss, P.E., Marketing  
Finance Section

**DATE:** November 15-16, 2017 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 Approved Applications					
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

<b>Borrower</b>	<b>Project</b>	<b>Potential Loan Amount</b>
•NISP Participants	NISP	\$100,000,000
•Central CO WCD	Pipeline Project	\$4,000,000
•Parker Water & Sanitation District	Water Meter Project	\$5,000,000
•Henrylyn Irrigation District	Reservoir Rehabilitation	\$6,000,000
•Bijou Irrigation District	Reservoir Rehabilitation	\$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
•Roxborough Metro District	Transmission Connection	\$1,000,000
•Julesburg Irrigation District	Diversion Structure	\$3,000,000
• <b>Subtotal</b>		<b>\$126,750,000</b>

#### Arkansas River Basin

•Stonewall Springs, LLC	Reservoir Construction	\$5,500,000
•Colorado Springs Flycasting Club	Reservoir Rehabilitation	\$450,000
•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
•Amity Mutual Irrigating Co.	Reservoir Rehabilitation	\$TBD
• <b>Subtotal</b>		<b>\$19,750,000</b>

#### San Miguel/San Juan River Basin

•Town of Bayfield	Ditch Piping	\$500,000
• <b>Subtotal</b>		<b>\$500,000</b>

#### Colorado River Basin

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

#### Gunnison River Basin

•Gunnison County Electric	Hydroelectric Project	\$1,000,000
---------------------------	-----------------------	-------------

### Rio Grande Basin

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

### Yampa River Basin

•Town of Oak Creek	Reservoir Rehabilitation	\$500,000
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### North Platte Basin

- No projects at this time



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John Hickenlooper, Governor

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:** November 15 - 16 2017 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 (50) projects authorized to receive loan funding totaling \$286 million. There are Thirty nine (39) projects currently under contract and in the Design and Construction phase totaling \$176 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 Storage	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
			Total	\$33,146,579	

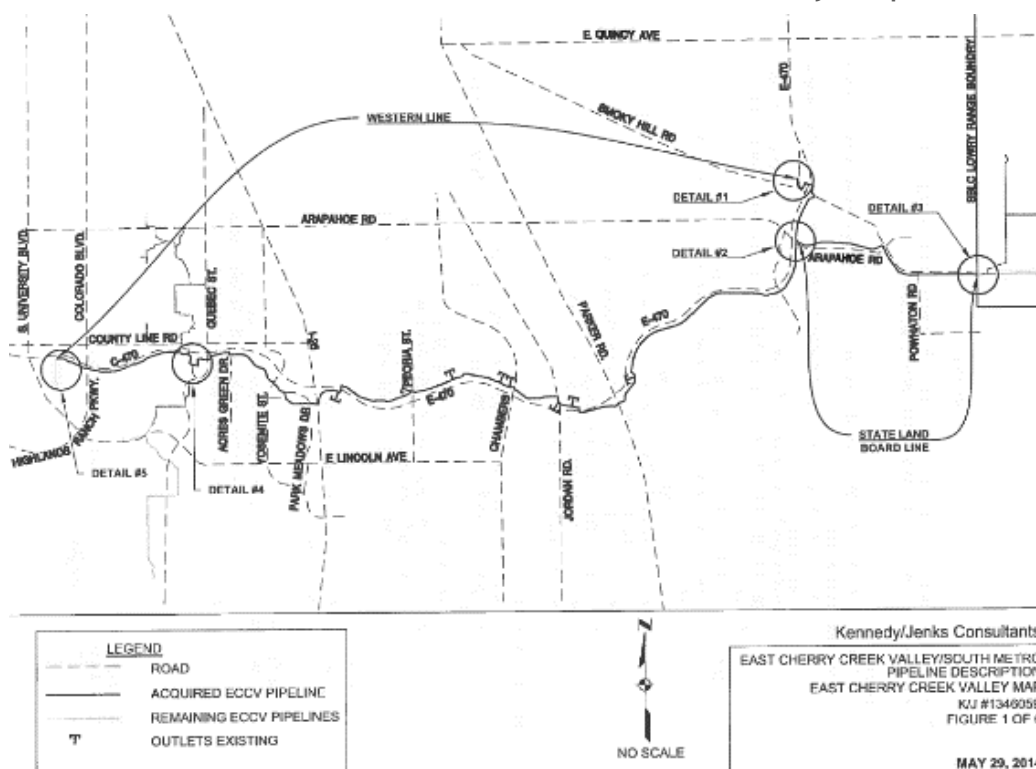
Calendar Year 2017 has added or preserved 8452 acre-feet of reservoir storage (a) 939; (b) 1,257; (c) 699; (d) 1,737; (e) 1781; (f) 455; (g) 1584



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

Cottonwood Water and Sanitation District  
Contract No. CT2015-102  
Substantially Complete January 1, 2017



### Project Description

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.

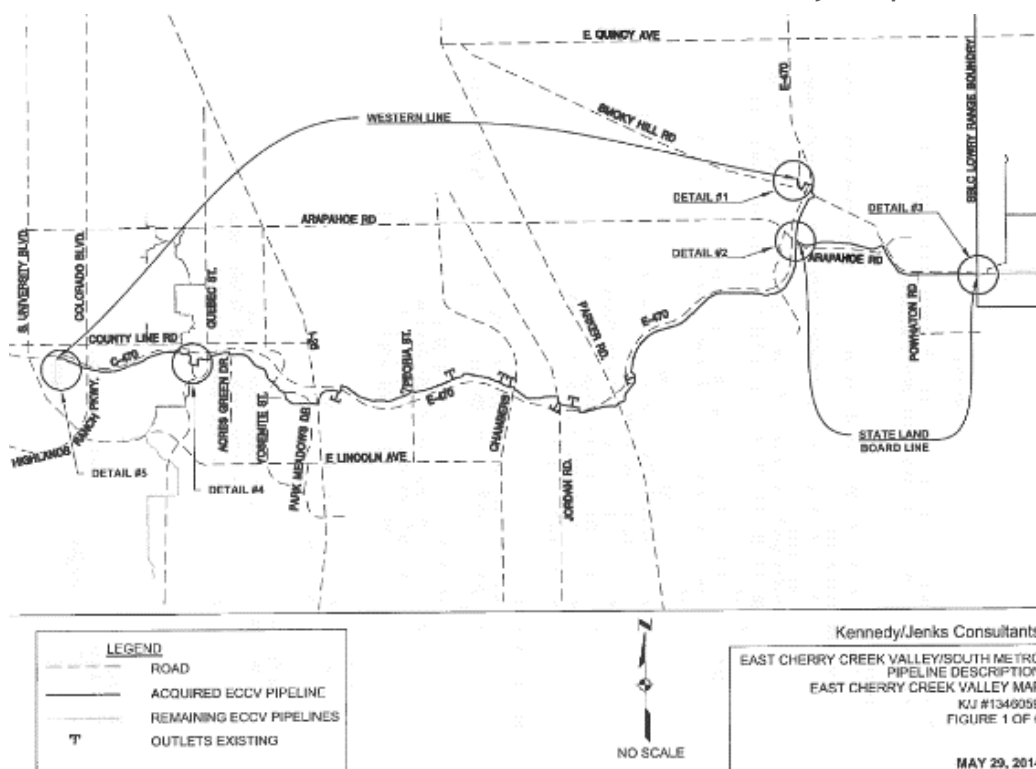
P r o j e c t   d a t a		
<i>Sponsor:</i> Cottonwood Water and Sanitation District	<i>County:</i> Douglas & Arapahoe	<i>Water source:</i> South Platte
<i>Type of loan:</i> Municipal Water Supply System	<i>Board approval date:</i> May 22, 2014	
<i>Terms of loan:</i> 30 years @ 3.00% (Original) \$381,780.00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



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

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

Inverness Water and Sanitation District  
Contract No. CT2015-117  
Substantially Complete January 1, 2017



### Project Description

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



## L.E.D.E Ditch & Reservoir Upgrade Project

Town of Gypsum

Substantially Complete January 1, 2017



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 A T A			
Sponsor: Town of Gypsum		County: Eagle	Water Source: Gypsum Creek
Type of Loan: Reservoir Rehabilitation and Enlargement		Board Approval Date: May 2009	
Loan Terms: 4.5% for 30 years (Original) \$2,689,731 (Final) \$2,689,731		WSRF Funding: \$225,000	
Design Engineer: Zancanella and Associates			
Contractor: Hobbs Construction			

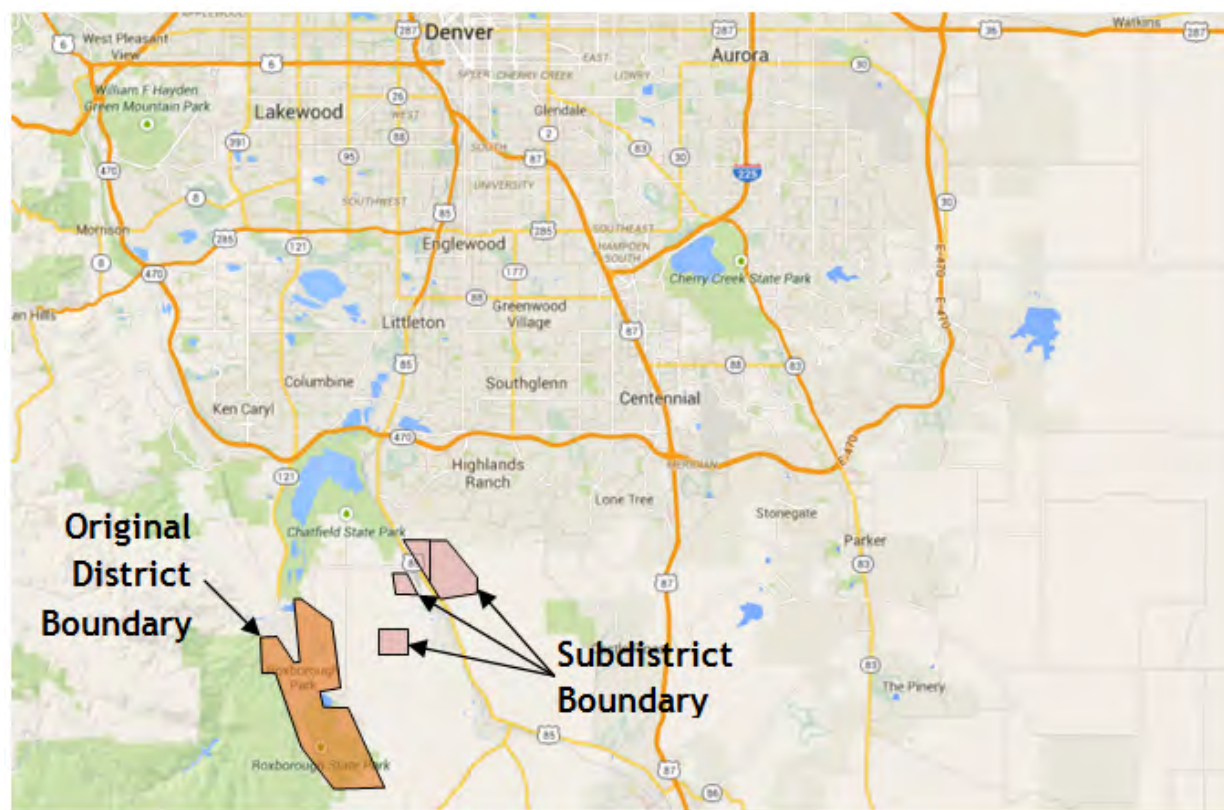




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## Raw Water Supply Project

### Plum Valley Heights Subdistrict of the Roxborough Water and Sanitation District Substantially Complete February 1, 2017



### Project Description

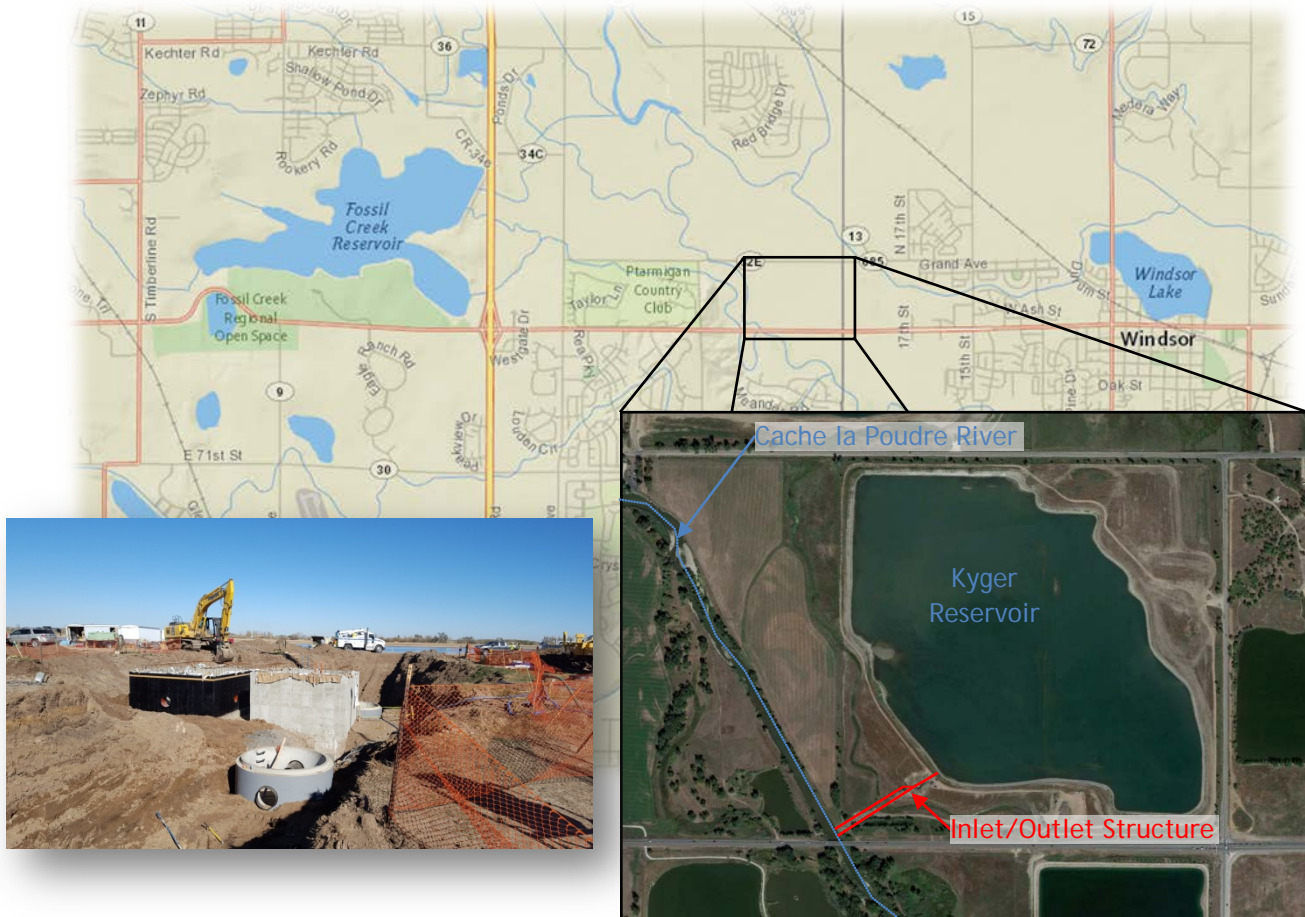
Plum Valley Heights Subdistrict of the Roxborough Water and Sanitation District was recently formed to provide rural communities in Douglas County with a renewable water supply. The communities will be connected to the Roxborough Water and Sanitation District system through an infrastructure project 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 aquifers. Water levels in the Denver Basin aquifers are declining, particularly in the margins of the aquifers 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.

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



**Kyger Reservoir Project**  
Town of Windsor  
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.

P R O J E C T   D A T A		
<i>Sponsor:</i> Town of Windsor	<i>County:</i> Larimer & Weld	<i>Water Source:</i> Cache la Poudre
<i>Type of Loan:</i> Reservoir Construction		<i>Board Approval Date:</i> September 2013
<i>Terms of Loan:</i> \$4,545,000 at 2.75% for 20 years		
<i>Design Engineer:</i> Wenck Associates		
<i>Contractor:</i> Moltz Constructors		
<i>Project Elements:</i> Purchase of lined gravel pit. Construction of river diversion with overshot gate, pipelines, pumps, reservoir inlet/outlet structure.		





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

## Hallenbeck Reservoir No. 1 Dam Rehabilitation

City of Grand Junction

Substantially Complete March 1, 2017



Figure 1 - Dam Embankment Before Construction



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 R O J E C T D A T A			
Sponsor: City of Grand Junction		County: Mesa	Water Source: Kannah Creek
Type of Loan: Reservoir Rehabilitation		Board Approval Date: March 2016	
Loan Terms: 2.65% for 20 years (Original) \$1,010,000 (Final)		\$764,820.93	WSRF Funding: \$100,000
Design Engineer: AECOM			
Contractor: M.A. Concrete Construction, 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.

P R O J E C T   D A T A		
<i>Sponsor:</i> Julesburg Irrigation District	<i>County:</i> Sedgwick	<i>Water Source:</i> South Platte
<i>Type of Project:</i> Ditch Rehabilitation		<i>Board Approval Date:</i> May 2016
<i>Loan Terms:</i> 1.70% for 30 years (Original) \$203,616    (Final) \$203,616		
<i>Design Engineer:</i> Draht Consulting, LLC		
<i>Contractor:</i> Concrete Specialties and Utilities Construction		





## 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.

P R O J E C T   D A T A		
<i>Sponsor:</i> Bellyache Ridge Metropolitan District	<i>County:</i> Eagle	<i>Water Source:</i> Groundwater
<i>Type of Project:</i> Well Replacement		<i>Board Approval Date:</i> July 2013
<i>Loan Terms:</i> 3.00% for 30 years ( <i>Original</i> ) \$169,175.00   ( <i>Final</i> ) \$140,586.73		
<i>Design Engineer:</i> Zancanella and Associates, Inc.		
<i>Contractor:</i> 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.

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





# Drop 5 Hydroelectric Project

## Uncompahgre Valley Water Users Association

Substantially Complete April 1, 2017



### Project Description

The Uncompahgre 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 Uncompahgre 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.

P R O J E C T D A T A		
<i>Sponsor:</i> Uncompahgre Valley Water Users Association	<i>County:</i> Delta & Montrose	<i>Water Source:</i> Gunnison River
<i>Type of Loan:</i> Hydroelectric Project		<i>Board Approval Date:</i> May 2015
<i>Terms of Loan:</i> 2.0% for 20 years (Initial) \$6,999,300.00 (Final) \$6,426,813.80		
<i>Design Engineer:</i> Sorenson Engineering		
<i>Contractor:</i> 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.

P R O J E C T D A T A		
<i>Sponsor:</i> North Poudre Irrigation Company	<i>County:</i> Larimer	<i>Water Source:</i> Cache La Poudre
<i>Type of Loan:</i> Reservoir Rehabilitation		<i>Board Approval Date:</i> November 2013
<i>Terms of Loan: (Original)</i> \$2,263,410.00 at 2.35% for 30 years <i>(Final)</i> \$2,189,757.89		
<i>Design Engineer:</i> Ronald H. Slosson, P.E.		
<i>Contractor:</i> Zak Dirt		
<i>Project Elements:</i> 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.		



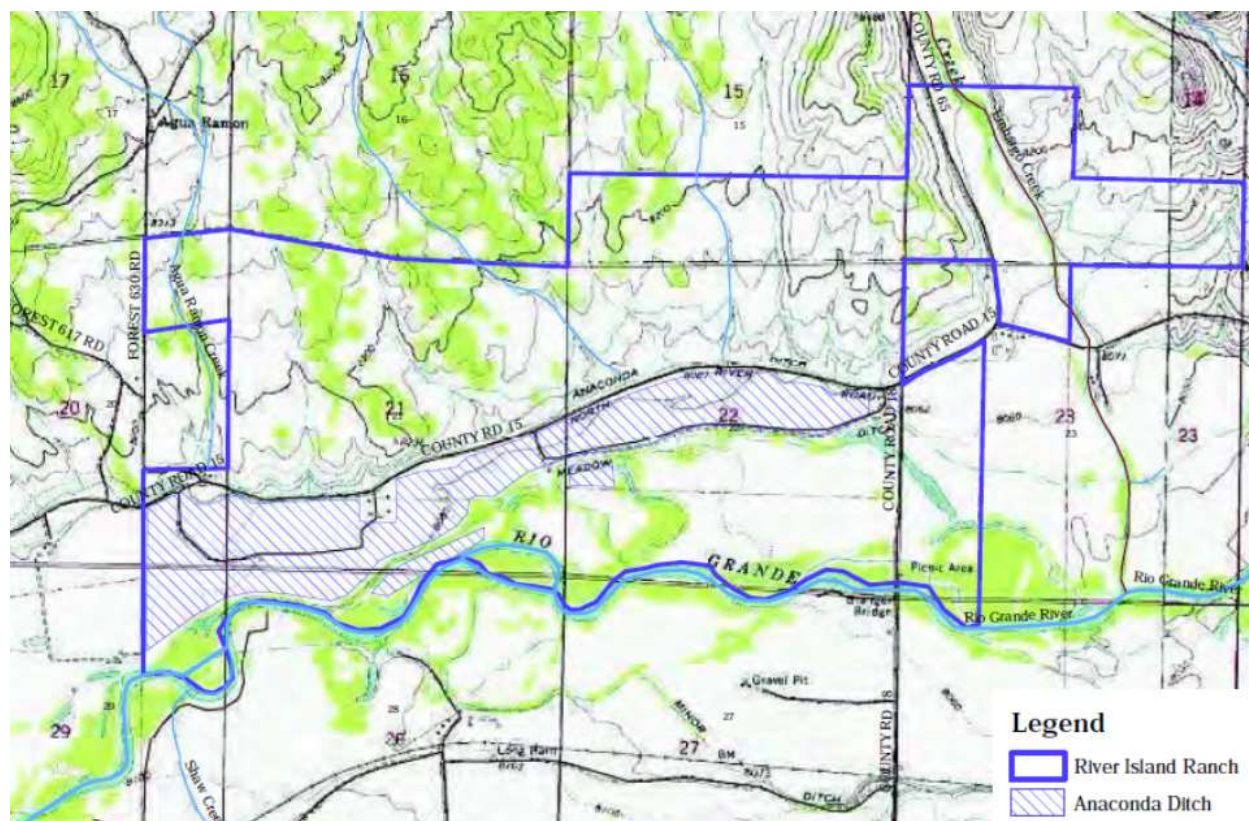


**COLORADO**  
Colorado Water  
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Department of Natural Resources

## 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 Anaconda Ditch, providing an additional 304.8 acre-feet of augmentation water.

P R O J E C T D A T A		
Sponsor: San Luis Valley Water Conservancy District	County: Alamosa	Water Source: Rio Grande River
Type of Project: Water Rights Purchase	Board Approval 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		



### 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.

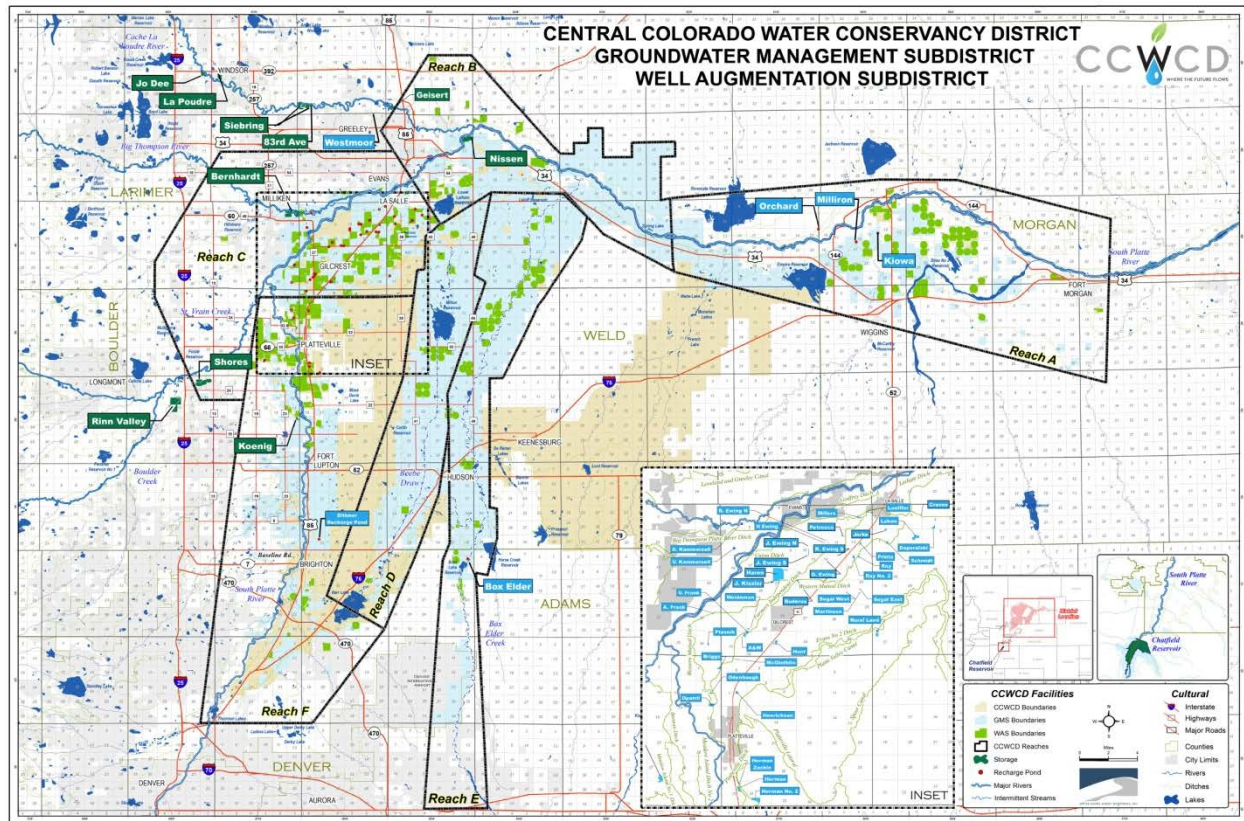
P R O J E C T   D A T A		
<i>Sponsor:</i> Sanford Canal Company	<i>County:</i> Conejos	<i>Water Source:</i> Conejos River
<i>Type of Loan:</i> Ditch Rehabilitation		<i>Board Approval Date:</i> May 2014
<i>Terms of Loan:</i> \$101,000 at 1.75% for 30 years		
<i>Design Engineer:</i> Natural Resources Conservation Service (NRCS)		
<i>Contractor:</i> Natural Progression Homes, LLC		
<i>Project Elements:</i> Diversion Dam (core), sluice gate, headgates, automation, 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   D A T A		
<i>Sponsor:</i> Well Augmentation System of the Central Colorado Water Conservancy District	<i>County:</i> Weld, Adams, Morgan	<i>Water Source:</i> South Platte Basin
<i>Type of Loan:</i> Water Rights Purchase & Augmentation Facility	<i>Board Approval Date:</i> September 2012	
<i>Terms of Loan: (Original)</i> \$3,030,000 at 1.75% for 30 years <i>(Final)</i> \$1,651,904.79		
<i>Design Engineer:</i> Leonard Rice Engineers, Inc.		
<i>Contractor:</i> 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   D A T A		
<i>Sponsor:</i> West Reservoir and Ditch Company	<i>County:</i> Delta	<i>Water Source:</i> Jay Creek
<i>Type of Loan:</i> Reservoir Rehabilitation		<i>Board Approval Date:</i> November 2014
<i>Terms of Loan:</i> \$248,378.00 (Original) \$313,018.19 (Final) at 2.0% for 30 years		
<i>Design Engineer:</i> RJH Engineers		
<i>Contractor:</i> 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 R O J E C T   D A T E		
<i>Sponsor:</i> North Poudre Irrigation Company	<i>County:</i> Larimer	<i>Water Source:</i> Cache La Poudre
<i>Type of Project:</i> Ditch Rehabilitation		<i>Board Approval Date:</i> July 2016
<i>Loan Terms:</i> 2.25% for 30 years ( <i>Original</i> ) \$1,451,673   ( <i>Final</i> ) \$1,451,673		
<i>Design Engineer:</i> AECOM		
<i>Contractor:</i> Rock Solid Solutions		



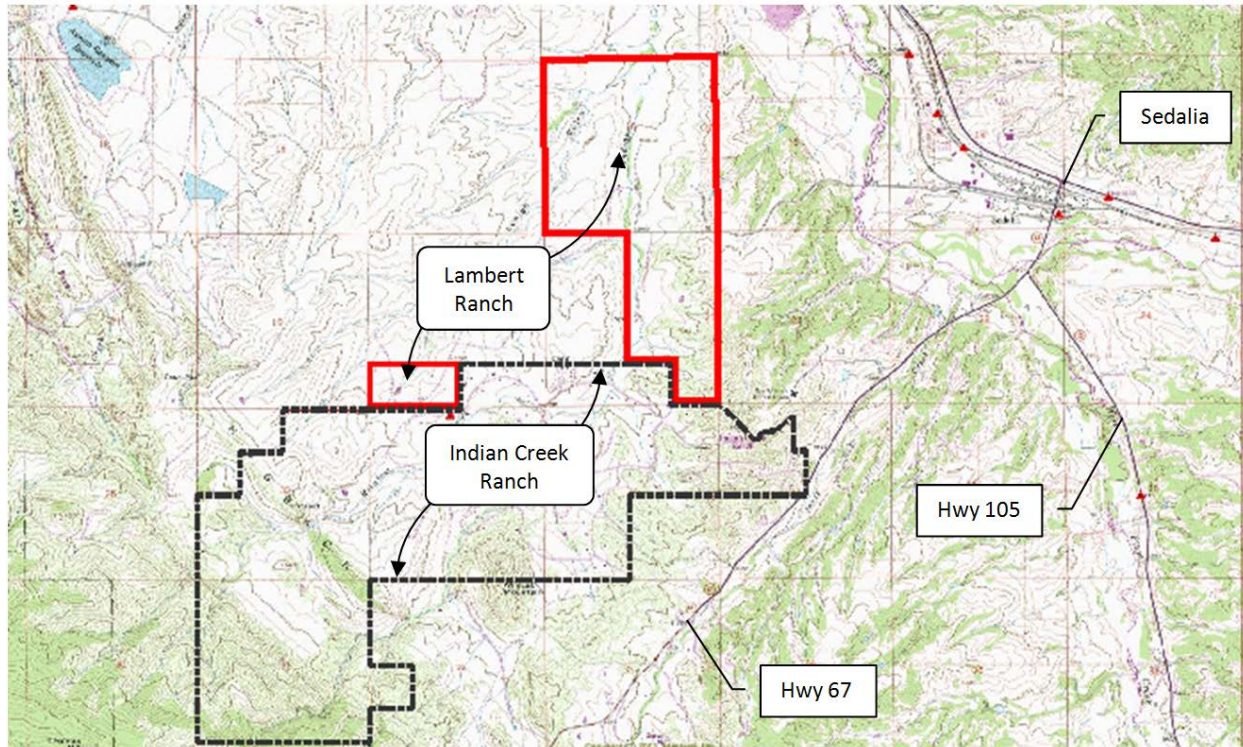
## Project Description

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 D A T A		
<i>Sponsor:</i> Upper Arkansas Water Conservancy District	<i>County:</i> Chaffee	<i>Water Source:</i> North Fork of the South Arkansas River
<i>Type of Loan:</i> Reservoir Rehabilitation		<i>Board Approval Date:</i> November 2004
<i>Terms of Loan:</i> 3.0% for 30 years (Original) \$3,009,800 (Final) \$902,642.40		
<i>Design Engineer:</i> Colorado River Engineering		
<i>Contractor:</i> ASI Constructors, Inc.		





