COLORADO

Colorado Water Conservation Board

Department of Natural Resources

DIRECTOR'S REPORT

September 2017

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

STATE OF COLORADO

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

TO: Colorado Water Conservation Board Members

FROM: Rebecca Mitchell
Erik Skeie

DATE: September 20-21, 2017

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

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~INTERSTATE AND FEDERAL~

INTERIOR FACA COMMITTEES SUSPENSION LIFTED— The Department of Interior has lifted its suspension of all Federal Advisory Committee Act (FACA) meetings, though its review of FACA groups is ongoing. The Secretary of the Interior announced a review of FACA activities on May 9, 2017 with the intention of concluding the review in September 2017. The review resulted in a suspension of activities under the Glen Canyon Dam Adaptive Management Work Group (AMWG) and the Colorado River Basin Salinity Control Advisory Council. The Secretary lifted the hold on FACA meetings on August 30, 2017.

Prior to this announcement, Interior gave a special waiver to the AMWG technical work group to conduct development of a triennial work plan and budget, and to plan a workshop on invasive Brown Trout at Lees Ferry. That work has continued and will be discussed at the next AMWG meeting on September 20-22, 2017.

The next meeting of the Colorado River Basin Salinity Control Advisory Council will be on October 25, 2017. The June meeting of the Salinity Control Forum (a closely associated group with a less formal structure) included a handful of items which needed to be conducted under the auspices of an official FACA committee structure, so they were tabled at that time and will be discussed in October. (*Carlee Brown*)

~STATEWIDE~

GROUND WATER COMMISSION MEETING— The Ground Water Commission (GWC) held its quarterly meeting on August 10-11, 2017 in Glenwood Sprigs, CO. The agenda items included routine reports and Staff updates on: developing an agreement for the "Petition For Determination of Jurisdiction Over Surface Water Within the Upper Black Squirrel Creek Designated Ground Water Basin", from Meridian Service Metropolitan District; Action item approved to initiate the formal process to change Rule 7.4 to require a historical withdrawal and depletion analysis for a change of description of irrigated acres; Action item approved to initiate the formal process to amend Rule 5.6 regarding replacement plans and Rule 5.8 regarding artificial recharge, storage and recovery plans; Discussion regarding proposed amendments to 2 CCR 402-3, Rules of Procedure for All Hearings Before the Colorado Ground Water Commission moved to February 2018 meeting; and a discussion ensued regarding the coordination of Staff and the Ground Water Management Districts. The Commission will hold its next regular meeting on the west slope (location TBD) on August 11, 2017. For more information visit: http://water.state.co.us/groundwater/CGWC/Pages/default.aspx. (*Craig Godbout*)

REQUEST FOR WATER ACQUISITION PILOT PROGRAM— As part of the CWCB's instream flow water acquisition program, the CWCB, in partnership with the Colorado Water Trust (CWT), plans to pilot a strategic approach to instream flow water acquisitions to facilitate implementation of the Water Plan and guide efforts to preserve and improve the natural environment on streams throughout the state. Utilizing a public outreach process similar to the one currently used for new appropriations, the CWCB and CWT plan to announce a Request for Water Acquisitions in January 2018 at the annual Instream Flow Workshop held in conjunction with the Colorado Water Congress's Annual Convention. This Request for Water Acquisition Pilot Program is intended to accomplish several goals:

- to communicate with and educate water right owners about voluntary, market-based opportunities to sell or lease their rights to benefit rivers in need;
- to proactively seek voluntary water right offers for instream flow use from willing water rights owners;
- to facilitate implementation of Colorado's Water Plan objectives;

- to streamline transaction processes and utilization of resources;
- to highlight flow restoration needs in priority basins; and
- to restore flows to rivers in need while preserving Colorado's agriculture.

The Request for Water Acquisitions Pilot Program will be a voluntary program open to all water right owners, including agricultural, municipal, industrial, or other users. Transaction types may include temporary transactions to be exercised only for a limited period of time, longer term contracts extending for 10+ years, or permanent donations or purchases of water rights. Flow restoration projects can also include flexible approaches such as sharing water between irrigation and instream flow use in a single year. Staff will give a full presentation on this proposed pilot program and seek Board input at the November 2017 CWCB meeting. (*Linda Bassi*)

REQUESTS FOR ADMINISTRATION OF INSTREAM FLOW WATER RIGHTS— On August 29, 2017, on behalf of the Board, staff reacted to low flow alerts from the satellite monitoring system and placed four requests for administration of instream flow (ISF) water rights on the Eagle, Crystal, and Fryingpan Rivers in Water Division 5, and on the Elk River in Water Division 6. The ISF water right for the Eagle River was decreed in Case No. 78W3811 for 15 cubic feet per second in the reach from the confluence with Resolution Creek to the confluence with Homestake Creek. Releases are being made from Eagle Park Reservoir for Upper Eagle Regional Water Regional Water Authority shareholders' augmentation needs. The ISF water right on the Crystal River was decreed in Case No. 75W2720 for 100 cubic feet per second in the reach from the confluence with Avalanche Creek to the confluence with the Roaring Fork River. Ditches have been checked and if necessary, reduced to decreed amounts and local augmentation storage releases are being made. The ISF water right on the Frying Pan River was decreed in Case No. 73W1955, for 75 (8/1 to 8/31) and 65 (9/1 to 9/30) cubic feet per second in the reach from the North Fork of the Fryingpan River to the confluence with Ruedi Reservoir. The Fry-Ark project has been curtailed. The ISF water right on the Elk River decreed in Case Nos. 77W1279 and 77W1331 for 65 cubic feet per second year in the reaches from the North Fork of the Elk River to Rock Creek, and from Rock Creek to the confluence with the Yampa River. Multiple rights and some pumps have been curtailed which has resulted in approximately 10 cfs of additional flow in the River. (*Brian Epstein*)

~ARKANSAS RIVER BASIN~

BLM ROYAL GORGE FIELD OFFICE RESOURCE MANAGEMENT PLAN (RMP) REVISION— The BLM's Royal Gorge Field Office issued a Draft Suitability Report in March 2017 as part of its Eastern Plains RMP update. Of the 19 stream segments assessed, the Draft Suitability Report recommends four segments on the Arkansas River and one segment on Eightmile Creek as suitable. The BLM is currently developing its Draft RMP for release next year. Meanwhile, Staff attended BLM cooperating agency meetings on July 27 and August 16, 2017. (*Suzanne Sellers*)

~COLORADO RIVER BASIN~

COLORADO RIVER WATER USE—

2017 Colorado River Storage as of September 5, 2017			
	Elevation (feet above mean sea level)	Storage (MAF)	Percent of Capacity
Lake Mead	1,081.63	10.146	39%
Lake Powell	3,630.51	14.910	61%
Total System Active Storage		33.359	56%
2016 Total Active Storage		30.613	51%
		Flow (MAF)	Percent of Average
Forecasted Unregulated Inflow into Powell		12.069	111%

Forecasted CY 2017 Lower Basin Consumptive Use			
State		Use (MAF)	Total (MAF)
Arizona		**2.495**	
California			
California Agricultural	3.717	**3.837**	**6.590**
Metro. Water District	0.418		
Nevada		**0.258**	

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

UPPER COLORADO RIVER WILD AND SCENIC (UCRW&S) STAKEHOLDER GROUP— The UCRW&S Stakeholder Group held its quarterly Governance Committee (GC) meeting on August 28, 2017 in Summit County. The GC directed the Executive Committee to work toward hiring a contractor to provide administrative support for the group. The GC also directed the Monitoring Committee to present a brief overview and recommendations regarding 2017 macroinvertebrate baseline monitoring for a decision at the next SG meeting. Lastly, the GC directed select members to prepare a presentation on the history and rationale on the elevation procedures within the SG Plan. The GC also heard interest group updates, federal agency updates and committee updates. The next GC meeting is scheduled for October 16, 2017 in Summit County. Additional information on the UCRW&S Group can be found at http://www.upcowildandscenic.com. (*Suzanne Sellers*)

~DOLORES RIVER BASIN~

LOWER DOLORES PLAN WORKING GROUP UPDATE— The big news for the Lower Dolores Plan Working Group continues to be the managed releases from McPhee Reservoir that took place this spring. The boating re-cap meeting on August 17 in Dolores drew over 50 people. Key spill management decisions were reviewed and presented as hydrographs in two-week intervals to demonstrate how the changing forecast and weather conditions were evaluated to make release decisions based on weekly sub-group calls involving DWCD, Reclamation, American Whitewater, TNC, Dolores River Boating Advocates, BLM, and the Colorado River Basin Forecast Center. The boater meeting moderated by Dolores River Boating Advocates, also included a panel with American Whitewater, Dolores River Boating Advocates, BLM, and TNC. Input from boaters confirmed that the high flows released for ecological purposes resulted in excellent variations in the boating experience with releases ranging from 1,000 cfs to 4,000 cfs. Questions and discussion were thoroughly documented in a meeting summary, which along with the release hydrographs will become part of the permanent record of lessons learned.

The next step in evaluating the release from an ecological perspective will be a meeting of all of the scientists and fishery biologists with the Monitoring and Recommendation Team on October 27 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. Having the monitoring results evaluated and put into the M&R Team 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 public constituencies. (*Linda Bassi*)

~PLATTE RIVER BASIN~

PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM— The Platte River Recovery Implementation Program (PRRIP) Governance Committee (GC) held a special conference call on August 8, 2017. During the call, the GC voted to pursue a contract to acquire land for Tract W1713. This acquisition will allow the PRRIP to move forward with its State Channel project which is aimed at improving the flow capacity of the North Platte River at the "chokepoint". The GC also held a Pallid Sturgeon Webinar on July 10, 2017. Its next regular GC meeting will be held on September 12-13, 2017 in Kearney, NE. Following the GC meeting, PRRIP will hold a Pallid Sturgeon Workshop on September 13-14, 2017 in Kearney, NE. For more information, please visit:
https://www.platteriverprogram.org/Pages/Default.aspx. (*Suzanne Sellers*)

~ WATER CONSERVATION AND DROUGHT PLANNING UPDATES ~

CWCB WATER EFFICIENCY GRANT FUND PROGRAM (WEGP) UPDATE—
No grant applications have been received since the July 2017 Director's Report

- No grants have been approved since the July 2017 Director's Report.

The following are deliverables sent to the CWCB since the last Board Meeting:

- City of Longmont – Water Efficiency Plan Update – *75% Progress Report*
- City of Lafayette – City Hall Fixture Replacement – *50% & 75% Progress Report*
- Town of Frisco – Blue River Watershed Regional Water Efficiency Plan – *50% Progress Report*
- Center for Resource Conservation – Turf Removal & Replacement Pilot Project – *50% Progress Report*
- Ruedi Water & Power Authority – Rain Sensor Retrofit Program – *50% Progress Report*

- CORE – High Five Campaign – *75% 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:

- Parker Water and Sanitation District

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

(*Kevin Reidy & Ben Wade*)

GOVERNOR'S WATER AVAILABILITY TASK FORCE— The next Water Availability Task Force meeting on September 14th from 9:00am-11:30am 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— July was characterized by warm and wet conditions; August has been cool, particularly east of the Continental Divide with near normal precipitation. Reservoir storage remains high at 116 percent of average, and municipal water providers have no immediate concerns with levels of supply and demand in their systems. 19 percent of Colorado is experiencing abnormally dry conditions, mostly concentrated in the northern half of the state. (*Taryn Finnessey*)

WATER AND GROWTH DIALOGUE— Through a Water Efficiency Grant, the Keystone Center is facilitating a dialogue to quantify water use through different land use patterns as well as bringing together land use and water managers to discuss where integration can occur. Staff 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 will present at and help 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—
Our Water, Our Values, Our Future-Urban Land Institute: On Sept. 7, staff presented on a panel discussing the nexus between water policy, urban drainage, water conservation and land use trends. (*Kevin Reidy*)

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*)

US EPA ENHANCED STATE AND TRIBAL PROGRAM MEETING— Staff will be presenting CWCB's approach to water resource resiliency to climate change to the state and tribal wetland program managers during their meeting in early October. **(Taryn Finnessey)**

NORTHERN WATER CONSERVATION WORKSHOP— Staff has been asked to be the keynote speaker for this event on September 13th to talk about the nexus between climate change and water conservation. (*Taryn Finnessey*)

CLIMATE CHANGE— On July 11th Gov. John Hickenlooper signed Executive Order D 2017-015, committing the state to climate action. He also announced that Colorado will join the U.S. Climate Alliance, a bipartisan group of states in the United States that are committed to achieving the U.S. goal of reducing carbon dioxide emissions 26–28% from 2005 levels by 2025 . 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.

In addition to the above goals, Colorado also is committing to:

- Work strategically with any interested utility or electric cooperative on a voluntary basis to maximize use of renewable energy without increasing costs to taxpayers;
- Create a statewide electric vehicle plan by January 1, 2018;
- Develop a greenhouse gas emissions tracking rule through the Department of Public Health and Environment;
- Identify opportunities to partner with local governments on locally-led climate resilience actions;
- Institutionalize the state's greening government initiative;

- Formalize and expand upon cross-agency actions to provide economic development strategies and other supportive services to communities impacted by the changing energy landscape, and submit a written annual report detailing those efforts and accomplishments;
- Incorporate the emissions reductions goals into the Colorado Climate Plan and solicit stakeholder input regarding additional measures or strategies to advance these goals.

Work is already well underway to implement the executive order, including revisions to the climate plan that will be released in draft form this fall. (*Taryn Finnessey*)

~WATERSHED AND FLOOD UPDATES~

MAPPING UPDATE—

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 during 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, 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 is set to take place between mid-September and November of 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 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 9 out of 251 total National Flood Insurance Program participating communities 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 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 affected by the September 2013 flood event. These 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 to leverage the CHAMP study 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. A Flood Risk Review meeting was held in Estes Park on August 23rd, 2017. The town staff looked at the 2D hydraulic model through town using 3D perspective software that portrays a "bird's eye" view of the recently modeled floodplain. This visual tool could be used for effective communication of flood risk. Specific concerns and a timeline were discussed at length. 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 local communities and the CWCB will continue as local recovery efforts 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 Map (FIRM) panels in select communities and jurisdictions. Updated flood risk information will be provided as best available information for local communities. 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. Funding for Phase 3 is limited, 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*)

STREAM MANAGEMENT PLAN (SMP) UPDATE—

North Fork Gunnison River Integrated Watershed Management Plan (Stream Management Plant) Progress Report

In 2016, the Western Slope Conservation Center (WSCC) was awarded $57,000 from the WSRF (Gunnison Basin and Statewide) and $27,500 from the Co Watershed Restoration Program to develop a Stream Management Plan. The North Fork Integrated Watershed Management Plan project partners, North Fork Water Conservancy District (NFWCD), Trout Unlimited (TU), and Western Slope Conservation Center (WSCC), awarded the primary project contract to Olsson and J-U-B, who was responsible for implementing all components of the original scope of work. The project has since been separated into two separate projects, each with their own new scope of work. The agricultural and infrastructure assessment is being conducted by J-U-B, guided by the North Fork Water Conservancy District. The environmental and recreation needs assessment is being conducted by WSCC, which is continuing to administer both projects under the original funding agreement.

Infrastructure Assessment Progress
The Infrastructure Assessment included two phases: Agricultural Interviews and a formal Infrastructure Assessment. Work completed to date includes:

Phase 1: Agricultural Interviews (100% completed)
- Agricultural interviews have been held with:

Fire Mountain Canal – Steve Fletcher
Carrol Ditch – Roy Graham
Lennox Ditch – Lisa Escher
Stewart Ditch – Karl Burns
North Fork Farmer's Ditch – Jess Campbell
Paonia Ditch – Olen Lund
Monitor Ditch – Calvin Campbell
Shepherd and Wilmont – Jess Campbell
Short Ditch – Bill Carpenter
Vandeford Ditch – Bill Carston
Smith and McKnight Ditch – Tom Kay

· Meetings with Division 4 staff and groups of water users

Phase 2: River Infrastructure Assessment (80%)
· R2Cross data for 5 cross sections gathered
· Field trips and site visits during high and low flows
· Water rights data gathering and mapping

Environmental and Recreational Needs
The Environmental and Recreational Needs Assessment included six key components: Environmental and Recreation Needs Literature Review, Environmental and Recreation Needs Interviews, Information Synthesis, Watershed Planning and Recommendations, and Project Management and Administration. Work completed to date includes:

1. Environmental and Recreation Needs Literature Review (70%)
- Gathered and reviewed all relevant recent reports (5 reports)
- Initiated review and synthesis of past reports to inform current assessment
- Coordinate with JUB to align river segments and GIS data between infrastructure and environmental assessments

2. Environmental and Recreation Needs Interviews (70%)
- Developed list of interviewees
- Drafted interview questionnaire and coordinated with JUB to align interviews
- Contacted and conducted interviews with landowners, water users, and other stakeholders

3. Information Synthesis (15%)
- Conducted initial stages of synthesis, identifying areas of concern within specific stream segments

4. Watershed Planning and Recommendations (5%)
- Yet to be completed

5. Project Management and Administration (75%)
- Managed and administered all tasks associated with the grant, including invoices, payments, and necessary documentation (*Chris Sturm*)

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 .

Project Update: Cedar Cove Reach on the Big Thompson
Location: Big Thompson River
Project Sponsor: Big Thompson Watershed Coalition
County: Larimer

Work in Progress/Completed

The max excavation of the overbank areas has continued throughout most of the Cedar Cove Restoration Project area. Stantec was onsite Friday 8/18 to review progress to date and debrief with Kiewit, Fly Water, and Iron Woman.

- Tree removal has been completed throughout the project area.
- Trees are being stockpiled on the McGuire and the Canfield properties.
- The contractor has completed most of the mass grading the overbank areas from the Honstein's property through the Canfield property. The contractor has begun to sort and stockpile finer grained material and structural boulders on the McGuire property.
- The contractor is working quickly, effectively, and safely. Progress is on or ahead of schedule and the project is beginning to take shape. River work is currently anticipated to begin in mid-September pending river discharge that allows for safe and effective structure installation.

Project Update: Four Mile Canyon Creek Restoration – Wagon Wheel Gap Road
Location: Fourmile Canyon Creek
Project Sponsor: Boulder County Transportation

Work In Progress/Completed

- 8/21/17: SEMA is working in the stream on the 1073 Wagonwheel property. SEMA will be setting toe boulders at the stream avulsion at sta. 160+50. SEMA will also be building a cross vane at sta. 160+80 then moving down stream building the boulder bank protection from sta. 161+0 to 161+80.

- 8/22/17: SEMA is working in the stream on the 1073 Wagonwheel property. SEMA has done some finish work on the boulder cross vane at sta. 160+80, adding additional VL material to the scour pool and chinking in the upstream edge of the boulders. The stream crew has also moved boulder material stockpiled at sta. 151+00 downstream to approximate sta. 161+00 for use in the boulder bank protection from sta. 161+00 to 161+90. SEMA has spent the majority of the day working on boulder bank protection. BOCO, SEMA and MBI walked the Scannell property to determine the extent of work for necessary improvements and to identify any additional trees for removal. MBI will compile a summary of the walk and present BOCO with a list of alternatives for the area.
- 8/23/17: SEMA is working in the stream on the 1073 Wagonwheel property. SEMA is continuing to work on the boulder bank protection from sta. 161+00 to 161+90.
- 8/24/17: SEMA continues to work in the stream on the 1073 Wagonwheel property. SEMA is continuing to work on the boulder bank protection from sta. 161+00 to 161+90. Boulder Bank Protection Bedding at sta. 161+5 0 Boulder Cross Vane at sta. 160+80
- 8/25/17: SEMA is working at stream sta. 161+00 to 161+90 building the boulder bank protection along the Wagonwheel Gap Road alignment. SEMA is transporting boulders from Pinto to use in finishing the structure. As the contractor works upstream, they are widening the flood plain and finishing the final low flow channel elevation.

Upcoming Work

- Boulder County has approved the SEMA submitted seed mix, therefore, pending resolution to the work that will happen on the Scannell property, SEMA will be working with CDI to complete soil wrapped lifts in the stream alignment.
- The landscape subcontractor will begin seeding and planting operations on September 1.

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

Little Thompson River Restoration at Parish Ranch
Watershed: Little Thompson
County: Boulder
Project Sponsor: Little Thompson Watershed Coalition

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

Wall Street Restoration
Watershed: Fourmile Creek
County: Boulder
Project Sponsor: Fourmile Watershed Coalition

Streambank erosion and sedimentation from the 2013 flood continues to impact bridges and properties along this reach of Fourmile Creek. The project proposes to remove and rework unstable sediment to increase floodplain capacity and store future sediment. Project will also provide bioengineering and rock toe protection to stabilize streambanks. Additionally, a low-flow channel and rock clusters will be added to create channel complexity and enhance fish habitat, and disturbed areas will be planted with willows, trees, and shrubs, and/or will be seeded and mulched.