## 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.

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



## 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.

P R O J E C T   D A T A		
<i>Sponsor:</i> The Chilcott Ditch Company	<i>County:</i> El Paso	<i>Water Source:</i> Fountain Creek
<i>Type of Loan:</i> Ditch Rehabilitation		<i>Board Approval Date:</i> January 2017
<i>Terms of Loan:</i> (Original) \$580,750 at 2.20% for 20 years (Final) \$459,991.12 at 2.20% for 20 years		
<i>Design Engineer:</i> JPS Engineering		
<i>Contractor:</i> Backhoe Services, LLC		

	Contract Borrower	County	Loan Amount	Design Status	Const. Start/End	Proj. Status	PM	Status Description/Update
<b>Projects in Design or Construction</b>								
1	Bennett, Town of >Wells #3 and #6 Replacement Project CT2015-161 *\$	Adams Arapahoe	\$1,454,000	100%	May 2015 - Aug 2017	90%	AM	Drilling began in May 2015. All drilling was complete as of the end of July. Temporary were replaced by permanant pumps and the Town is in the process of bringing the wells online and expects that process to be complete in the summer of 2017.
2	Big Elk Meadows Association > Emergency Raw Water Storage Repair C150391	Boulder/ Larimer	\$2,020,000	60%	July 2014 - Sept 2018	50%	JH	Project includes the reconstruction of 5 dams in series. Mirror Dam complete as of April 2015. Rainbow Dam complete as of December 2016. Willow Dam began construction June 2017 and will be complete by fall 2017. Sunset and Meadow Dams 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
a	Castle Pines North Metropolitan District >(C150404A) CT2018-1617 *\$	Arapahoe Douglas Park Weld	\$723,160	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 storage in the new reservoir pool is allowed (after Phase 1 Mitigation contract is complete).
b	Centennial Water & Sanitation District >(C150405A) CT2016-2053 *\$	Arapahoe Douglas Park Weld	\$4,978,290	N/A	N/A	0%	JH	
c	Center of Colorado Water Conservancy District >(C150406A) CT2016-2047 *\$	Arapahoe Douglas Park Weld	\$94,637	N/A	N/A	0%	JH	
d	Central Colorado Water Conservancy District >(C150407A) CT2016-2057 *\$	Arapahoe Douglas Park Weld	\$3,187,560	N/A	N/A	0%	JH	
4 - CHATFIELD Reallocation Project - Phase 1 Mitigation								\$37,786,120
a	Castle Pines North Metropolitan District >(C150404B) CT2018-1616 *\$	Arapahoe Douglas Park Weld	\$4,143,020	95%	Sept 2017 - 2022	10%	JH	This contract is to provide reimbursement for the Chatfield Reallocation Project, for engineering, recreation facilities construction, on-site mitigation, off-site mitigation, and mitigation monitoring. Phase 1 covers the work required before storage is allowed.
b	Centennial Water & Sanitation District >(C150405B) CT2016-2055 *\$	Arapahoe Douglas Park Weld	\$28,527,450	95%	Sept 2017 - 2022	10%	JH	
c	Center of Colorado Water Conservancy District >(C150406B) CT2016-2048 *\$	Arapahoe Douglas Park Weld	\$511,363	95%	Sept 2017 - 2022	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.
d	Central Colorado Water Conservancy District >(C150407B) CT2016-2058 *\$	Arapahoe Douglas Park Weld	\$18,263,830	95%	Sept 2017 - 2022	10%	JH	
5 - CHATFIELD Reallocation Project - Phase 2 Mitigation								\$7,000,310



	Contract Borrower	County	Loan Amount	Design Status	Const. Start/End	Proj. Status	PM	Status Description/Update
a	Castle Pines North Metropolitan District >(C150404C) CT2018-1619 *\$	Arapahoe Douglas Park Weld	\$1,587,720	0%	2022 - 2028	0%	JH	This contract is to provide reimbursement for the Chatfield Reallocation Project, for engineering, recreation facilities construction, on-site mitigation, off-site mitigation, and mitigation monitoring. Phase 2 covers the work remaining after storage is allowed.
b	Centennial Water & Sanitation District >(C150405C) CT2016-2056 *\$	Arapahoe Douglas Park Weld	\$10,934,260	0%	2022 - 2028	0%	JH	
c	Central Colorado Water Conservancy District >(C150407C) CT2016-2060 *\$	Arapahoe Douglas Weld	\$7,000,310	0%	2022 - 2028	0%	JH	
6	Church Ditch Water Authority > Ditch System Improvements CT2018-1335	Jefferson	\$3,615,000	75%	Fall 2017 - Spring 2019	0%	JH RP	Loan covers 5 individual projects within the Church Ditch system. The Leyden Flushing Structure and Headgate 53 Retaining Wall projects will be constructed after the 2017 irrigation season. The Area 15 Ditch Lining, Ford Street Siphon, and Legacy Farms Culvert will be completed after the 2018 irrigation season.
7	Corsentino Dairy Farms, Inc. > Holita Dam Rehabilitation CT2018-980	Walsenburg	\$85,446	95%	Nov 2017 - Jan 2018	0%	AM	Loan contract was executed at the end of August. Construction is expected to begin in November of 2017.
8	Dixon Canon Ditch & Reservoir Company >Dixon Reservoir Dam Improvements CT2017-914 \$	Larimer	\$278,100	100%	Nov 2017 - Spring 2018	0%	JH	Bids were opened 12/14/16. 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. Construction of 1st phase to begin November 2017.
9	Duke Ditch Company >Piping the Duke Ditch CT2017-915 \$	Delta	\$90,000	30%	Fall 2017 - Spring 2018	0%	AM	NRCS began design work in August 2017. The Company hopes construction can begin in late 2017.
10	Fowler, Town of > Augmentation Pipeline Project C150359 (CT2015-054) *\$	Otero	\$277,245	100%	Fall 2017 - Spring 2018	0%	DRJ AM RP	Engineering completed. Easement and appraisal processes causing delay; might result in litigation per disc with Town 5/23/17. Bid process on hold.
11	Georgetown, Town of > Outlet Works Modification Project C150321 (CT2015-055) *\$90%	Clear Creek	\$2,976,975	100%	Aug 2014 - July 2017	99%	AM	Construction is complete and the Town is awaiting SEO acceptance of the project.
12	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.
13	Grand Valley Water Users Association > Government Highline Canal Lining CT2017-2258	Mesa	\$151,500	100%	Nov 2017 - Feb 2018	0%	AM	Project was bid in Oct 2017. Bids came in high but Association worked with low bidder on a reduced scope. Construction will begin in Nov 2017.

	Contract Borrower	County	Loan Amount	Design Status	Const. Start/End	Proj. Status	PM	Status Description/Update
14	Grand Valley Water Users Association >Grand Valley Power Plant Rehabilitation CT2017-2875	Mesa	\$1,717,000	0%	-	0%	JH	Project is on hold as all Dept of Interior agreements must go through a review by the Secretary of Interior
15	Huerfano County Water Conservancy District > Regional Augmentation Project C150364 (CT2015-047) *\$	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. Work at Sheep Mountain Ranch augmentation site construction was completed in Oct 2017.
16	Lake Durango Water Authority > Source Water Supply Project C150317 (CT2015-013) *\$90%	LaPlata	\$2,525,000	100%	Oct 2016 - Oct 2017	70%	KR	Access road constructed from highway to the outlet tower. Several road crossings complete with approximately 90% of pipeline installed
17	Lake McIntosh Reservoir Company >Lake McIntosh Outlet Works Repair CT2016-2794 \$	Boulder	\$1,727,100	100%	Jan 2017 - Dec 2017	60%	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 to began October 2017 and is scheduled to be complete by the end of the year.
18	Lamar, City of >Repurposing of Wells 12 and 13 CT2017-917	Prowers	\$101,000	100%	Jun 2017 - Sept 2018	5%	DRJ AM RP	Precon mtg held 5/23/17. City staff is doing construction. Work has been postponed due to staffing/workload issues.
19	Larimer & Weld Irrigation Company >Headgate Structure Replacement CT2017-2253	Larimer & Weld	\$681,750	100%	Nov 2017 - Spring 2018	0%	JH	Bids received in September 2016 exceeded budget and the Company elected not to award the project at this time. Project was rebid in March 2017 and awarded to Moltz. Constructin to occur after 2017 irrigation season.
20	Lookout Mountain Water District > Upper Beaver Brook Dam Spillway CT2016-2515 \$	Clear Creek	\$3,099,690	100%	June 2016 - June 2017	99%	DRJ KR	Project completed pending final punchlist items.
21	Monte Vista, City of > Augmentation Water Rights Acquisition C150309 (CT2015-011) *\$	Rio Grande	\$1,693,770	50%	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.
22	North Poudre Irrigation Company >Mountain Supply Reservoir No. 10 Repairs CT2017-3641	Larimer	\$499,950	100%	Nov 2017 - April 2018	0%	DRJ JH	Final design complete and bids were opened on October 12. Construction to occur Nov 2017 through April 2018. Company is seeking a loan increase at the November 2017 board meeting.
23	North Poudre Irrigation Company > Fossil Creek Res. Diversion Structure Repair C150368	Larimer	\$876,680	100%	Nov 2015 - March 2016	100%	JH	Construction was delayed due to continuously high river conditions during winter of 2014/2015. Bids were received August 2015 and construction began November 2015. Work has been completed and company is waiting for possible FEMA reimbursements. Loan to be closed out, and interest to begin accruing, on 11/1/18.
24	Orchard Mesa Irrigation District >Grand Valley Power Plant Rehabilitation CT2017-2878	Mesa	\$1,717,000	0%	-	0%	JH	Project is on hold as all Dept of Interior agreements must go through a review by the Secretary of Interior

	Contract Borrower	County	Loan Amount	Design Status	Const. Start/End	Proj. Status	PM	Status Description/Update
25	Orchard Ranch Ditch Company >Orchard Ranch Ditch Pipe Project CT2016-2795 \$	Delta	\$151,500	75%	Fall 2017 - Mid 2018	0%	DRJ AM RP	Design and permitting work is underway. Construction is expected to begin in late 2017 or early 2018.
26	Overland Ditch and Reservoir Company > Overland Reservoir Rehabilitation C150206 (CT2015-034) *\$90%	Delta	\$1,141,300	50%	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.
27	Riverside Ditch and Allen Extension Company > Ditch System Rehabilitation C150301 (CT2015-050) *\$90%	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.
28	Riverside Reservoir and Land Company > Riverside Reservoir Spillway Enlargement C150291 (CT2015-026) *\$90%	Weld	\$2,838,100	90%	Spring 2018+	0%	DRJ KR RP	Plans under review by SEO. Construction timing indeterminate. Contract extension in progress.
29	Sanchez Ditch and Reservoir Company > Sanchez Reservoir Outlet Rehabilitation Project C150342 (CT2015-012) *\$90%	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.
30	St. Vrain & Left Hand Water Conservation District >Lake 4 Outlet Pipeline Repair CT2017-3213	Boulder	\$619,130	95%	Nov 2017 - Summer 2018	0%	JH	Final design and permitting are underway. Project is being done in partnership with Emergency Rock'n WP Ranch Lake No. 4 Repair, with the Conservancy District as the Project Lead. Construction is planned for fall 2017.
31	St. Vrain and Left Hand Water Conservancy District > Emergency Rock'n WP Ranch Lake No. 4 Repair	Boulder	\$4,545,000	95%	Nov 2017 - Summer 2018	0%	JH	Significant coordination with Boulder County and FEMA has delayed final design and construcion from 2014 CWCB Loan Approval. Project lead is Boulder County Parks & Open Space. SEO was provided design and plans in June 2017, and comments were received in August 2017.
32	Southeastern CO Water Conserv. District >Pueblo Dam Hydroelectric Project CT2018-833	Crowley	\$16,725,600	100%	June 2018 - Spring 2018	10%	AM RP	Construction beginning fall 2017. District anticipates power production by summer of 2018.
33	Supply Irrigating Ditch Company >Emergency Supply Irrigating Ditch Repair Project CT150142	Boulder	\$324,210	100%	March 2014 - May 2015	100%	JH	Construction complete, loan funds remaining. No additional disbursements are anticipated. FEMA reimbursements pending. Loan to be closed out, and interest to begin accruing, on 3/1/18.
34	Town of Firestone >Storage Development and Water Rights Purchase CT2017-2880	Weld	\$10,000,000	50%	May 2018 - Mar 2019	0%	DRJ JH 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 fillingreservoir via wells/pipelines instead of diversion off river. Change case application to be filed 2nd half of 2017 for reservoir water rights.
35	Tunnel Water Company >Laramie-Poudre Tunnel Rehabilitation CT2016-2001 \$	Larimer	\$1,111,000	100%	Apr 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.



Contract Borrower		County	Loan Amount	Design Status	Const. Start/End	Proj. Status	PM	Status Description/Update
36	Wiggins, Town of >Wiggins Recharge Facility at Glassey Farms CT2017-3609	Morgan	\$2,408,850	30%	Fall 2017 - Spring 2018	0%	JH	Town purchased Galssey Farms. Final design is still underway.
37 - WISE Project - Phase 1 Infrastructure								\$16,802,501
a	Cottonwood W&S Dist - C150408B (CT2015-106) *\$	Douglas/ Arapahoe	\$2,636,100	100%	Spring 2015 - Jan 2018	80%	DRJ JH RP	Infrastructure to treatment plant completed. 42-inch Pipeline construction on Ridgeway line continues. E470 bore complete.
b	Inverness W&S Dist - C150409B (CT2015-118) *\$	Douglas/ Arapahoe	\$1,181,700	100%	Spring 2015 - Jan 2018	40%	DRJ JH RP	
c	Parker W&S Dist - C150410B (CT2015-108) *\$	Douglas/ Arapahoe	\$6,785,321	90%	Spring 2015 - Jan 2018	60%	DRJ JH RP	
d	Pinery (Denver SE Sub W&S Dist) C150411B (CT2015-085) *\$	Douglas/ Arapahoe	\$6,199,380	90%	Spring 2015 - Jan 2018	60%	DRJ JH RP	
38 - WISE Project - Phase 2 Infrastructure								\$7,400,078
a	Cottonwood W&S Dist - C150408C (CT2015-105) *\$	Douglas/ Arapahoe	\$1,127,160	0%	Spring 2018 - Fall 2021	0%	DRJ JH RP	
b	Inverness W&S Dist - C150409C (CT2015-119) *\$	Douglas/ Arapahoe	\$1,427,130	0%	Spring 2018 - Fall 2021	0%	DRJ JH RP	
c	Parker W&S Dist - C150410C (CT2015-109) *\$	Douglas/ Arapahoe	\$3,418,658	0%	Spring 2018 - Fall 2021	0%	DRJ JH RP	
d	Denver SE Sub W&S Dist - C150411C (CT2015-086) *\$	Douglas/ Arapahoe	\$1,427,130	0%	Spring 2018 - Fall 2021	0%	DRJ JH RP	
39 - WISE Project - DIA Connection								
a	Cottonwood W&S Dist - C150408D (CT2015-104) *\$	Douglas/ Arapahoe	\$363,600	35%	N/A	35%	DRJ JH RP	

Contract Borrower		County	Loan Amount	Design Status	Const. Start/End	Proj. Status	PM	Status Description/Update
b	Inverness W&S Dist - C150409D (CT2015-120) *\$	Douglas/ Arapahoe	\$454,500	35%	N/A	35%	DRJ JH RP	Annual diisbursement to be made on this loan through 2021.Design Status indicates percent of funds disbursed to date.
c	Parker W&S Dist - C150410D (CT2015-110) *\$	Douglas/ Arapahoe	\$1,099,890	46%	N/A	46%	DRJ JH RP	
d	Denver SE Sub. W&S Dist (Pinery) - C150411D (CT2015-087) *\$	Douglas/ Arapahoe	\$454,500	46%	N/A	46%	DRJ JH RP	
Projects Under Contract			\$176,116,636					
*= No Option Ltr    \$= 1% SF in CORE    90%= Contract Restriction								
Approved Projects - Not Under Contract								
a	Florida Consolidated Ditch Company >Hess Lateral Improvement CT2018-83	La Plata	\$1,085,750	In Contracting			AM	
b	San Juan Water Conservancy District >Dry Gultch Reservior Land Acquistion CT2018-839	Archuleta	\$2,000,000	In Contracting			JH	Contract is pending November 2017 election
c	Southeastern CO Water Conserv. District > Arkansas Valley Conduit C150238	Crowley	\$60,600,000	In Contracting			KR	Pending Federal Appropriation. Southeastern's Pueblo Dam Hydro project was taken out of these loan funds.
d	Consolidated Ditch > Consolidated Diversion and Headgate Replacement CT2018-1017	Rio Grande	\$1,010,000	In Contracting			JH	
e	City of Walsenburg > City Lake Dam Rehabilitation & Enlargement CT2018-837		\$6,889,210	In Contracting			AM RP	
f	Bonus Ditch Company > St. Vrain Diversion Replacement	Longmont & Boulder	\$1,309,970	In Contracting			JH	

Contract Borrower		County	Loan Amount	Design Status	Const. Start/End	Proj. Status	PM	Status Description/Update
g	Centenial Irrigating Ditch Company > Centenial Diversion Replacement	Rio Grande	\$232,300		In Contracting		JH	
h	Fort Lyon Canal Company > Adobe Creek Dam Rehabilitation	Bent	\$8,181,000		In Contracting		AM RP	
i	Fruitland Irrigation Company > Tunnel and Canal Renvation	Delta & Montrose	\$1,746,000		In Contracting		JH	
j	Left Hand Water District > Participation in Southern Water Supply Project II	Broomfield & Weld	\$10,000,000		In Contracting		JH	
k	Pueblo Consevancy District > Arkansas River and Woldhorse Creek Levees	Pueblo	\$17,170,000		In Contracting		AM RP	
Not Under Contract SubTotal =			\$110,224,230					
Grand Total =			\$286,340,866					

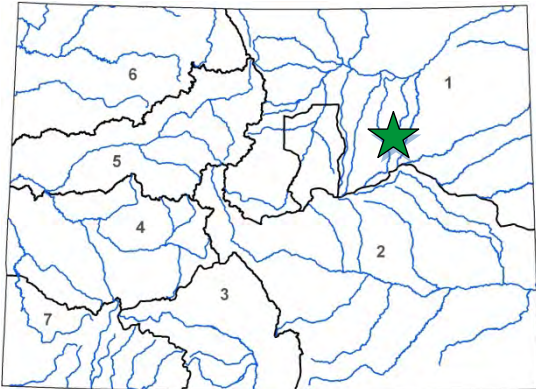


## Wells #3 and #6 Replacement Project

Town of Bennett

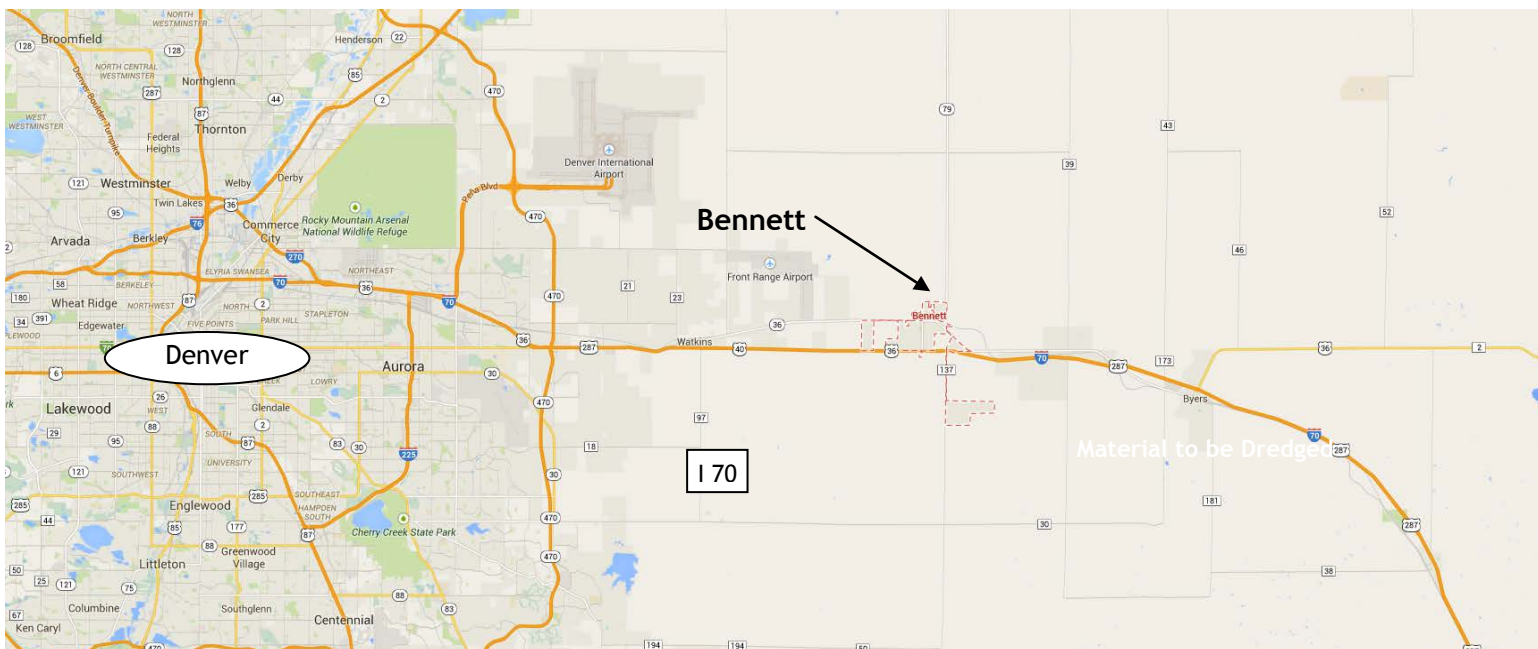
November 2014 Board Meeting

L O A N   D E T A I L S	
Project Cost:	\$1,600,000
CWCB Loan (with Service Fee):	\$1,454,400
Loan Term and Interest Rate:	30 Years @ 3.25%
Funding Source:	Construction Fund
B O R R O W E R   T Y P E	
Agriculture	Municipal      Commercial
0%	0% Low - 100% Mid - 0% High      0%
P R O J E C T   D E T A I L S	
Project Type:	Well Drilling
Average Annual Delivery:	261 AF



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.