(*Jeff Conboy*)

FLOOD SECTION ASSISTS TOWN OF CREEDED WITH FLOODPLAIN MAP UPDATE— For over 40 years, the Town of Creede has been regulating to an early floodplain map developed using approximate methods and no hydrologic and hydraulic model backup. The effective floodplain map, originally prepared in January 1976 by FEMA, shows extensive flooding to the Town due to flows in Willow Creek. In recent years, citizens have begun to question the accuracy of this map as Willow Creek has never spilled out of the flume through the town constructed by the Corps of Engineers in 1950. The Town asked the Watershed and Flood Protection Section for advice, and the Flood Section offered to assist with a new and updated study, including hydrologic and hydraulic model backup.

The preliminary results of this study indicate that not only are 100-year flows contained within the flume, but that tangible freeboard exists to the top of the flume as well. The Town will now plan on preparing a Letter of Map Revision request to FEMA to update the map and reflect this lower risk of flooding indicated by the updated study. If this study is accepted and the map is updated, significant relief will be provided to nearby landowners in the form of fewer development regulations and lower flood insurance costs.

The Town would like to thank the CWCB for this effort. They indicated that this study could not have been initiated without the support of CWCB. (*Kevin Houck*)

SOUTH PLATTE WORKING GROUP UPDATE— The CWCB is a part of the South Platte Working Group (SPWG) that encompasses communities from Chatfield Reservoir to the Denver County line. Since 2007 the group has completed $30M in projects with $15M in planned projects for recreation, river engagement with the community and businesses, and some environmental enhancement projects. There are strict rules in the flood control channel with the Corps of Engineers making environmental enhancement projects difficult. Recent completed projects include the newly constructed "River Run" with new recreation trails and parks. Currently River Run Phase II is under construction. It involves a new recreation trail from Oxford to Union Avenue. River Run Phase III will feature new recreation features and completion of the trail. A river safety project complete with sign graphics was recently completed. The project work and graphics are freely available to all river water parks with public safety concerns. Recently the SPWG wanted to celebrate the River Safety campaign with T-shirts featuring "Banks" the juvenile river otter for the signs and messaging. Banks "Plays well with otters". Anyone interested in using the Banks river safety signage messages and graphics in river recreation parks is free to do so. Contact joe.busto@state.co.us for more information. The River Run Trailhead Park project "free standing river surfing wave" at Oxford Avenue was just granted with the Starburst award on August 17th, 2017 from the Colorado Lottery, recognizing the parks "excellent use of lottery funds". GoCo paid for half of the River Run project with the other half coming from the communities, the CWCB, and the Urban Drainage and Flood Control District. "The article about the award is at http://www.villagerpublishing.com/89750/front-page/surfin-arapahoe-county/

(*Corey Elliott/Joe Busto*)

CLOUD SEEDING/TAMARISK TALK TO CALIFORNIA— On August 29th staff members gave a talk about cloud seeding to members of the Colorado River Board of California on a bus tour of the upper basin. The CWCB coordinated talk focused on the basics of cloud seeding and the strong partnership developed with the City of Grand Junction to use Lower Basin funding to upgrade equipment on the Grand Mea for more effective seeding. Pictured below is Mark Ritterbrush, the Grand Junction Water Treatment Plant Operator. He is explaining his involvement with cloud seeding and the management of the Grand Mesa cloud seeding program. (*Joe Busto/Erik Skeie*).

~AGENCY UPDATES~

RECENTLY DECREED ISF WATER RIGHTS— On July 7, 2017, the Division 1 Water Court decreed instream flow water rights to the CWCB on an unnamed tributary to Crooked Creek in Case No. 16CW3135 for 0.23 cfs (5/1-9/30), and 0.62 cfs (10/1-4/31), with an appropriation date of January 26, 2016. The upstream terminus is its headwaters and the lower terminus is the Silverheels Ditch headgate. This ISF reach is approximately 3.86 miles long and flows in a southerly direction through parts of Park County.

On August 24, 2017, the Division 1 Water Court decreed instream flow water rights to the CWCB on Balm of Gilead Creek in Case No. 16CW3130 for 0.6 cfs (5/1-8/31), 0.35 cfs (9/1-10/31), 0.24 cfs (11/1-3/31), and 0.35 cfs (4/1-4/30), with an appropriation date of January 26, 2016. The upstream terminus is its headwaters and the lower terminus is the Bureau of Land Management property boundary. This ISF reach is approximately 4.49 miles long and flows in a northerly direction through parts of Park County.

On August 24, 2017, the Division 1 Water Court decreed instream flow water rights to the CWCB on Pruden Creek in Case No. 16CW3131 for 0.24 cfs (11/1-3/31), 0.4 cfs (4/1-4/31), 1.0 cfs (5/1-8/31), and 0.4 cfs (9/1-10/31), with an appropriation date of January 26, 2016. The upstream terminus is the U.S. Forest Service property boundary and the lower terminus is the Bureau of Land Management property boundary. This ISF reach is approximately 0.49 miles long and flows in a northerly direction through parts of Park County. (*Rob Viehl*)

STAFFING UPDATE— CWCB was sad to say farewell to Brenna Mefford, Decision Support Specialist in the Interstate, Federal, and Water Information Section. Brenna moved to Wilson Water Group in August. CWCB will begin the hiring process to fill this position in the coming weeks. (*Carlee Brown*)

~GENERAL ATTACHMENTS~

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

~LOAN PROGRAM ATTACHMENTS~

- 01 Water Project Loan Program Interest Rates
- 02 Prequalified Project List and Loan Prospect Summary
- 03 Design and Construction Status Report
- 04 Fiscal Year 2016-2017 Non-Reimbursable Investments Report

September 19-21, 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). Staff and the Attorney General's Office will review subsequent proposed rulings and final decrees filed with the court in each of these cases for consistency with CWCB's stipulations.

(1) Case No. 14CW3176 (Water Division 1) - Application of City of Fort Collins

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 change of water rights and augmentation plan does not injure the Board's instream flow water rights by expansion of use or altering the time, place, and amount of historical return flows. The Applicant also proposed to use the water for instream flow purposes pursuant to an agreement with the CWCB. 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 currently set for a 20-day trial beginning on October 2, 2017. A two-day mediation was held on August 21-22, 2017. CWCB's stipulation agreement was reached during the second day of mediation. Other parties continue to work towards agreements in this case. Staff and the Attorney General's Office will continue to monitor this case until it is closed by the court.

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

- Use and reuse of the water changed and adjudicated herein "shall only take place within the current boundaries of Larimer County and that area of Weld County lying west of the confluence of the South Platte River and Lone Tree Creek located in the SE1/4 of Sec. 6, T5N, R64W, 6th P.M."
- Besides use for Fort Collins in their own service area, subject to terms and conditions, "Fort Collins may also use the Ditch Water Rights, either directly or following storage and subsequent release, for augmentation and replacement use in other plans for augmentation, to replace other return flow obligations, for substitution and exchange purposes in other appropriative rights of exchange, for all municipal purposes (including without limitation the types of municipal uses described in [decree] Paragraph 9.2.1) to serve water users located within and outside of Fort Collins' current and future service area with whom Fort Collins has contracts to deliver water from its water system, and

pursuant to contract exchanges, leases, or water trades made by mutual agreement with other water users. Any use described in this [decree] Paragraph 9.2.2 must be in accordance with one of the following, all of which must specifically identify the Ditch Water Rights: (1) a separate water court application and decree that authorizes the use; (2) a substitute water supply plan approved under C.R.S. § 37-92-308 (or successor statutes); (3) an interruptible water supply agreement approved under C.R.S. § 37-92-309 (or successor statutes); or (4) pursuant to an undecreed administrative exchange approved by State water administration officials pursuant to their statutory authority. Fort Collins' uses under this [decree] Paragraph 9.2.2 must be in accordance with one of the above.

- "If Fort Collins operates an administrative exchange in a stream reach with a decreed instream flow water right (existing or future), Fort Collins shall give notice to the CWCB before or within 30 days after operating the exchange."
- "If Fort Collins seeks to add the Ditch Water Rights to an exchange that is already decreed, the Ditch Water Rights shall only be added to the exchange under a new appropriation and priority date."
- "Fort Collins shall not be entitled to use, reuse, or successively use the non-sewered return flows resulting from municipal use of the Ditch Water Rights unless such use has been authorized by one of the following, all of which must specifically identify the non-sewered portion of the Ditch Water Rights: (1) a separate water court application and decree; or (2) a substitute water supply plan approved under C.R.S. § 37-92-308 (or successor statutes)."
- "In accordance with settlement agreements with certain opposers, Fort Collins has withdrawn all claims raised in the Application for use of the Ditch Water Rights or the Exchange Rights for instream flow uses. No instream flow uses of the Ditch Water Rights or the Exchange Rights are decreed herein.

(2) Case No. 16CW0027 (Water Division 2) - Application of Music Meadows L.L.C.

The Board ratified this Statement of Opposition at its March 2017 meeting. The Board's main objective in filing the Statement of Opposition in this case was to ensure that the Applicant's proposed change of water rights does not injure the Board's instream flow water right on Grape Creek and Music Pass Creek by expansion of use or altering the time, place, and amount of historical return flows. Some of the changes claimed herein may have been occurring prior to appropriation of the instream flow water rights shown below. The instream flow water rights might be subject to some of the requested changes under C.R.S. 37-92-102(3)(b) if the claimed uses and amounts are sufficiently documented and verified. Staff, in cooperation with the Attorney General's Office, has negotiated a settlement with this *pro se* Applicant to ensure that the CWCB's instream flow water rights will not be injured. The ruling signed by the court on August 17, 2017 includes CWCB's stipulated terms. A final decree is expected to be signed in September 2017.

The CWCB holds the following instream flow water rights in Water Division 2 in the Arkansas Headwaters watershed that could be injured by this application:

Case Number	Stream	Upper Terminus	Lower Terminus	CFS Rate (Dates)	Approp. Date
82CW0142	Grape Creek	headwaters in vicinity	confl Music Pass Creek	1 (1/1 - 12/31)	06/03/1982
82CW0150	Music Pass Creek	headwaters in vicinity	confl Grape Creek	0.5 (1/1 - 12/31)	06/03/1982

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

- "Information gained on a site visit and aerial photography submitted by Applicant supports a finding that the irrigation practices for the Pasture Ditch, Ulrich Kuster Ditch Nos. 2 and 1 and the Breshire Ditch as claimed herein were in existence prior to the instream flow rights appropriated by the Colorado Water Conservation Board Under section 37-92-102(3)(b), C.R.S., the Colorado Water Conservation Board recognizes that Applicant's irrigation use of the Pasture Ditch for 8 acres, the Breshire Ditch for 20 acres, the Ulrich Kuster Ditch No. 2 for 3 acres, and the Ulrich Kuster Ditch No. 1 for 18 acres as uses pre-existing the Colorado Water Conservation Board's instream flow water rights and appropriations identified in paragraph 9 [of the decree]. A map depicting each water right and respective irrigated acreage is attached [to the decree] as **Exhibit A**."
- "The recognition of the pre-existing use of water by Applicant, described in paragraph 12[of the decree], will not interfere with the administration of the Colorado Water Conservation Board's water rights in-priority as against other water rights, and will not constitute a general subordination of the Colorado Water Conservation Board's instream flow water rights, described in paragraph [of the decree], to any other junior water rights. Although the Colorado Water Conservation Board's instream flow water rights, described in paragraph 9[of the decree], are subject to the historical practices of Applicant as described above and under section 37-92-102(3)(b), the water rights approved in this decree will be administered subject to the prior appropriation system in relation to other water rights."
- "Applicant and the Colorado Water Conservation Board acknowledge that Applicant's irrigation use under Breshire Ditch and Ulrich Kuster Ditch No. 2 water rights, as described in paragraph 12 [of the decree] and as shown on [decree] **Exhibit A,** has historically been less than the full decreed acreage amount for each water right. As a term and condition for irrigation beyond this historical use, but still limited to the full decreed acreage, Applicant agrees that the Colorado Water Conservation Board's instream flow water rights, as described in paragraph 9 above, must be fully satisfied prior to irrigation beyond the historical use of 20 acres under the Breshire Ditch and 3 acres under the Ulrich Kuster No. 2 Ditch. Applicant agrees that 1 cfs must remain in Grape Creek and 0.5 cfs must remain in Music Pass Creek as a condition of Applicant's irrigation of 30 acres under Breshire Ditch and 9 acres under Ulrich Kuster Ditch No. 2 water rights."

(3) Case No. 16CW3037 (Water Division 5) - Application of YMCA of the Rockies

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 does not injure the Board's instream flow water

right on Crooked Creek, Fraser River and Pole Creek by expansion of use or altering the time, place, and amount of historical return flows. The proposed appropriative right of exchange should be defined clearly with a reference to intervening instream flow water rights so that the CWCB's instream flow water rights are not injured. 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. All parties have entered stipulations. The court will now review the proposed ruling and decree.

The CWCB holds the following instream flow water rights in Water Division 5 in the Colorado Headwaters watershed that could be injured by this application:

Case Number	Stream	Upper Terminus	Lower Terminus	CFS Rate (Dates)	Approp. Date
90CW0296	Crooked Creek	confl Pole Creek	confl Fraser River	2.75 (10/1 - 4/14) 8 (4/15 - 8/14) 4 (8/15 - 9/30)	11/27/1990
90CW0308	Fraser River	confl Crooked Creek	confl Colorado River	30 (5/15 - 9/15) 19 (9/16 - 5/14)	11/27/1990
90CW0280	Pole Creek	headwaters	hdgt Gehman-Just ditch	1.5 (4/1 - 8/31) 0.5 (9/1 - 3/31)	11/27/1990
90CW0280	Pole Creek	hdgt Gehman-Just ditch	confl unnamed tributary	0.5 (7/1 - 3/31) 1.5 (4/1 - 6/30)	11/27/1990
90CW0293	Pole Creek	confl unnamed tributary	confl Skunk Creek	1.5 (7/1 - 7/31) 3 (4/1 - 6/30) 1 (8/1 - 3/31)	11/27/1990
90CW0293	Pole Creek	confl Skunk Creek	confl Crooked Creek	2 (7/1 - 7/31) 1.5 (8/1 - 8/31) 3 (4/1 - 6/30) 1 (9/1 - 3/31)	11/27/1990

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 agreed to relinquish its original points of diversion for three springs in exchange for adjudicating new points of diversion downstream.
- Applicant dropped its exchange claim.
- On July 15, 2015, the Colorado Supreme Court issued a decision in St. Jude's Co. Roaring Fork Club, LLC, 351 P.3d 442 (Colo. 2015). Following that decision, in 2017, the legislature added a provision to section 37-92-305 to clarify the rights to which the St. Jude's Co. decision applies. The water rights at issue in this case were decreed as conditional prior to July 15, 2015. The issue raised in the summary of consultation regarding the application of the St. Jude's Co. decision is rendered moot by section 37-92-305(20). Accordingly, section 37-92-305(20) applies to this case and the uses for the water rights claimed herein shall be given full force and effect by the Court.

(4) Case No. 16CW3090 (Water Division 5) - Application of Powderhorn Ski Company, LLC

The Board ratified this Statement of Opposition at its January 2017 meeting. The Board's main objective in filing the Statement of Opposition in this case was to ensure that the Applicant's proposed change of water rights does not injure the Board's instream flow water right on Mesa Creek and Plateau Creek by expansion of use or altering the time, place, and amount of historical return flows. The proposed appropriative right of exchange should be defined clearly with a reference to intervening instream flow water rights so that the CWCB's instream flow water rights are not injured. The proposed plan for augmentation and exchange may not replace depletions in the proper time, place, and amount, which could injure the CWCB's instream flow water rights. 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 currently set for a four-day trial beginning on March 2, 2018. Depositions with other opposers were held on August 29, 2017, and Applicant served its expert reports on September 1, 2017. Staff and the Attorney General's Office will continue to monitor this case until it is closed by the court.

The CWCB holds the following instream flow water rights in Water Division 5 in the Colorado Headwaters-Plateau watershed that could be injured by this application:

Case Number	Stream	Upper Terminus	Lower Terminus	CFS Rate (Dates)	Approp. Date
85CW0637	Mesa Creek	confl unnamed tributary	hdgt Mesa Creek Ditch	2.5 (1/1 - 12/31)	11/08/1985
85CW0637	Mesa Creek	confl Big Beaver Creek	hdgt Mason & Eddy	2.5 (1/1 - 12/31)	11/08/1985
86CW0226	Plateau Creek	confl Grove Creek	confl Colorado River	16 (1/1 - 12/31)	03/14/1986

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

- The remainder of the water under the subject water right in excess of the 150 acre feet diverted and used by Powderhorn shall be relinquished by Powderhorn and bypassed at the headgate of the Mesa Creek Ditch during the period October 1 to April 1 of each such six month period.
- At such time as a call exists on the Colorado River downstream or Plateau Creek downstream of Coon Creek, the amount of the diversion of the subject water right shall be limited to 15 percent of the amount of water available to the subject water right at its head gate.
- Because no claim was made to appropriate return flows, "80% of the subject water right delivered into storage in the H.U. Robbins Reservoir in a given October 1 to January 31 period that is not used for snowmaking in that same October 1 to January 31 period shall either be released from storage after January 31, or booked over to the H.U. Robbins Reservoir water right decreed in Mesa County District Court Civil Action No. 8303 if that storage water right is in priority."

Letters in Lieu of Filing a Statement of Opposition

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

(1) Case No. 17CW0020 (Water Division 4) - Application of High Cimarron LLC

During the May 2017 Water Court Resume Review, CWCB staff identified concerns regarding potential injury to CWCB's instream flow water rights decreed in Case Nos. 84CW395 and 84CW0398 on the Cimarron River. This case was resolved with CWCB by a letter agreement, dated July 26, 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. The court has agreed to include this language in the decree that it will draft for this *pro se* Applicant.

- Applicant recognizes that the Colorado Water Conservation Board's existing instream flow water rights decreed in Case Nos. 84CW395 and 84CW398, District Court, Water Division No. 4 on Cimarron River were decreed prior to the filing of this case.
- The Exchange claimed herein is junior to CWCB's previously decreed instream flow water rights on the Cimarron River and will not be operated when such decreed instream flow is not met and the stream is being administered, unless Applicant replaces the depletion with augmentation water (released from High Park Lake) that enters the Cimarron River at the same point or upstream of where the depletion water would have entered the river.
- The augmentation plan decreed in 14CW53 shall be modified as necessary to augment the different uses and locations of use as decreed herein.

(2) Case No. 17CW0023 (Water Division 4) - Application of Ashley Jackson-Baillie

During the May 2017 Water Court Resume Review, CWCB staff identified concerns regarding potential injury to CWCB's instream flow water rights decreed in Case No. 98CW0222 on Uncompahgre River. This case was resolved with CWCB by a letter agreement, dated August 04, 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. The ruling signed by the court on August 17, 2017 includes CWCB's stipulated terms. A final decree is expected to be signed in September 2017.

- Applicant recognizes that the Colorado Water Conservation Board's existing instream flow water right decreed in Case No. 98CW0222, Water Division No. 4, on the Uncompahgre River was decreed prior to the filing of this case.
- The diversion at the changed point will be limited to the amount physically and legally available at the original point in terms of flow rate, volumes, and timing of diversions.