L O C A T I O N	
County:	Adams & Arapahoe
Water Source:	Non-Tributary Groundwater
Drainage Basin:	South Platte
Division:	1      District: 1



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

**C150391**

**Borrower:** Big Elk Meadows Association

**County:** Boulder/Larimer

**Project Name:** Emergency Raw Water Storage  
Repair Project

**Project Type:** Reservoir Rehabilitation

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

**Water Source:** West Fork of the Little  
Thompson River

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

**Funding Source:** Severance Tax PBF

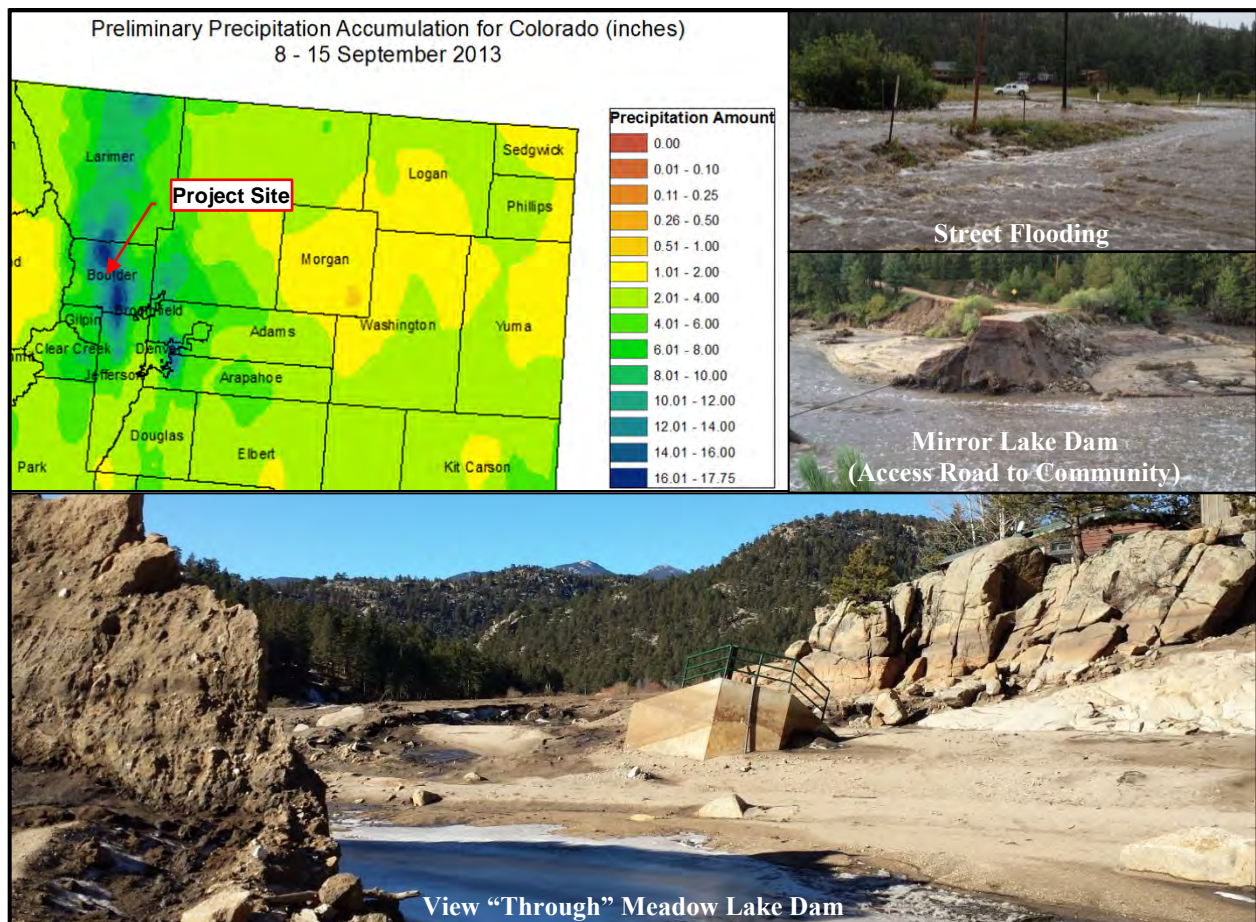
**Type of Borrower:** Middle-Income Municipal

**Water Storage:** 108 AF

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

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

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





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

**C150404**

**Borrower:** Castle Pines North  
Metropolitan 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:** \$7,100,000

**Funding Source:** Severance Tax Perpetual  
Base Fund

**Type of Borrower:** High-income Municipal

**Average Annual Delivery:** 1,300 AF

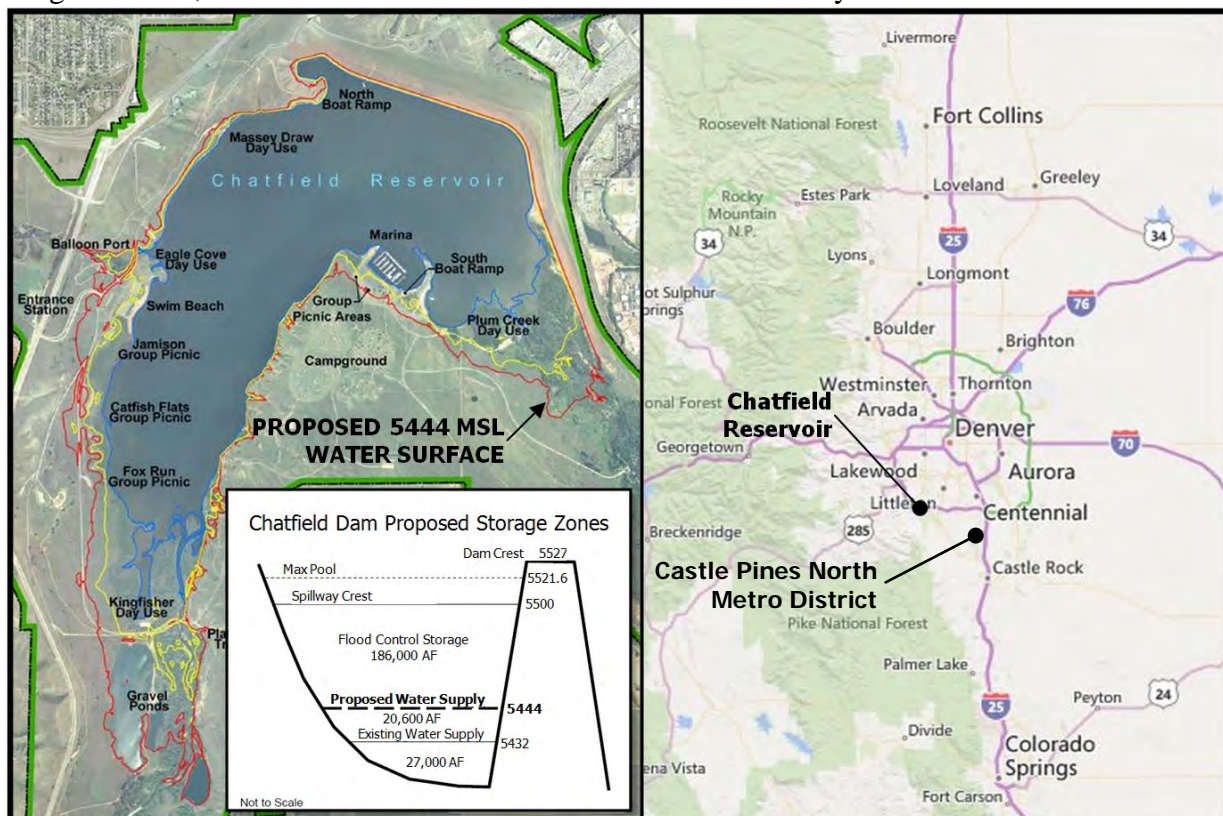
**Added Water Supply Storage:** 1005.8 AF

**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.

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



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

**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

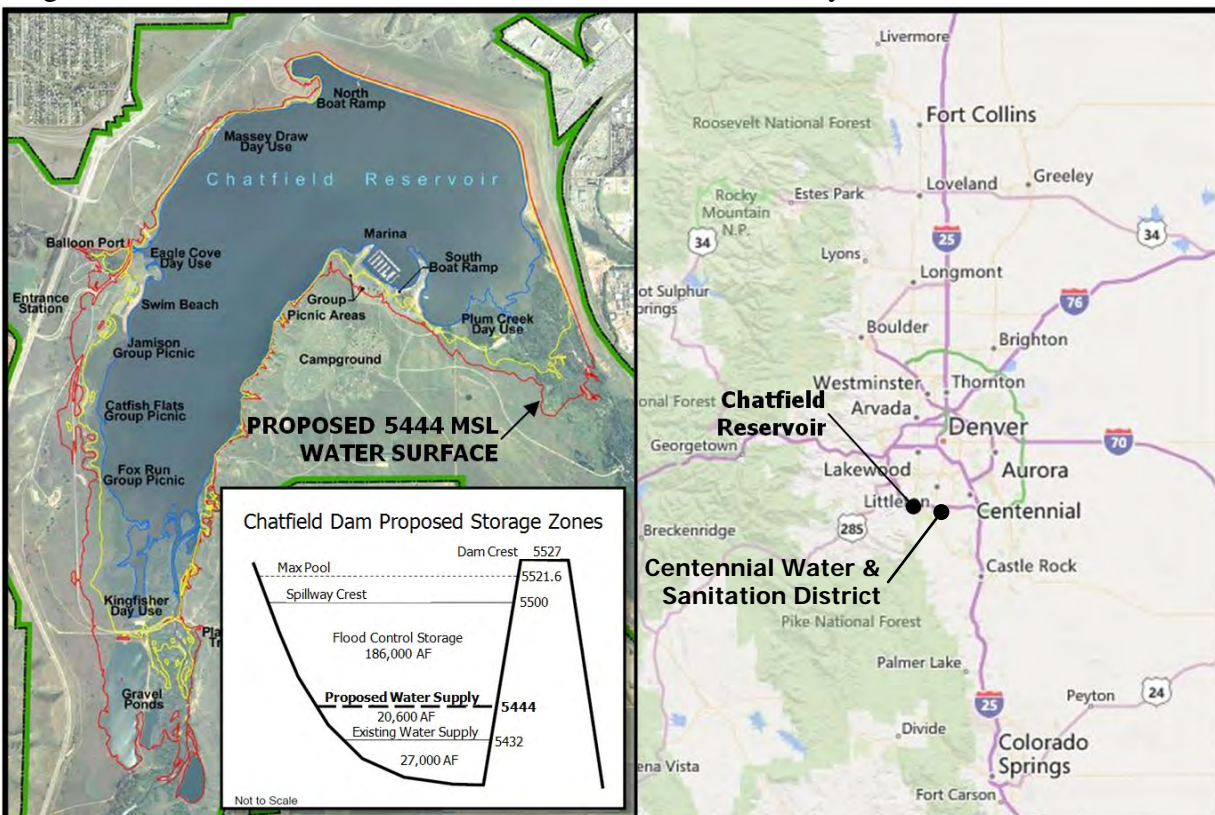
**Average Annual Delivery:** 17,500 AF

**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 acre-feet 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.

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





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

**C150406**

**Borrower:** Center of Colorado Water  
Conservancy District

**County:** Park

**Project Name:** Chatfield Reallocation Project

**Project Type:** Reservoir Storage

**Drainage Basin:** South Platte

**Water Source:** South Platte River  
Plum Creek

**Total Project Cost:** \$931,000

**Funding Source:** Severance Tax Perpetual  
Base Fund

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

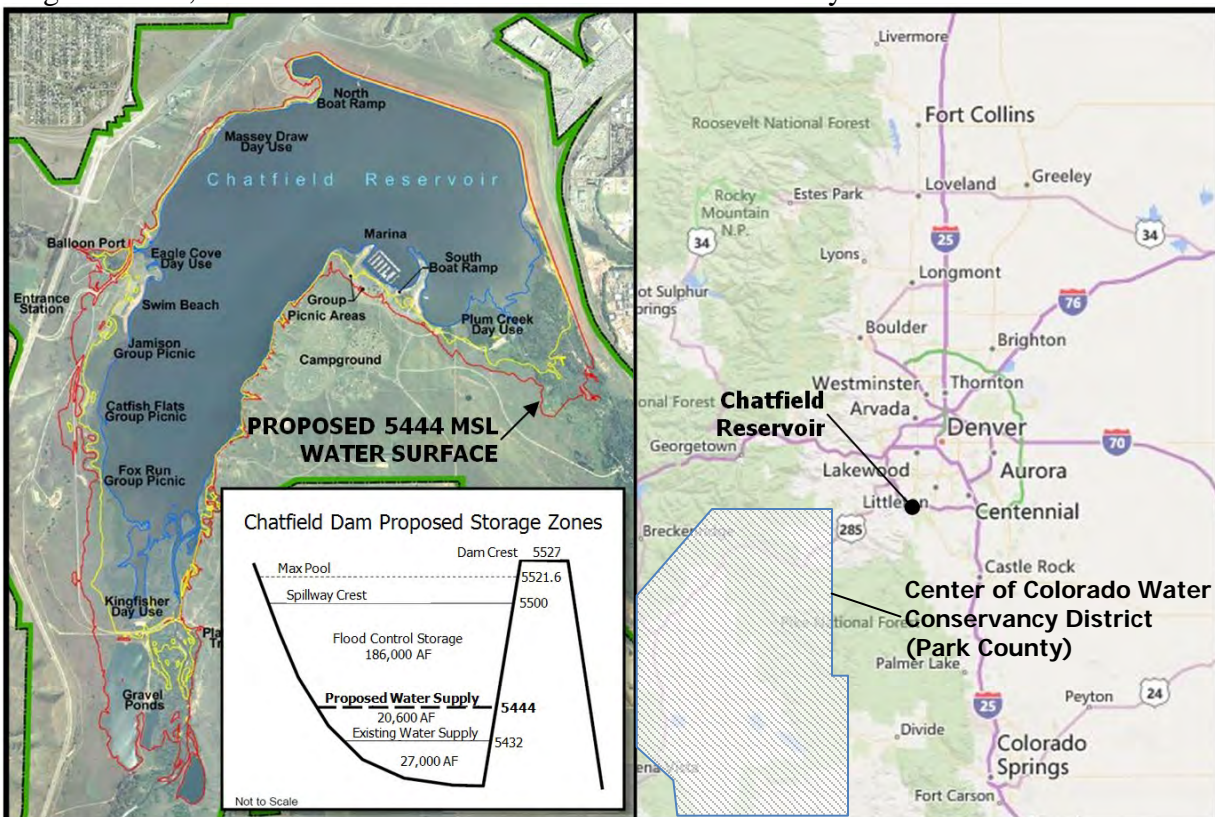
**Average Annual Diversion:** 700 AF

**Added Water Supply Storage:** 131.3 AF

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

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

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





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

**C150407**

**Borrower:** Central Colorado Water  
Conservancy District

**County:** Adams, Weld

**Project Name:** Chatfield Reallocation Project

**Project Type:** Reservoir Storage

**Drainage Basin:** South Platte

**Water Source:** South Platte River  
Plum Creek

**Total Project Cost:** \$28,170,000

**Funding Source:** Severance Tax Perpetual  
Base Fund

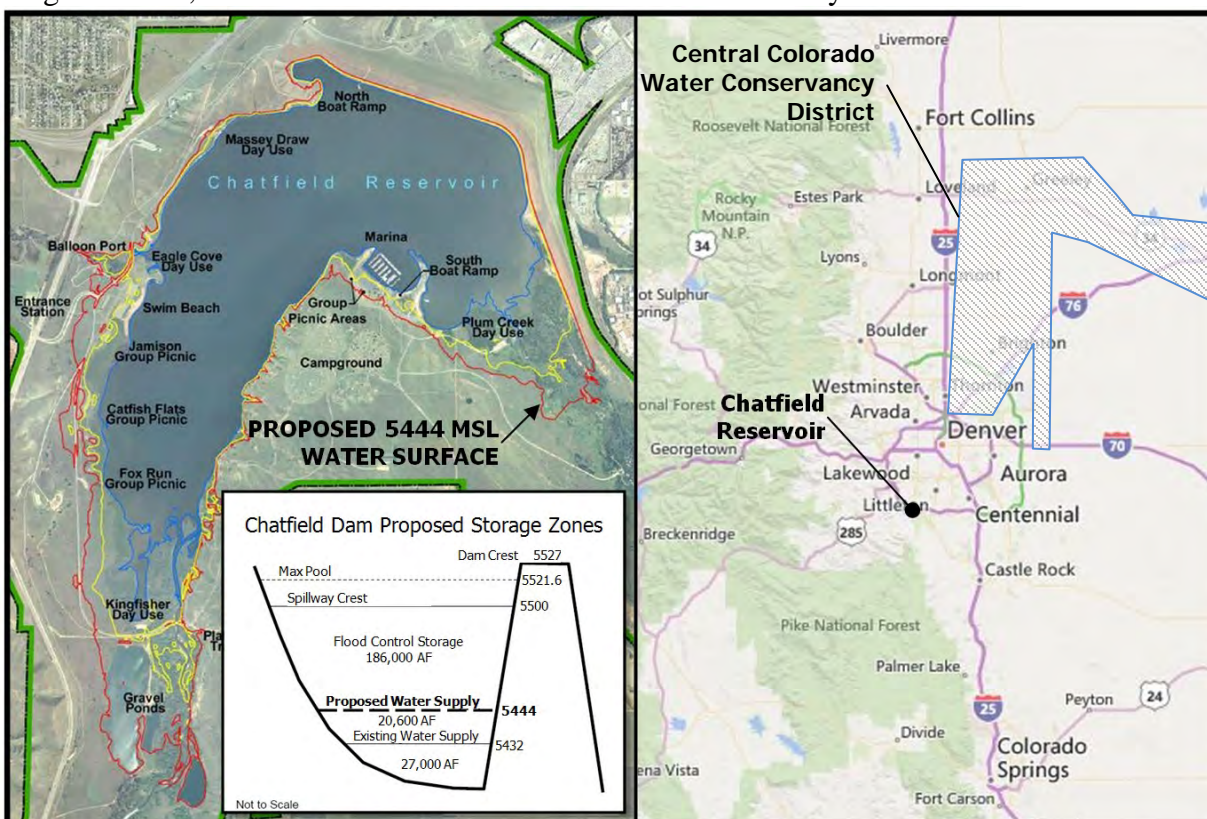
**Type of Borrower:** Agricultural

**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.

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



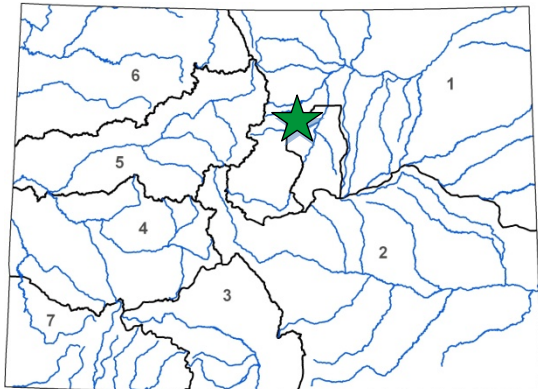


## Ditch System Improvements

Church Ditch Water Authority

July 2017 Board Meeting

L O A N   D E T A I L S	
Project Cost:	\$3,580,000
CWCB Loan (with Service Fee):	\$3,615,800
Loan Term and Interest Rate:	30 Years @ 3.0%
Funding Source:	Construction Fund
B O R R O W E R   T Y P E	
Agriculture	Municipal
0%	0% Low - 33% Mid - 67% High
	Commercial
	0%
P R O J E C T   D E T A I L S	
Project Type:	Ditch Rehabilitation
Average Annual Delivery:	10,500 AF



L O C A T I O N	
County:	Jefferson
Water Source:	Clear Creek
Drainage Basin:	South Platte
Division:	1
District:	7

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

The Authority and Ecological Resource Consultants (ERC) created a Master Plan in 2009 to identify areas in need of maintenance, modification, or replacement. Since 2009, the Authority has been completing identified projects as time and budgets have allowed. Currently, the following five projects have been identified as the highest priority for the Authority over the next two years. (1) The Leyden Creek Flushing Structure will replace the aging structure and improve efficiency, safety, and maintenance. (2) The Headgate 53 Retaining Wall project will repair a concrete block wall which was installed as an emergency fix due to the 2013 flood. (3) The Area 15 Ditch Lining will line a section of ditch where the dewatering by new homes and businesses adjacent to the ditch are causing increased water loss in the ditch. (4) The Ford Street Siphon will address a 75 year old culvert that is at or near the end of its expected lifespan. Finally (5) the Legacy Farms Culvert will replace an undersized culvert which is currently creating a bottleneck.

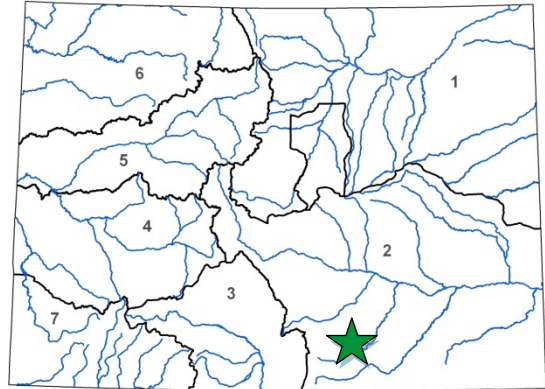
All projects will be constructed during the non-irrigation season and are planned to be complete by spring of 2019.







L O A N   D E T A I L S	
Project Cost:	\$94,000
CWCB Loan (with Service Fee):	\$85,446
Loan Term and Interest Rate:	10 Years @ 0.5%
Funding Source:	Severance Tax
B O R R O W E R   T Y P E	
Agriculture	Municipal      Commercial
100%	0% Low - 0% Mid - 0% High      0%
P R O J E C T   D E T A I L S	
Project Type:	Reservoir Rehabilitation
Average Annual Delivery:	540 AF
Storage Preserved:	274 AF



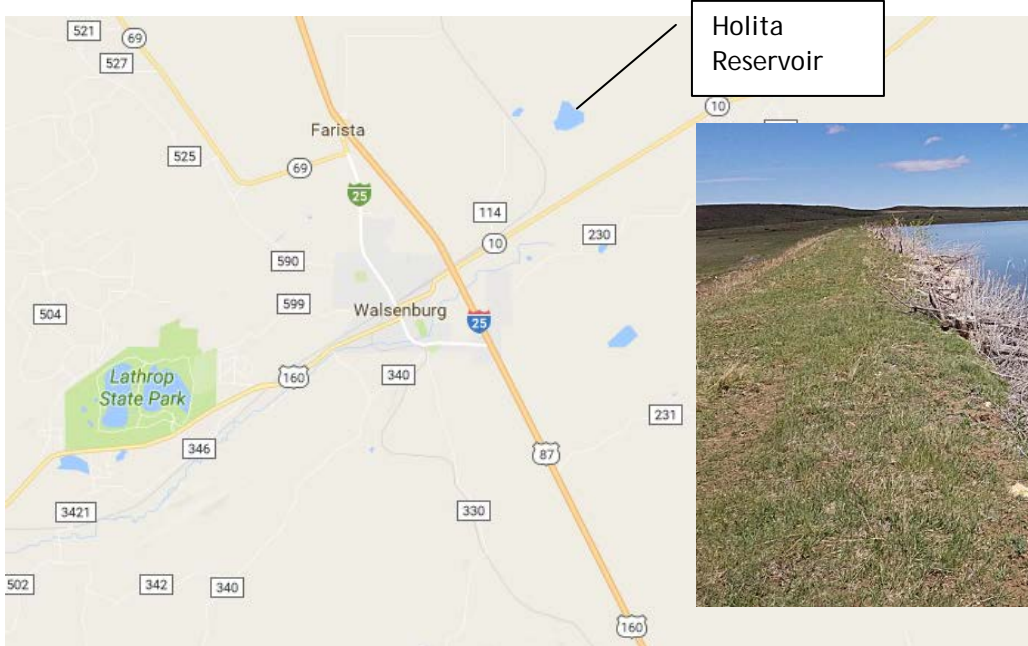
L O C A T I O N	
County:	Huerfano
Water Source:	Cucharas River
Drainage Basin:	Arkansas
Division:	2
District:	16

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.



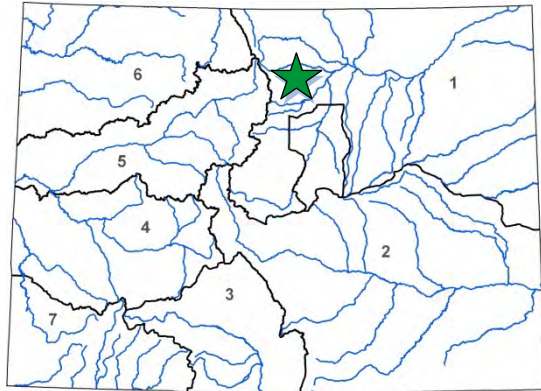


# Dixon Reservoir Dam Improvement

## Dixon Canon Ditch and Reservoir Company

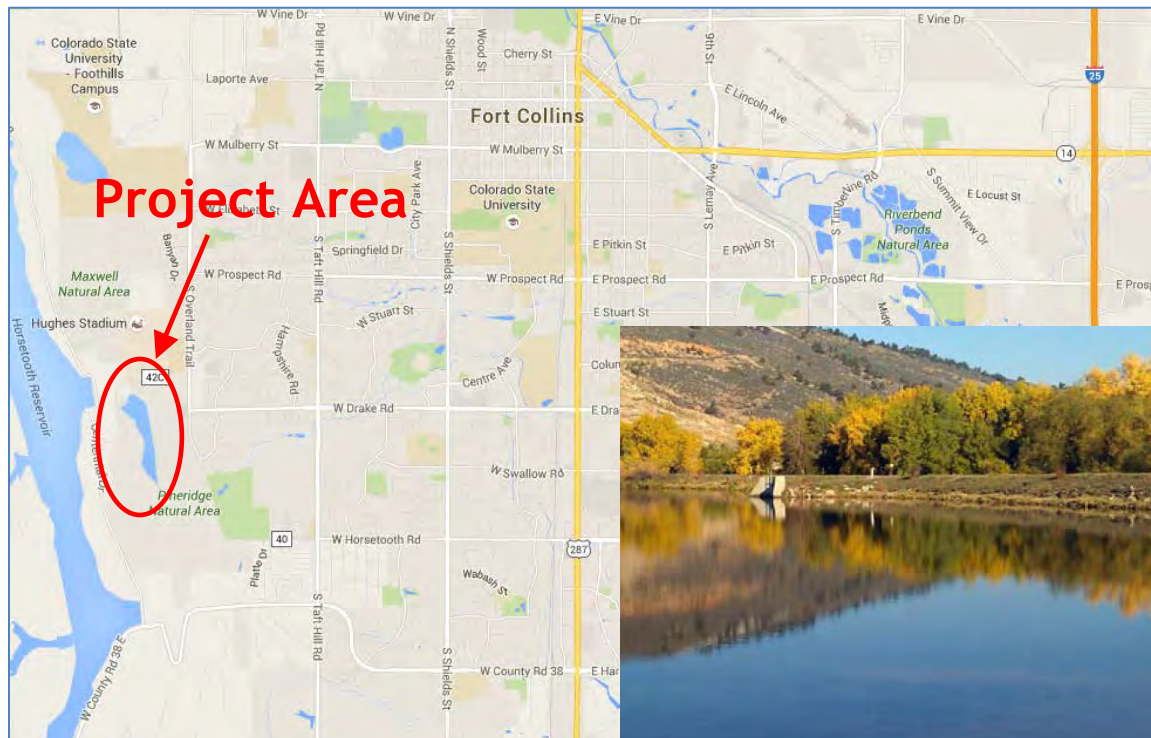
May 2016 Board Meeting

L O A N   D E T 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
B O R R O W E R   T Y P E	
Agriculture	Municipal
17%	0% Low - 83% Mid - 0% High
	Commercial
	0%
P R O J E C T   D E T A I L S	
Project Type:	Dam Rehabilitation
Average Annual Delivery:	312 AF
Total Storage Effect:	412 AF



L O C A T I O N	
County:	Larimer
Water Source:	Dixon Creek
Drainage Basin:	South Platte River
Division:	1
District:	3

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.



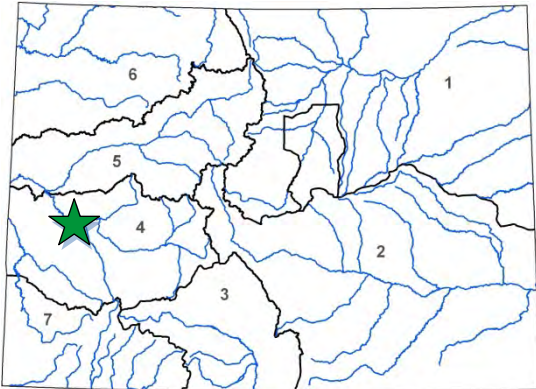




# Piping the Duke Ditch

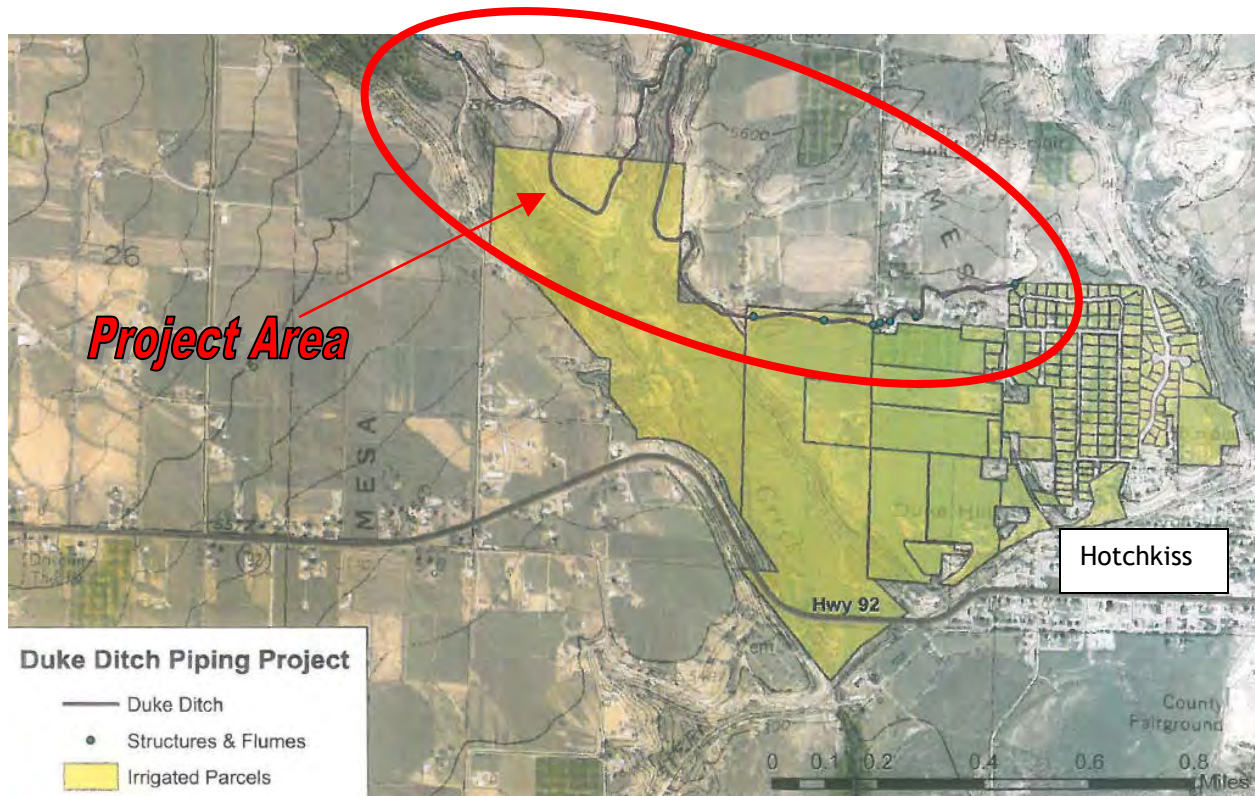
Duke Ditch Company  
March 2016 Board Meeting

L O A N   D E T A I L S	
Project Cost:	\$749,374
CWCB Loan (with Service Fee):	\$90,900
Loan Term and Interest Rate:	30 years @ 2.0%
Funding Source:	Construction Fund, WSRA, Salinity Control
B O R R O W E R   T Y P E	
Agriculture	Municipal      Commercial
68%	32% Low - 0% Mid - 0% High      0%
P R O J E C T   D E T A I L S	
Project Type:	Ditch Rehabilitation
Average Annual Delivery:	2,424 AF



L O C A T I O N	
County:	Delta
Water Source:	Leroux Creek
Drainage Basin:	Gunnison
Division:	4      District: 42

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.





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

**C150359**

**Borrower:** Town of Fowler, Water Enterprise

**County:** Otero

**Project Name:** Augmentation Pipeline Project

**Project Type:** Augmentation

**Drainage Basin/ District:** Arkansas / 17

**Water Source:** Arkansas River

**Total Project Cost:** \$305,000

**Funding Source:** Construction Fund

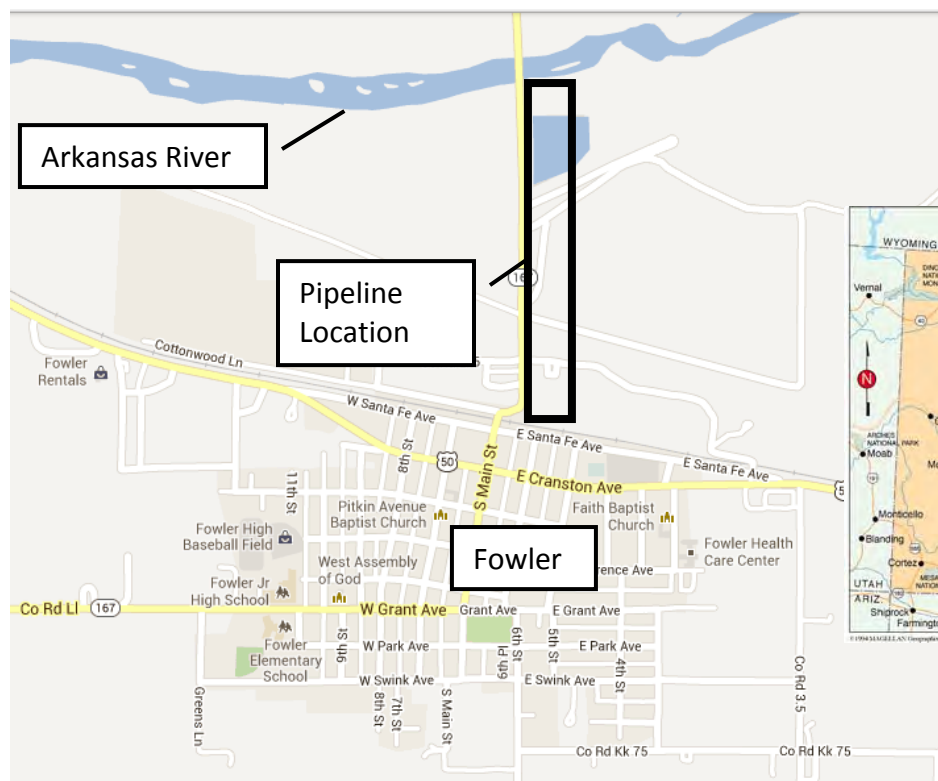
**Type of Borrower:** Municipal (Low)

**Average Annual Diversion:** 157 AF

**CWCB Loan:** \$277,245  
(with 1% Service Fee)

**Interest Rate:** 2.25% **Term:** 30 years

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



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

**Borrower:** Town of Georgetown  
(Water and Sewer Enterprise)

**County:** Clear Creek County

**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

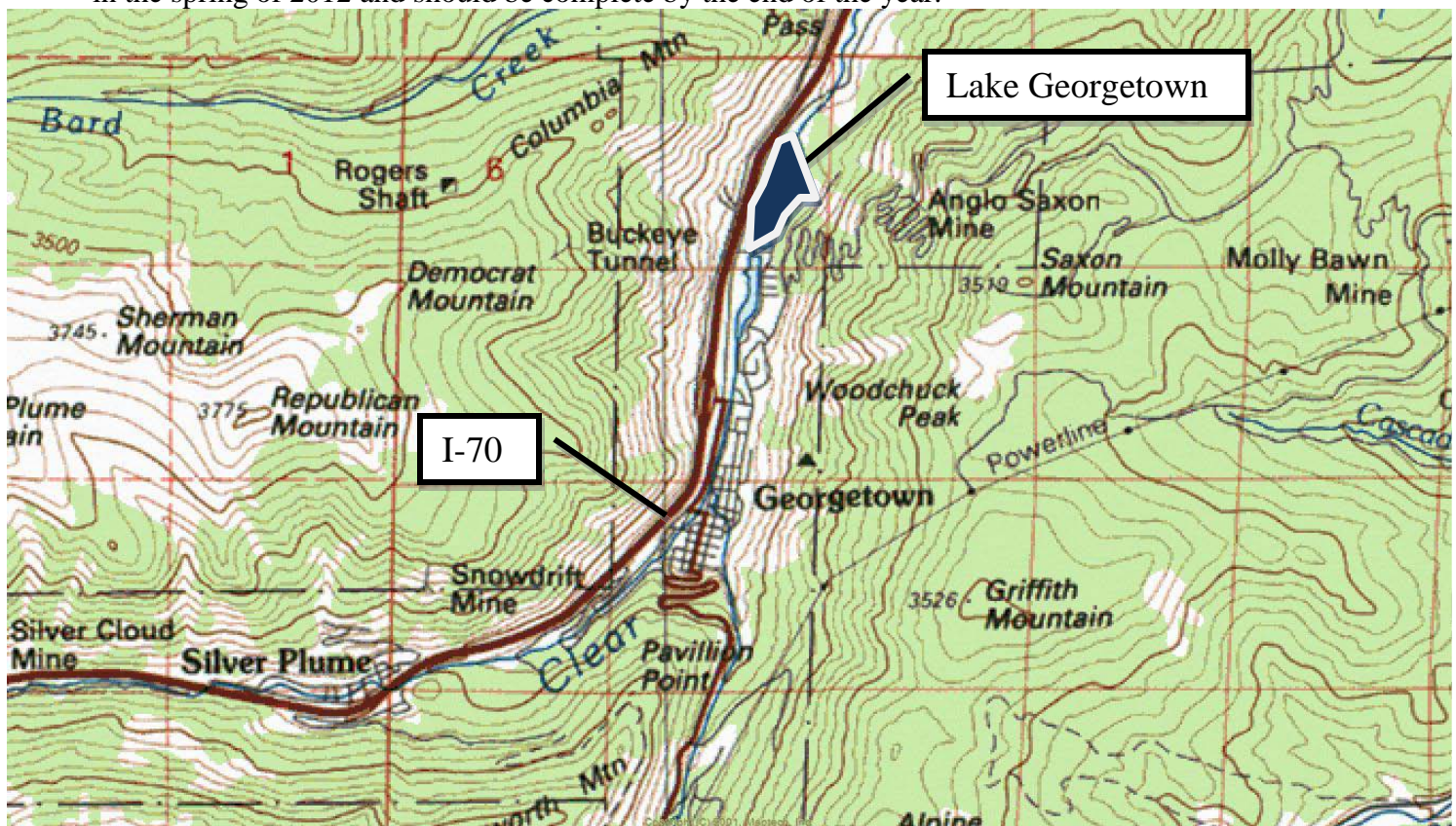
**Type of Borrower:** Middle-Income Municipal

**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.





## CWCW Water Project Loan Program Project Data Sheet

**Borrower:** Grand Mesa Water Conservancy District

**County:** Delta

**Project Name:** Peak Reservoir and Blanche Park Reservoir Rehabilitation

**Project Type:** Reservoir Rehabilitation

**Drainage Basin/ District:** Gunnison / 40

**Water Source:** Surface Creek

**Total Project Cost:** \$640,000

**Funding Source:** Construction Fund/  
WSRA Gunnison Basin Funds

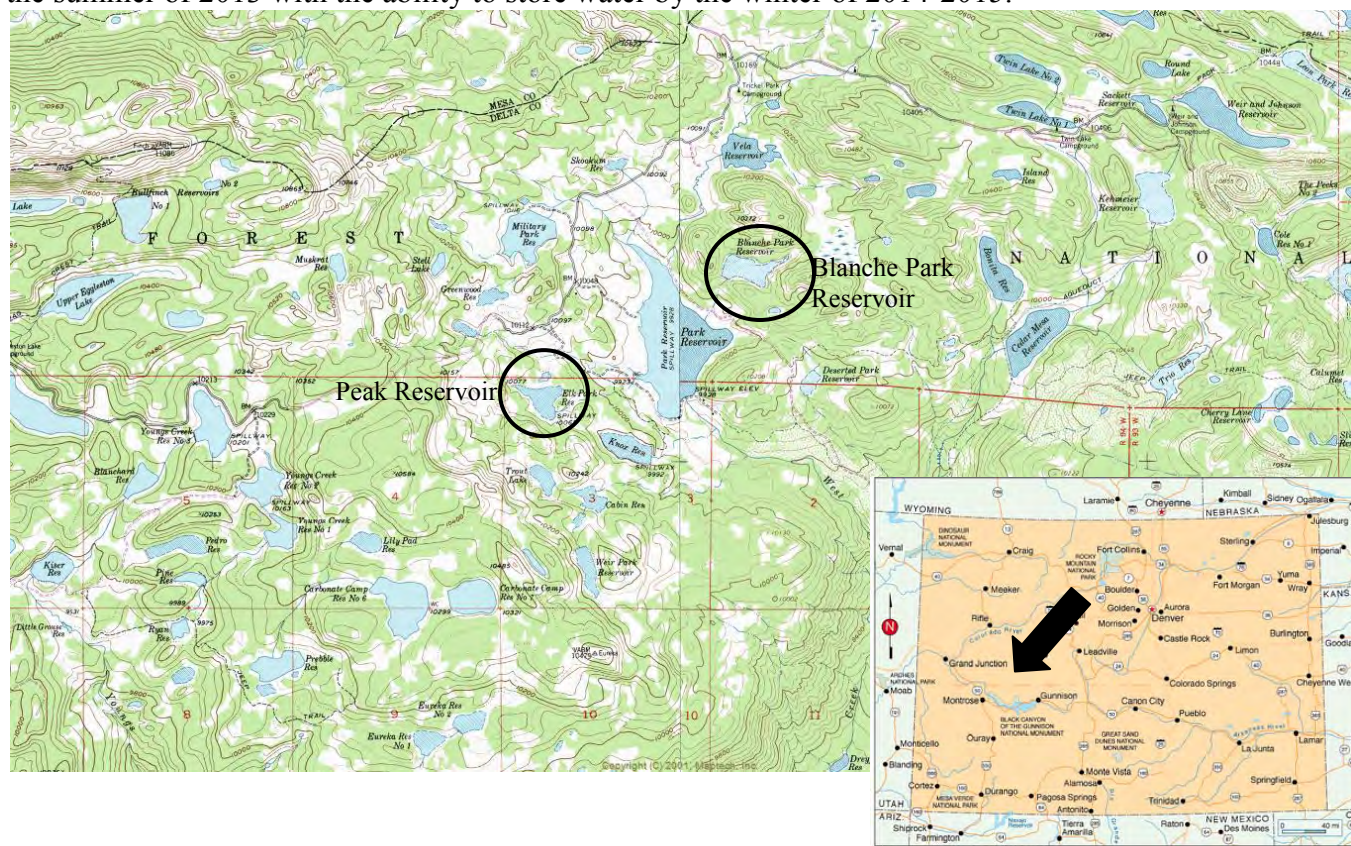
**Type of Borrower:** Municipal/Agricultural

**Average Annual Diversion:** 400 AF  
**Storage Added:** 155 AF

**CWCW Loan:** \$227,250  
(with 1% Service Fee)

**Interest Rate:** 1.55%\* **Term:** 20 years  
(Reduced from 1.8% blended rate)

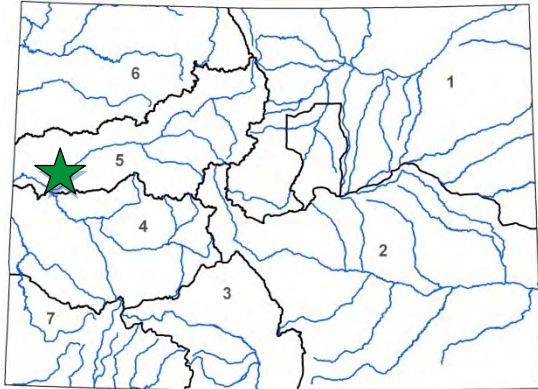
The Grand Mesa Water Conservancy District owns several reservoirs and a network of ditches to service agricultural users and municipal users including the Town of Orchard City and Cedaredge. It is requesting a loan to rehabilitate Peak Reservoir and Blanche Park. Both reservoirs are located in the Grand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





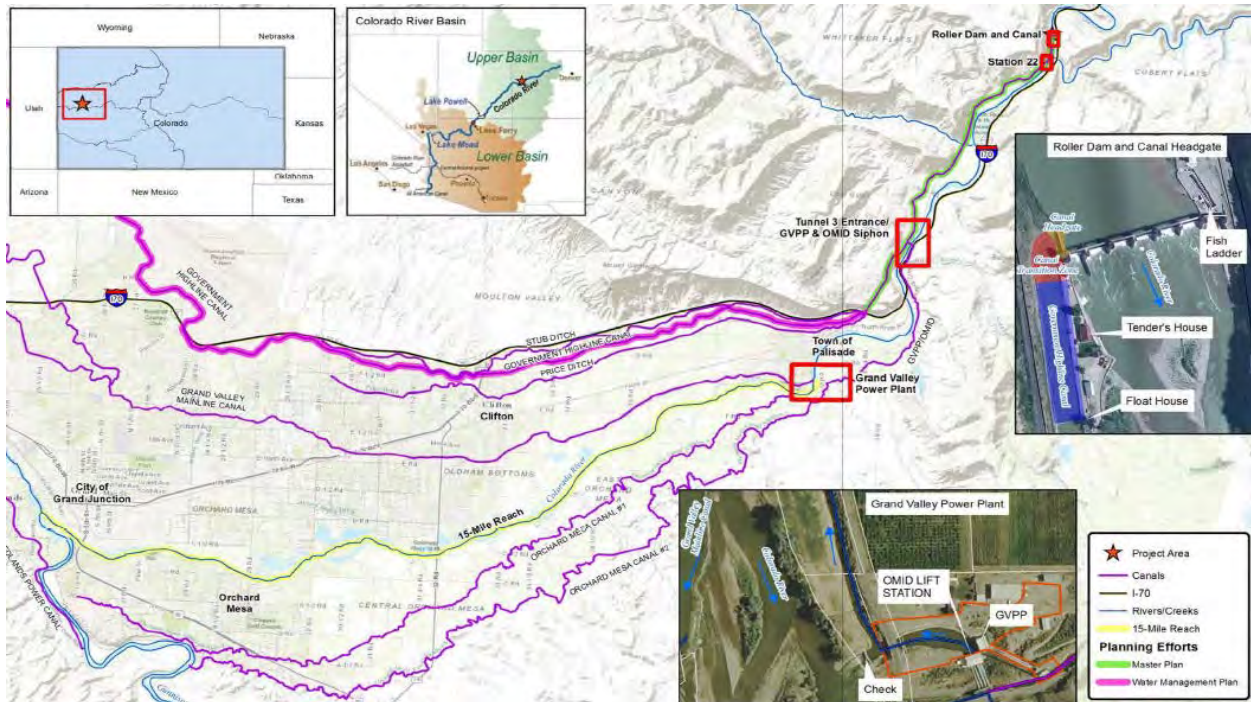


L O A N   D E T A I L S	
Project Cost:	\$800,000
CWCB Loan (with Service Fee):	\$151,500
Loan Term and Interest Rate:	30 Years @ 1.55%
Funding Source:	Construction Fund
B O R R O W E R   T Y P E	
Agriculture	Municipal      Commercial
90%	0% Low - 10% Mid - 0% High      0%
P R O J E C T   D E T A I L S	
Project Type:	Ditch Rehabilitation
Average Annual Delivery:	260,000 AF



L O C A T I O N	
County:	Mesa
Water Source:	Colorado River
Drainage Basin:	Colorado
Division: 5	District: 72

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 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.



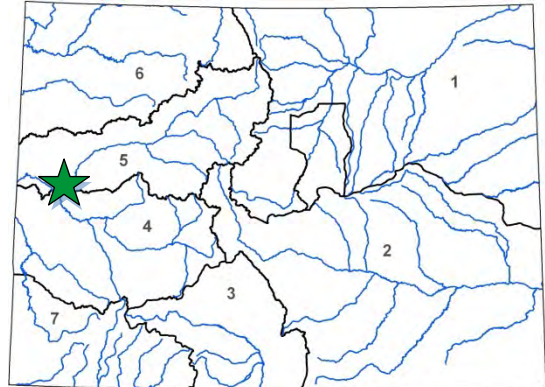


## Grand Valley Power Plant Rehabilitation

Grand Valley Water Users Association

November 2016 Board Meeting

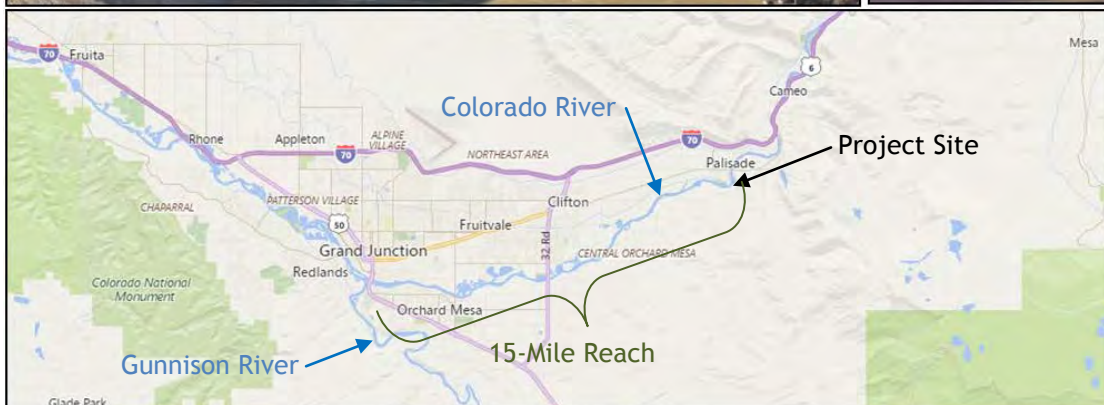
L O A N   D E T A I L S	
Project Cost:	\$5,200,000
CWCB Loan (with Service Fee):	\$1,717,000
Loan Term and Interest Rate:	30 Years @ 2.0%
Funding Source:	Construction Fund
B O R R O W E R   T Y P E	
Hydropower	
P R O J E C T   D E T A I L S	
Project Type:	Hydroelectric
Average Annual Power Production:	17M kWh



L O C A T I O N			
County:	Mesa		
Water Source:	Colorado River		
Drainage Basin:	Colorado		
Division:	5	District:	72

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 Energy) in conjunction with the Cameo coal fired power plant. The Association and District took operational control of the plant when Xcel decided to cease its operations. The Association and District equally split costs and revenues from the GVPP under a Lease of Power Privilege with Reclamation and a Power Purchase Agreement with Xcel. In addition to being a revenue source, the GVPP serves an important role in providing water to the “15-Mile Reach” which has been designated by the Upper Colorado River Endangered Fish Recovery Program as critical habitat. The non-consumptive hydropower water right ensures continued flows for this important stretch of river.

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

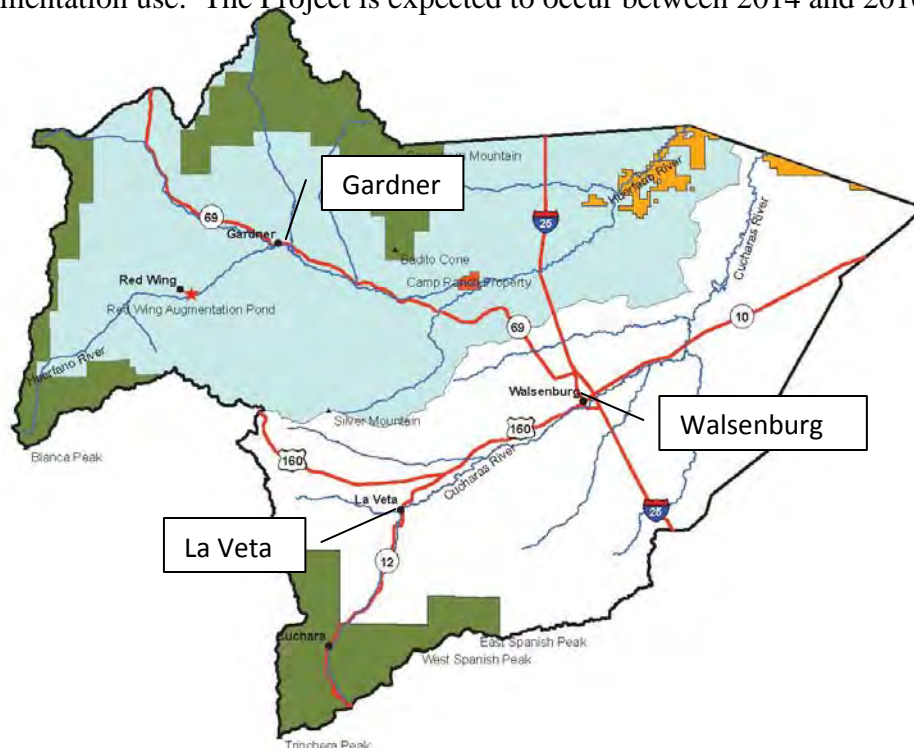




## Water Project Loan Program Project Data Sheet

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

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



# CWCB Water Project Loan Program Project Data Sheet

**Borrower:** Lake Durango Water Authority

**County:** La Plata

**Project Name:** Source Water Supply Project

**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

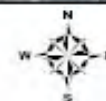
**WSRA Statewide Grant:** ~~\$500,000~~ **\$450,000**

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).



0 0.4 0.8 1.6 2.4 Miles

2009 NAIP aerial imagery provided by  
the US Farm Service Agency





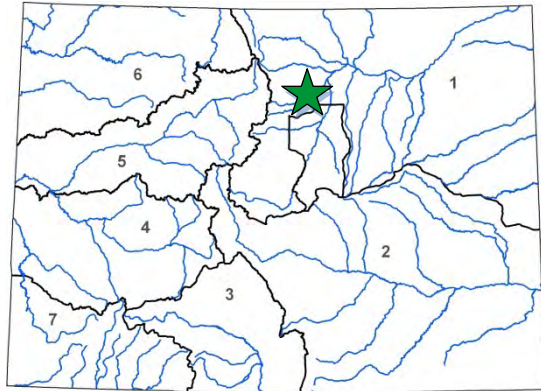


## Lake McIntosh Outlet Works Repair

Lake McIntosh Reservoir Company

January 2016 Board Meeting

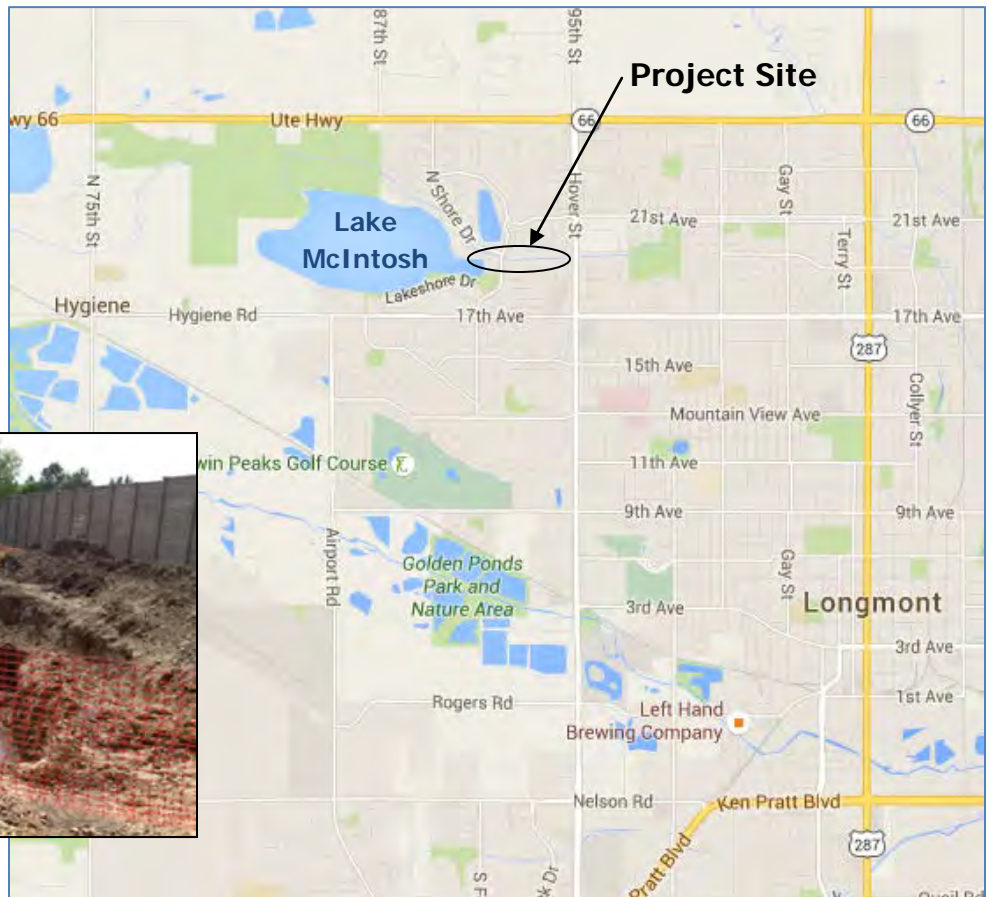
L O A N   D E T A I L S	
Project Cost:	\$1,900,000
CWCB Loan (with Service Fee):	\$1,727,100
Loan Term and Interest Rate:	30 Years @ 2.70%
Funding Source:	Construction Fund
B O R R O W E R   T Y P E	
Agriculture	Municipal
28%	0 % Low - 61% Mid - 9% High
	Commercial
	2 %
P R O J E C T   D E T A I L S	
Project Type:	Reservoir Rehabilitation
Average Annual Delivery:	1,533 AF
Storage Preserved:	2,476 AF



L O C A T I O N	
County:	Boulder
Water Source:	St. Vrain Creek
Drainage Basin:	South Platte River
Division:	1
District:	5

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.

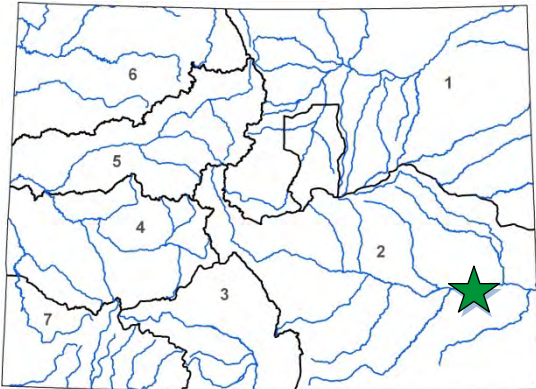
The reservoir was constructed in 1890 and enlarged in 1902. In May 2015, a section of the reservoir's outlet pipe collapsed, creating a sinkhole which deposited soil in the outlet works pipes downstream for approximately 300 feet. This has rendered the reservoir's outlet works unusable and thus water 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.