Director's Report Attachment – September 20-21, 2017 CWCB Meeting
Stream and Lake Protection Section De Minimis Cases

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

Case No.	Applicant	Stream/ Case #	ISF Amount	Percent Injury (%)	Cumulative Injury (%)	Count
17CW3121	Roger & Amelia Eshelman	Cattle Creek 5-85CW0626	4 (1/1 - 12/31)	0.27850 0.27850	0.71978 0.42959	15
17CW3024	Durango Waerhouse, LLC	Florida River 7-77W1764	20 (10/15 - 6/30) 12 (7/1 - 10/14)	0.03830 0.02300	0.36404 0.19891	13
17CW0019	Steven E. Clark	Elk Creek 4-84CW0437	2.5 (1/1 - 12/31)	0.15180 0.07100	0.15180 0.07100	1
17CW3031	8021 Preserve, LLC	South Fork San Miguel River 4-84CW0430	9 (1/1 - 12/31)	0.05250 0.01680	0.48016 0.19844	7
17CW3031	8021 Preserve, LLC	San Miguel River 4-02CW0277	93 (5/1 - 10/14) 61 (10/15 - 4/30)	0.00510 0.00470	0.00820 0.00980	3
17CW3031	8021 Preserve, LLC	San Miguel River 4-84CW0429	20 (1/1 - 12/31)	0.02360 0.01430	0.54195 0.32994	8
17CW3116	Eric Bruton	Plateau Creek 5-86CW0226	16 (1/1 - 12/31)	0.20190 0.32310	0.73303 0.46588	6

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

1313 Sherman Street
Denver, CO 80203

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

John Hickenlooper, Governor

Robert Randall, DNR Executive Director

Rebecca Mitchell, CWCB Director

TO: Colorado Water Conservation Board Members

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

Board Meeting: September 20-21 Board Meeting

Directors Report: Water Project Loans
Interest Rates

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

The current rates for a 30-year term are as follows:
1.75% - Agricultural
2.45% - Low-income Municipal
2.80% - Middle-income Municipal
3.10% - 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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Denver, CO 80203

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F (303) 866-4474

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: September 20-21, 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

•**Borrower**	**Project**	**Potential Loan Amount**
•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
•**Subtotal**		**$115,600,000**

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
•**Subtotal**		**$19,750,000**

San Miguel/San Juan River Basin

•Town of Bayfield	Ditch Piping	$500,000
•**Subtotal**		**$500,000**

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
•**Subtotal**		**$18,950,000**

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**

North Platte Basin

•No projects at this time

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

1313 Sherman Street
Denver, CO 80203

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

John Hickenlooper, Governor

Robert Randall, DNR Executive Director

Rebecca Mitchell, Director

TO: Colorado Water Conservation Board Members

FROM: Kirk Russell, P.E., Finance Section Chief
Jessica Halvorsen, Program Assistant

Board Meeting: September 20 - 21 2017 Board Meeting

Directors Report: Water Project Loan Program
Design & Construction Status Report

The CWCB Loan Program has Substantially Completed 15 projects in Calendar Year 2017 shown in Table 1. There are currently 6 projects authorized to receive loan funding totaling $75.2 million. There are 42 projects currently under contract and in the Design and Construction phase totaling $178 million. The attached spreadsheet summarizes the status of the projects. A detailed description about each project is provided in the digital version of the Director's Report.

TABLE 1

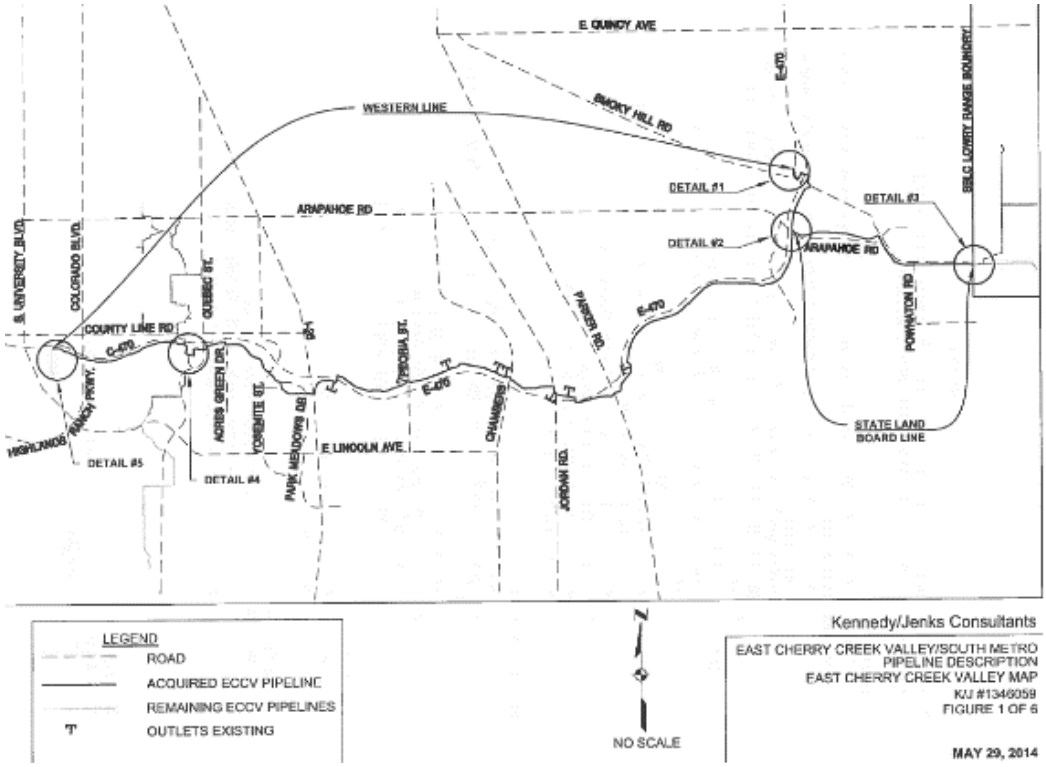
	Borrower	Project	County	Loan Amount	Complete
1	Cottonwood W&S District	WISE - ECCV Pipeline Purchase	Douglas & Arapahoe	$ 342,921	01/01/2017
2	Inverness W&S District	WISE - ECCV Pipeline Purchase	Douglas & Arapahoe	$ 1,845,270	01/01/2017
3	Gypsum, Town of	LEDE Ditch and Reservoir Rehabilitation	Eagle	$ 2,689,731	01/01/2017(a)
4	Plum Valley Heights Subdistrict	Raw Water Supply Project	Douglas	$ 2,248,260	02/01/2017
5	Windsor, Town of	Kyger Reservoir Project	Larimer & Weld	$ 4,545,000	02/01/2017(b)
6	Grand Junction, City of	Hallenbeck Reservoir No. 1 Dam Rehabilitation	Mesa	$ 1,010,000	03/01/2017(c)
7	Julesburg Irrigation District	Reconstruction of the Harmony No. 1 Dam Structure	Sedgwick	$ 203,616	03/01/2017
8	Bellyache Ridge Metro District	Well Replacement Project	Eagle	$ 169,175	04/01/2017
9	Oligarchy Irrigation Company	Dam Outlet Works Rehabilitation	Boulder	$ 901,930	04/01/2017(d)
10	Uncompahgre Valley Water Users Association	Drop 5 Hydroelectric Project	Montrose & Delta	$ 6,999,300	04/01/2017
11	North Poudre Irrigation Co	Reservoir No. 4 Rehabilitation	Larimer	$ 2,263,410	05/01/2017(e)
12	San Luis Valley Water Conservancy District	Anaconda Ditch Water Right Acquisition	Alamosa	$ 1,123,575	05/01/2017
13	Sanford Canal Company	Sanford Diversion and Headgate Rehabilitation	Conejos	$ 101,000	05/01/2017
14	Central Colorado WCD – Water Augmentation Subdistrict	Water Rights Purchase and Gravel Pit Strorage	Weld, Adams, Moran	$ 1,651,904	6/1/2017
15	West Reservoir & Ditch Company	Repair of West Reservoir No. 1 Outlet Works	Delta	$313,018	7/1/2017(f)
			Total	$27,786,206	

Calendar Year 2017 has added or preserved 5,076 acre-feet of reservoir storage (a) 254; (b) 1,257; (c) 699; (d) 1,737; (e) 674; (f) 455

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

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

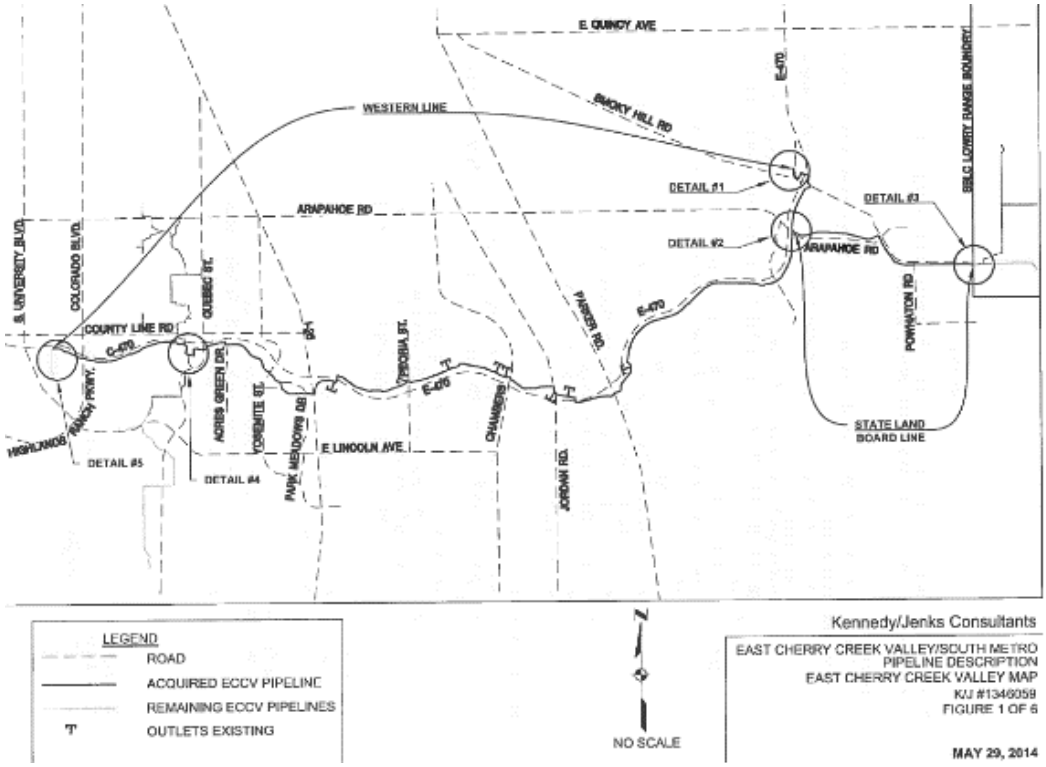
The WISE Project is a collaborative effort by multiple south metropolitan water entities (the WISE Authority), Denver Water, and Aurora water to supplement existing water supplies by bringing reusable water supplies southward through Aurora's Prairie Waters pipeline to the East Cherry Creek Valley (ECCV) 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.

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

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

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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.

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

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

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.

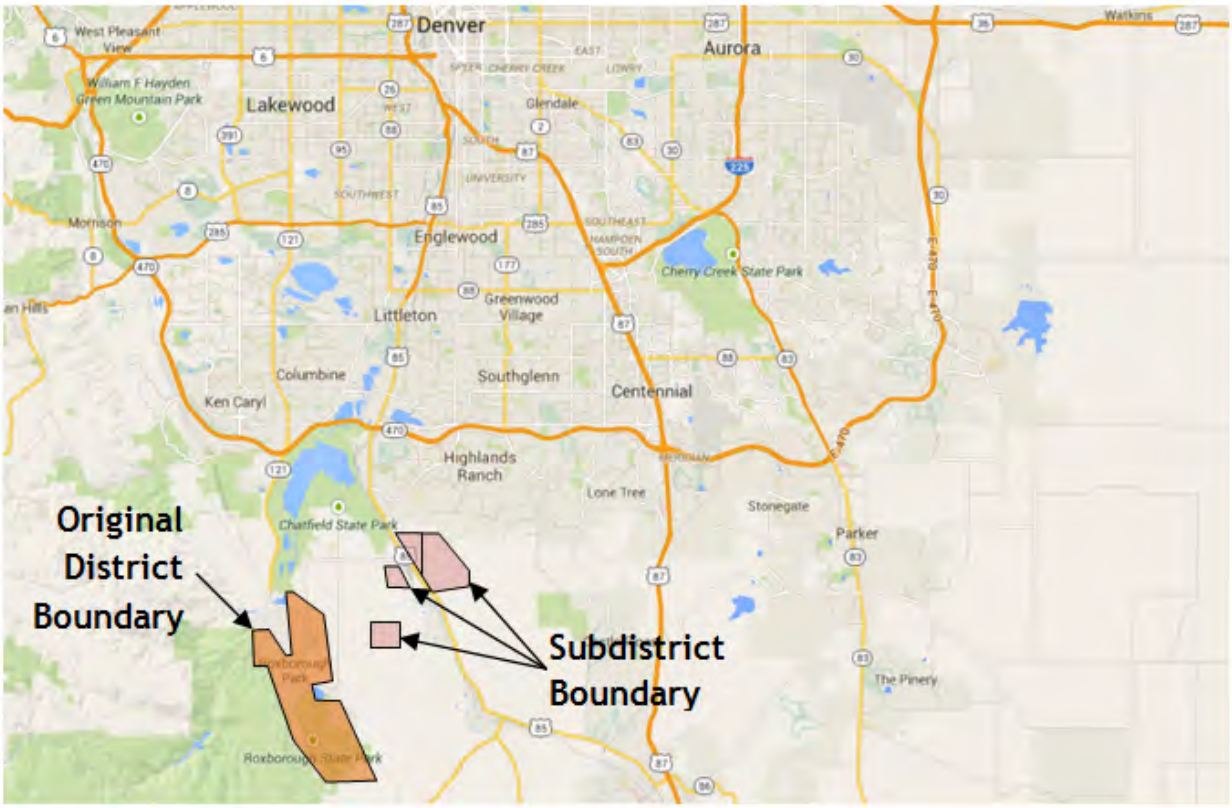
P R O J E C T D A T A		
Sponsor: Town of Gypsum	*County:* Eagle	*Water Source:* Gypsum Creek
Type of Loan: Reservoir Rehabilitation and Enlargement	*Board Approval Date:* May 2009	
Loan Terms: 4.5% for 30 years (Original) $2,689,731 *(Final)* $2,689,731	***WSRF Funding:*** *$225,000*	
Design Engineer: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

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

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

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

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		
Sponsor: Town of Windsor	*County:* Larimer & Weld	*Water Source:* Cache la Poudre
Type of Loan: Reservoir Construction	*Board Approval Date:* September 2013	
Terms of Loan: $4,545,000 at 2.75% for 20 years		
Design Engineer: Wenck Associates		
Contractor: Moltz Constructors		
Project Elements: 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.		

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

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		
Sponsor: Julesburg Irrigation District	*County:* Sedgwick	*Water Source:* South Platte
Type of Project: Ditch Rehabilitation	*Board Approval Date:* May 2016	
Loan Terms: 1.70% for 30 years *(Original)* $203,616 *(Final)* $203,616		
Design Engineer: Draht Consulting, LLC		
Contractor: Concrete Specialties and Utilities Construction		

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

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		
Sponsor: Bellyache Ridge Metropolitan District	*County:* Eagle	*Water Source:* Groundwater
Type of Project: Well Replacement	*Board Approval Date:* July 2013	
Loan Terms: 3.00% for 30 years *(Original)* $169,175.00 *(Final)* $140,586.73		
Design Engineer: Zancanella and Associates, Inc.		
Contractor: Shelton Drilling		

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

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

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

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		
Sponsor: Uncompahgre Valley Water Users Association	*County:* Delta & Montrose	*Water Source:* Gunnison River
Type of Loan: Hydroelectric Project	*Board Approval Date:* May 2015	
Terms of Loan: 2.0% for 20 years *(Initial)* $6,999,300.00 *(Final)* $6,426,813.80		
Design Engineer: Sorenson Engineering		
Contractor: Shavano Falls Hydro, LLC		

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

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.

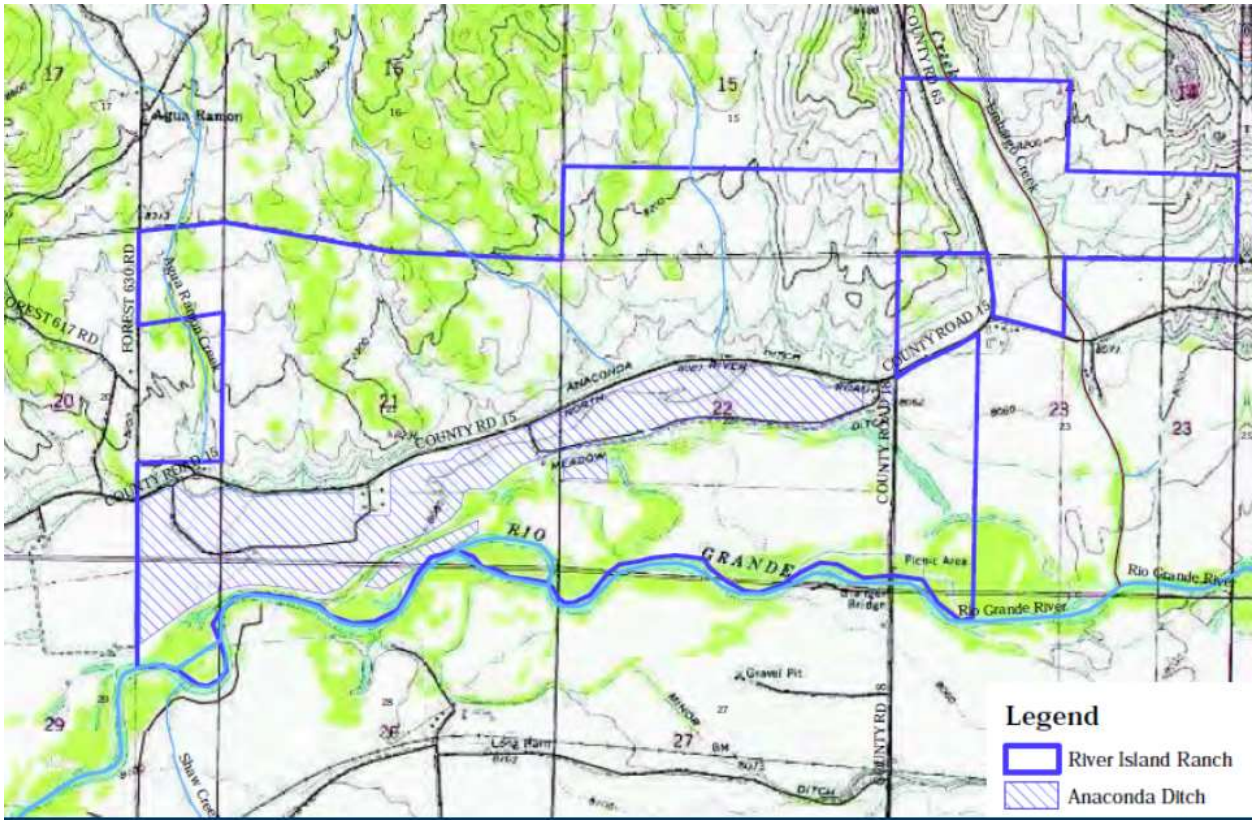
PROJECT DATA		
Sponsor: North Poudre Irrigation Company	*County:* Larimer	*Water Source:* Cache La Poudre
Type of Loan: Reservoir Rehabilitation	*Board Approval Date:* November 2013	
Terms of Loan: (Original) $2,263,410.00 at 2.35% for 30 years *(Final)* $2,189,757.89		
Design Engineer: Ronald H. Slosson,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

COLORADO
Colorado Water Conservation Board
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 Anacnoda 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		

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Sanford Diversion and Headgate Rehabilitation

Sanford Canal Company

Substantially Complete May 1, 2017

Project Description

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

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

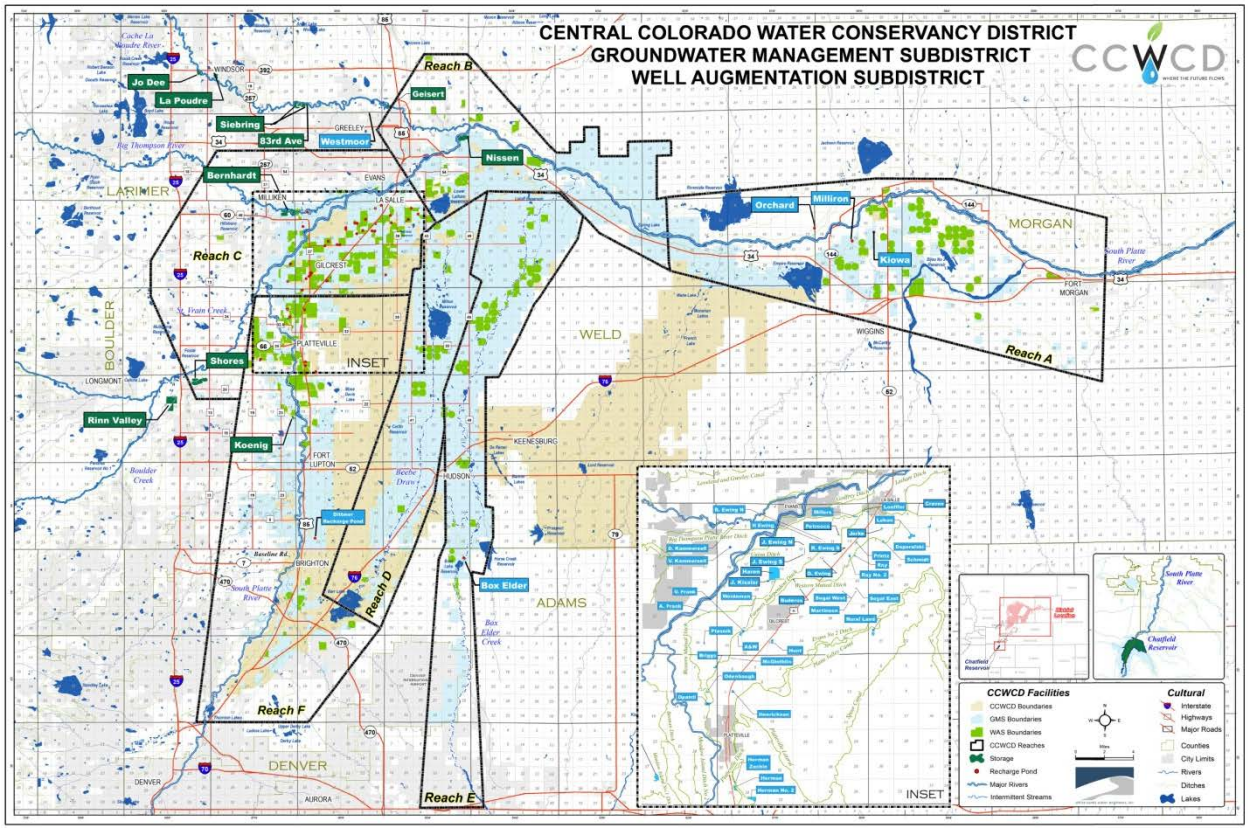
PROJECT DATA		
Sponsor: Sanford Canal Company	*County:* Conejos	*Water Source:* Conejos River
Type of Loan: Ditch Rehabilitation	*Board Approval Date:* May 2014	
Terms of Loan: $101,000 at 1.75% for 30 years		
Design Engineer: Natural Resources Conservation Service (NRCS)		
Contractor: Natural Progression Homes, LLC		
Project Elements: Diversion Dam (core), sluice gate, headgates, automation, 4 gauging stations		