May 2015 Sinkhole

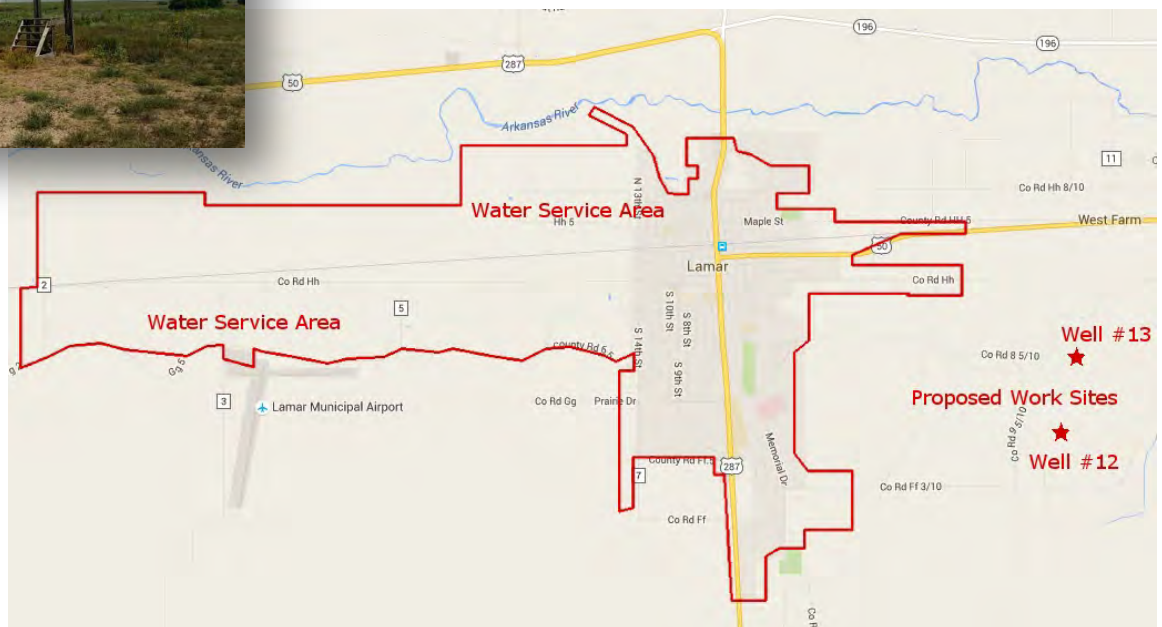


L O A N   D E T A I L S	
Project Cost:	\$400,000
CWCB Loan (with Service Fee):	\$101,000
Loan Term and Interest Rate:	10 Years @ 1.95%
Funding Source:	WSRA & Sev. Tax Perpetual Base Fund
B O R R O W E R   T Y P E	
Agriculture	Municipal      Commercial
0%	100% Low - 0% Mid - 0% High      0%
P R O J E C T   D E T A I L S	
Project Type:	Municipal & Industrial
Average Annual Delivery:	2,005 AF



L O C A T I O N	
County:	Prowers
Water Source:	Arkansas River
Drainage Basin:	Arkansas River
Division:	2      District: 67

The City of Lamar, through its Water and Wastewater Department, has been providing the city with water and sewer services for over 135 years. Although the City has undertaken numerous upgrades, rehabilitation, and expansion projects over the years, most of the existing infrastructure was funded and built during New Deal-era programs. The City's Wells 12 and 13 were developed in the 1950s and used for municipal potable water supply until 2012, when Microscopic Particulate Analysis water quality testing was conducted, resulting in a reclassification of both wells as Ground Water Under Direct Influence of Surface Water (GWUDI) by the Colorado Department of Public Health and Environment (CDPHE). The wells were taken out of service at that time. A Feasibility Study conducted in 2014 concluded that it is feasible to redevelop both wells for non-potable irrigation use. Once this project is completed, water can be used for any non-potable municipal application, including irrigation of a city-owned cemetery and a golf course, both of which are currently watered with potable water.



Water Project Loan Program - Project Data Sheet

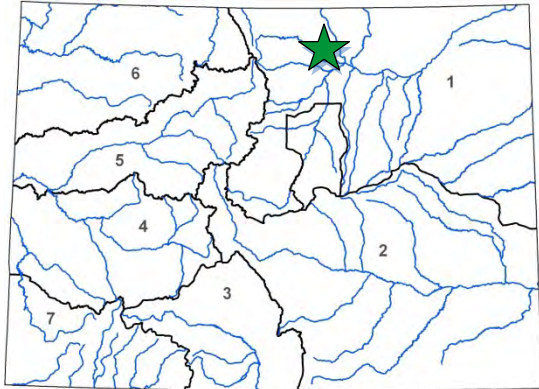




# Headgate Structure Replacement

Larimer and Weld Irrigation Company  
September 2016 Board Meeting

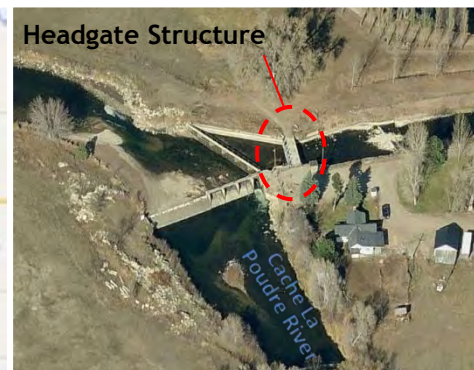
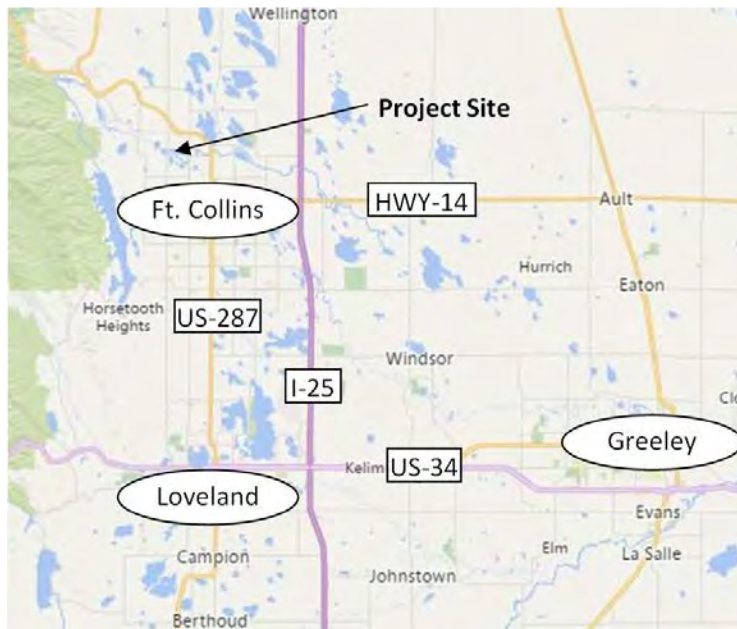
L O A N   D E T A I L S	
Project Cost:	\$750,000
CWCB Loan (with Service Fee):	\$681,750
Loan Term and Interest Rate:	30 Years @ 1.5%
Funding Source:	Construction Fund
B O R R O W E R   T Y P E	
Agriculture	Municipal      Commercial
96%	0% Low - 4% Mid - <1% High      0%
P R O J E C T   D E T A I L S	
Project Type:	Ditch Rehabilitation
Average Annual Delivery:	85,000 AF



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

The Larimer and Weld Irrigation Company is a Colorado Mutual Ditch Company and a nonprofit corporation. The Company's service area extends from the Cache la Poudre River diversion north of Fort Collins, east to near the town of Galeton, encompassing approximately 61,000 acres of irrigated land in Larimer and Weld Counties. The Company's diversion off the Cache la Poudre River is aging and in need of repair. This Project will focus on replacing the headgate structure, including the concrete structure, gates, and gate operators. The replacement of the trash rack and forebay structure, and repairs to the diversion structure, are planned to take place within the next few years and are not a part of this Project.

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





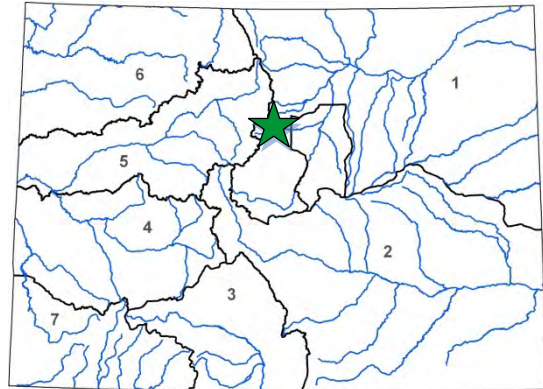


# Upper Beaver Brook Dam Spillway

## Lookout Mountain Water District

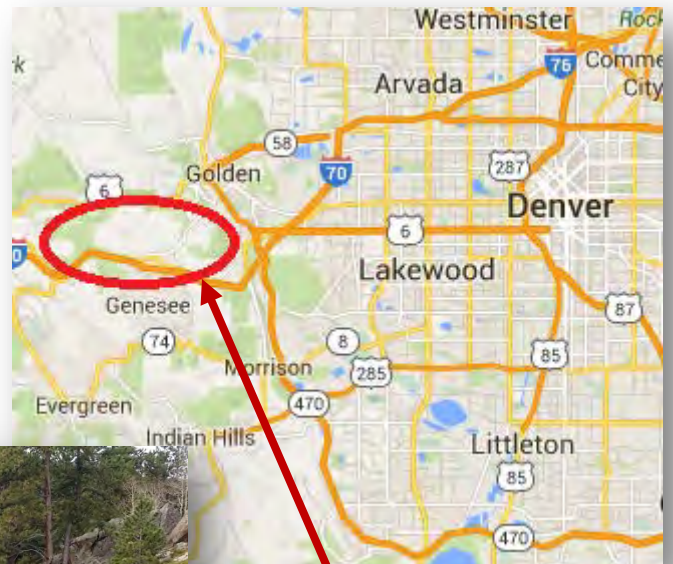
November 2015 Board Meeting

L O A N   D E T A I L S	
Project Cost:	\$3,410,000
CWCB Loan:	\$3,099,690
Loan Term and Interest Rate:	30 years @ 3.25%
Funding Source:	Construction Fund
B O R R O W E R   T Y P E	
Agriculture	Municipal
0%	High-income 100%
Commercial	0%
P R O J E C T   D E T A I L S	
Project Type:	Reservoir Enlargement
Average Annual Diversion:	107 acre-feet
Added Reservoir Storage:	134 acre-feet



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.



Service Area





## Water Project Loan Program - Project Data

**Borrower:** City of Monte Vista  
(Water Activity Enterprise)

**Project Name:** Augmentation Water Rights  
Acquisition

**Drainage Basin:** Rio Grande

**Total Project Cost:** \$1,863,500

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

**CWCB Loan:** \$1,693,770 (incl. 1% loan fee)

**County:** Rio Grande

**Project Type:** Water Rights Purchase

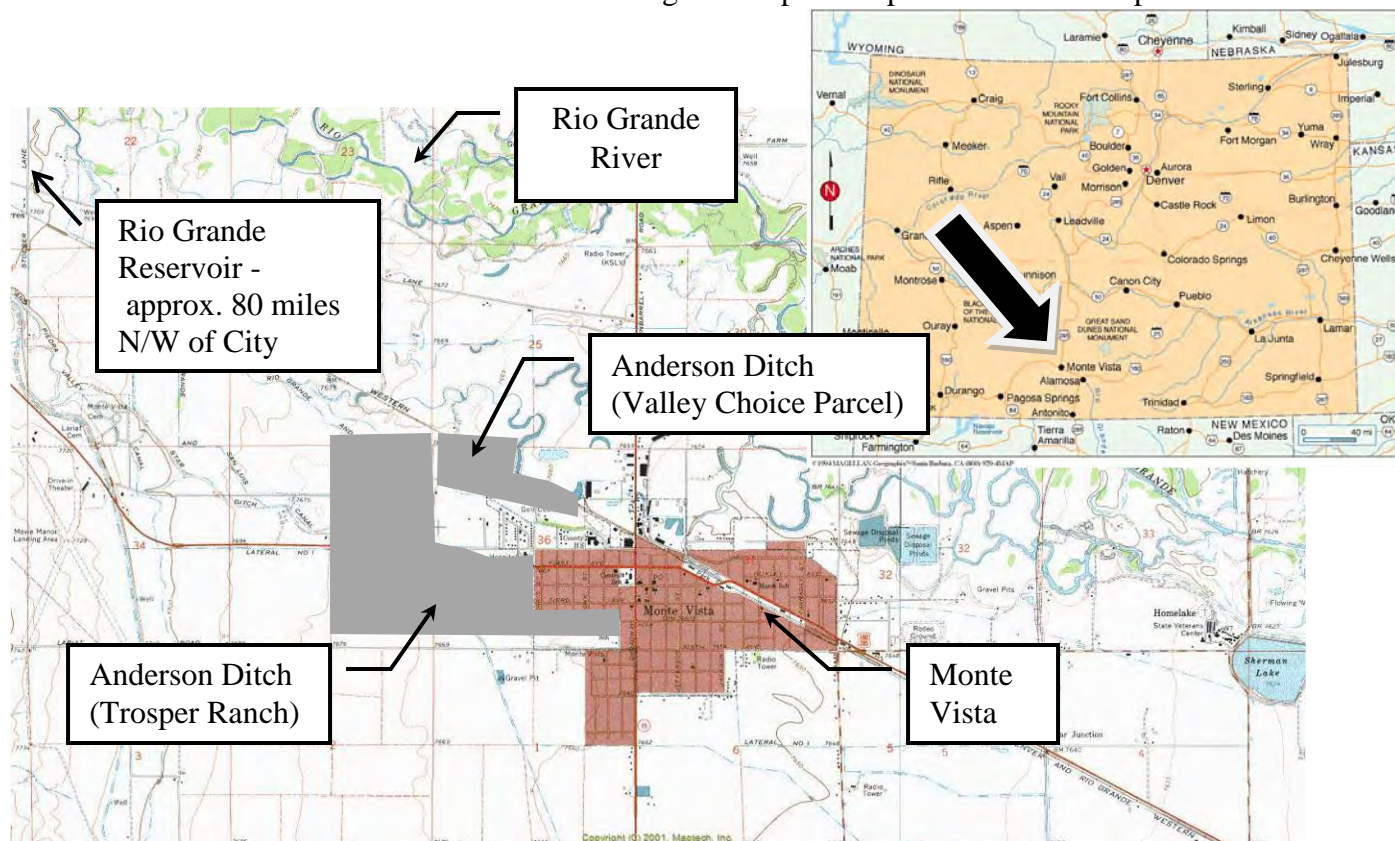
**Water Source:** Rio Grande River

**Funding Source:** Construction Fund

**Aver. Demand:** 1,212 AF/year

**Interest Rate:** 4.0% **Term:** 30 years

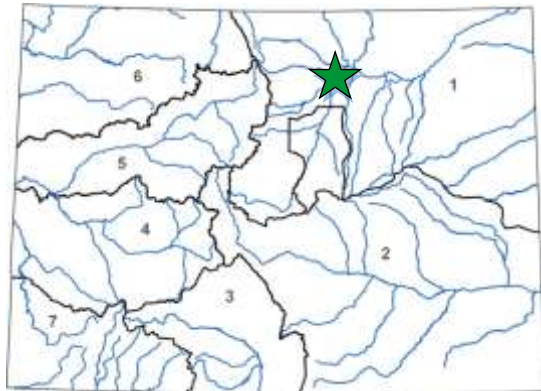
The City of Monte Vista, by and through its water activity enterprise, provides water to 4,300 residents in the San Luis Valley. The City's water system consists of five wells in a confined aquifer and three wells in an unconfined aquifer. Upcoming rules from the Office of the State Engineer will require 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.



Location Map



L O A N   D E T A I L S	
Project Cost:	\$495,000
CWCB Loan (with Service Fee):	\$499,950
Loan Term and Interest Rate:	30 years @ 2.50%
Funding Source:	Severance Tax Perpetual Base Fund
B O R R O W E R   T Y P E	
Agriculture	Municipal      Commercial
26%	0% Low - 73% Mid - 0% High      1%
P R O J E C T   D E T A I L S	
Project Type:	Reservoir Rehabilitation
Average Annual Delivery:	88,900 AF
Total Reservoir Storage:	344 AF
Water Storage Preserved:	264 AF



L O C A T I O N	
County:	Larimer
Water Source:	Cache la Poudre River
Drainage Basin:	South Platte River
Division:	1      District: 3

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.





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

**C150368**

**Borrower:** North Poudre Irrigation Company

**County:** Larimer

**Project Name:** Fossil Creek Reservoir Diversion  
Structure Repair

**Project Type:** Diversion Rehabilitation

**Drainage Basin/ District:** South Platte / 3

**Water Source:** Cache la Poudre

**Total Project Cost:** \$477,000

**Funding Source:** Severance Tax PBF

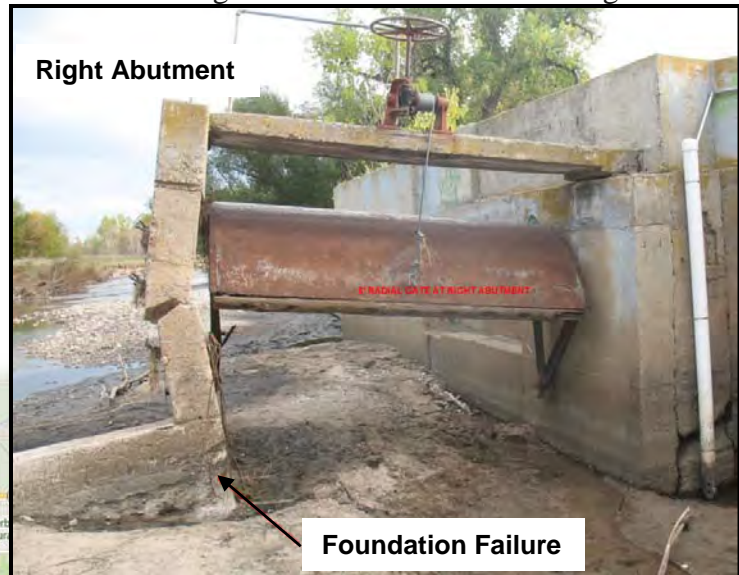
**Type of Borrower:** Blended

**Average Annual Diversion:** 31,700 AF

**CWCB Loan:** \$481,770  
(with 1% service fee)

**Interest Rate:** 2.35% **Term:** 30-years  
(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 significant number of diversion structures and dams along the river corridor were damaged including the Company's Fossil Creek Reservoir inlet diversion off the Cache la Poudre River. The purpose of the Project is to repair the existing diversion structure by rebuilding the check dam and abutment. The Project will restore the structure to pre-flood elevations while modifying the foundation to improve protection against future scouring.



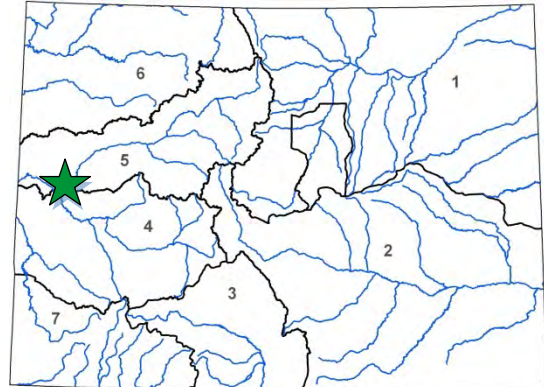


## Grand Valley Power Plant Rehabilitation

Orchard Mesa Irrigation District

November 2016 Board Meeting

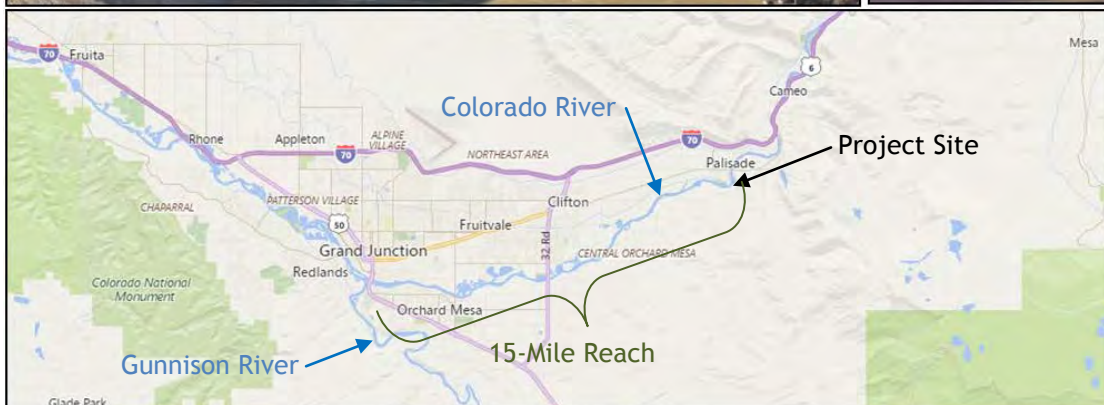
L O A N   D E T A I L S	
Project Cost:	\$5,200,000
CWCB Loan (with Service Fee):	\$1,717,000
Loan Term and Interest Rate:	30 Years @ 2.0%
Funding Source:	Construction Fund
B O R R O W E R   T Y P E	
Hydropower	
P R O J E C T   D E T A I L S	
Project Type:	Hydroelectric
Average Annual Power Production:	17M kWh



L O C A T I O N			
County:	Mesa		
Water Source:	Colorado River		
Drainage Basin:	Colorado		
Division:	5	District:	72

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 Energy) in conjunction with the Cameo coal fired power plant. The District and Association took operational control of the plant when Xcel decided to cease its operations. The District and Association equally split costs and revenues from the GVPP under a Lease of Power Privilege with Reclamation and a Power Purchase Agreement with Xcel. In addition to being a revenue source, the GVPP serves an important role in providing water to the “15-Mile Reach” which has been designated by the Upper Colorado River Endangered Fish Recovery Program as critical habitat. The non-consumptive hydropower water right ensures continued flows for this important stretch of river.

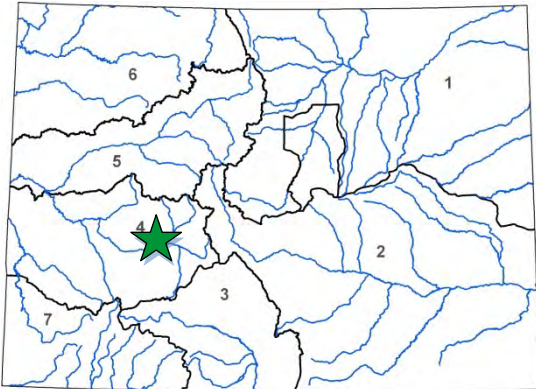
The goal of the Project is to bring the GVPP up to a sustainable operating condition and meet current electric and safety standards. The GVPP was built in the early 1930s and has seen no major upgrades or modernization to date. Under current operations, the “water-to-wire” efficiency is approximately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





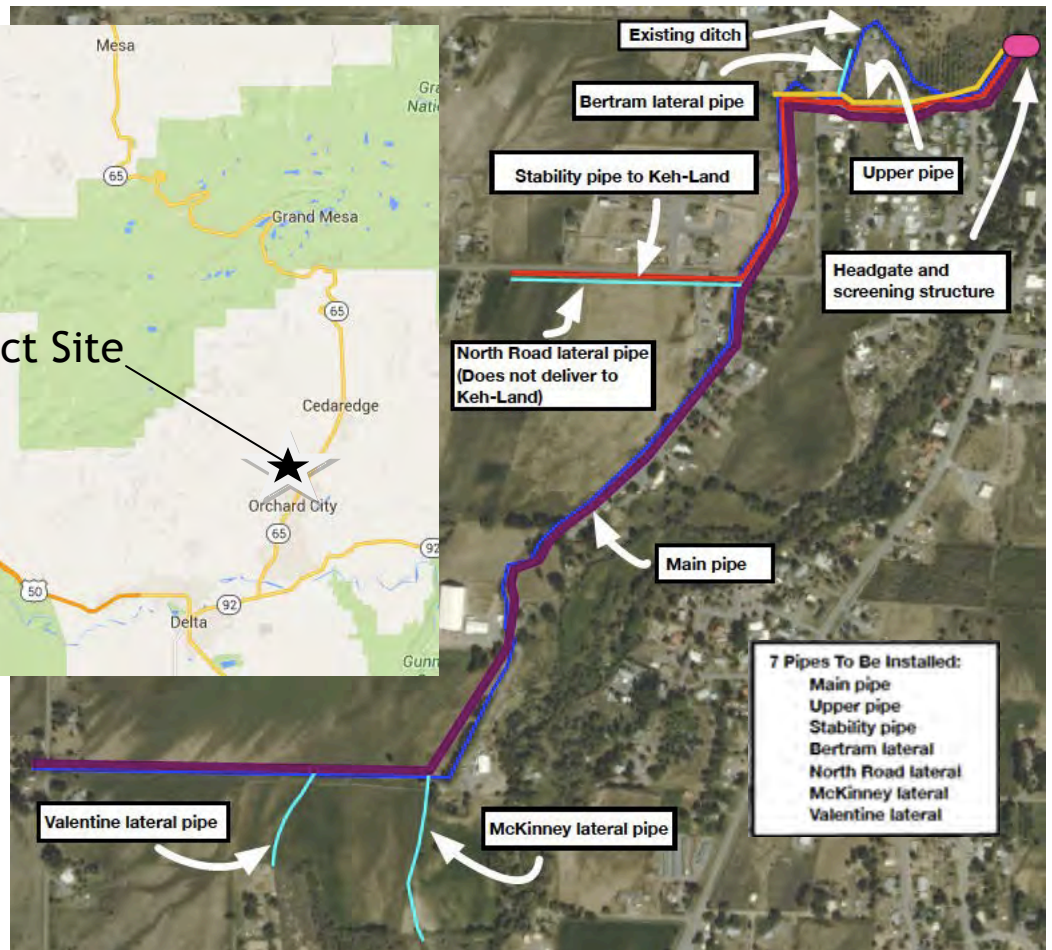


L O A N   D E T A I L S	
Project Cost:	\$1,430,720
CWCB Loan (with Service Fee):	\$151,500
Loan Term and Interest Rate:	30-Years @ 1.95%
Funding Source:	Severance Tax Perpetual Base Fund
B O R R O W E R   T Y P E	
Agriculture	Municipal      Commercial
86%	14% Low - 0% Mid - 0% High      0%
P R O J E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



L O C A T I O N	
County:	Delta
Water Source:	Surface Creek
Drainage Basin:	Gunnison River
Division:	4      District: 40

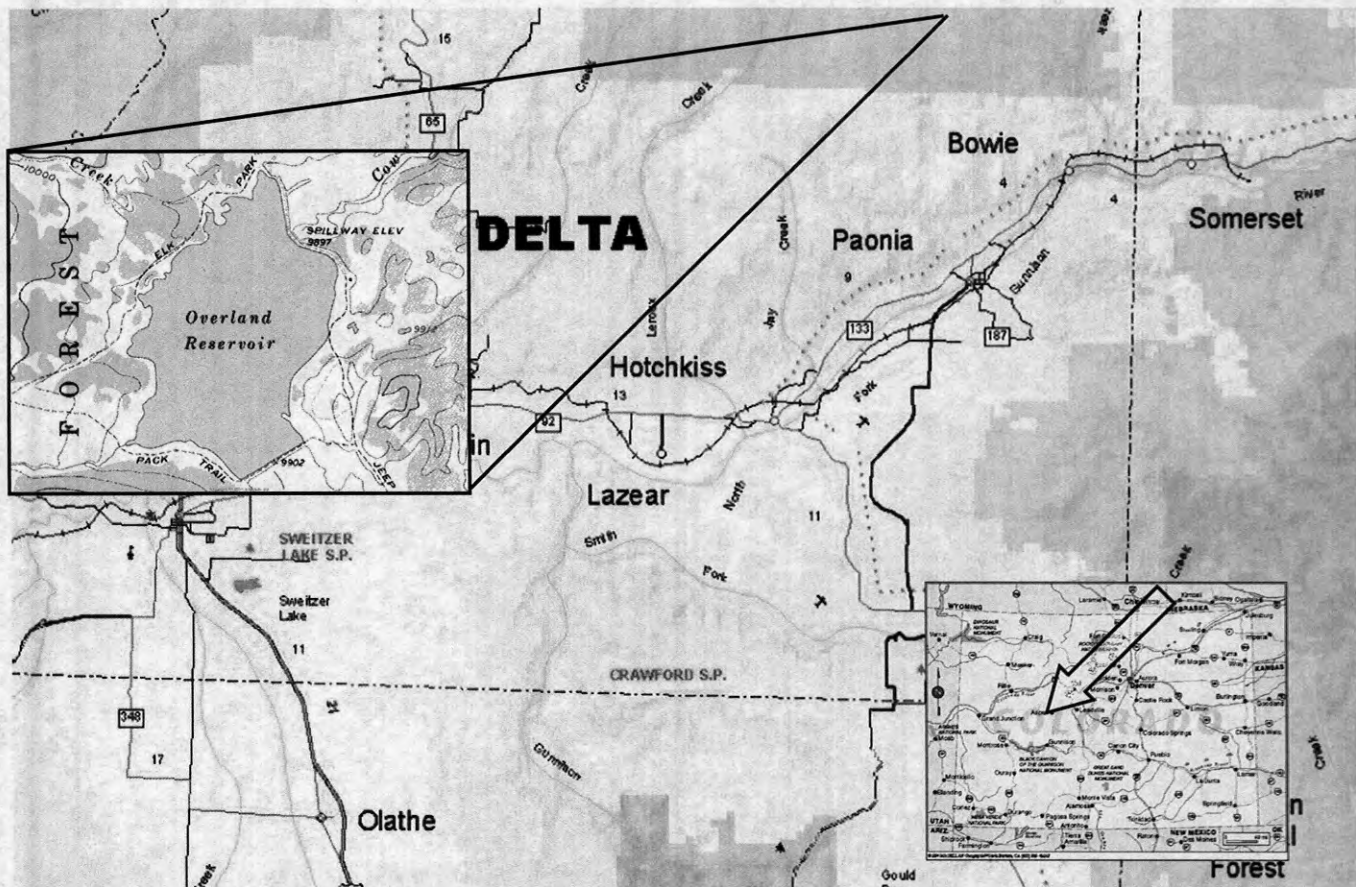
The Company serves approximately 350 irrigated acres in Delta County, approximately 10 miles north of the town of Delta, diverting all its supplies via a concrete diversion structure on Surface Creek. The Company's ditch was constructed in the late 1800s by a group of early settlers cooperating to get 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

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



LOCATION MAP



## Water Project Loan Program - Project Data

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

**County:** Chaffee

**Project Name:** Phased Canal Improvements

**Project Type:** Ditch Rehabilitation

**Drainage Basin:** Arkansas

**Water Source:** Arkansas River

**Total Project Cost:** \$205,000

**Funding Source:** Construction Fund

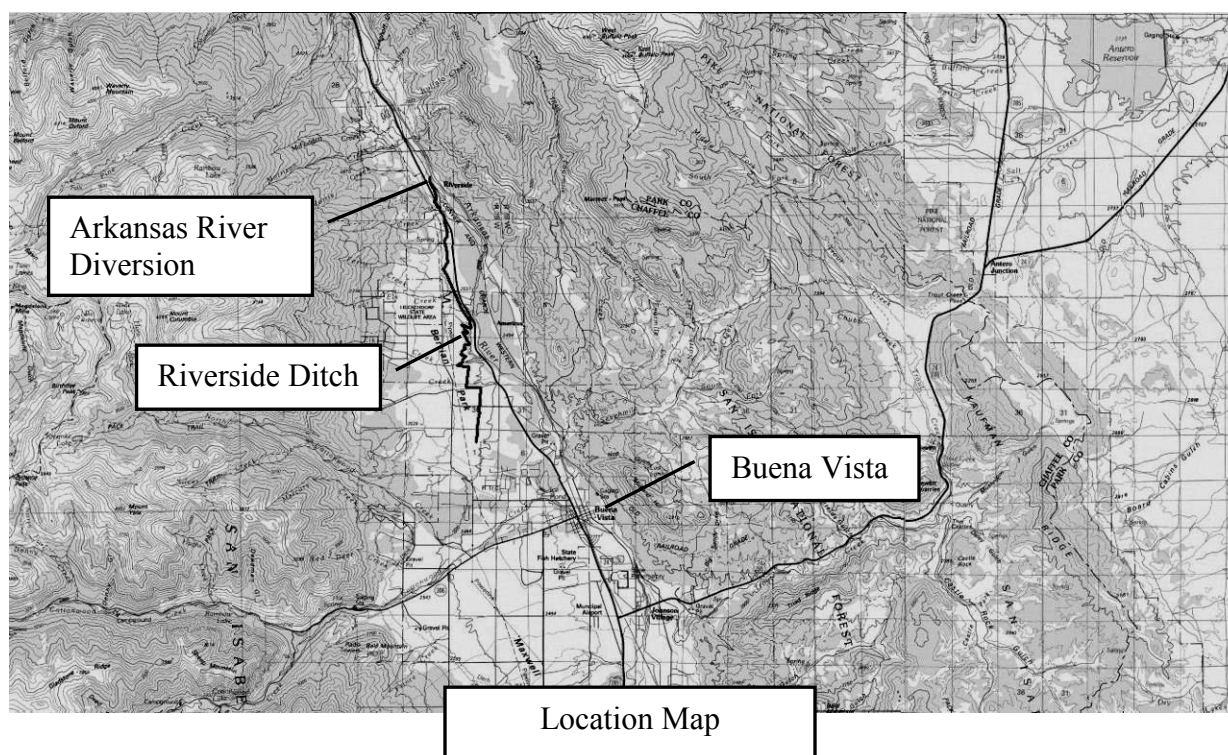
**Type of Borrower:** Agricultural

**Average Diversion:** 3,250 acre-feet

**CWCB Loan:** \$186,345 (Including 1% fee)

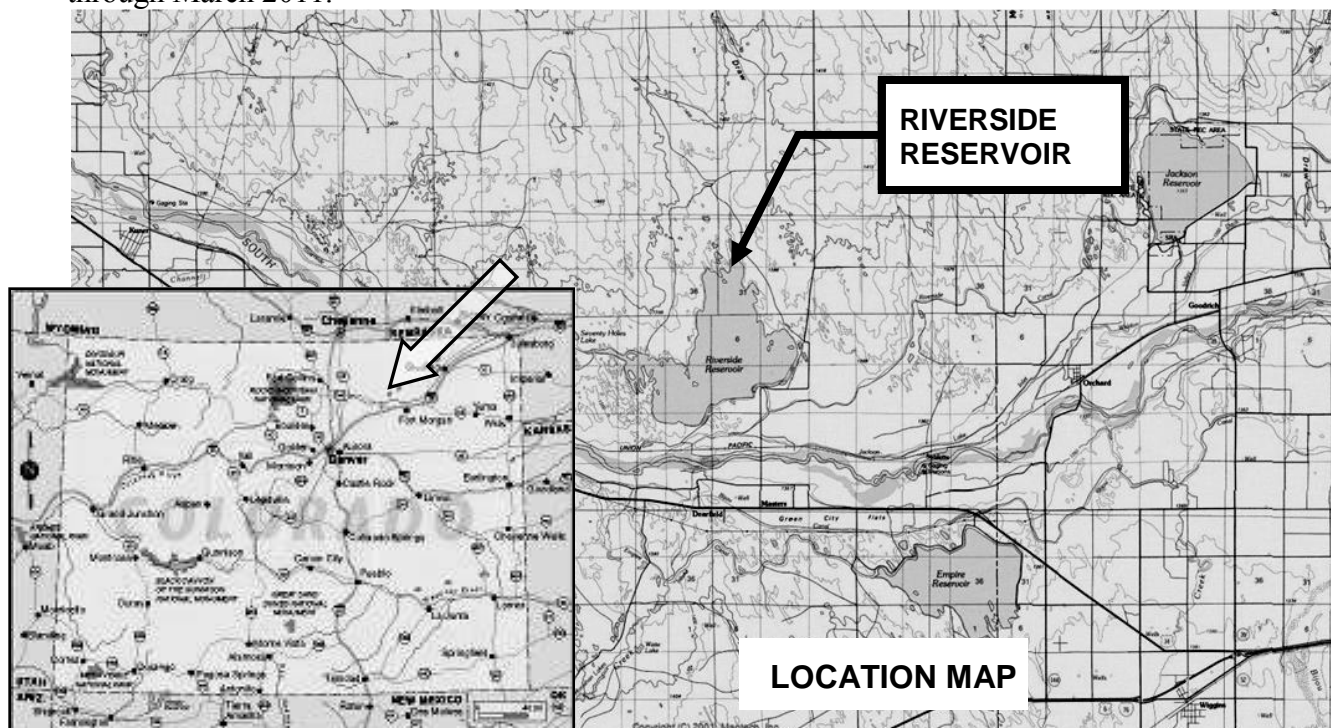
**Interest Rate:** 2.75% **Term:** 30 years

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)**

Loan Program  
Attachment 3  
**C150942**

**Borrower:** Sanchez Ditch and Reservoir Co.

**County:** Costilla

**Project Name:** Sanchez Reservoir Outlet  
Rehabilitation Project

**Project Type:** Dam Rehabilitation

**Basin / District:** Rio Grande / 24

**Water Source(s):** Ventero Creek

**Total Project Cost:** \$2,282,000

**Funding Sources:** Construction Fund & WSRA  
(Basin & Statewide funds)

**Type of Borrower:** Agricultural

**Average Diversions:** 15,000 AF

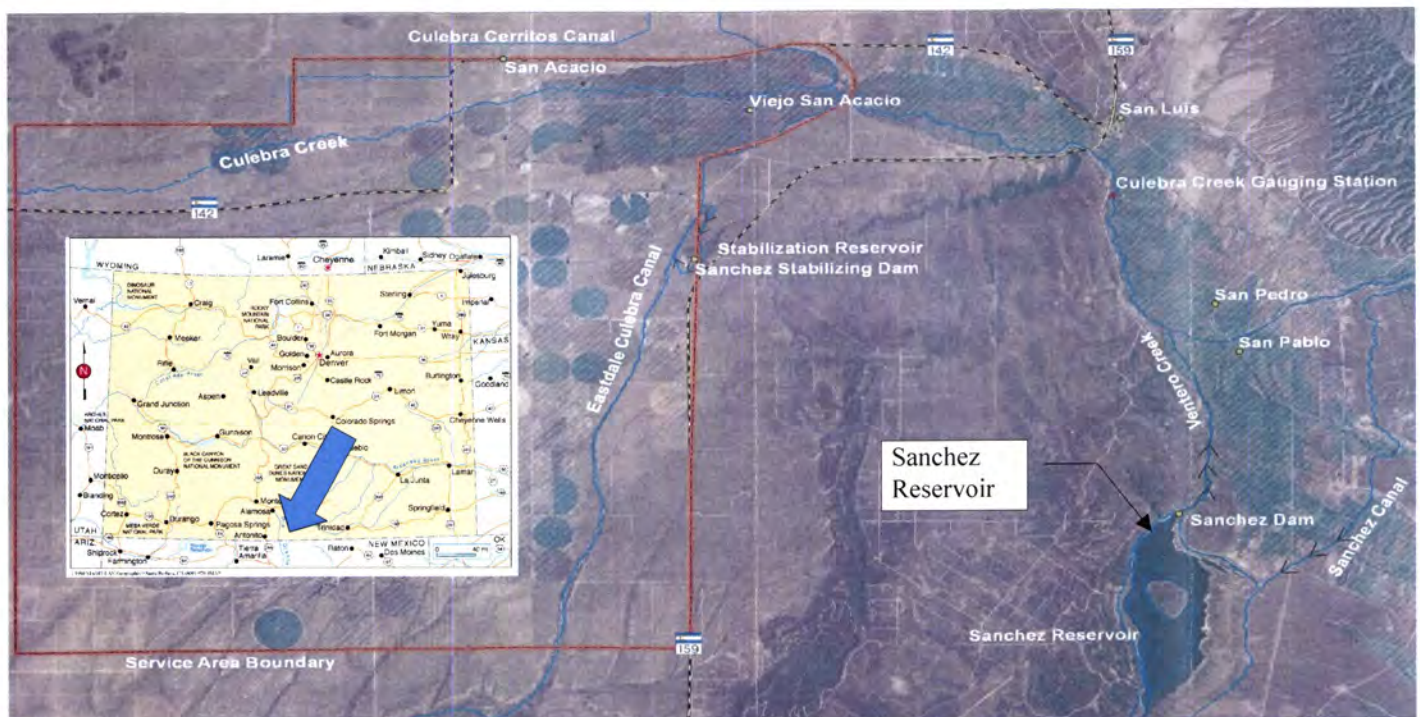
(Interest Rate Increased by 0.25% for longer term)

**Loan Amount:** \$1,381,276 (Including 1% fee)

**Interest Rate:** 2.0%    **Term:** 40 years

**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.



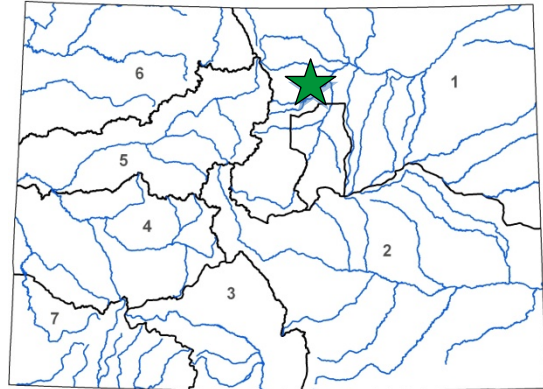


# Lake 4 Outlet Pipeline Repair

## St. Vrain and Left Hand Water Conservancy District

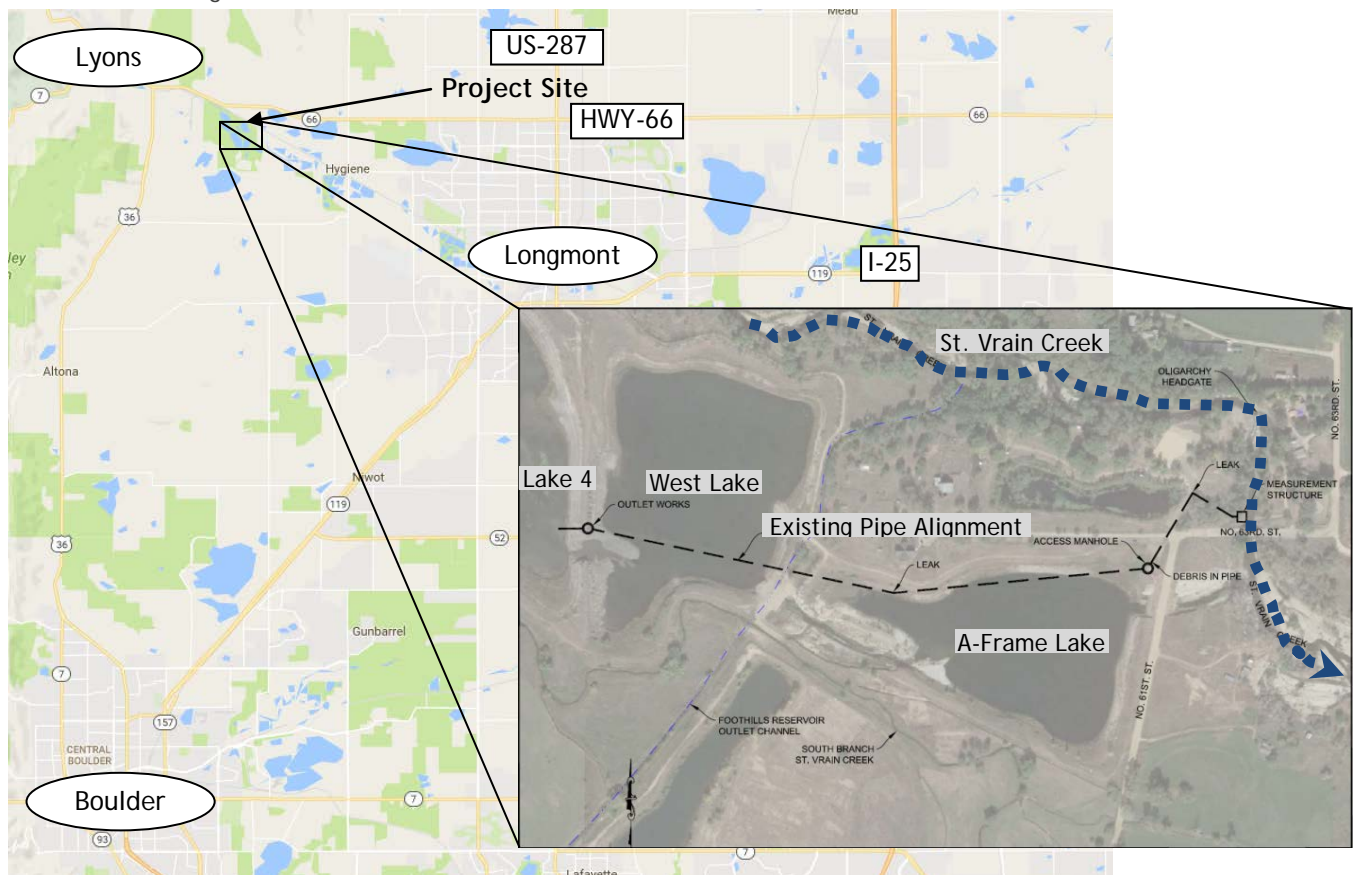
January 2017 Board Meeting

L O A N   D E T A I L S	
Project Cost:	\$912,000
CWCB Loan (with Service Fee):	\$619,130
Loan Term and Interest Rate:	30 Years @ 2.85%
Funding Source:	Construction Fund
B O R R O W E R   T Y P E	
Agriculture	Municipal
0%	0% Low - 0% Mid - 97% High
	3%
P R O J E C T   D E T A I L S	
Project Type:	Reservoir Rehabilitation
Average Annual Delivery:	182 AF
Storage Preserved:	600 AF



L O C A T I O N	
County:	Boulder
Water Source:	St Vrain Creek
Drainage Basin:	South Platte
Division:	1
District:	5

The St. Vrain and Left Hand Water Conservancy District and Boulder County Parks and Open Space jointly own a lined reservoir known as Rock'n WP Ranch Lake No. 4 (Lake 4). Lake 4 was created by reclaiming mined slopes, installing a slurry wall liner around the former gravel pit, and installing inlet and outlet structures. The outlet works included a half-mile-long 18-inch reinforced concrete pipe approximately extending from the dam to the St. Vrain Creek. The District and 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.





**CWCB 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

**County:** Boulder

**Project Type:** Reservoir Rehabilitation

**Water Source:** St. Vrain Creek

**Total Project Cost:** \$9,000,000

**Funding Source:** Severance Tax Perpetual  
Base Fund

**Type of Borrower:** Blended

**Average Annual Augmentation:** 200 AF

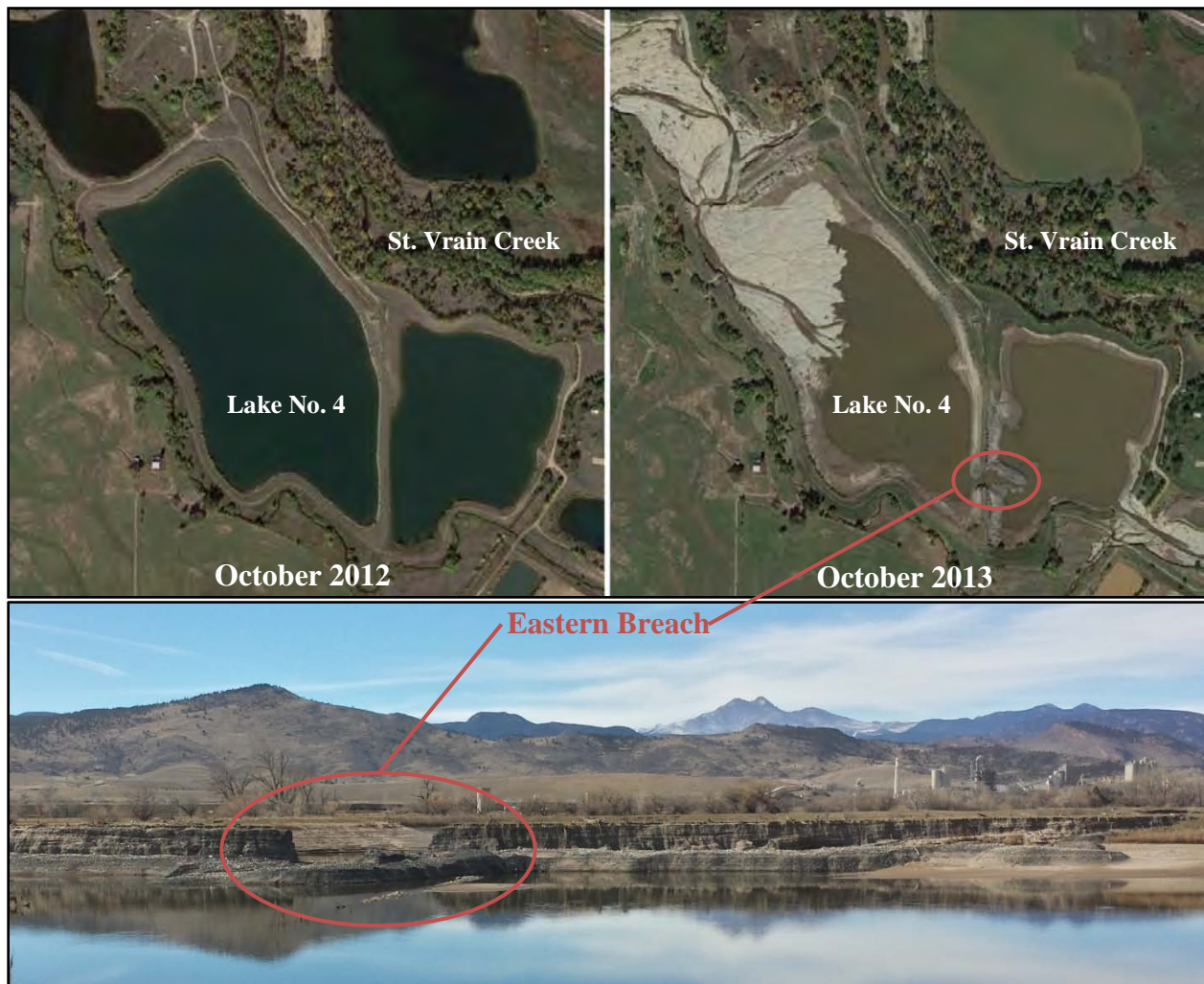
**Preserved Water Supply Storage:** 600 AF

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

**Interest Rate:** 3.2% **Term:** 30-years

(Ownership: 93% High Municipal, 7% Commercial)

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

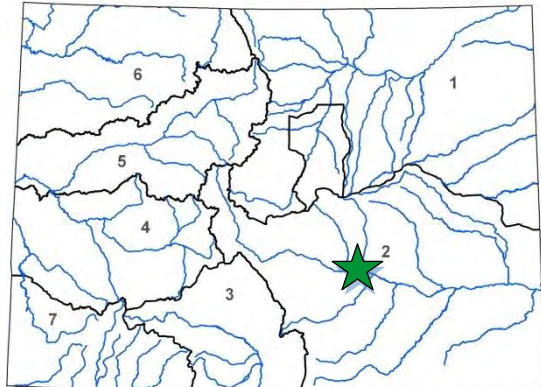




## Arkansas Valley Conduit Phase One Pueblo Dam Hydroelectric Project

Southeastern Colorado Water Conservancy District  
July 2016 Board Meeting

L O A N   D E T A I L S	
Project Cost:	\$19,060,000
CWCB Loan (with Service Fee):	\$17,392,200
Loan Term and Interest Rate:	30 Years @ 2.0%
Funding Source:	Severance Tax PBF
B O R R O W E R   T Y P E	
Hydropower	
P R O J E C T   D E T A I L S	
Project Type:	Hydroelectric
Average Annual Power Production:	28M KWh



L O C A T I O N	
County:	Pueblo
Water Source:	Arkansas River
Drainage Basin:	Arkansas River
Division:	2      District: 10

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

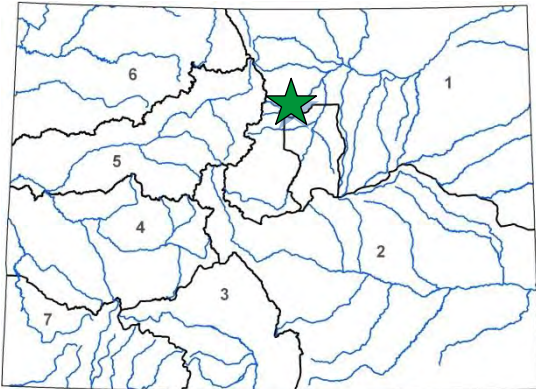
The proposed 7.5 megawatt facility will be located on the North Outlet of Pueblo Dam. A powerhouse would be located at the downstream end of the existing outlet works that supplies water to the Arkansas River and would allow the Dam's authorized releases to generate an annual average 28 million kWh (enough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







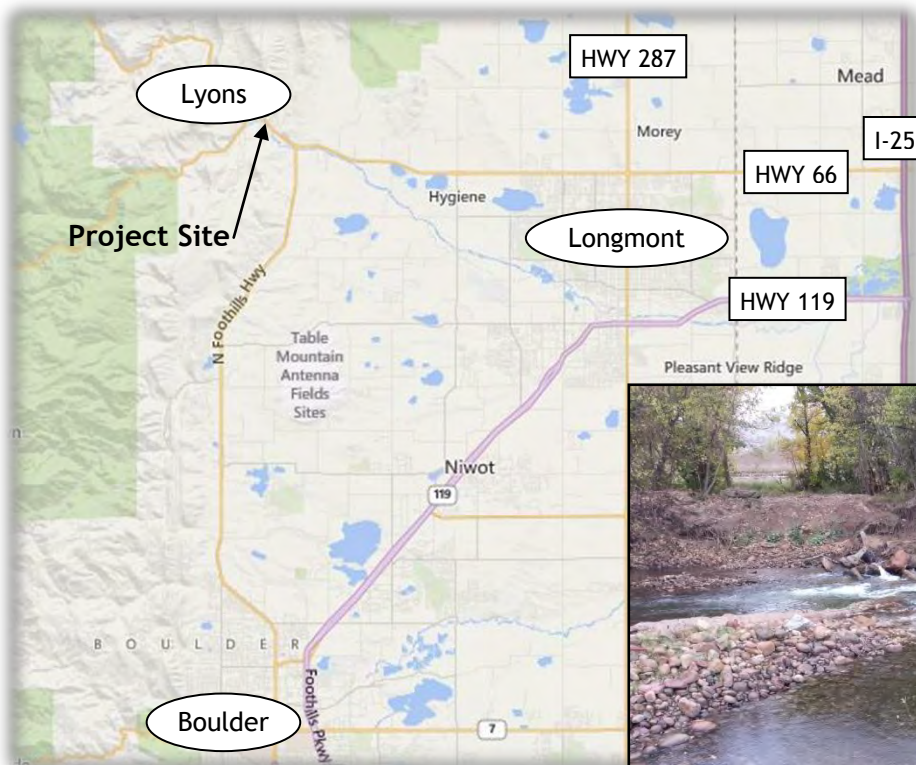
L O A N   D E T A I L S	
Project Cost:	\$321,000
CWCB Loan (with Service Fee):	\$324,210
Loan Term and Interest Rate:	27 Years @ 2.25%
Funding Source:	Severance Tax Perpetual Base Fund
B O R R O W E R   T Y P E	
Agriculture	Municipal      Commercial
86%	0% Low - 5% Mid - 7% High      2%
P R O J E C T   D E T A I L S	
Project Type:	Ditch Rehabilitation
Average Annual Diversion:	4,650 AF



L O C A T I O N	
County:	Boulder
Water Source:	Saint Vrain Creek
Drainage Basin:	South Platte
Division:	1      District: 5

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.