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

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		
Sponsor: Well Augmentation System of the Central Colorado Water Conservancy District	*County:* Weld, Adams, Morgan	*Water Source:* South Platte Basin
Type of Loan: Water Rights Purchase & Augmentation Facility	*Board Approval Date:* September 2012	
Terms of Loan: (Original) $3,030,000 at 1.75% for 30 years *(Final)* $1,651,904.79		
Design Engineer: Leonard Rice Engineers, Inc.		
Contractor: NA		

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

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

	Contract Borrower	County	Loan Amount	Design Status	Const. Start/End	Const. Status	PM	Status Description/Update
	Projects in Design or Construction							
1	Bennett, Town of >Wells #3 and #6 Replacement Project CT2015-161 *$	Adams Arapahoe	$1,454,000	100%	May 2015 - Aug 2017	90%	ACM	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%	JMH	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	$723,160	N/A	N/A	N/A	JMH	This contract is to provide reimbursement for the Chatfield Reallocation Project, specific to the "first cost of storage." Payment will be due once storage in the new reservoir pool is allowed (after Phase 1 Mitigation contract is complete).
b	Centennial Water & Sanitation District >(C150405A) CT2016-2053 *$	Arapahoe Douglas Park Weld	$4,978,290	N/A	N/A	N/A	JMH	
c	Center of Colorado Water Conservancy District >(C150406A) CT2016-2047 *$	Arapahoe Douglas Park Weld	$94,637	N/A	N/A	N/A	JMH	
d	Central Colorado Water Conservancy District >(C150407A) CT2016-2057 *$	Arapahoe Douglas Park Weld	$3,187,560	N/A	N/A	N/A	JMH	
4 - CHATFIELD Reallocation Project - Phase 1 Mitigation								$37,786,120
a	Castle Pines North Metropolitan District >(C150404B) CT2018-1616 *$	Arapahoe Douglas Park Weld	$4,143,020	75%	Fall 2017 - 2022	0%	JMH	This contract is to provide reimbursement for the Chatfield Reallocation Project, for engineering, recreation facilities construction, on-site mitigation, off-site mitigation, and mitigation monitoring. Phase 1 covers the work required before storage is allowed. Preliminary Design of environmental and recreation activities, and Army Corps review of preliminary design has been completed. Final Design is nearing completion. There are 12 identified individual projects for recreation modification and environmental mitigation with various schedules. The first projects are set to begin construction in fall 2017.
b	Centennial Water & Sanitation District >(C150405B) CT2016-2055 *$	Arapahoe Douglas Park Weld	$28,527,450	75%	Fall 2017 - 2022	0%	JMH	
c	Center of Colorado Water Conservancy District >(C150406B) CT2016-2048 *$	Arapahoe Douglas Park Weld	$511,363	75%	Fall 2017 - 2022	0%	JMH	
d	Central Colorado Water Conservancy District >(C150407B) CT2016-2058 *$	Arapahoe Douglas Park Weld	$18,263,830	75%	Fall 2017 - 2022	0%	JMH	
5 - CHATFIELD Reallocation Project - Phase 2 Mitigation								$7,000,310

	Contract Borrower	County	Loan Amount	Design Status	Const. Start/End	Const. Status	PM	Status Description/Update
a	Castle Pines North Metropolitan District >(C150404C) CT2018-1619 *$	Arapahoe Douglas Park Weld	$1,587,720	0%	2022 - 2028	0%	JMH	This contract is to provide reimbursement for the Chatfield Reallocation Project, for engineering, recreation facilities construction, on-site mitigation, off-site mitigation, and mitigation monitoring. Phase 2 covers the work remaining after storage is allowed.
b	Centennial Water & Sanitation District >(C150405C) CT2016-2056 *$	Arapahoe Douglas Park Weld	$10,934,260	0%	2022 - 2028	0%	JMH	
c	Central Colorado Water Conservancy District >(C150407C) CT2016-2060 *$	Arapahoe Douglas Weld	$7,000,310	0%	2022 - 2028	0%	JMH	
6	Chilcott Ditch Company >Jimmy Camp Creek Siphon Reconstruction CT2017-3188	El Paso	$580,750	100%	Feb 2017 - May 2017	95%	DRJ KGR	Project essentially completed 4/24/17; working on final punchlist items.
7	Corsentino Dairy Farms, Inc. > Holita Dam Rehibilitation CT2018-980	Walsenburg	$85,446	95%	Sept 2017 - Dec 2017	0%%	ACM	Loan contract was executed at the end of August. Construction is expected to begin in September 2017.
8	Dixon Canon Ditch & Reservoir Company >Dixon Reservioir Dam Improvements CT2017-914 $	Larimer	$278,100	100%	Fall 2017 - Spring 2018	0%	JMH	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	$90,000	30%	Fall 2017 - Spring 2018	0%	ACM	NRCS began design work in August 2017. The Company hopes construction can begin in late 2017.
10	Fowler, Town of > Augmentation Pipeline Project C150359 (CT2015-054) *$	Otero	$277,245	100%	Fall 2017 - Spring 2018	0%	DRJ ACM	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	$2,976,975	100%	Aug 2014 - July 2017	99%	ACM	Construction is complete and the Town is awaiting SEO acceptance of the project.
12	Grand Mesa Water Conservancy District > Peak Res. & Blanche Park Res. Rehabilitation C150354 (CT2015-061) *$	Delta	$227,250	100%	Mar 2013 - Sept 2018	50%	ACM	Construction on Peak Reservoir began in the 2013 season and was completed in Oct 2014. Blanche Park construction is delayed due to Forest Service permit issues.
13	Grand Valley Water Users Association >Government Highline Canal Lining CT2017-2258	Mesa	$151,500	100%	Oct 2017 - Dec 2017	0%	ACM	Construction is scheduled to begin in October 2017.

	Contract Borrower	County	Loan Amount	Design Status	Const. Start/End	Const. Status	PM	Status Description/Update
14	Grand Valley Water Users Association >Grand Valley Power Plant Rehabilitation CT2017-2875	Mesa	$1,717,000	0%	-	0%	JMH	Project is on hold as all Dept of Interior agreements must go through a review by the Secretary of Interior
15	Huerfano County Water Conservancy District > Regional Augmentation Project C150364 (CT2015-047) *$	Huerfano	$2,222,000	100%	Jan 2014 - Mar 2018	60%	ACM	Land and water rights purchase occurred in January 2014. Camp Ranch augmentation site construction is complete. Work at Sheep Mountain Ranch augmentation site began the first week of August 2017.
16	Lake Durango Water Authority > Source Water Supply Project C150317 (CT2015-013) *$90%	LaPlata	$2,525,000	100%	Oct 2016 - Oct 2017	55%	KGR	Project Construction begin in October. Most of the pipe has been delivered and stored on site. Road alignment from highway to the outlet tower has been roughed cut in. Blasting was required in some areas.
17	Lake McIntosh Reservoir Company >Lake McIntosh Outlet Works Repair CT2016-2794 $	Boulder	$1,727,100	100%	Jan 2017 - Dec 2017	50%	JMH	Phase 1 construction includes pipeline from ditch crossing to downstream manhole and was completed in April 2017. Phase 2 includes includes piping under roadway and Platte Rive Power Authority substation. Phase 2 to begin in October and 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 ACM	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%	Fall 2017 - Spring 2018	0%	JMH	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	$3,099,690	100%	June 2016 - June 2017	98%	DRJ KGR	Project completed pending final punchlist items.
21	Monte Vista, City of > Augmentation Water Rights Acquisition C150309 (CT2015-011) *$	Rio Grande	$1,693,770	50%	N/A	N/A	ACM	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 Co > Rehabilitation of the Livermore Irrigation Tunnel CT2017-1402	Larimer	$1,451,673	100%	Nov 2016 - Apr 2017	98%	DRJ JMH	Tunnel completed, water flowing. All funds disbursed; NPIC board to consider loan increase request or to cash fund remaining balance and substantially complete the loan.
23	North Poudre Irrigation Company >Mountain Supply Reservior No. 10 Repairs CT2017-3641		$499,950	80%	Fall 2017 - Spring 2018	0%	DRJ JMH	Engineer replying to SEO design comments, targeting construction to start in fall 2017.
24	North Poudre Irrigation Company > Fossil Creek Res. Diversion Structure Repair C150368	Larimer	$876,680	100%	Nov 2015 - March 2016	100%	JMH	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.

	Contract Borrower	County	Loan Amount	Design Status	Const. Start/End	Const. Status	PM	Status Description/Update
25	Orchard Mesa Irrigation District >Grand Valley Power Plant Rehabilitation CT2017-2878	Mesa	$1,717,000	0%	-	0%	JMH	Project is on hold as all Dept of Interior agreements must go through a review by the Secretary of Interior
26	Orchard Ranch Ditch Company >Orchard Ranch Ditch Pipe Project CT2016-2795 $	Delta	$151,500	75%	Fall 2017 - Mid 2018	0%	DRJ ACM	Design and permitting work is underway. Construction is expected to begin in late 2017 or early 2018.
27	Overland Ditch and Reservoir Company > Overland Reservoir Rehabilitation C150206 (CT2015-034) *$90%	Delta	$1,141,300	50%	Permitting	0%	KGR	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.
28	Riverside Ditch and Allen Extension Company > Ditch System Rehabilitation C150301 (CT2015-050) *$90%	Chaffee	$186,345	100%	Jul 2010 - May 2017	99%	ACM	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.
29	Riverside Reservoir and Land Company > Riverside Reservoir Spillway Enlargement C150291 (CT2015-026) *$90%	Weld	$2,838,100	90%	Spring 2017+	0%	DRJ KGR	Plans under review by SEO. Construction timing indeterminate. Contract extension in progress.
30	Sanchez Ditch and Reservoir Company > Sanchez Reservoir Outlet Rehabilitation Project C150342 (CT2015-012) *$90%	Costilla	$1,502,476	100%	Oct 2014 - March 2018	99%	ACM	Construction began in Oct 2014. Outlet works work was completed in Jan 2015. Seepage and monitoring work is currently ongoing.
31	St. Vrain & Left Hand Water Conservation District >Lake 4 Outlet Pipeline Repair CT2017-3213	Boulder	$619,130	80%	Fall 2017 - Summer 2018	0%	JMH	Final design and permitting are underway. Project is being done in partnership wtih Emergency Rock'n WP Ranch Lake No. 4 Repair, with the Conservancy District as the Project Lead. Construction is planned for fall 2017.
32	St. Vrain and Left Hand Water Conservancy District > Emergency Rock'n WP Ranch Lake No. 4 Repair	Boulder	$4,545,000	80%	Fall 2017 - Summer 2018	0%	JMH	Significant coordination with Boulder County and FEMA has delayed final design and construciton 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.
33	Southeastern CO Water Conserv. District >Pueblo Dam Hydroelectric Project CT2018-833	Crowley	$16,725,600	100%	June 2018 - Spring 2018	0%	ACM	Pre construction meeting scheduled for September 2017. District anticipates power production by summer of 2018.
34	Supply Irrigating Ditch Company >Emergency Supply Irrigating Ditch Repair Project CT15-142	Boulder	$324,210	100%	March 2014 - May 2015	100%	JMH	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.
35	Thunderbird W&S Dist > Lambert Ranch Water Rights Purchase C150320 (CT2015-049) *$90%	Douglas	$318,150	N/A	N/A	N/A	JMH	Closing on water rights occurred September 2015. Reimbursement on engineering occured September 2017. District will substantially complete the loan Nov 1 2017.
36	Town of Firestone >Storage Development and Water Rights Purchase CT2017-2880	Weld	$10,000,000	50%	May 2018 - Mar 2019	0%	DRJ JMH	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.

	Contract Borrower	County	Loan Amount	Design Status	Const. Start/End	Const. Status	PM	Status Description/Update
37	Tunnel Water Company >Laramie-Poudre Tunnel Rehabilitation CT2016-2001 $	Larimer	$1,111,000	100%	Apr 2015 - 2018	70%	JMH	Phase 1 (Inlet) construction started September 2015 and is complete. Phase 2 (outlet) construction is delayed due to site inaccessibility for concrete trucks. Company working with Forest Service to reroute access road to lessen the steepness. Environmental consultant has been retained as Forest Service will require an environmental assessment for the new access road.
38	Upper Arkansas Water Conservancy District > Reservoir Rehabilitation C150192 (CT2015-052) *$	Chaffee/ Custer	$3,009,800	100%	Permitting	90%	KGR	The first phase of construction was awarded to ASI, Buena Vista, CO, and completed in May 2007. The District plans to close out the project in 2017.
39	Wiggins, Town of >Wiggins Recharge Facility at Glassey Farms CT2017-3609	Morgan	$2,408,850	30%	Fall 2017 - Spring 2018	0%	JMH	Town purcahsed Galssey Farms. Final design is still underway.
40 - WISE Project - Phase 1 Infrastructure								$16,802,501
a	Cottonwood W&S Dist - C150408B (CT2015-106) *$	Douglas/ Arapahoe	$2,636,100	100%	Spring 2015 - Jan 2018	80%	DRJ JMH	Infrastructure to treatment plant completed. 42-inch Pipeline construction on Ridgeway line continues. E470 bore complete.
b	Inverness W&S Dist - C150409B (CT2015-118) *$	Douglas/ Arapahoe	$1,181,700	100%	Spring 2015 - Jan 2018	40%	DRJ JMH	
c	Parker W&S Dist - C150410B (CT2015-108) *$	Douglas/ Arapahoe	$6,785,321	90%	Spring 2015 - Jan 2018	60%	DRJ JMH	
d	Pinery (Denver SE Sub W&S Dist) C150411B (CT2015-085) *$	Douglas/ Arapahoe	$6,199,380	90%	Spring 2015 - Jan 2018	60%	DRJ JMH	
41 - WISE Project - Phase 2 Infrastructure								$7,400,078
a	Cottonwood W&S Dist - C150408C (CT2015-105) *$	Douglas/ Arapahoe	$1,127,160	0%	Spring 2018 - Fall 2021	0%	DRJ	
b	Inverness W&S Dist - C150409C (CT2015-119) *$	Douglas/ Arapahoe	$1,427,130	0%	Spring 2018 - Fall 2021	0%	DRJ	
c	Parker W&S Dist - C150410C (CT2015-109) *$	Douglas/ Arapahoe	$3,418,658	0%	Spring 2018 - Fall 2021	0%	DRJ	

	Contract Borrower	County	Loan Amount	Design Status	Const. Start/End	Const. Status	PM	Status Description/Update
d	Denver SE Sub W&S Dist - C150411C (CT2015-086) *$	Douglas/ Arapahoe	$1,427,130	0%	Spring 2018 - Fall 2021	0%	DRJ	
42 - WISE Project - DIA Connection								
a	Cottonwood W&S Dist - C150408D (CT2015-104) *$	Douglas/ Arapahoe	$363,600	35%	N/A	NA	DRJ	Annual diisbursment to be made on this loan through 2021.Design Status indicates percent of funds disbursed to date.
b	Inverness W&S Dist - C150409D (CT2015-120) *$	Douglas/ Arapahoe	$454,500	35%	N/A	NA	DRJ	
c	Parker W&S Dist - C150410D (CT2015-110) *$	Douglas/ Arapahoe	$1,099,890	46%	N/A	NA	DRJ	
d	Denver SE Sub. W&S Dist (Pinery) - C150411D (CT2015-087) *$	Douglas/ Arapahoe	$454,500	46%	N/A	NA	DRJ	
	Projects Under Contract		$177,862,009					
	*= 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			ACM	
b	San Juan Water Conservancy District >Dry Gultch Reservior Land Acquistion CT2018-839	Archuleta	$2,000,000	In Contracting			JMH	Contract is pending November 2017 election
c	Southeastern CO Water Conserv. District > Arkansas Valley Conduit C150238	Crowley	$60,600,000	In Contracting			KGR	Pending Federal Appropriation. Southeastern's Pueblo Dam Hydro project was taken out of these loan funds.
e	Church Ditch Water Authority > Ditch System Improvements CT2018-1335	Jefferson	$3,615,000	In Contracting			JMH	

	Contract Borrower	County	Loan Amount	Design Status	Const. Start/End	Const. Status	PM	Status Description/Update
f	Consolidated Ditch > Consolidated Diversion and Headgate Replacement CT2018-1017	Rio Grande	$1,010,000	In Contracting			JMH	
g	City of Walsenburg > City Lake Dam Rehabilitation & Enlargement CT2018-837		$6,889,210		In Contracting		ACM	
	Not Under Contract SubTotal =		$75,199,960					
	Grand Total =		$253,061,969					

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Wells #3 and #6 Replacement Project

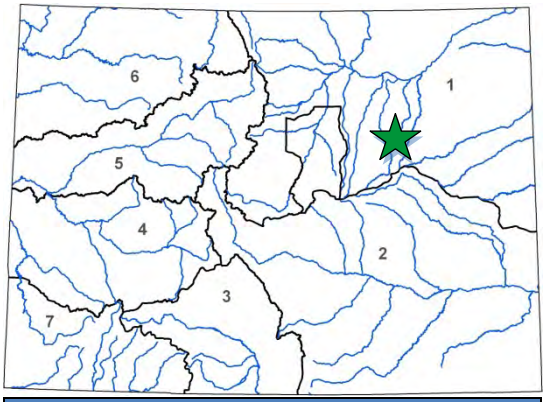
Town of Bennett

November 2014 Board Meeting

LOAN DETAILS	
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

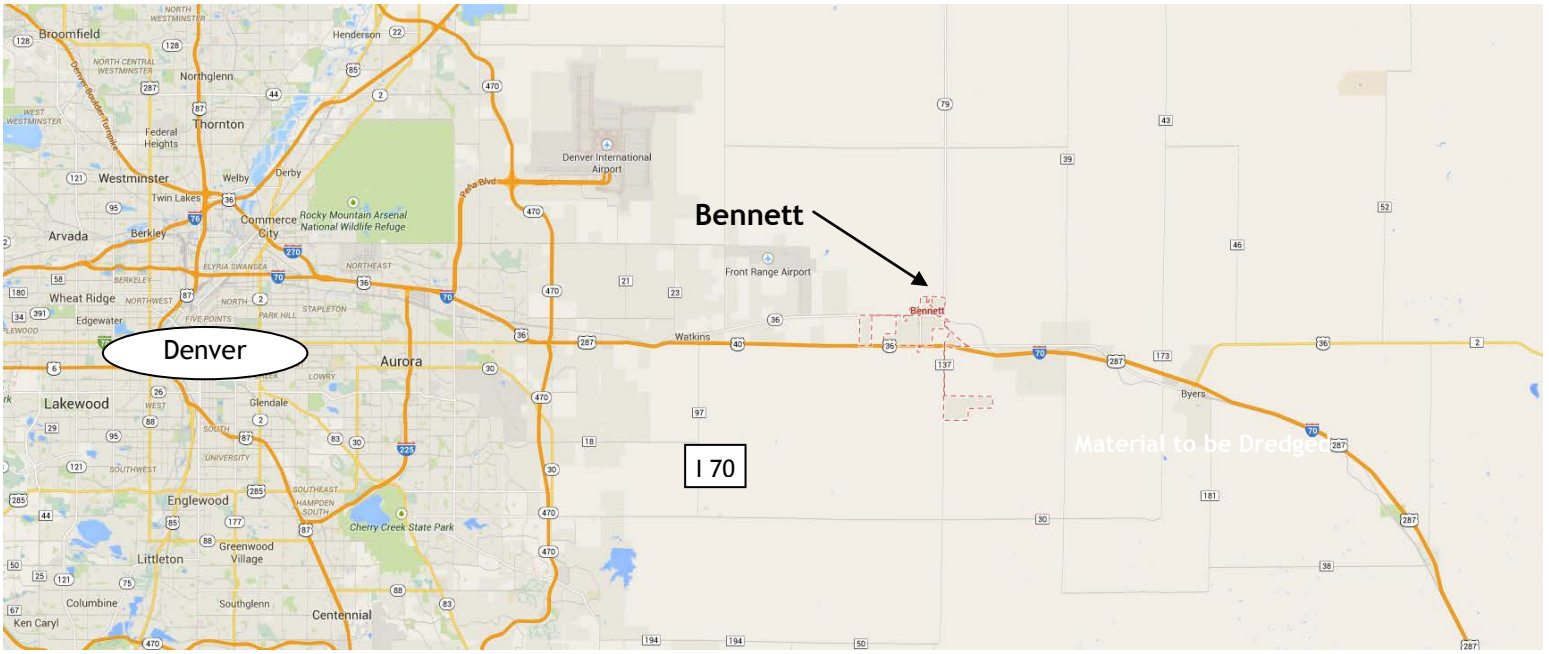
BORROWER TYPE		
Agriculture	*Municipal*	*Commercial*
0%	0% Low - 100% Mid - 0% High	0%

PROJECT DETAILS	
Project Type:	Well Drilling
Average Annual Delivery:	261 AF



LOCATION			
County:	Adams & Arapahoe		
Water Source:	Non-Tributary Groundwater		
Drainage Basin:	South Platte		
Division:	1	*District:*	1

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.