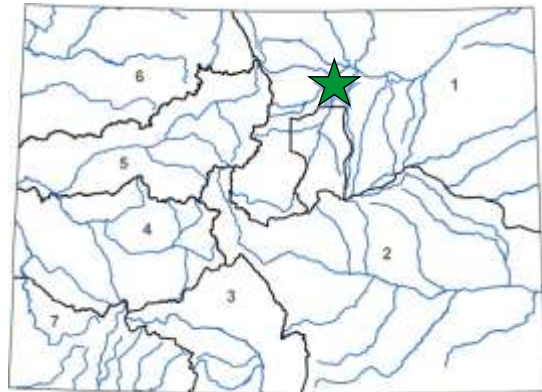


## Storage Development and Water Rights Purchase

Town of Firestone

November 2016 Board Meeting

L O A N   D E T A I L S	
Project Cost:	\$10,043,150
CWCB Loan (with Service Fee):	\$10,000,000
Loan Term and Interest Rate:	20 Years @ 2.35%
Funding Source:	Construction Fund
B O R R O W E R   T Y P E	
Agriculture	Municipal      Commercial
0%	0% Low - 0% Mid - 100% High      0%
P R O J E C T   D E T A I L S	
Project Type:	Storage and Water Rights Purchase
Average Annual Delivery:	2442 AF
Storage Created:	1092 AF



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

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 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.



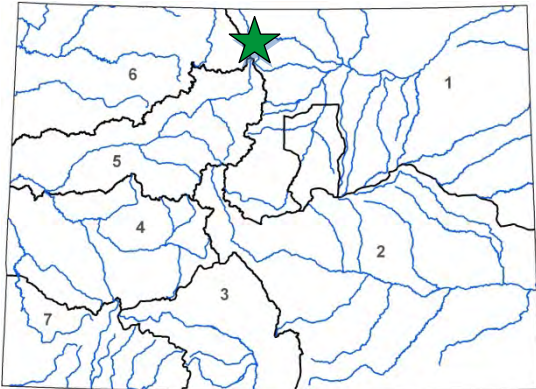




## Laramie-Poudre Tunnel Rehabilitation

The Tunnel Water Company  
September 2015 Board Meeting

L O A N   D E T A I L S	
Project Cost:	\$1,225,000
CWCB Loan (with Service Fee):	\$1,111,000
Loan Term and Interest Rate:	30 Years @ 2.55%
Funding Source:	Construction Fund
B O R R O W E R   T Y P E	
Agriculture	Municipal      Commercial
24%	20% Low - 24% Mid - 32% High      0%
P R O J E C T   D E T A I L S	
Project Type:	Ditch Rehabilitation
Average Annual Diversion:	6,875 AF



L O C A T I O N	
County:	Larimer
Water Source:	Laramie River
Drainage Basin:	North Platte/South Platte
Division:	1      District: 48/3

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.





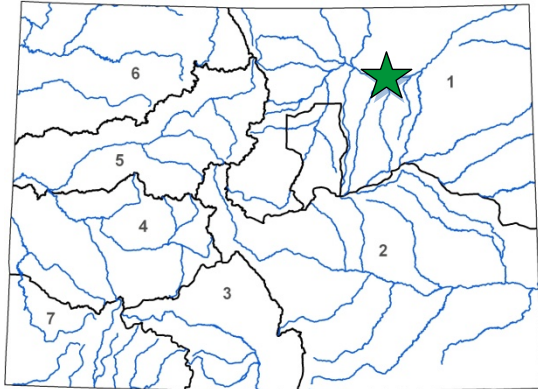


# Wiggins Recharge Facility at Glassey Farms

Town of Wiggins

March 2017 Board Meeting

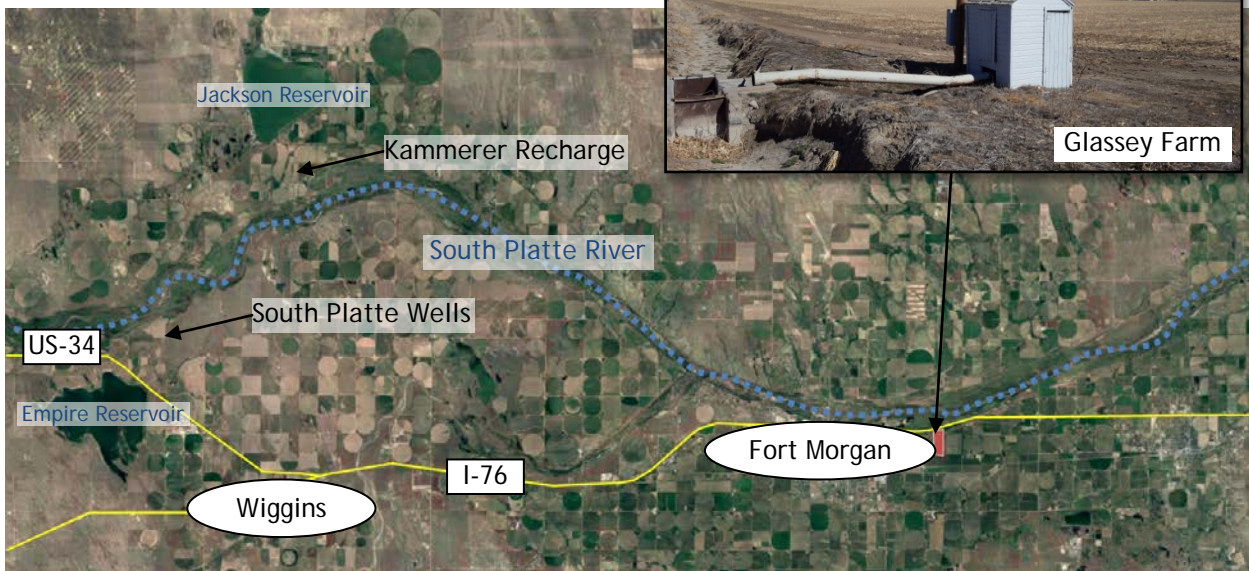
L O A N   D E T A I L S	
Project Cost:	\$2,385,000
CWCB Loan:	\$2,408,850
Loan Term and Interest Rate:	30 Years @ 2.40%
Funding Source:	Severance Tax PBF
B O R R O W E R   T Y P E	
Agriculture	Municipal
0%	100% Low - 0% Mid - 0% High
	Commercial
	0%
P R O J E C T   D E T A I L S	
Project Type:	Augmentation
Average Annual Delivery:	140 AF



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

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

Historically the Town has relied on non-tributary wells drilled into the Kiowa Bijou Designated Ground Water Basin. Due to water quality issues and dropping 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.



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

**C150408**

**Borrower:** Cottonwood Water & Sanitation District

**County:** Douglas & Arapahoe

**Project Name:** Water Infrastructure and Supply (WISE) Efficiency Project

**Project Type:** New Water Supply

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

**Water Source:** South Platte

**Total Project Cost:** \$4,960,000

**Funding Source:** Construction Fund

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

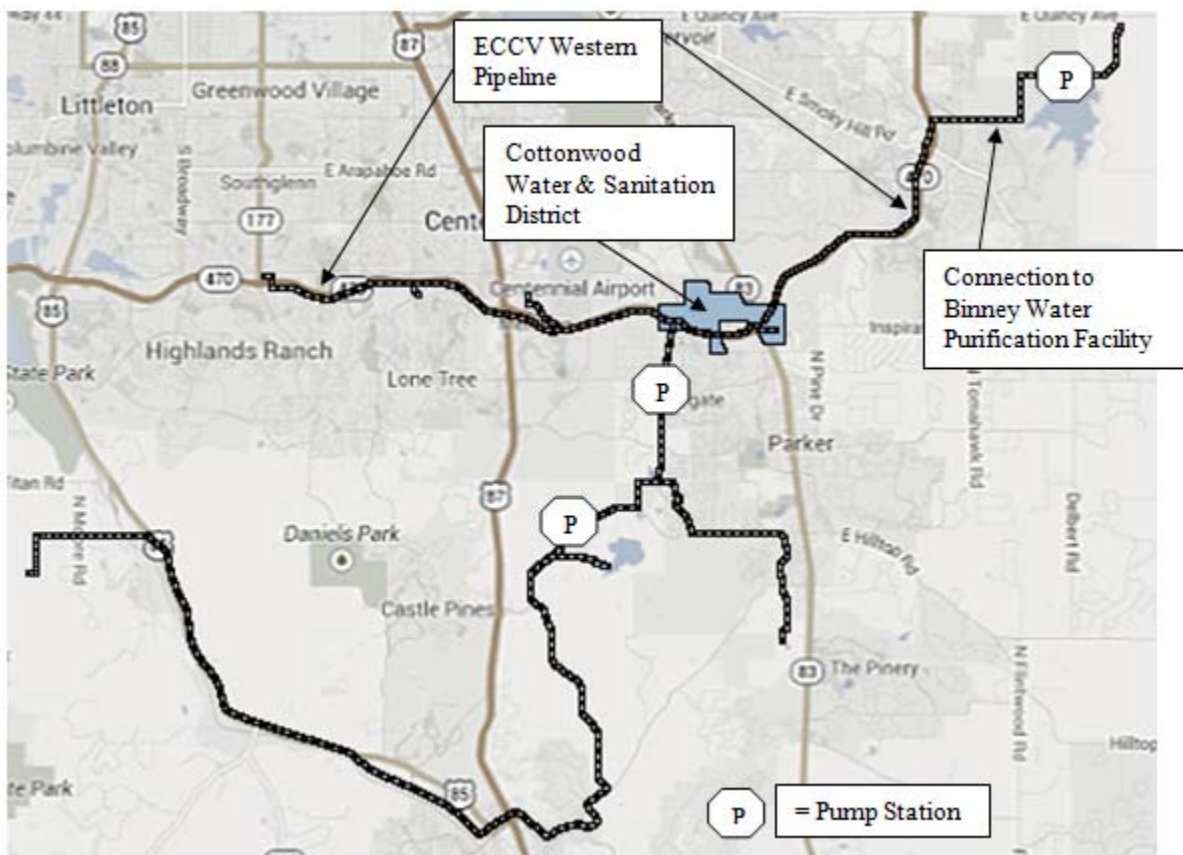
**Average Annual Delivery:** 789 AF

**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.

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





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

**C150409**

**Borrower:** Inverness Water & Sanitation  
District

**County:** Douglas & Arapahoe

**Project Name:** Water Infrastructure and Supply  
(WISE) Efficiency Project

**Project Type:** New Water Supply

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

**Water Source:** South Platte

**Total Project Cost:** \$5,400,000

**Funding Source:** Construction Fund

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

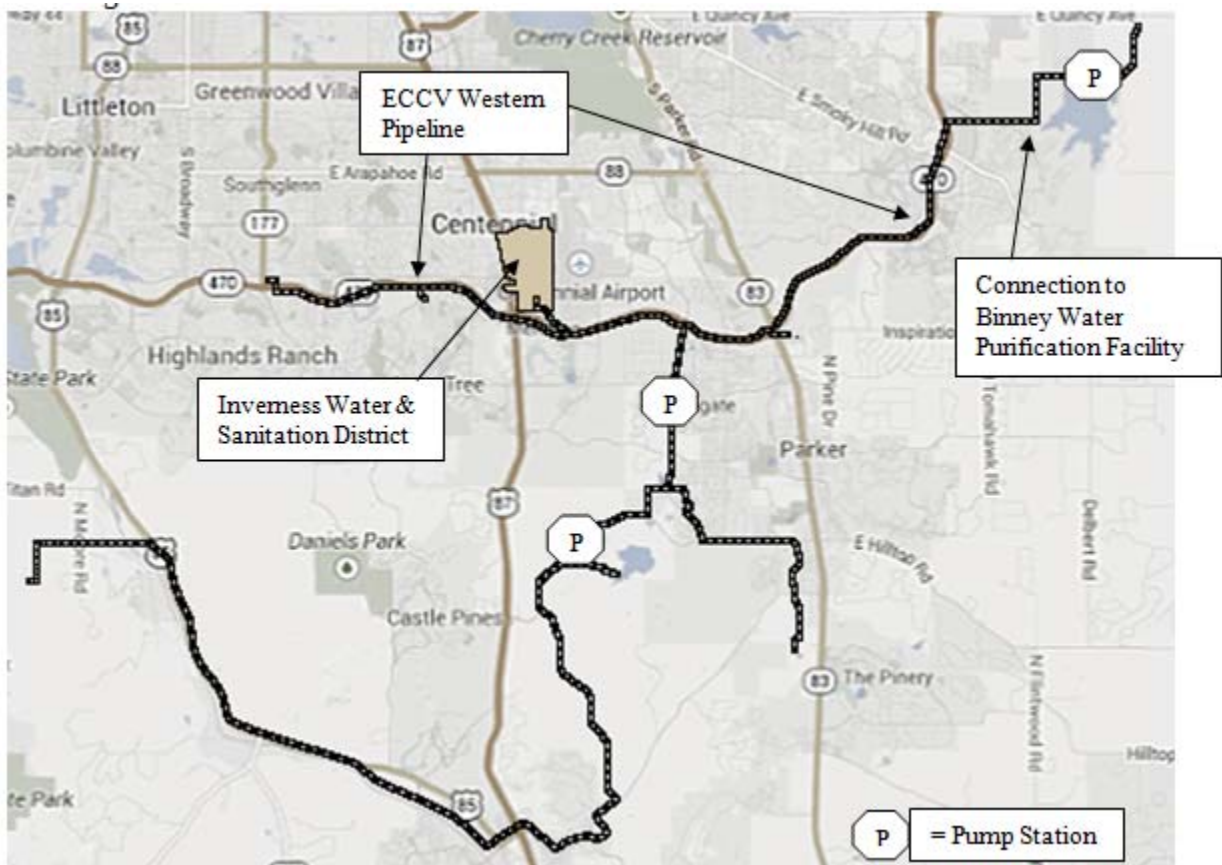
**Average Annual Delivery:** 1,100 AF

**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.

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





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

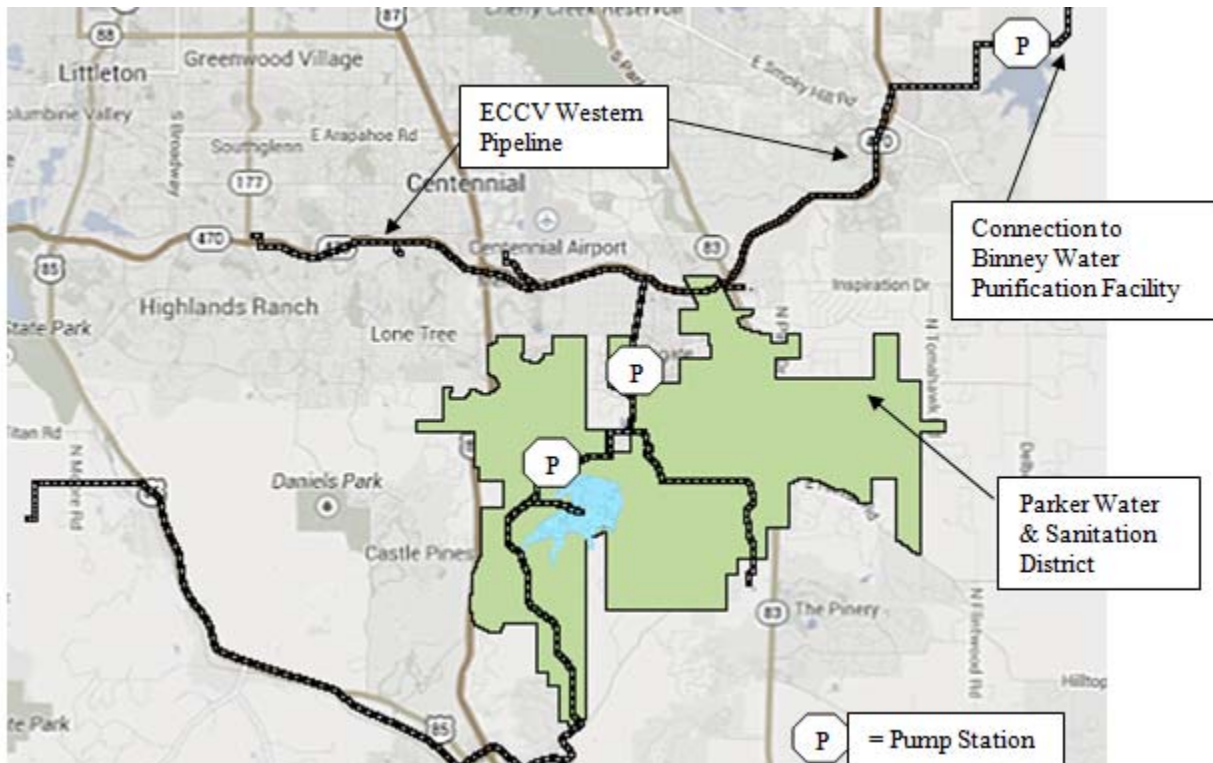
**C150410**

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

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

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

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



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

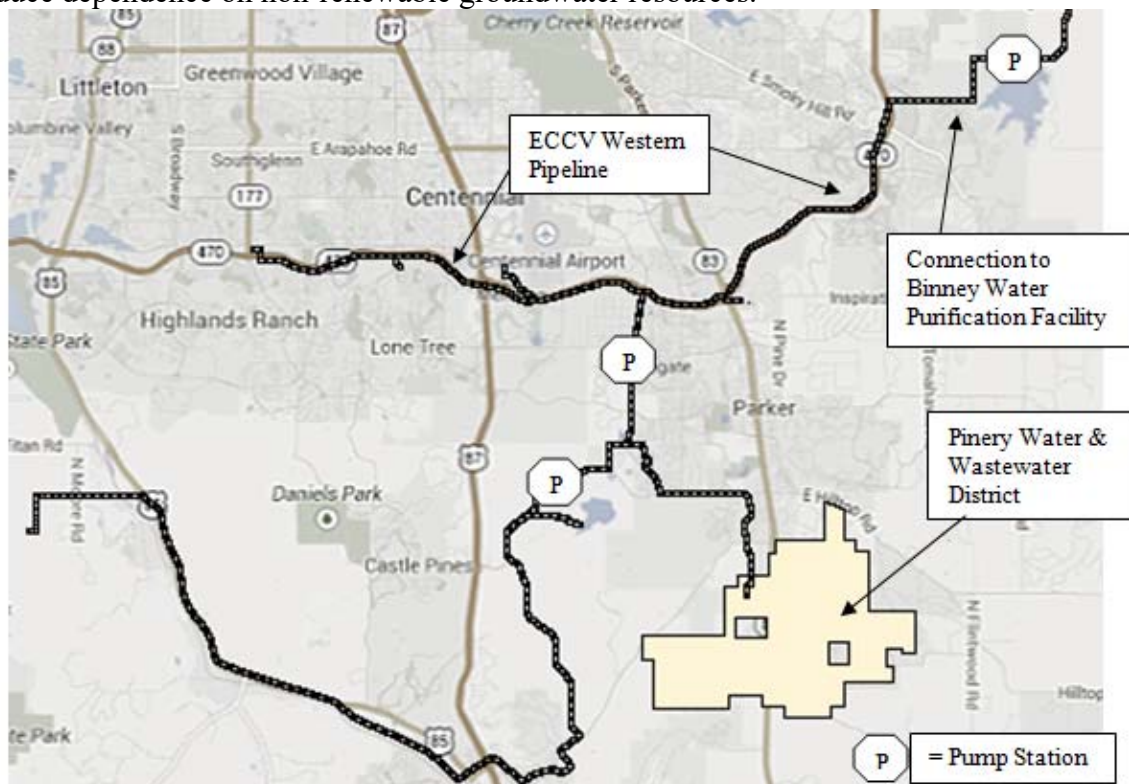
**C150411**

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

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

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

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

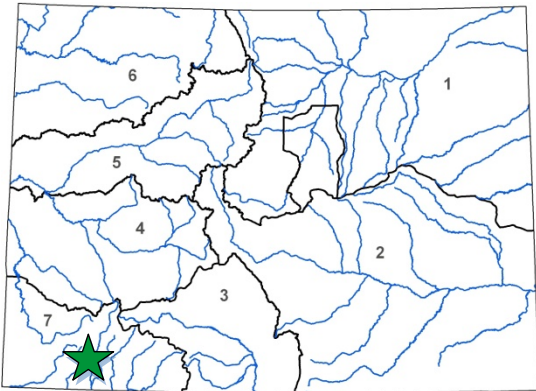


## **Projects Not Under Contract**



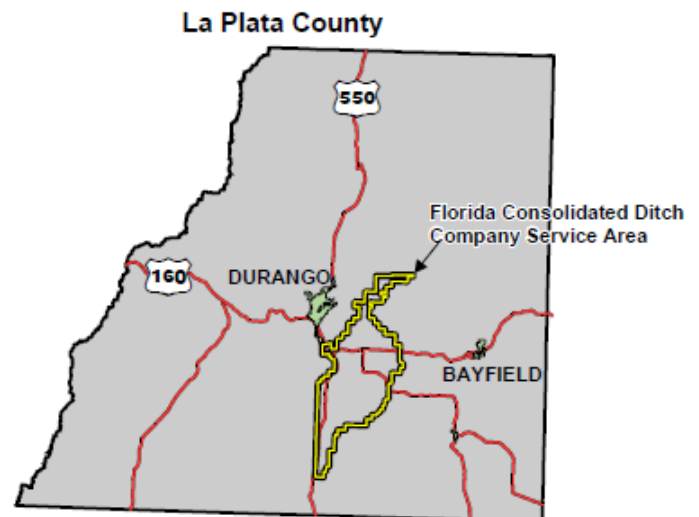
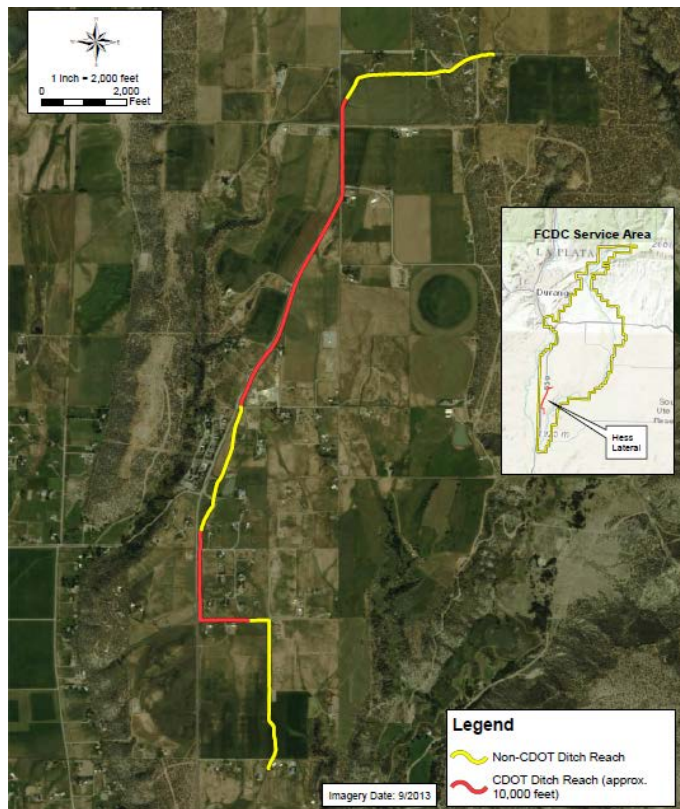


L O A N   D E T A I L S	
Project Cost:	\$2,800,000
CWCB Loan:	\$1,085,750
Loan Term and Interest Rate:	30-years @ 1.80%
Funding Source:	Severance Tax Perpetual Base Fund
B O R R O W E R   T Y P E	
Agriculture	Municipal
100%	0%
Commercial	
0%	
P R O J E C T   D E T A I L S	
Project Type:	Ditch Rehabilitation
Average Annual Diversion:	43,000 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 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.

L O C A T I O N	
County:	La Plata
Water Source:	Animas River
Drainage Basin:	San Juan/Dolores River
Division:	7
District:	30



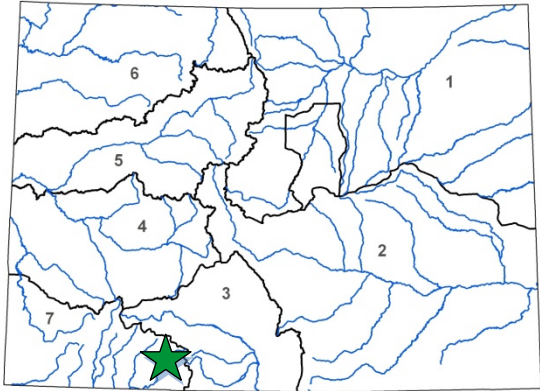


## Dry Gulch Reservoir Land Acquisition

San Juan Water Conservancy District

May 2017 Board Meeting

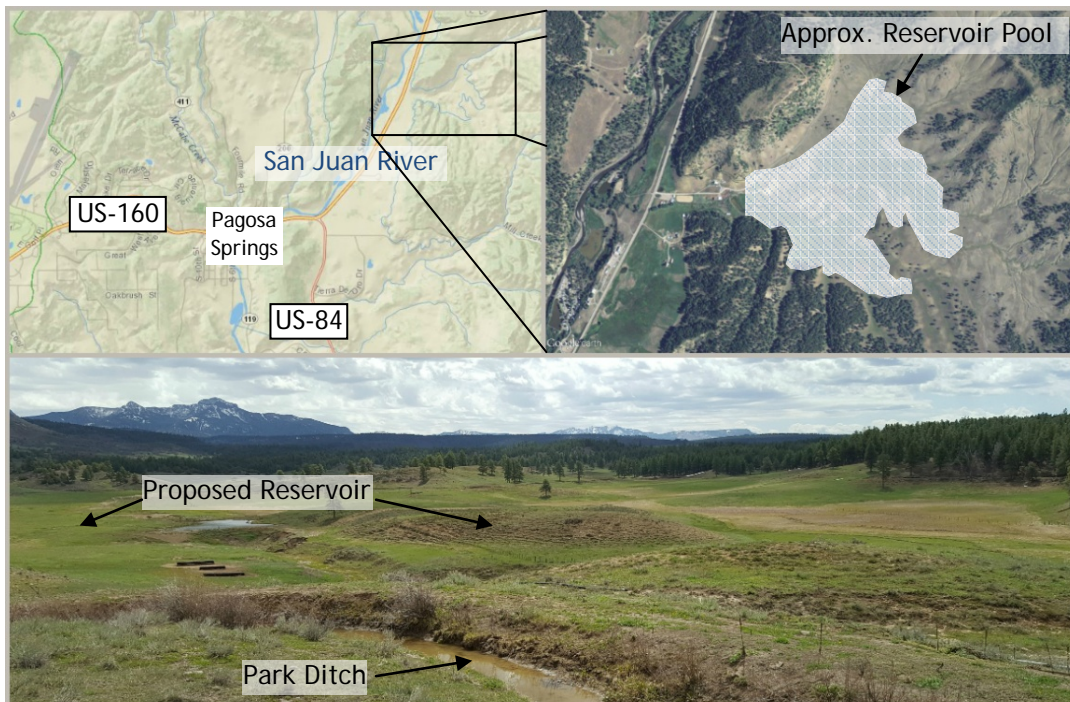
L O A N   D E T A I L S	
Project Cost:	\$2,000,000
CWCB Loan (with Service Fee):	\$2,000,000
Loan Term and Interest Rate:	30 Years @ 2.55%
Funding Source:	Construction Fund
B O R R O W E R   T Y P E	
Agriculture	Municipal
0%	100% Low - 0% Mid - 0% High
	Commercial
	0%
P R O J E C T   D E T A I L S	
Project Type:	Water Storage Land Acquisition
Average Annual Delivery:	NA



L O C A T I O N	
County:	Archuleta
Water Source:	San Juan River
Drainage Basin:	Southwest
Division:	29
District:	7

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.