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

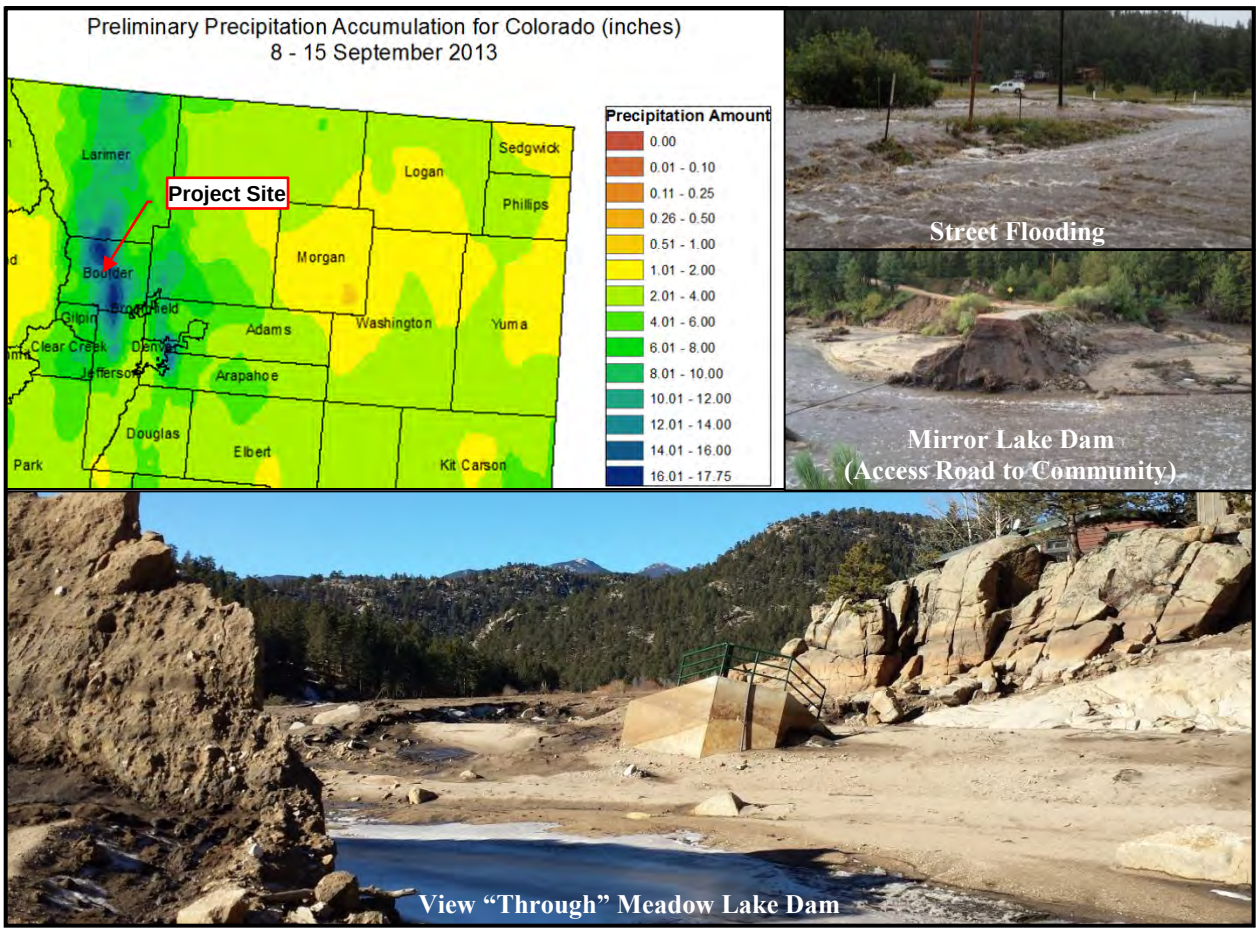
Type of Borrower: Middle-Income Municipal

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

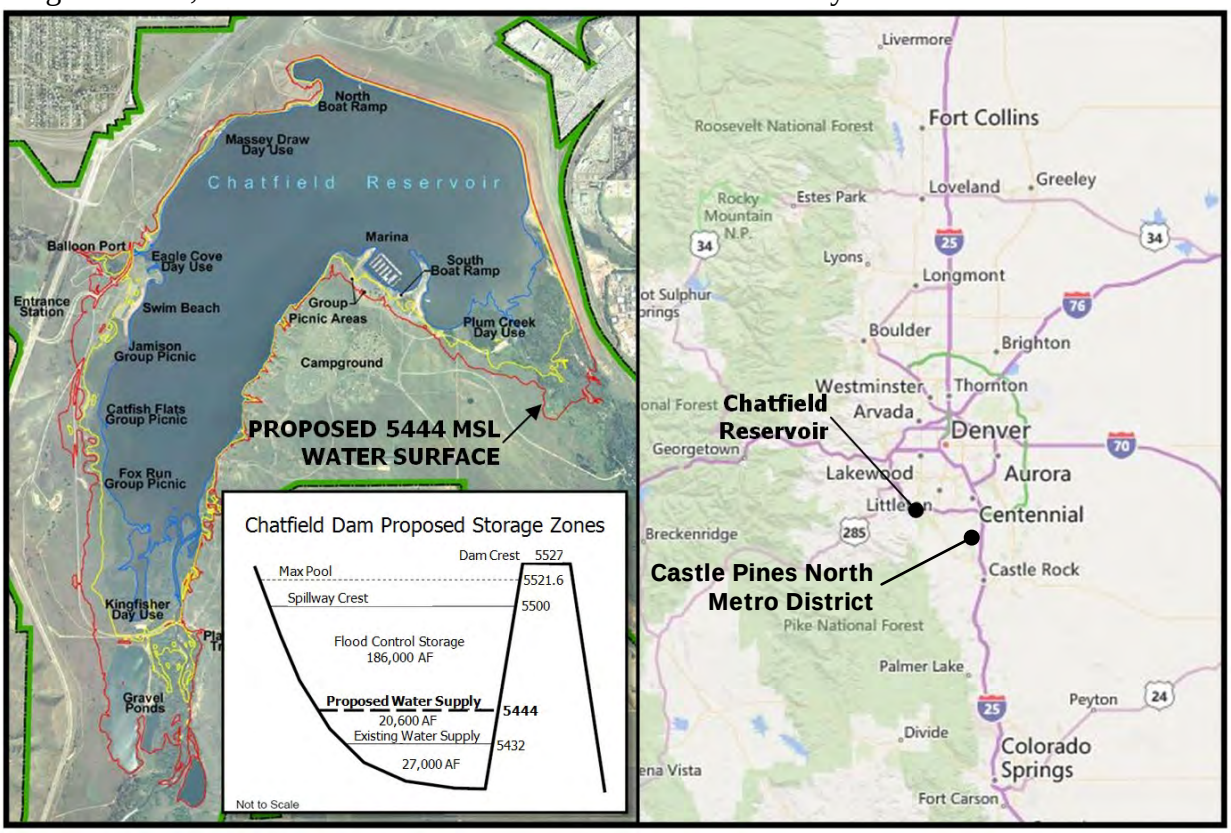
Total Project Cost: $7,100,000
Funding Source: Severance Tax Perpetual Base Fund

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

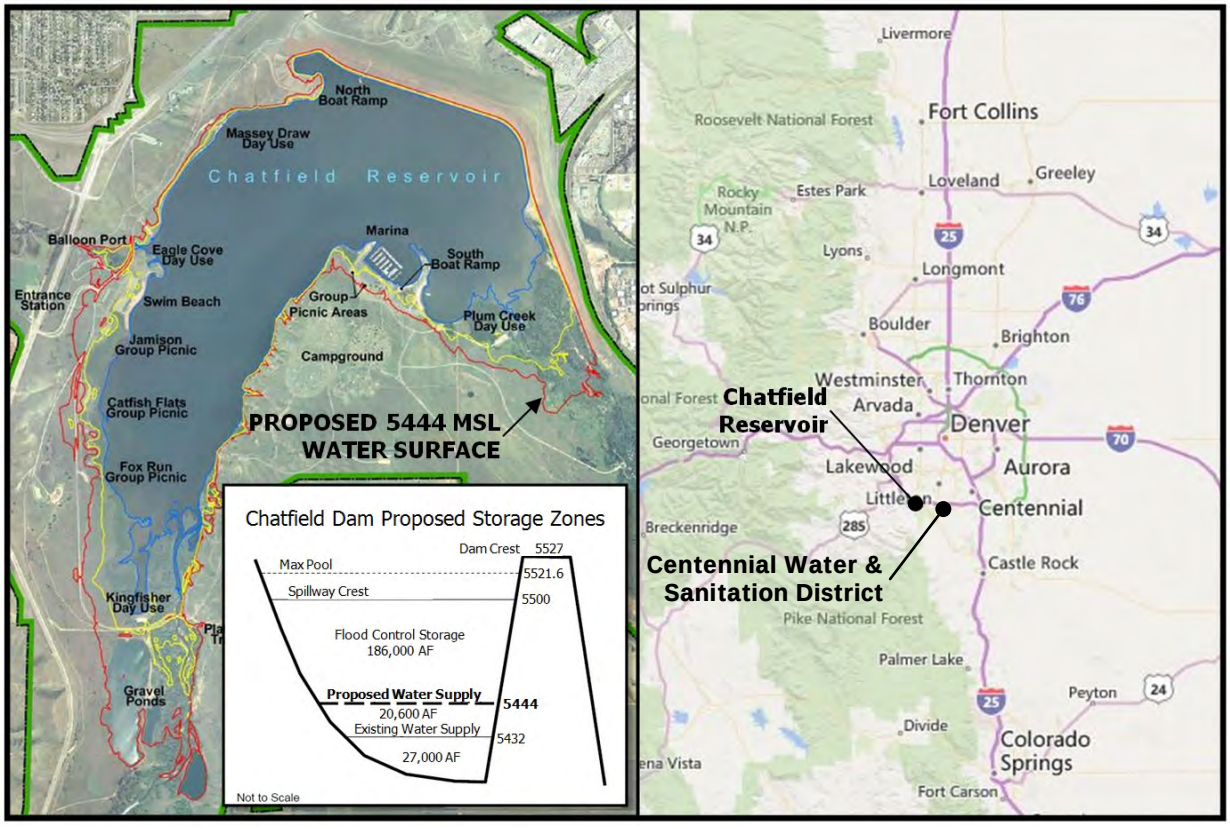
Total Project Cost: $48,888,000 **Funding Source:** Severance Tax Perpetual Base Fund

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

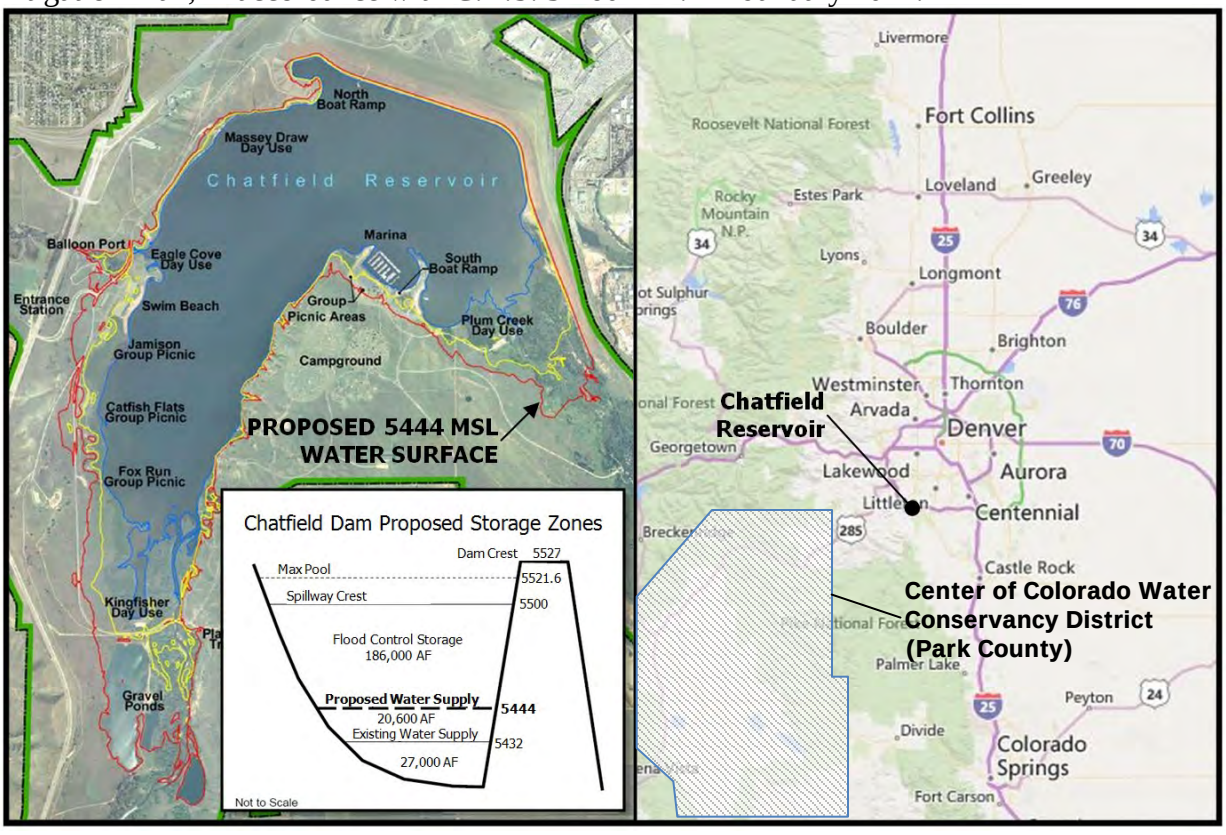
Average Annual Diversion: 700 AF

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

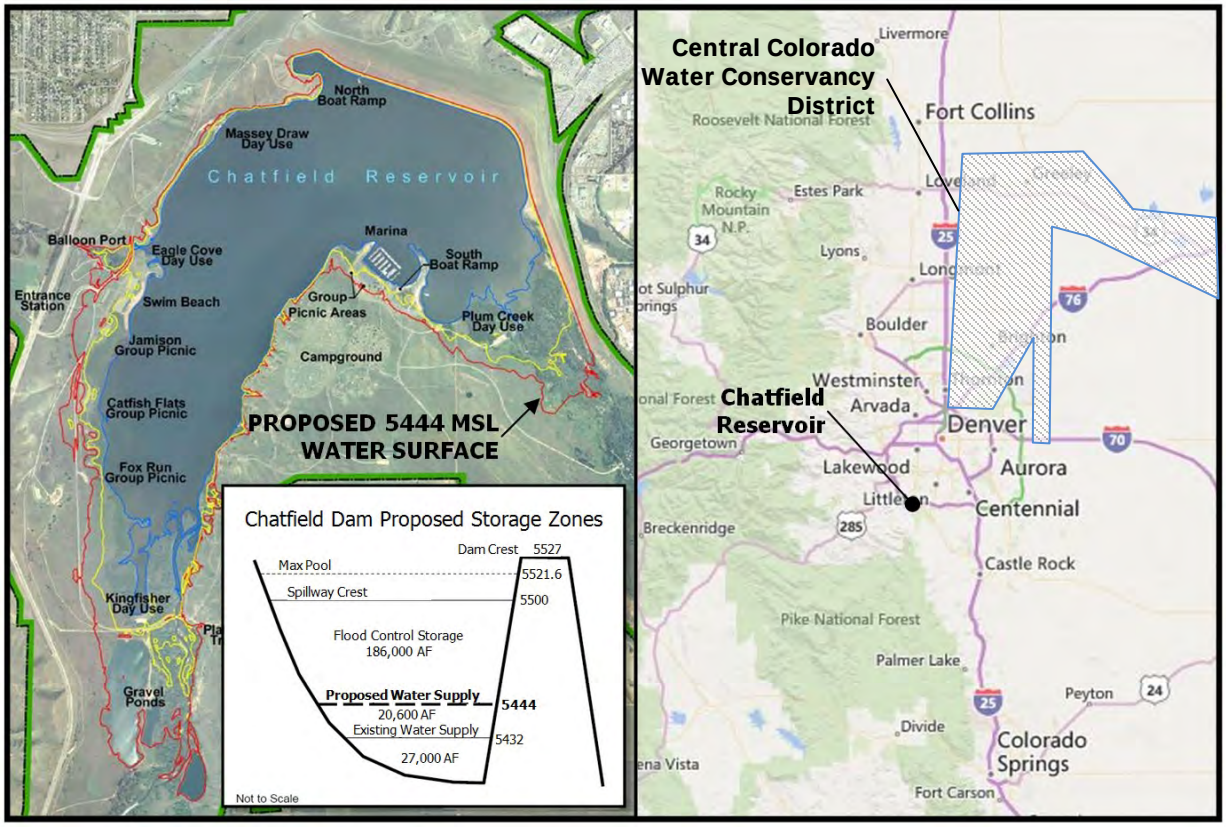
Added Water Supply Storage: 4,274 AF

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.



COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Jimmy Camp Creek Siphon Reconstruction

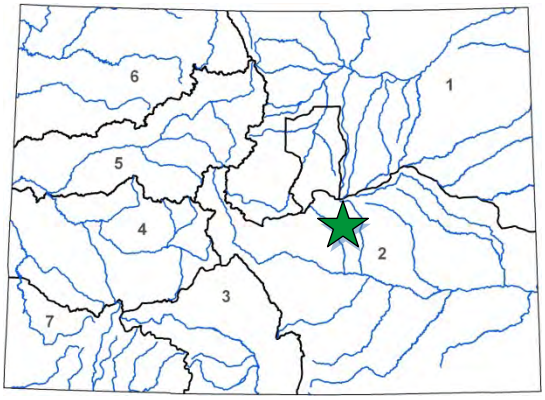
Chilcott Ditch Company

January 2017 Board Meeting

LOAN DETAILS	
Project Cost:	$575,000
CWCB Loan (with Service Fee):	$ 580,750
Loan Term and Interest Rate:	20 Years @ 2.20%
Funding Source:	Construction Fund

BORROWER TYPE		
Agriculture	*Municipal*	*Commercial*
0%	0% Low - 100% Mid - 0% High	0%

PROJECT DETAILS	
Project Type:	Ditch Rehabilitation
Average Annual Delivery:	4,961 AF



LOCATION			
County:			El Paso
Water Source:			Fountain Creek
Drainage Basin:			Pueblo
Division:	2	*District:*	10

The Chilcott Ditch Company, located in El Paso County, operates the Chilcott Ditch for the benefit of its shareholders by providing direct flow Zirrigation 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. A 42-inch diameter 1,300 foot long siphon conveys 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 has been in service for nearly 76 years. The structure has required significant repairs over the last few years. In reviewing the siphon's age, maintenance history and number of failures, the Company has concluded that the siphon has reached its useful life and the Company intends to rebuild the siphon prior to the 2017 irrigation season.