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 Construction Loan Program - Project Data

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

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



Location Map

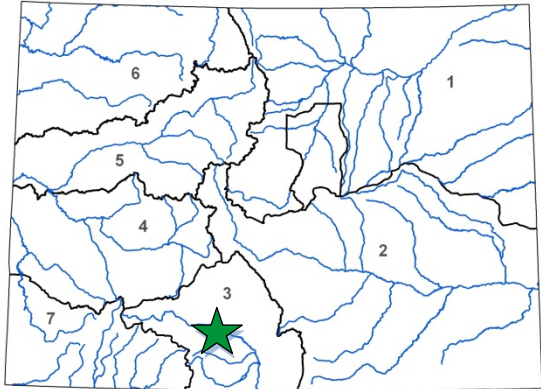




## Consolidated Diversion and Headgate Replacement

Consolidated Ditch and Headgate Company  
July 2017 Board Meeting

L O A N   D E T A I L S	
Project Cost:	\$1,862,000
CWCB Loan (with Service Fee):	\$1,010,000
Loan Term and Interest Rate:	30 Years @ 1.8%
Funding Source:	Severance Tax Perpetual Base Fund
B O R R O W E R   T Y P E	
Agriculture	Municipal      Commercial
100%	0% Low - 0% Mid - 0% High      0%
P R O J E C T   D E T A I L S	
Project Type:	Ditch Rehabilitation
Average Annual Delivery:	33,500 AF



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

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 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.





# City Lake Dam Rehabilitation & Enlargement

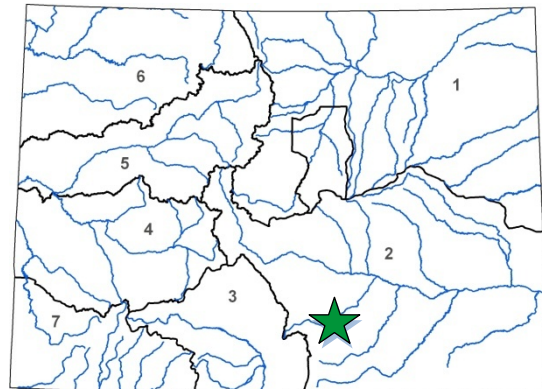
City of Walsenburg  
July 2017 Board Meeting

L O A N   D E T A I 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
0%	100% Low - 0% Mid - 0% High
	Commercial
	0%
P R O J E C T   D E T A I L S	
Project Type:	Reservoir 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.



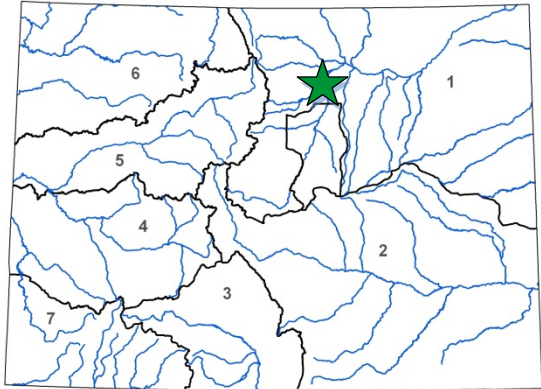
L O C A T I O N			
County:	Huerfano		
Water Source:	Cucharas River		
Drainage Basin:	Arkansas River		
Division:	2	District:	16







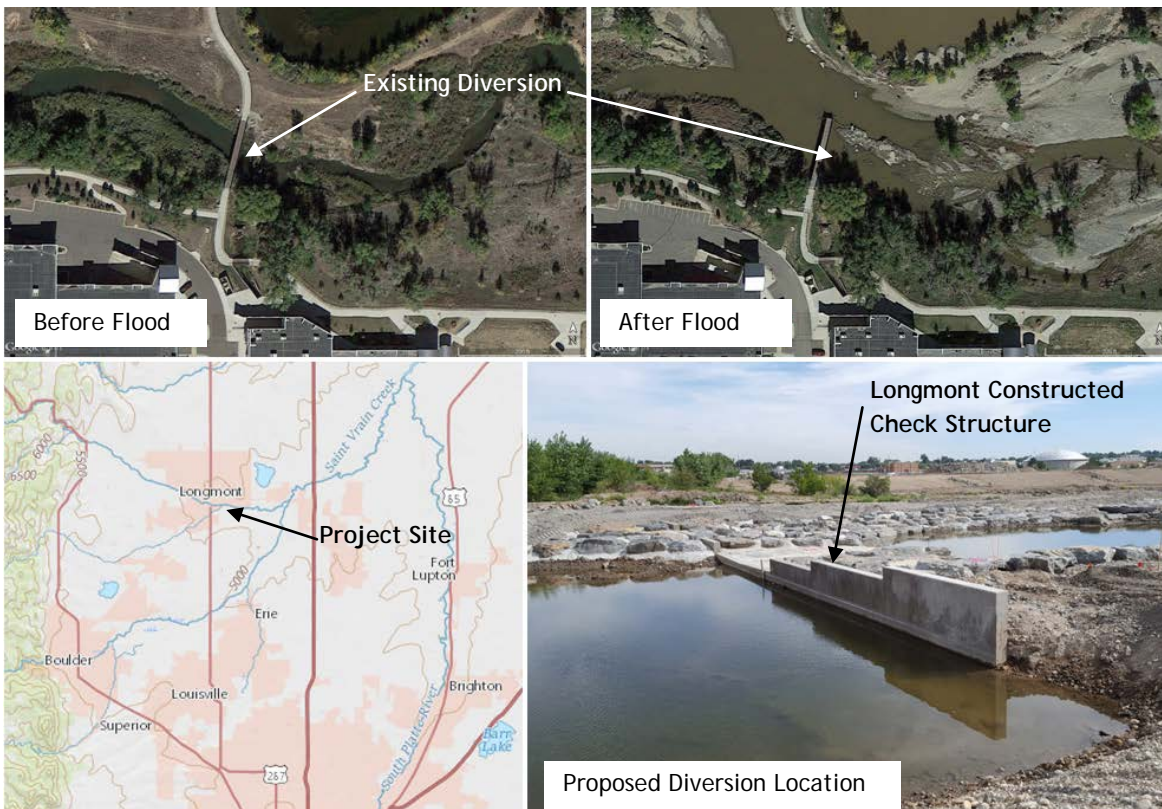
L O A N   D E T A I L S	
Project Cost:	\$1,297,000
CWCB Loan (with Service Fee):	\$1,309,970
Loan Term and Interest Rate:	30 Years @ 2.90 %
Funding Source:	Severance Tax PBF
B O R R O W E R   T Y P E	
Agriculture	Municipal      Commercial
2%	0% Low - 52% Mid -46% High      0%
P R O J E C T   D E T A I L S	
Project Type:	Ditch Rehabilitation
Average Annual Delivery:	2,221 AF



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

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

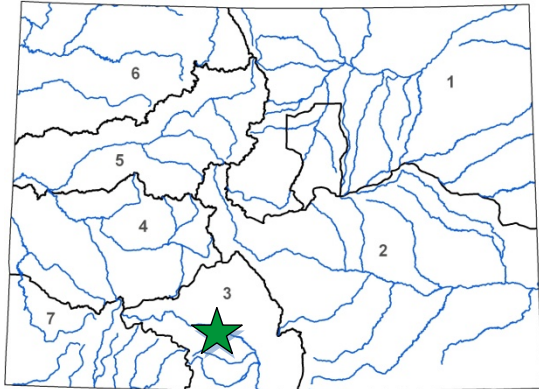
L O C A T I O N	
County:	Boulder
Water Source:	St Vrain Creek
Drainage Basin:	South Platte
Division:	1      District: 5







L O A N   D E T A I L S	
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
B O R R O W E R   T Y P E	
Agriculture	Municipal      Commercial
100%	0% Low - 0% Mid - 0% High      0%
P R O J E C T   D E T A I L S	
Project Type:	Ditch Rehabilitation
Average Annual Delivery:	21,700 AF

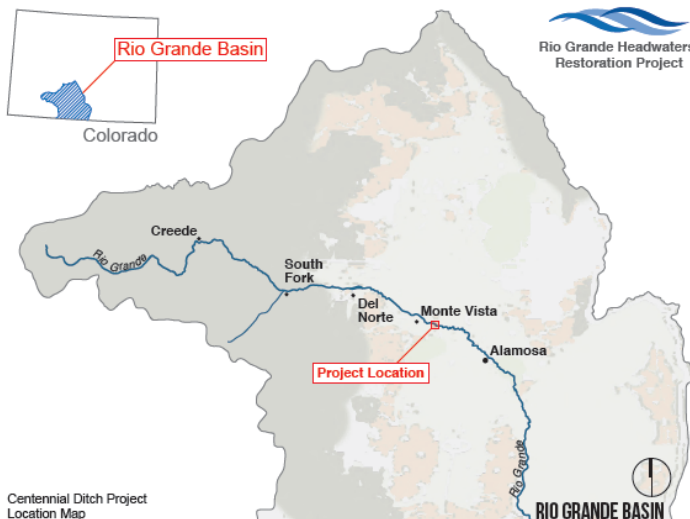


L O C A T I O N	
County:	Rio Grande
Water Source:	Rio Grande
Drainage Basin:	Rio Grande
Division: 3	District: 20

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

That study analyzed the condition of riparian habitats and structures along a 91-mile reach of the Rio Grande from the town of South Fork to Alamosa, and was sponsored by the San Luis Valley Water Conservancy District and funded with a WSRF 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.

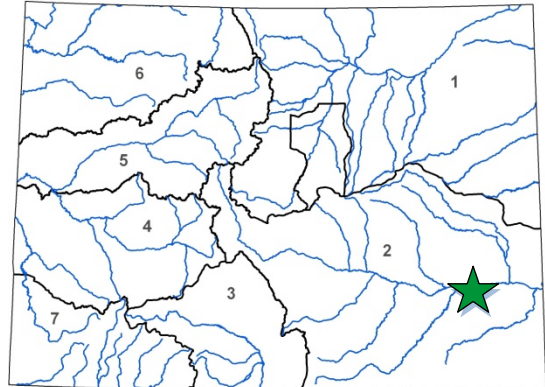




## Adobe Creek Dam Rehabilitation

Fort Lyon Canal Company  
September 2017 Board Meeting

L O A N   D E T A I L S	
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
B O R R O W E R   T Y P E	
Agriculture	Municipal      Commercial
99.1%	<1% Low - TBD% Mid -0% High      <1%
P R O J E C T   D E T A I L S	
Project Type:	Dam Rehabilitation
Average Annual Diversions:	221,000 AF
Recovered Storage:	32,560 AF
Preserved Storage:	81,692 AF

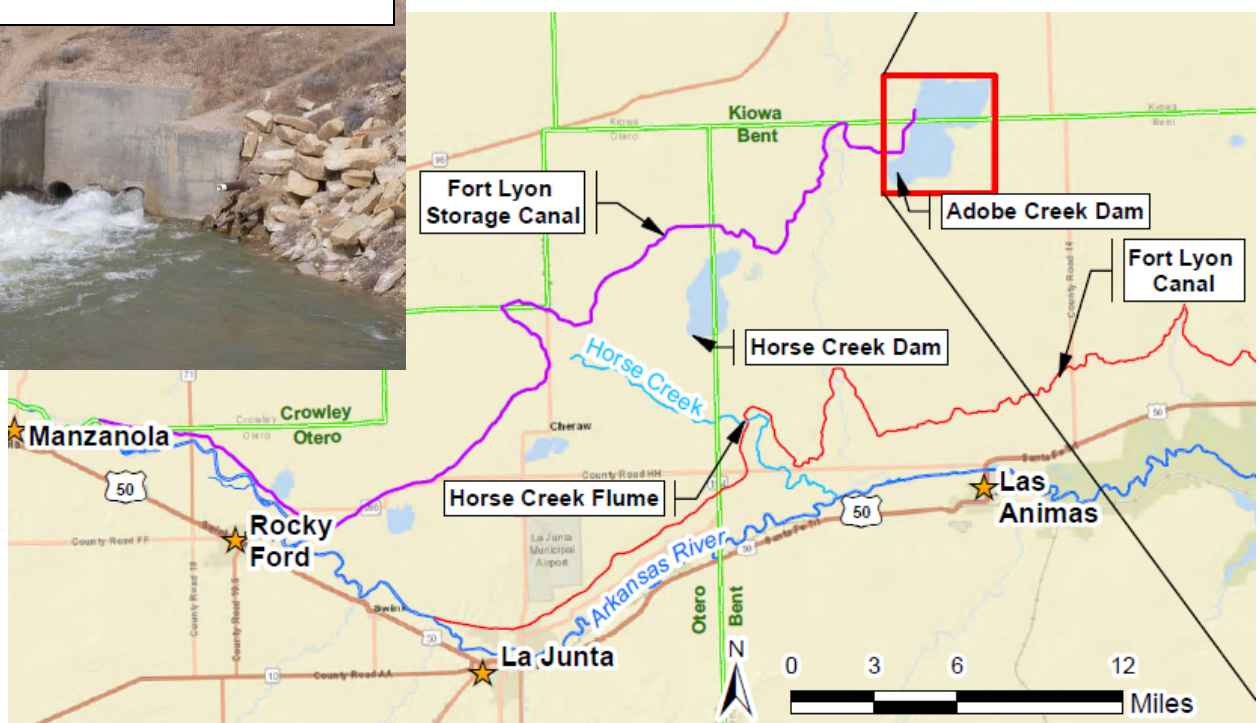
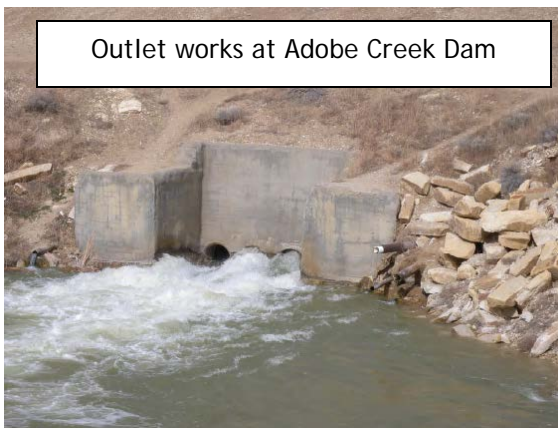


L O C A T I O N	
County:	Bent
Water Source:	Arkansas River
Drainage Basin:	Arkansas
Division:	2      District: 17

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 begin in late 2018.

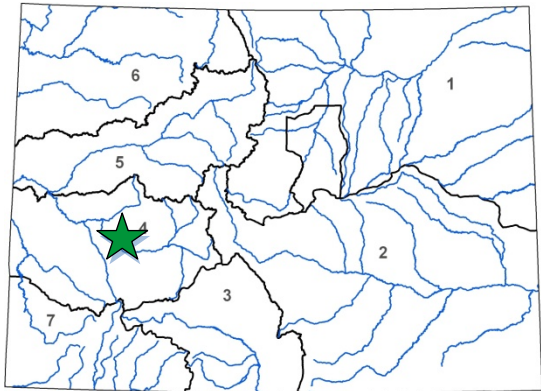
Outlet works at Adobe Creek Dam







L O A N   D E T A I L S	
<i>Project Cost:</i>	\$10,509,000
<i>CWCB Loan (with Service Fee):</i>	\$1,774,671
<i>Loan Term and Interest Rate:</i>	40 Years @ 2.0%
<i>Funding Source:</i>	Severance Tax PBF and WSRF Grant
B O R R O W E R   T Y P E	
<i>Agriculture</i>	<i>Municipal</i>
100%	0% Low - 0% Mid - 0% High
	<i>Commercial</i>
	0%
P R O J E C T   D E T A I L S	
<i>Project Type:</i>	Ditch Rehabilitation
<i>Average Annual Diversions:</i>	10,103 AF



L O C A T I O N	
<i>County:</i>	Delta & Montrose
<i>Water Source:</i>	Crystal Creek
<i>Drainage Basin:</i>	Gunnison
<i>Division:</i>	4 <i>District:</i> 40

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

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

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



Canal to be piped



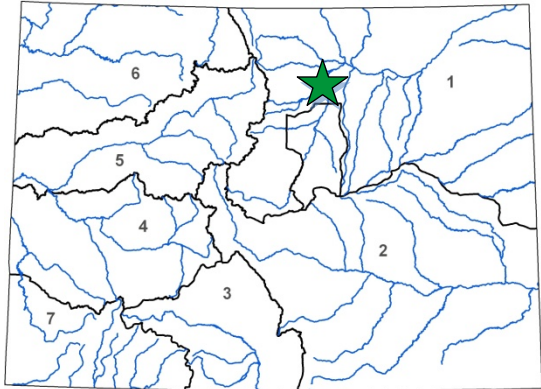
Canal to be lined







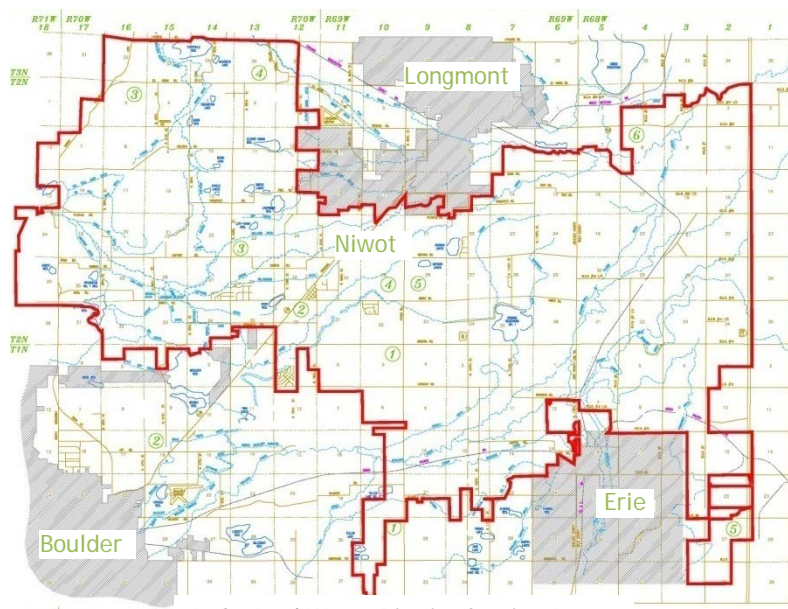
L O A N   D E T A I L S	
Project Cost:	\$10,735,300
CWCB Loan (with Service Fee):	\$10,000,000
Loan Term and Interest Rate:	20 Years @ 2.75%
Funding Source:	Construction Fund
B O R R O W E R   T Y P E	
Agriculture	Municipal
0%	0% Low - 30% Mid -70% High
	Commercial
	0%
P R O J E C T   D E T A I L S	
Project Type:	Municipal Water Supply System New
Average Annual Delivery:	4,400 AF



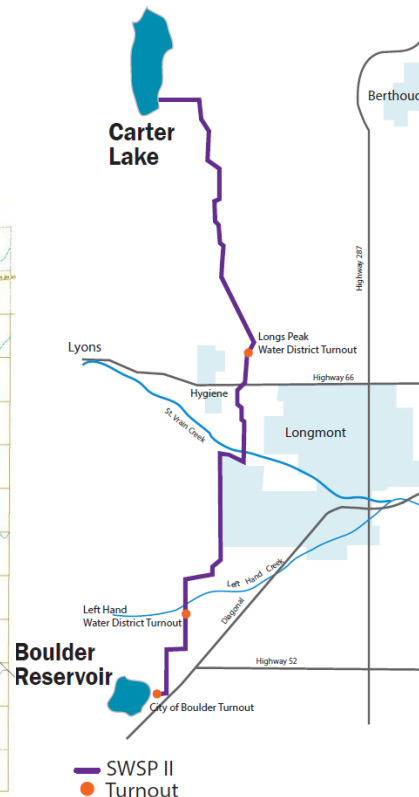
L O C A T I O N	
County:	Broomfield, Weld
Water Source:	
Drainage Basin:	South Platte
Division:	1      District: 5

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 year-round while Dodd WTP is operated only during the 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.



Left Hand Water District Service Area



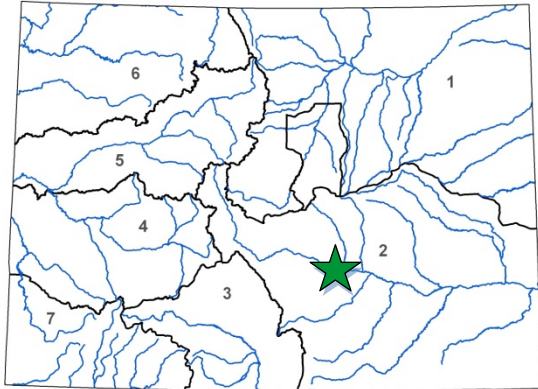




## Arkansas River and Wildhorse Creek Levee Rehabilitation

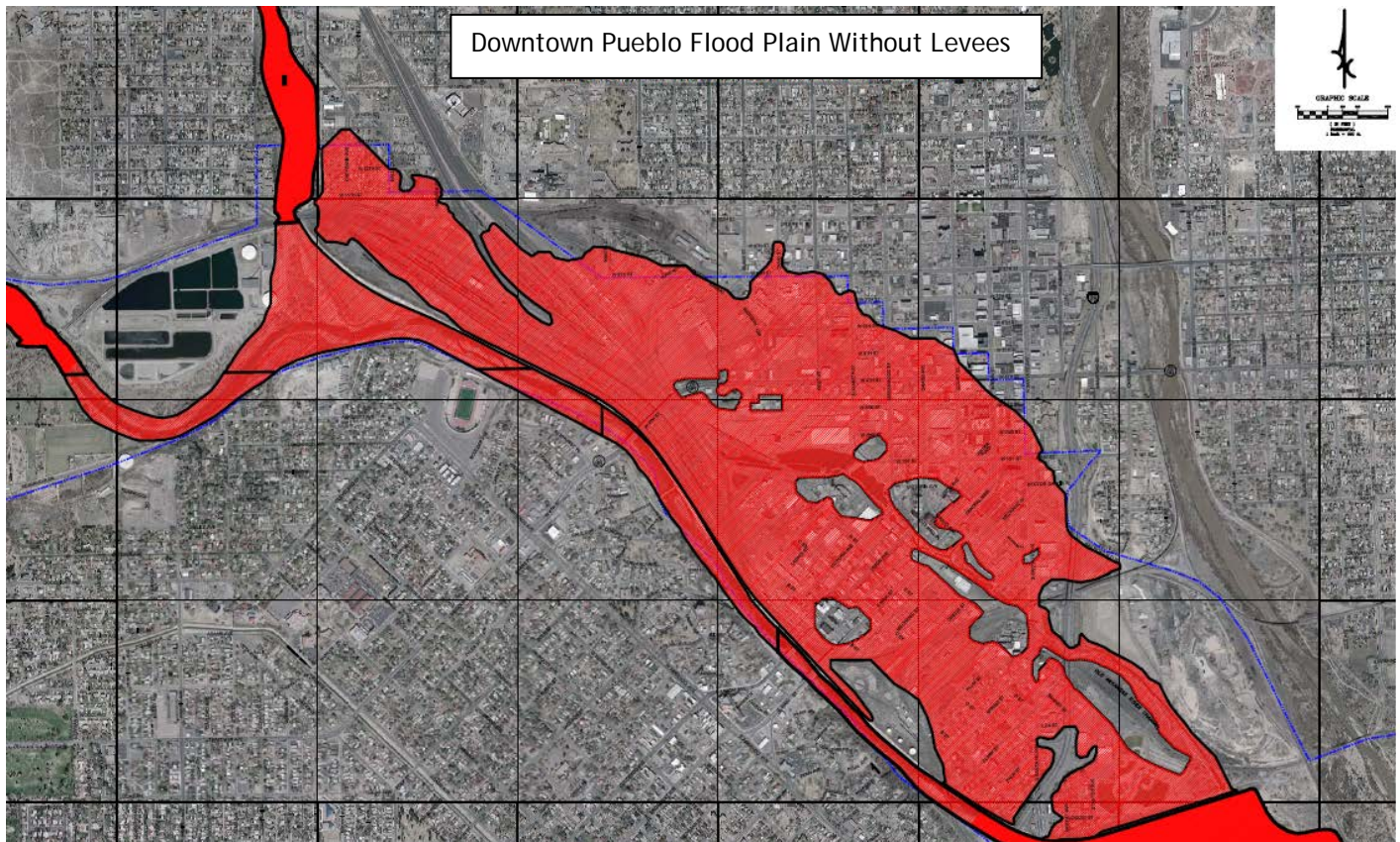
Pueblo Conservancy District  
September 2017 Board Meeting

L O A N   D E T A I L S	
Project Cost:	\$23,000,000
CWCB Loan (with Service Fee):	\$17,170,000
Loan Term and Interest Rate:	30 years at 2.45%
Funding Source:	Severance Tax Perpetual Base Fund
B O R R O W E R   T Y P E	
Agriculture	Municipal      Commercial
0%	100% Low - TBD% Mid -0% High      0%
P R O J E C T   D E T A I L S	
Project Type:	Flood Control
Average Annual Diversions:	N/A



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

The District was formed in response to the 1921 flood in Pueblo. Its primary function is flood protection within its designated boundaries. In 2006, the District was advised that unless the Arkansas and Wildhorse Creek levees were accredited by the Federal Emergency Management Agency (FEMA), the City would lose its protected status which ensures that flood insurance can be provided at affordable rates. To date, the District has completed the reconstruction and stabilization of 6,600 feet of the Arkansas River Levee, the top 12-feet of an additional 4,400 feet of the Arkansas Levee embankment has been removed, and 2,800 feet of Wildhorse Creek Levee has been constructed. The next phase of work is scheduled to begin in late 2017. Construction is limited to November to March when river flows are the lowest. The entire project is expected to be complete in 2022.



**WATER PROJECT CONSTRUCTION LOAN PROGRAM  
LOAN REPAYMENT DELINQUENCY REPORT  
LOAN FINANCIAL ACTIVITY REPORT  
NOVEMBER 2017**

**LOAN REPAYMENT DELINQUENCY**

Loan Repayments received relative to the Water Project Construction Loan Program have been reviewed for the period covering July 2017 through October 2017. The effective due date of the payment is inclusive of the Board's current 30 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 four months of Fiscal Year 2018 totaled 112. There was one loan payment not received on time during this period. The loan payment from Fuchs Ranches, Inc. was less than 60 days late but has not received to date. 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 \$14.5 M for this year. Funds disbursed relative to new project loans totaled \$10.0 M for this year. Net activity resulted in \$4.5 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 \$9.2 M in receivables and \$2.4 M in disbursements for a total net activity of \$6.8 M received over disbursed. The STPBF consists of \$5.3 M in receivables and \$7.6 M in disbursements for a total net activity of \$2.3 M disbursed over received.



**COLORADO WATER CONSERVATION BOARD****FINANCIAL ACTIVITY REPORT FOR FISCAL YEAR 2018****CONSTRUCTION FUND**

<b>Period</b>	<b>Principal</b>	<b>Interest</b>	<b>Total Received</b>	<b>Disbursements</b>	<b>Net Activity</b>
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	\$ -	\$ -	\$ -	\$ -	\$ -
December 2017	\$ -	\$ -	\$ -	\$ -	\$ -
January 2018	\$ -	\$ -	\$ -	\$ -	\$ -
February 2018	\$ -	\$ -	\$ -	\$ -	\$ -
March 2018	\$ -	\$ -	\$ -	\$ -	\$ -
April 2018	\$ -	\$ -	\$ -	\$ -	\$ -
May 2018	\$ -	\$ -	\$ -	\$ -	\$ -
June 2018	\$ -	\$ -	\$ -	\$ -	\$ -
<b>FY 2018 Totals</b>	<b>\$ 6,817,680</b>	<b>\$ 2,396,533</b>	<b>\$ 9,214,213</b>	<b>\$ 2,419,033</b>	<b>\$ 6,795,180</b>

**SEVERANCE TAX PERPETUAL BASE FUND**

<b>Period</b>	<b>Principal</b>	<b>Interest</b>	<b>Total Received</b>	<b>Disbursements</b>	<b>Net Activity</b>
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	\$ -	\$ -	\$ -	\$ -	\$ -
December 2017	\$ -	\$ -	\$ -	\$ -	\$ -
January 2018	\$ -	\$ -	\$ -	\$ -	\$ -
February 2018	\$ -	\$ -	\$ -	\$ -	\$ -
March 2018	\$ -	\$ -	\$ -	\$ -	\$ -
April 2018	\$ -	\$ -	\$ -	\$ -	\$ -
May 2018	\$ -	\$ -	\$ -	\$ -	\$ -
June 2018	\$ -	\$ -	\$ -	\$ -	\$ -
<b>FY 2018 Totals</b>	<b>\$ 3,658,997</b>	<b>\$ 1,601,857</b>	<b>\$ 5,260,854</b>	<b>\$ 7,601,194</b>	<b>\$ (2,340,340)</b>
<b>GRAND TOTALS</b>	<b>\$ 10,476,677</b>	<b>\$ 3,998,390</b>	<b>\$ 14,475,067</b>	<b>\$ 10,020,227</b>	<b>\$ 4,454,840</b>