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Holita Dam Rehabilitation

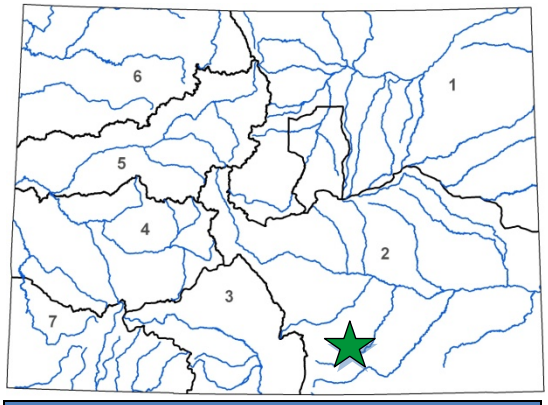
Corsentino Dairy Farms

July 2017 Board Meeting

LOAN DETAILS	
Project Cost:	$94,000
CWCB Loan (with Service Fee):	$85,446
Loan Term and Interest Rate:	10 Years @ 0.5%
Funding Source:	Severance Tax

BORROWER TYPE		
Agriculture	*Municipal*	*Commercial*
100%	0% Low - 0% Mid - 0% High	0%

PROJECT DETAILS	
Project Type:	Reservoir Rehabilitation
Average Annual Delivery:	540 AF
Storage Preserved:	274 AF



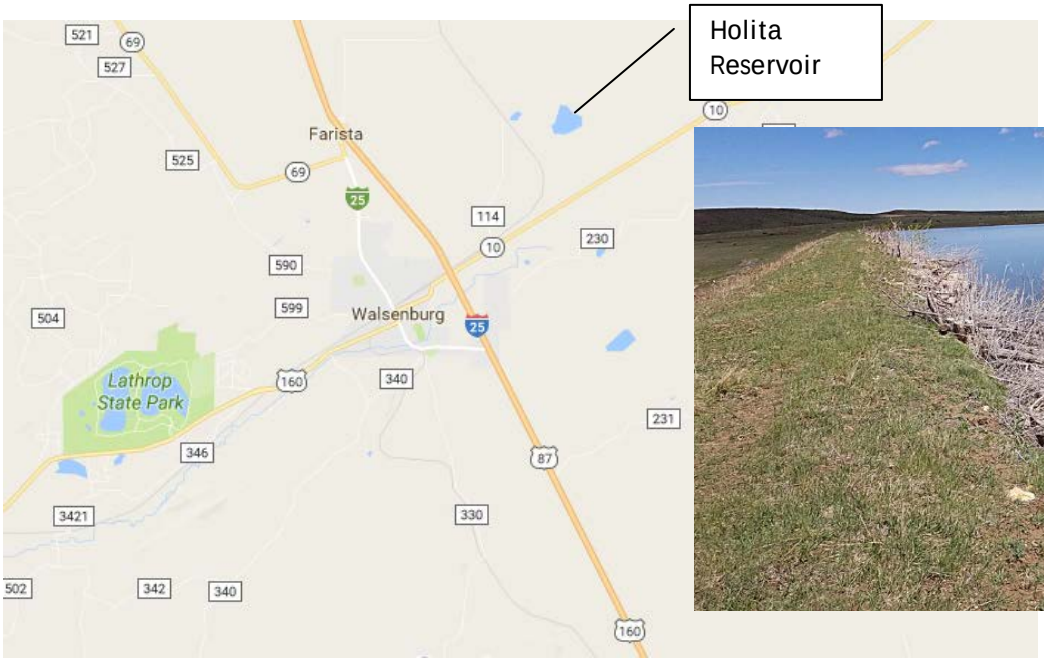
LOCATION			
County:			Huerfano
Water Source:			Cucharas River
Drainage Basin:			Arkansas
Division:	2	*District:*	16

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.



COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Dixon Reservoir Dam Improvement

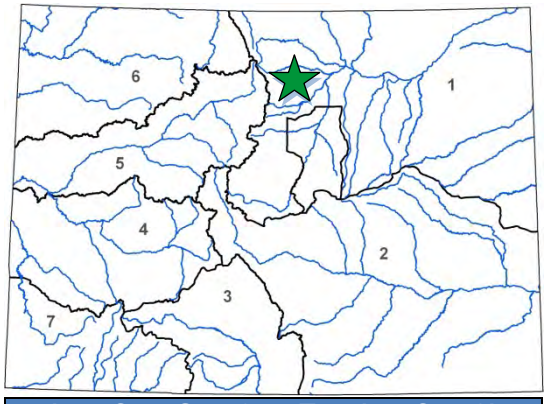
Dixon Canon Ditch and Reservoir Company

May 2016 Board Meeting

LOAN DETAILS	
Project Cost:	$309,000
CWCB Loan (with Service Fee):	$278,100
Loan Term and Interest Rate:	30 years @ 2.55%
Funding Source:	Construction Fund

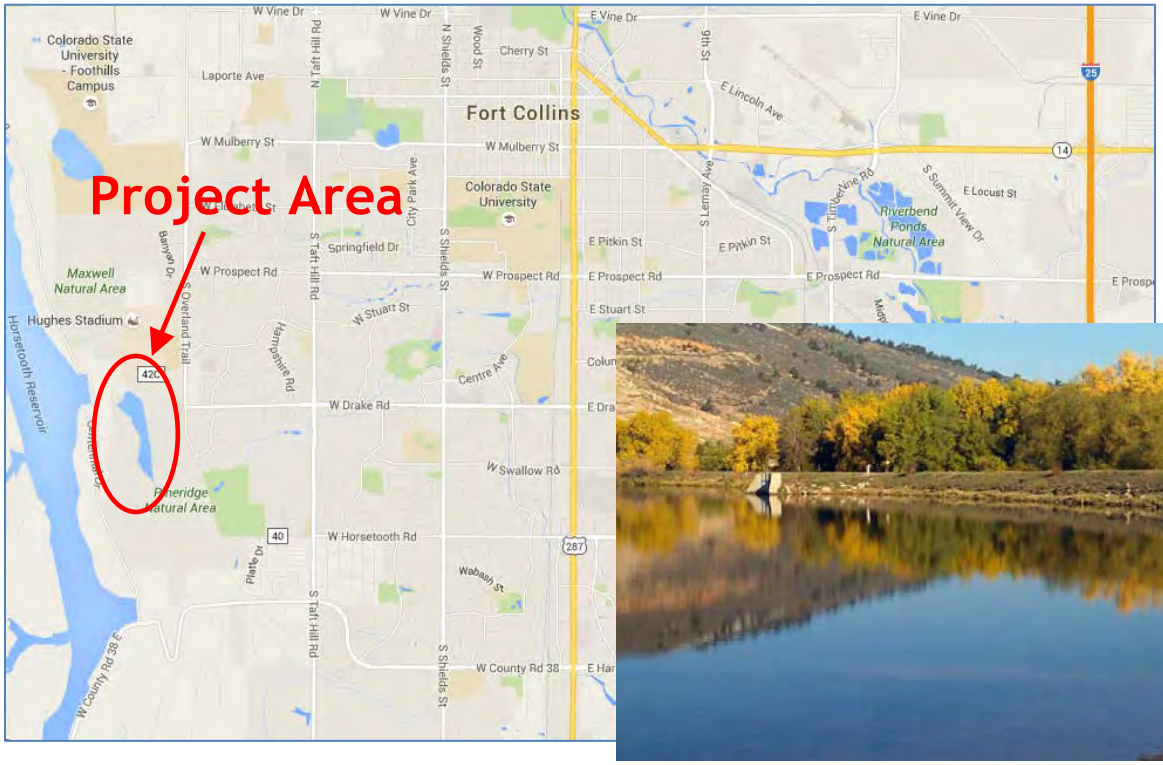
BORROWER TYPE		
Agriculture	*Municipal*	*Commercial*
17%	0% Low - 83% Mid - 0% High	0%

PROJECT DETAILS	
Project Type:	Dam Rehabilitation
Average Annual Delivery:	312 AF
Total Storage Effect:	412 AF



LOCATION			
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.



COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Piping the Duke Ditch

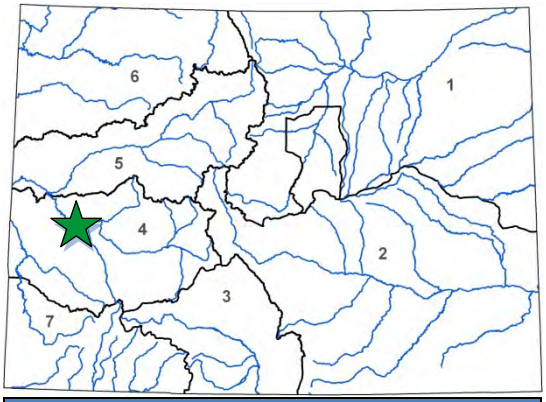
Duke Ditch Company

March 2016 Board Meeting

LOAN DETAILS	
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

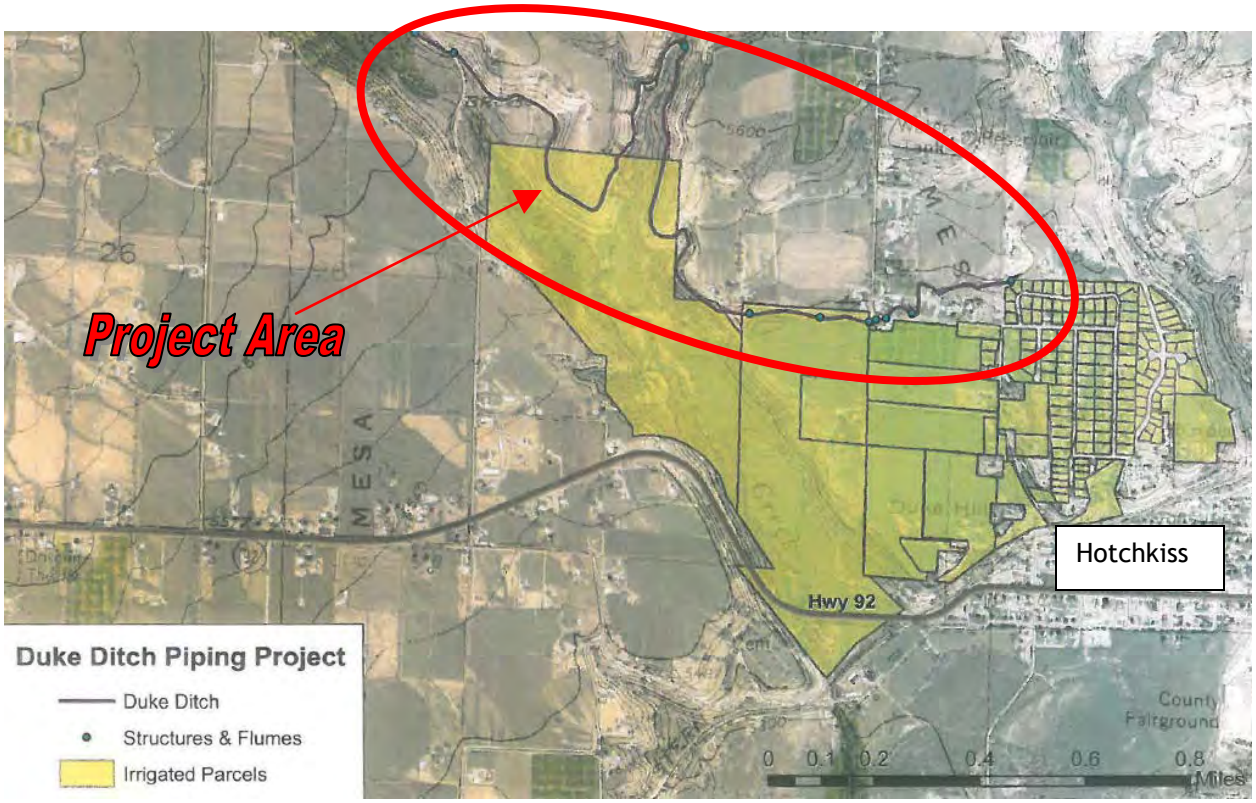
BORROWER TYPE		
Agriculture	*Municipal*	*Commercial*
68%	32% Low - 0% Mid - 0% High	0%

PROJECT DETAILS	
Project Type:	Ditch Rehabilitation
Average Annual Delivery:	2,424 AF



LOCATION			
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

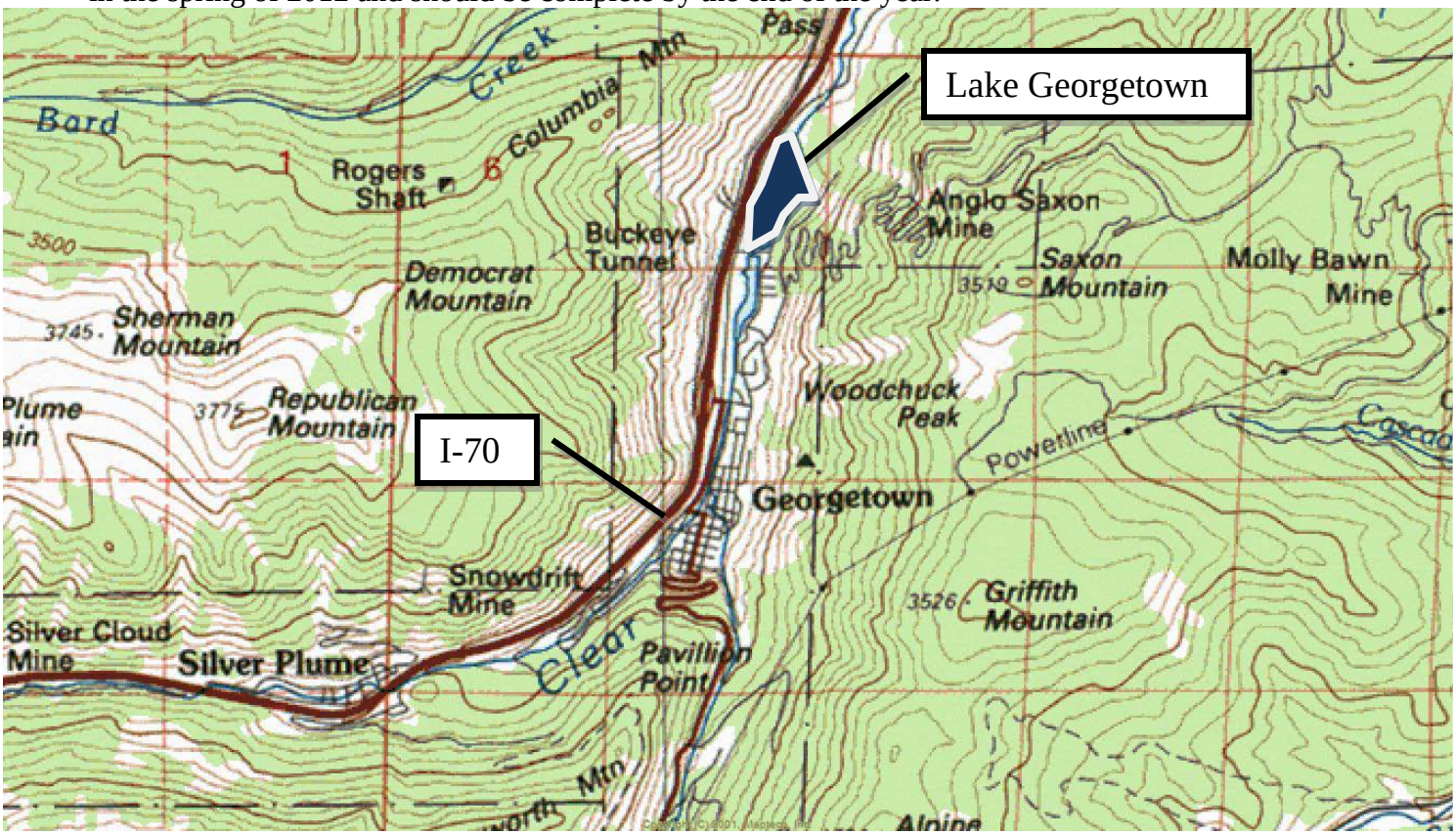
Average Diversion: 208 AF

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.



CWCB 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

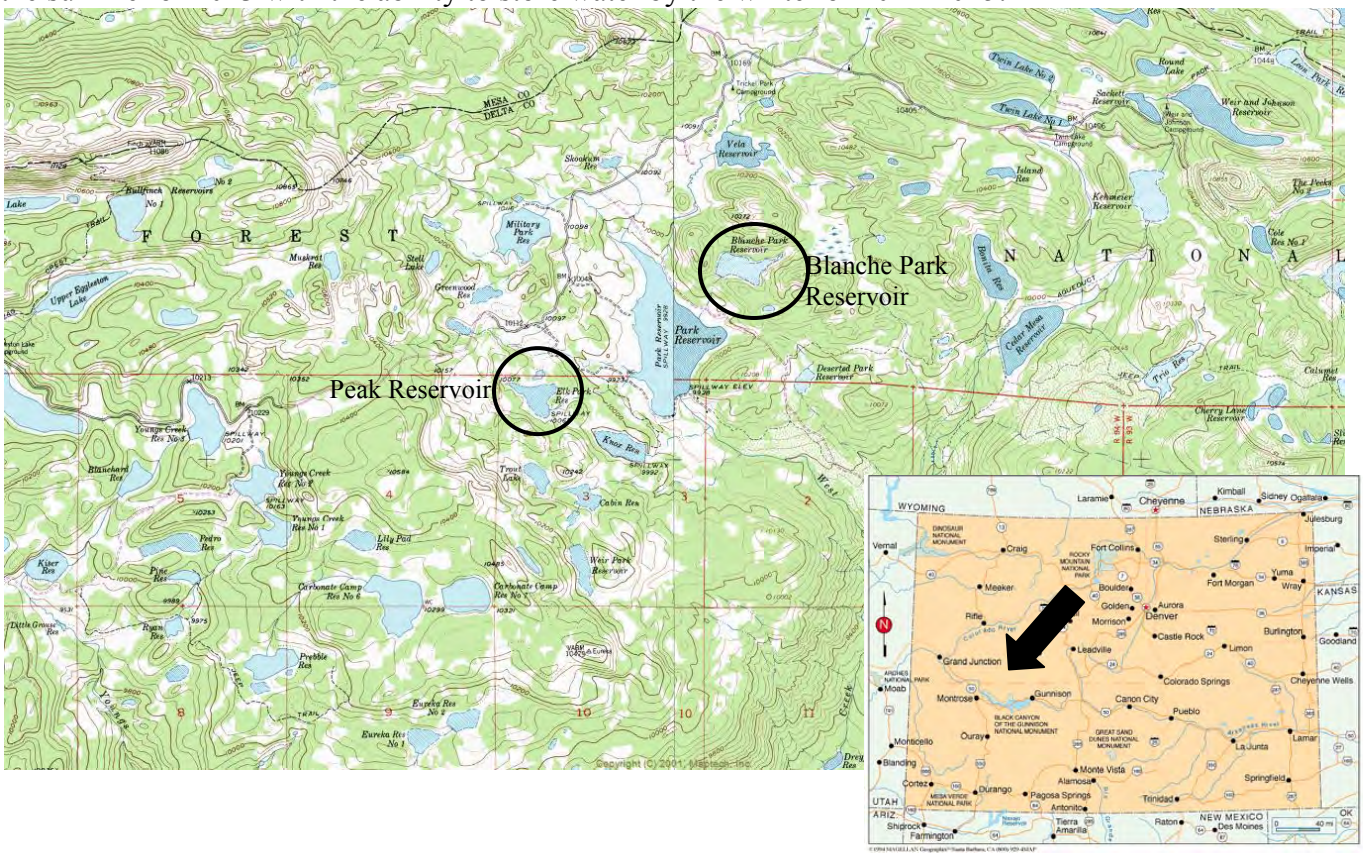
Type of Borrower: Municipal/Agricultural

Average Annual Diversion: 400 AF
Storage Added: 155 AF

CWCB 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.



COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Government Highline Canal Lining

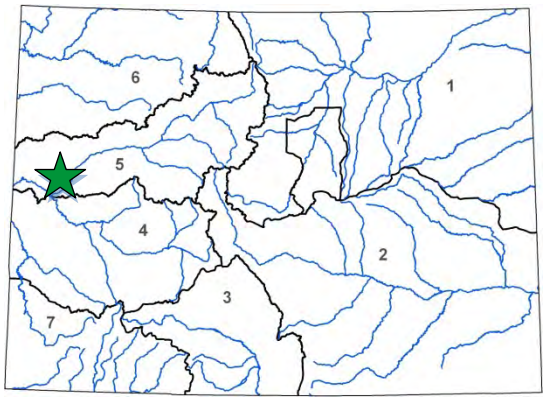
Grand Valley Water Users Association

September 2016 Board Meeting

LOAN DETAILS	
Project Cost:	$800,000
CWCB Loan (with Service Fee):	$151,500
Loan Term and Interest Rate:	30 Years @ 1.55%
Funding Source:	Construction Fund

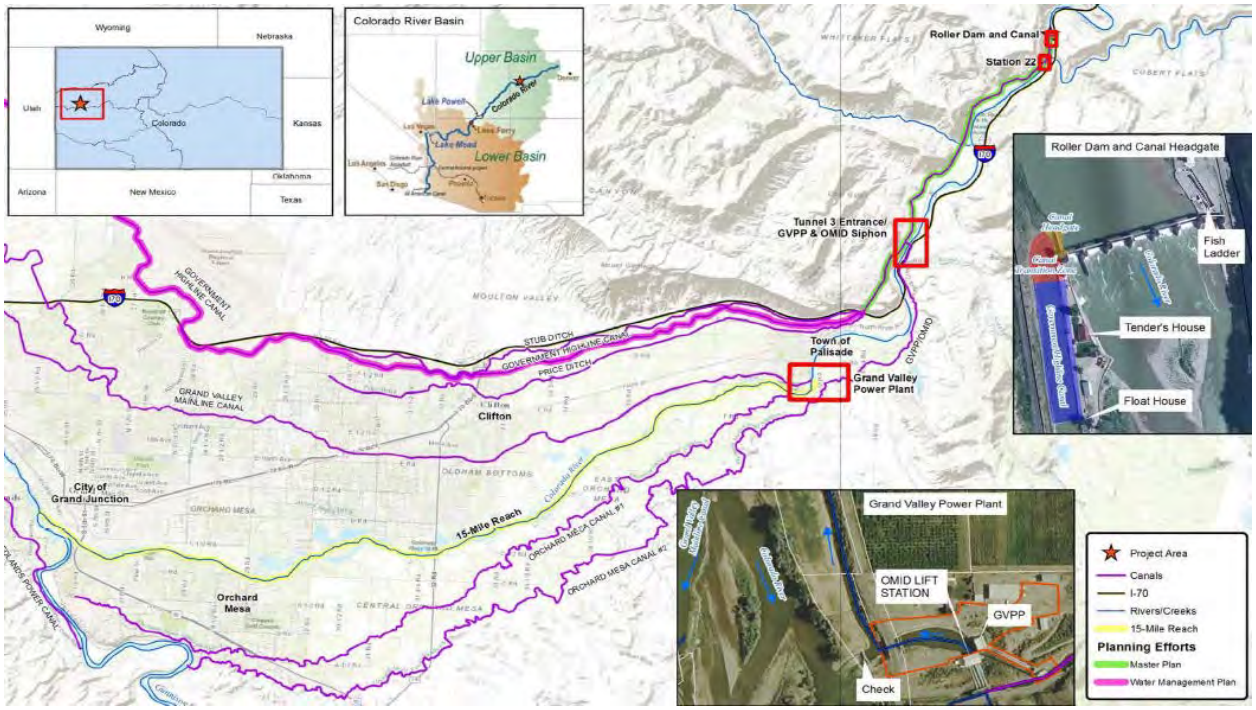
BORROWER TYPE		
Agriculture	*Municipal*	*Commercial*
90%	0% Low - 10% Mid - 0% High	0%

PROJECT DETAILS	
Project Type:	Ditch Rehabilitation
Average Annual Delivery:	260,000 AF



LOCATION			
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.



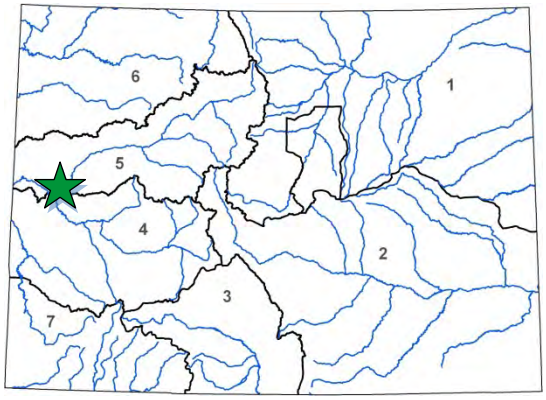
COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Grand Valley Power Plant Rehabilitation

Grand Valley Water Users Association

November 2016 Board Meeting

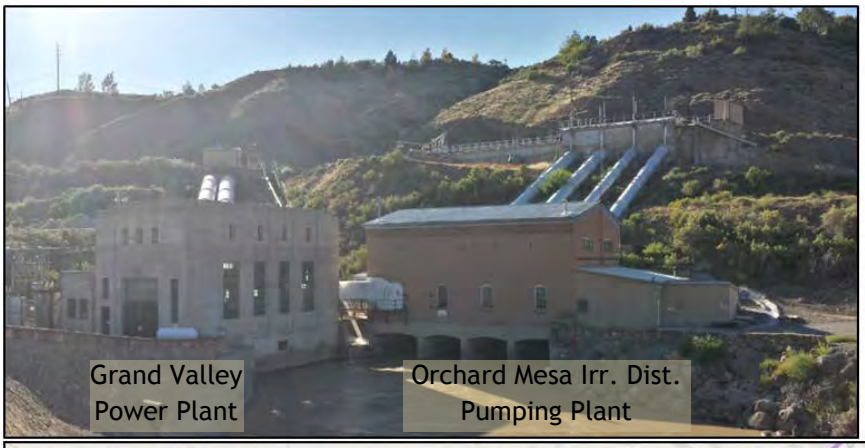
LOAN DETAILS	
Project Cost:	$5,200,000
CWCB Loan (with Service Fee):	$1,717,000
Loan Term and Interest Rate:	30 Years @ 2.0%
Funding Source:	Construction Fund
BORROWER TYPE	
Hydropower	
PROJECT DETAILS	
Project Type:	Hydroelectric
Average Annual Power Production:	17M kWh



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

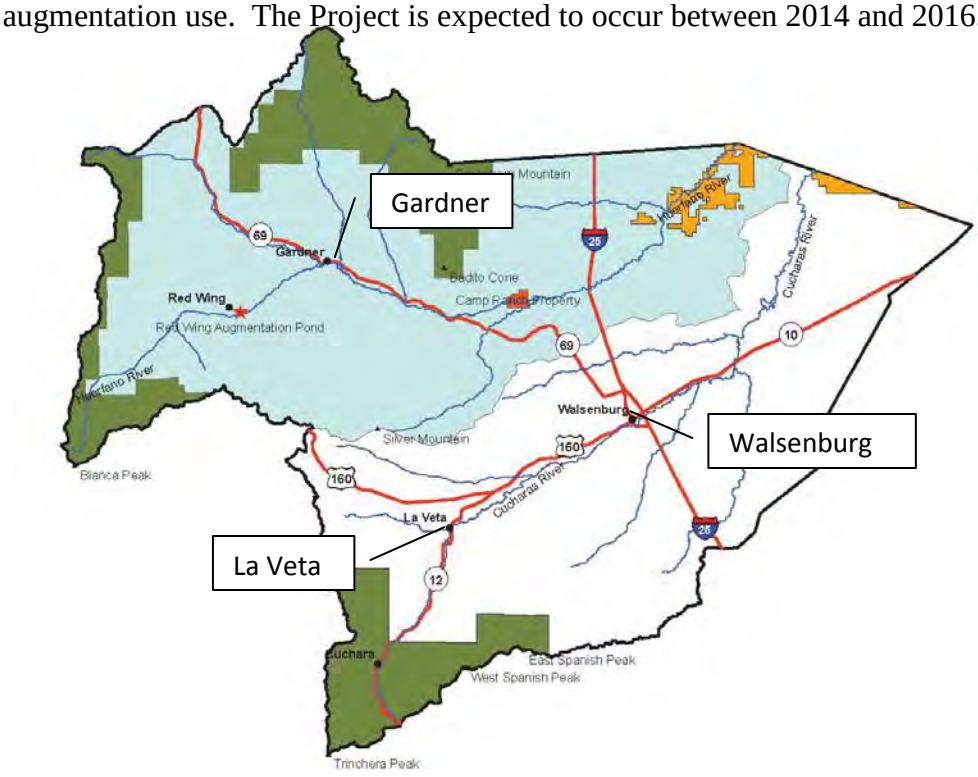
The goal of the Project is to bring the GVPP up to a sustainable operating condition and meet current electric and safety standards. The GVPP was built in the early 1930s and has seen no major upgrades or modernization to date. Under current operations, the "water-to-wire" efficiency is approximately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



Water Project Loan Program
Project Data Sheet

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

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



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).

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Lake McIntosh Outlet Works Repair

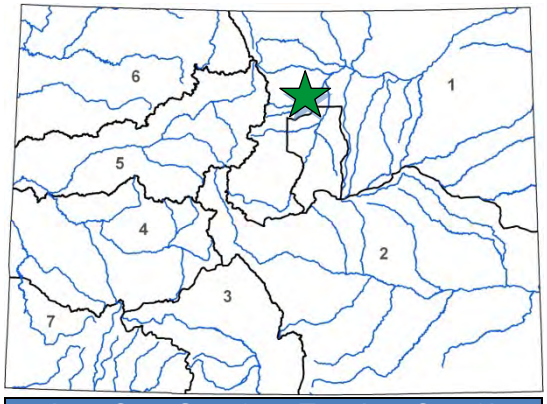
Lake McIntosh Reservoir Company

January 2016 Board Meeting

LOAN DETAILS	
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

BORROWER TYPE		
Agriculture	*Municipal*	*Commercial*
28%	0 % Low - 61% Mid - 9% High	2 %

PROJECT DETAILS	
Project Type:	Reservoir Rehabilitation
Average Annual Delivery:	1,533 AF
Storage Preserved:	2,476 AF

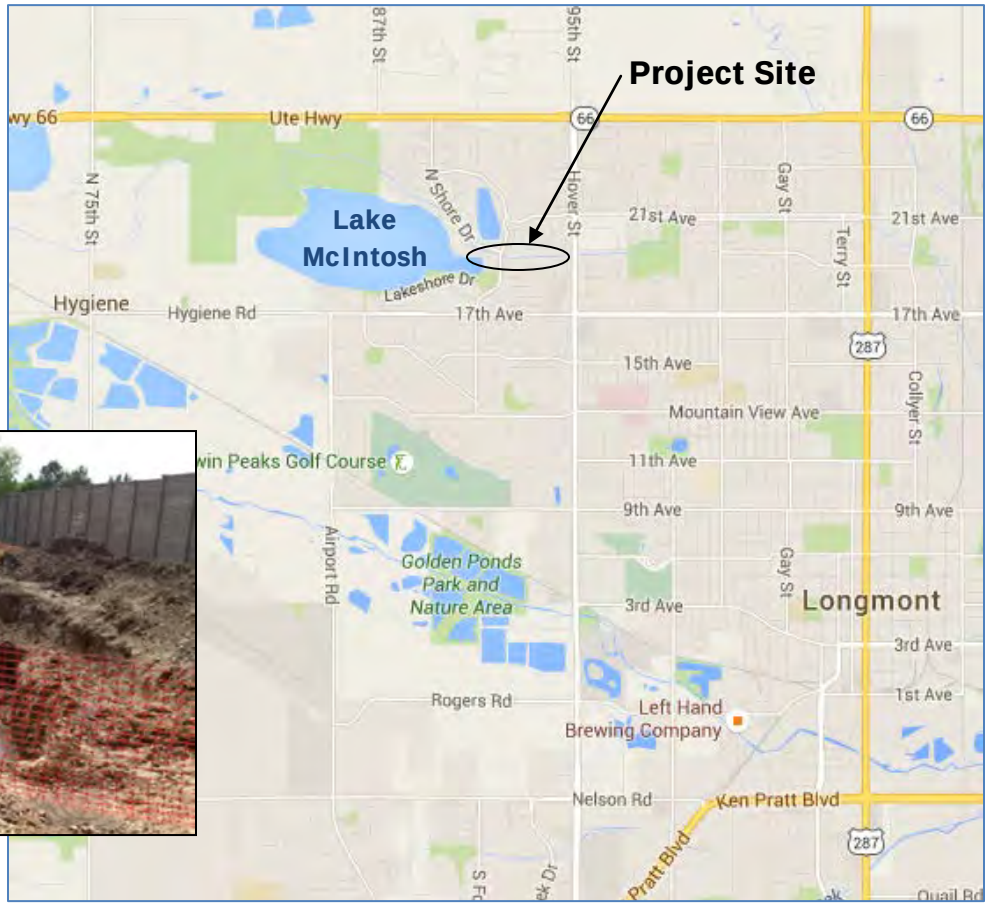


LOCATION			
County:			Boulder
Water Source:			St. Vrain Creek
Drainage Basin:			South Platte River
Division:	1	*District:*	5

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



COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Repurposing of Wells 12 and 13

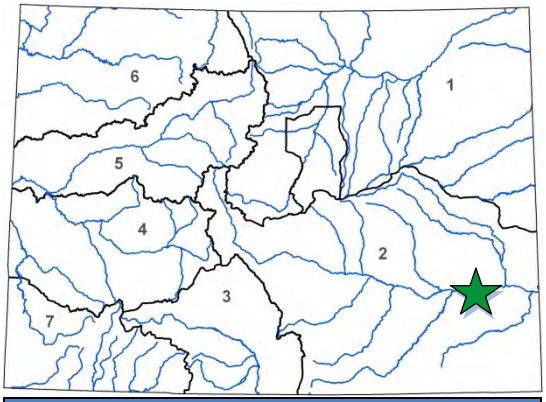
City of Lamar

September 2015 Board Meeting

LOAN DETAILS	
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

BORROWER TYPE		
Agriculture	*Municipal*	*Commercial*
0%	100% Low - 0% Mid - 0% High	0%

PROJECT DETAILS	
Project Type:	Municipal & Industrial
Average Annual Delivery:	2,005 AF



LOCATION			
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.

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Headgate Structure Replacement

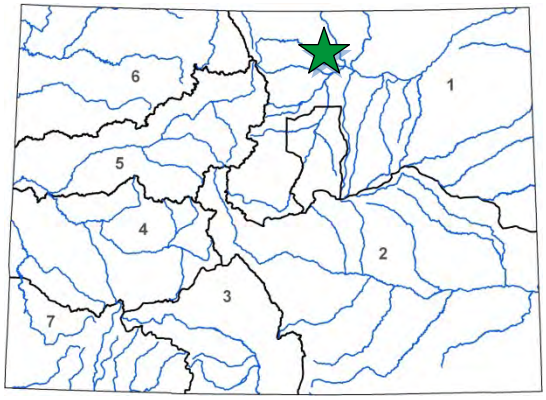
Larimer and Weld Irrigation Company

September 2016 Board Meeting

LOAN DETAILS	
Project Cost:	$750,000
CWCB Loan (with Service Fee):	$681,750
Loan Term and Interest Rate:	30 Years @ 1.5%
Funding Source:	Construction Fund

BORROWER TYPE		
Agriculture	*Municipal*	*Commercial*
96%	0% Low - 4% Mid - <1% High	0%

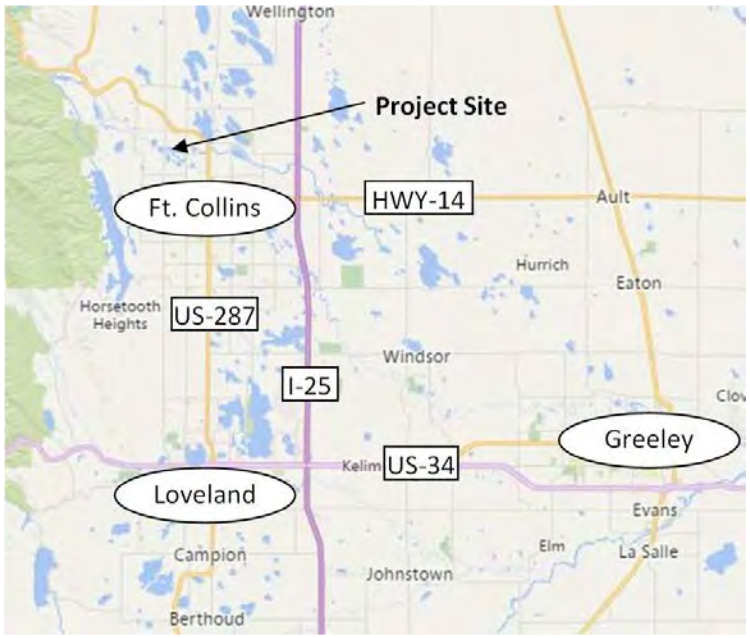
PROJECT DETAILS	
Project Type:	Ditch Rehabilitation
Average Annual Delivery:	85,000 AF

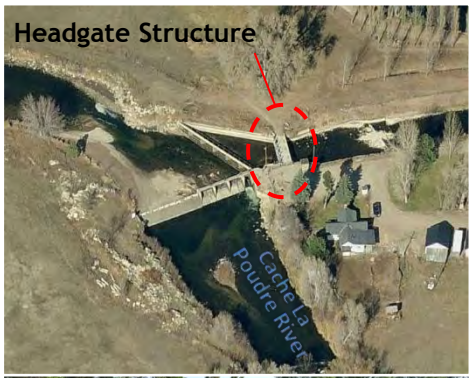


LOCATION			
County:			Larimer & Weld
Water Source:			Cache la Poudre River
Drainage Basin:			South Platte
Division:	1	*District:*	3

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.





COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Upper Beaver Brook Dam Spillway

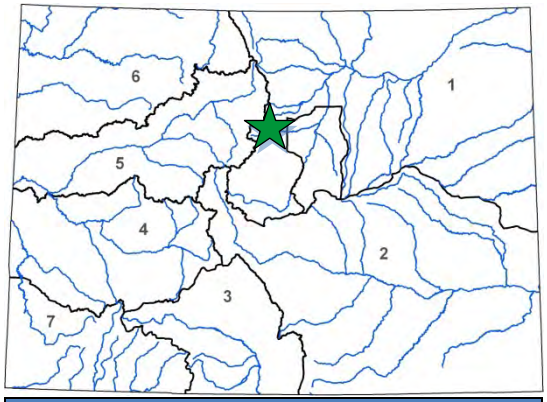
Lookout Mountain Water District

November 2015 Board Meeting

LOAN DETAILS	
Project Cost:	$3,410,000
CWCB Loan:	$3,099,690
Loan Term and Interest Rate:	30 years @ 3.25%
Funding Source:	Construction Fund

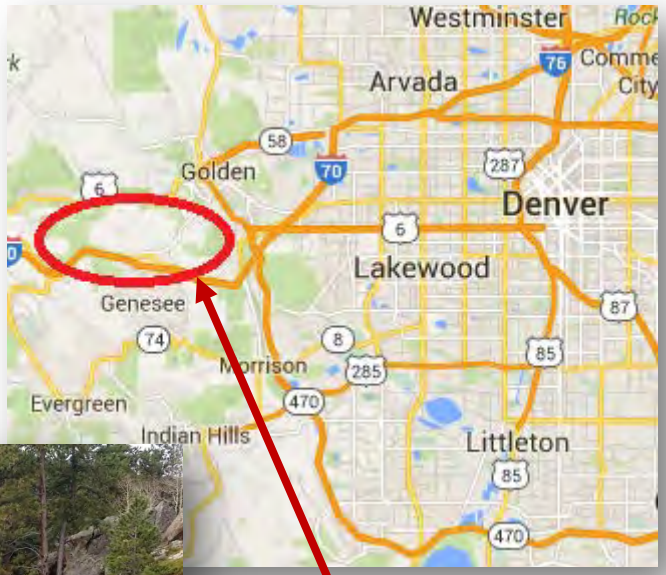
BORROWER TYPE		
Agriculture	*Municipal*	*Commercial*
0%	High-income 100%	0%

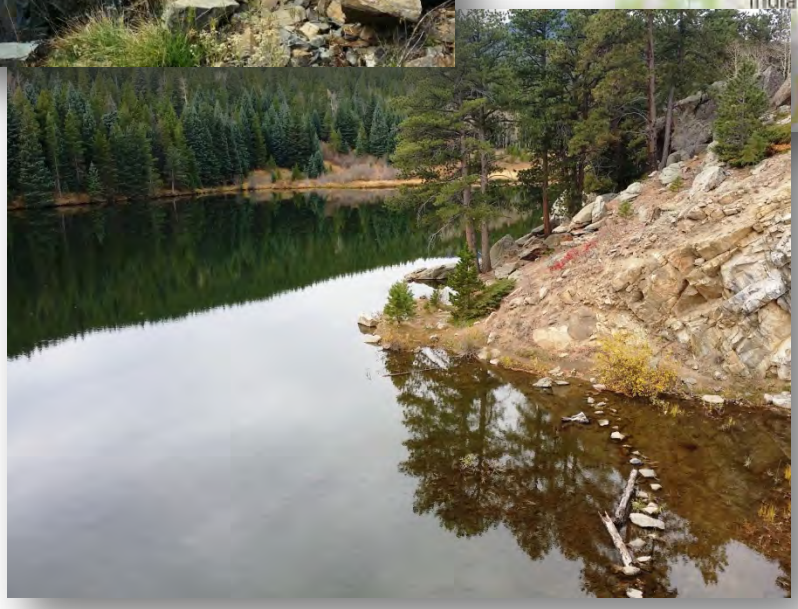
PROJECT DETAILS	
Project Type:	Reservoir Enlargement
Average Annual Diversion:	107 acre-feet
Added Reservoir Storage:	134 acre-feet



LOCATION			
County:	Clear Creek		
Water Source:	South Fork Beaver Brook		
Drainage Basin:	South Platte River		
Division:	1	*District:*	7

The Lookout Mountain Water District, a drinking water provider with 565 taps in Jefferson County, seeks to increase the storage capacity of the Upper Beaver Brook Dam. By designing and constructing a new labyrinth spillway structure in the location of the existing spillway, a raise in the normal reservoir pool elevation will provide approximately 140 acre-feet of additional storage.





Water Project Loan Program - Project Data

Borrower: City of Monte Vista (Water Activity Enterprise)

County: Rio Grande

Project Name: Augmentation Water Rights Acquisition

Project Type: Water Rights Purchase

Drainage Basin: Rio Grande

Water Source: Rio Grande River

Total Project Cost: $1,863,500

Funding Source: Construction Fund

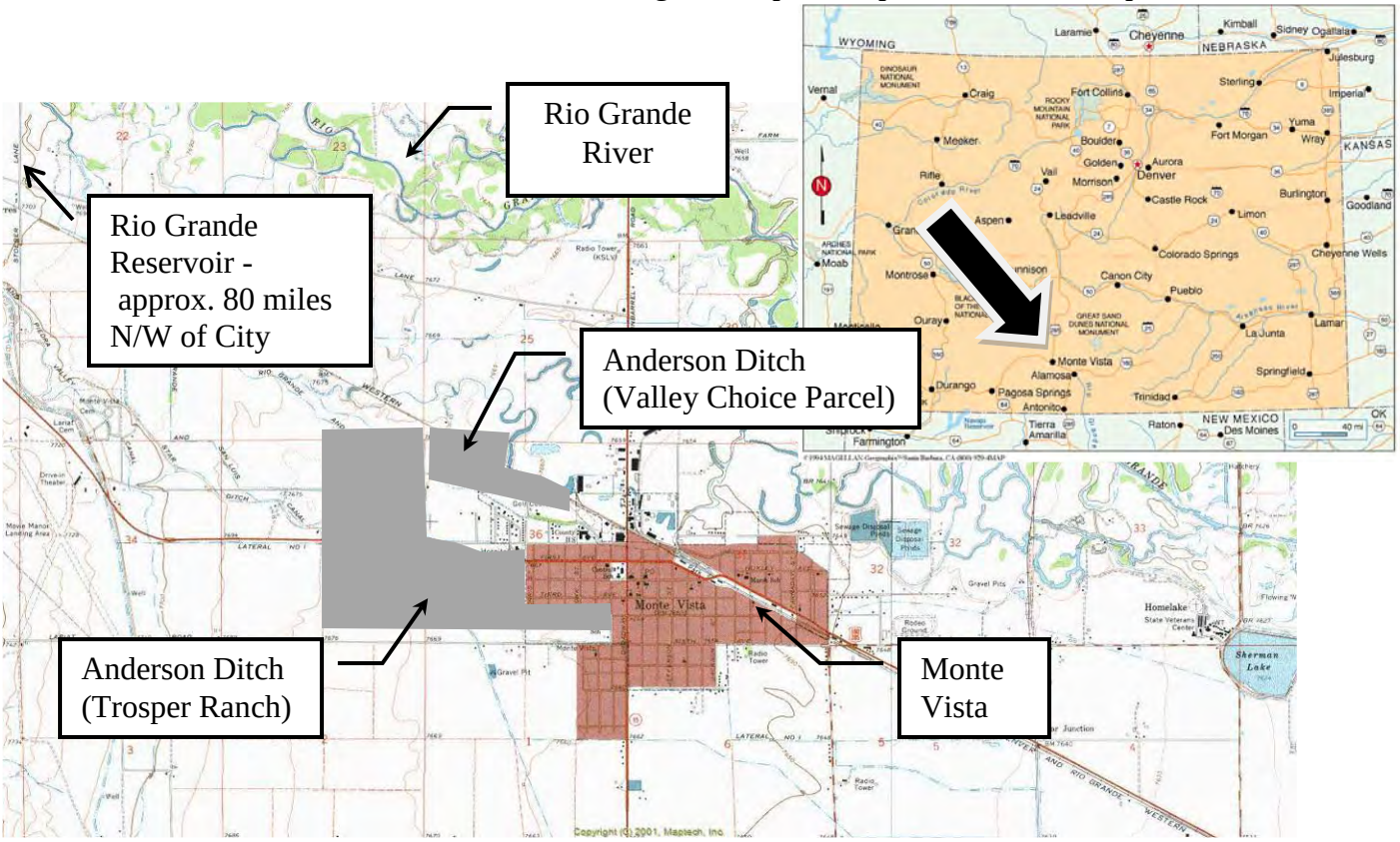
Type of Borrower: Low-Income Municipal

Aver. Demand: 1,212 AF/year

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

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

The City of Monte Vista, by and through its water activity enterprise, provides water to 4,300 residents in the San Luis Valley. The City's water system consists of five wells in a confined aquifer and three wells in an unconfined aquifer. Upcoming rules from the Office of the State Engineer will require water users in the San Luis Valley to replace depletions from pumping of wells in both the confined and unconfined aquifers tributary to the Rio Grande River. The water rights currently owned by the City are insufficient to fully replace the City's depletions. The City needs an additional 321 AF of replacement water. In order to meet this need, the City is purchasing Anderson Ditch water rights and storage in the Rio Grande Reservoir to store both the excess credits from the water it is purchasing and to store additional water it intends on leasing. Upon loan approval, the City plans on executing purchase agreements with the sellers of the Anderson Ditch rights and will then file in water court to enable the use of those rights to replace depletions as soon as possible.



Location Map

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Rehabilitation of the Livermore Irrigation Tunnel

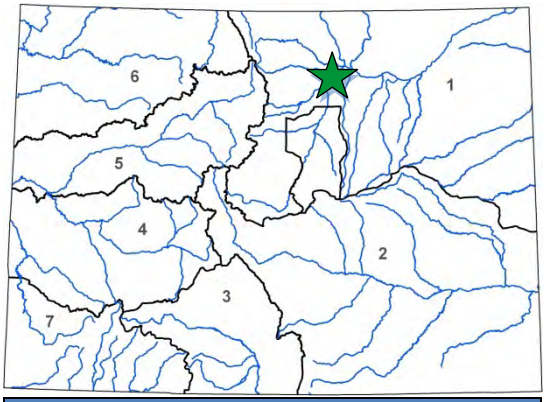
North Poudre Irrigation Company

July 2016 Board Meeting

LOAN DETAILS	
Project Cost:	$ 1,597,000
CWCB Loan (with Service Fee):	$ 1,451,673
Loan Term and Interest Rate:	30 years @ 2.25%
Funding Source:	Construction Fund

BORROWER TYPE		
Agriculture	*Municipal*	*Commercial*
26%	0% Low - 73% Mid - 0% High	1%

PROJECT DETAILS	
Project Type:	Ditch Rehabilitation
Average Annual Delivery:	44,400 AF



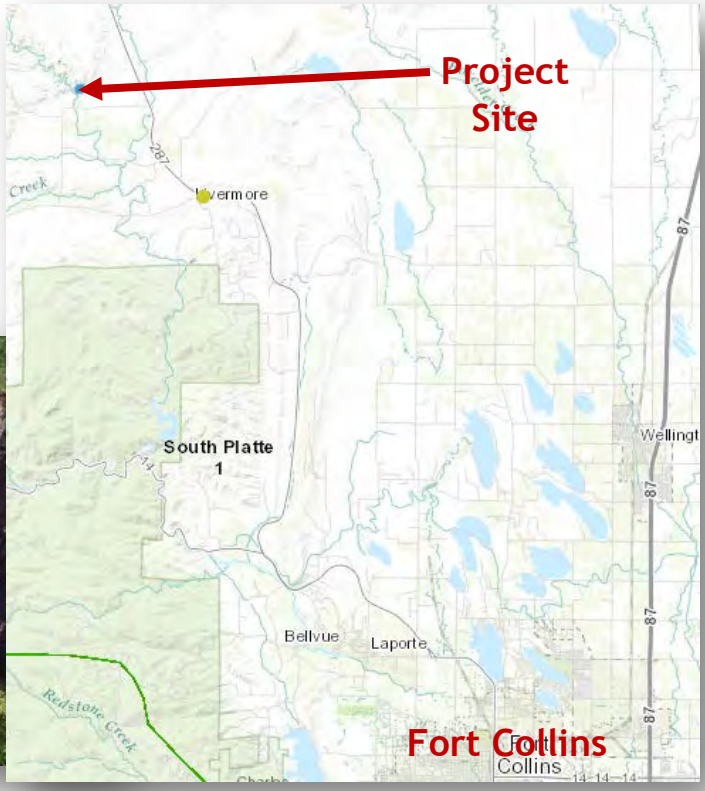
LOCATION			
County:			Larimer
Water Source:			Cache la Poudre River
Drainage Basin:			South Platte River
Division:	1	*District:*	3

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 have accumulated in the base of the tunnel, ponding up to three feet of water and restricting the overall flow capacity. The geometry of the collapse zones varies; however, the disrupted zones were estimated visually to be up to 45 feet high and 35 feet wide. An ongoing concern is of roof or partial collapse in the tunnel, which could result in severe disruption of water service for 14 communities and over 200 farms. The project will also include proactive repairs to an additional ten shear/void areas.

Construction is scheduled for the fall/winter of 2016/2017.



COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Mountain Supply Reservoir No. 10 Repairs

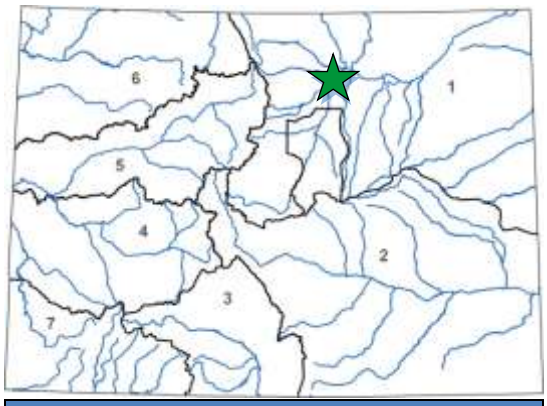
North Poudre Irrigation Company

March 2017 Board Meeting

LOAN DETAILS	
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

BORROWER TYPE		
Agriculture	*Municipal*	*Commercial*
26%	0% Low - 73% Mid - 0% High	1%

PROJECT DETAILS	
Project Type:	Reservoir Rehabilitation
Average Annual Delivery:	88,900 AF
Total Reservoir Storage:	344 AF
Water Storage Preserved:	264 AF



LOCATION			
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

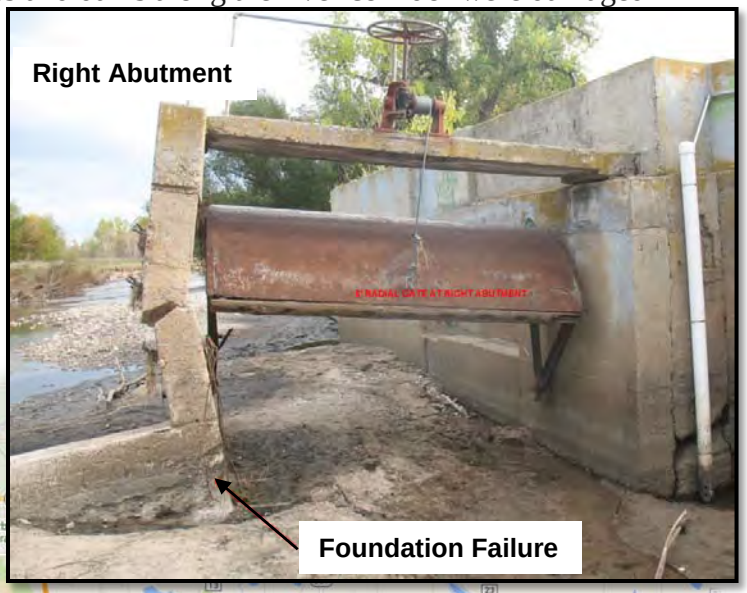
Type of Borrower: Blended

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.



COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Orchard Ranch Ditch Pipe Project

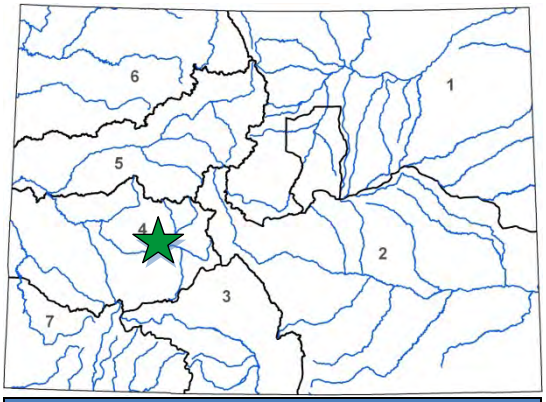
Orchard Ranch Ditch Company

January 2016 Board Meeting

LOAN DETAILS	
Project Cost:	$1,430,720
CWCB Loan (with Service Fee):	$151,500
Loan Term and Interest Rate:	30-Years @ 1.95%
Funding Source:	Severance Tax Perpetual Base Fund

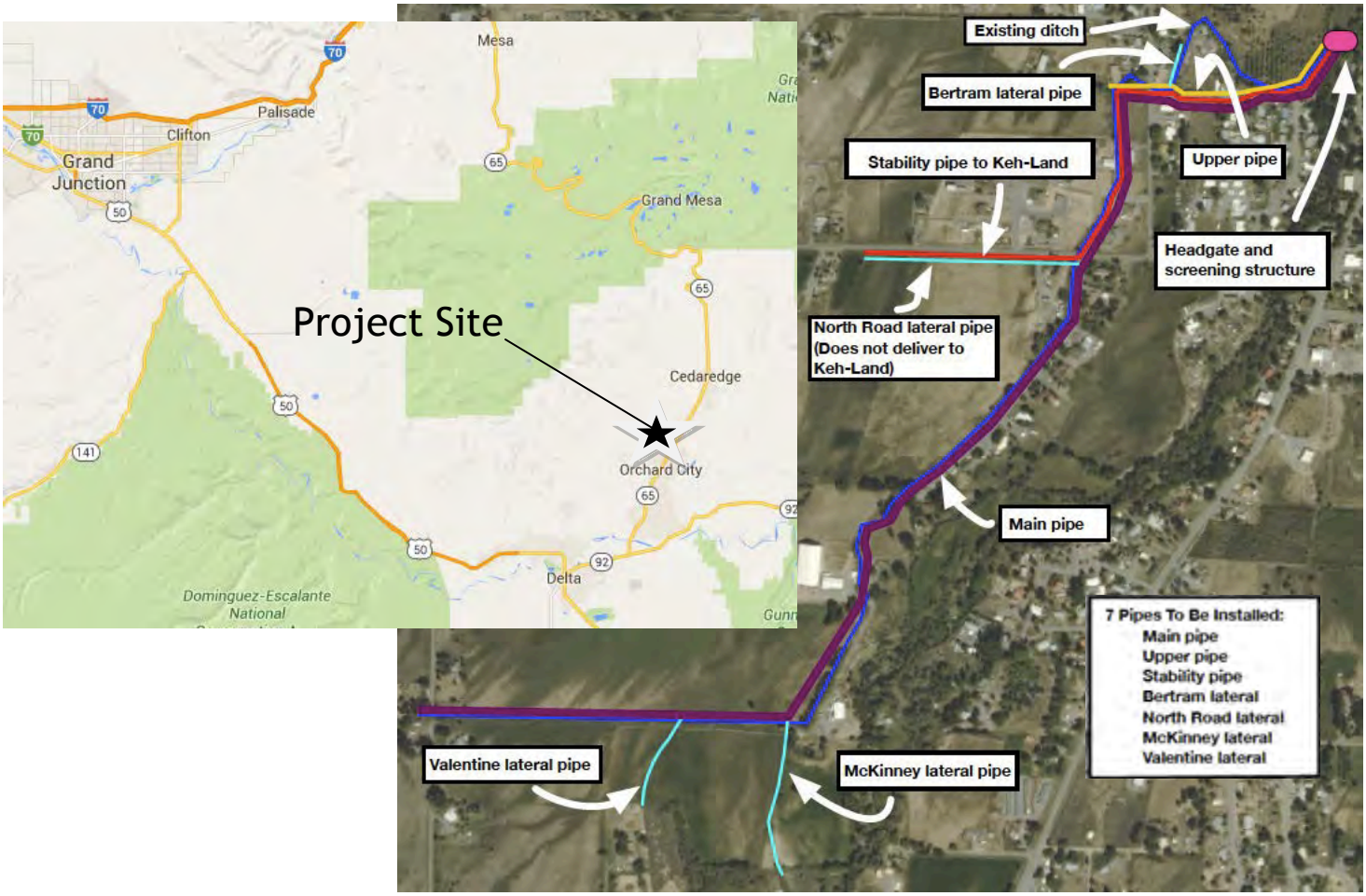
BORROWER TYPE		
Agriculture	*Municipal*	*Commercial*
86%	14% Low - 0% Mid - 0% High	0%

PROJECT DETAILS	
Project Type:	Ditch Rehabilitation
Average Annual Delivery:	2,750 AF



LOCATION			
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.



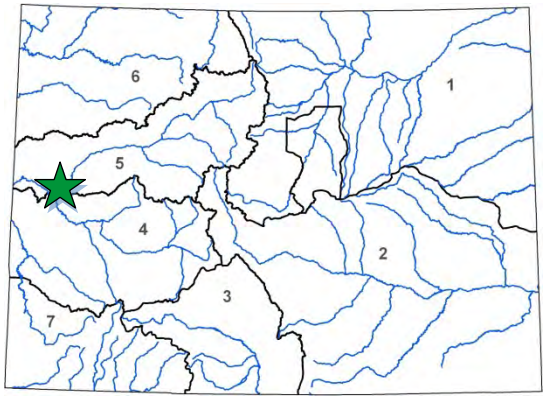
COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Grand Valley Power Plant Rehabilitation

Orchard Mesa Irrigation District

November 2016 Board Meeting

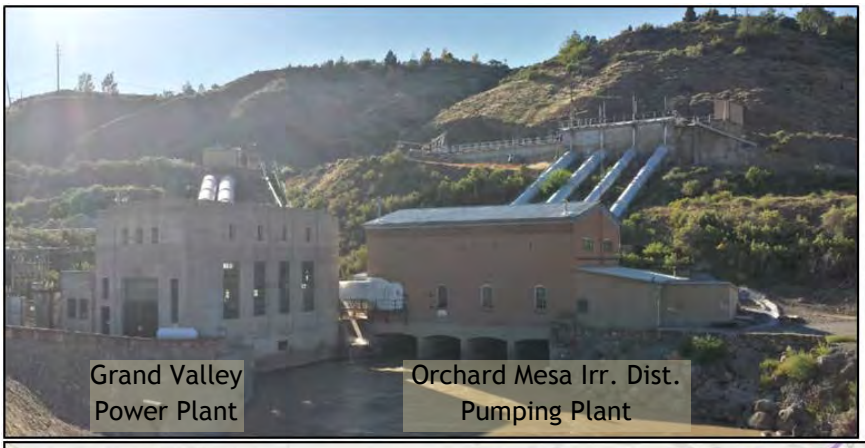
LOAN DETAILS	
Project Cost:	$5,200,000
CWCB Loan (with Service Fee):	$1,717,000
Loan Term and Interest Rate:	30 Years @ 2.0%
Funding Source:	Construction Fund
BORROWER TYPE	
Hydropower	
PROJECT DETAILS	
Project Type:	Hydroelectric
Average Annual Power Production:	17M kWh



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

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


Grand Valley Power Plant


Orchard Mesa Irr. Dist. Pumping Plant

CWCB Construction Loan Program
Project Data Sheet

Borrower: Overland Ditch and Reservoir Co. **County**: Delta

Project Name: Overland Reservoir Enlargement **Project Type:** Reservoir Enlargement

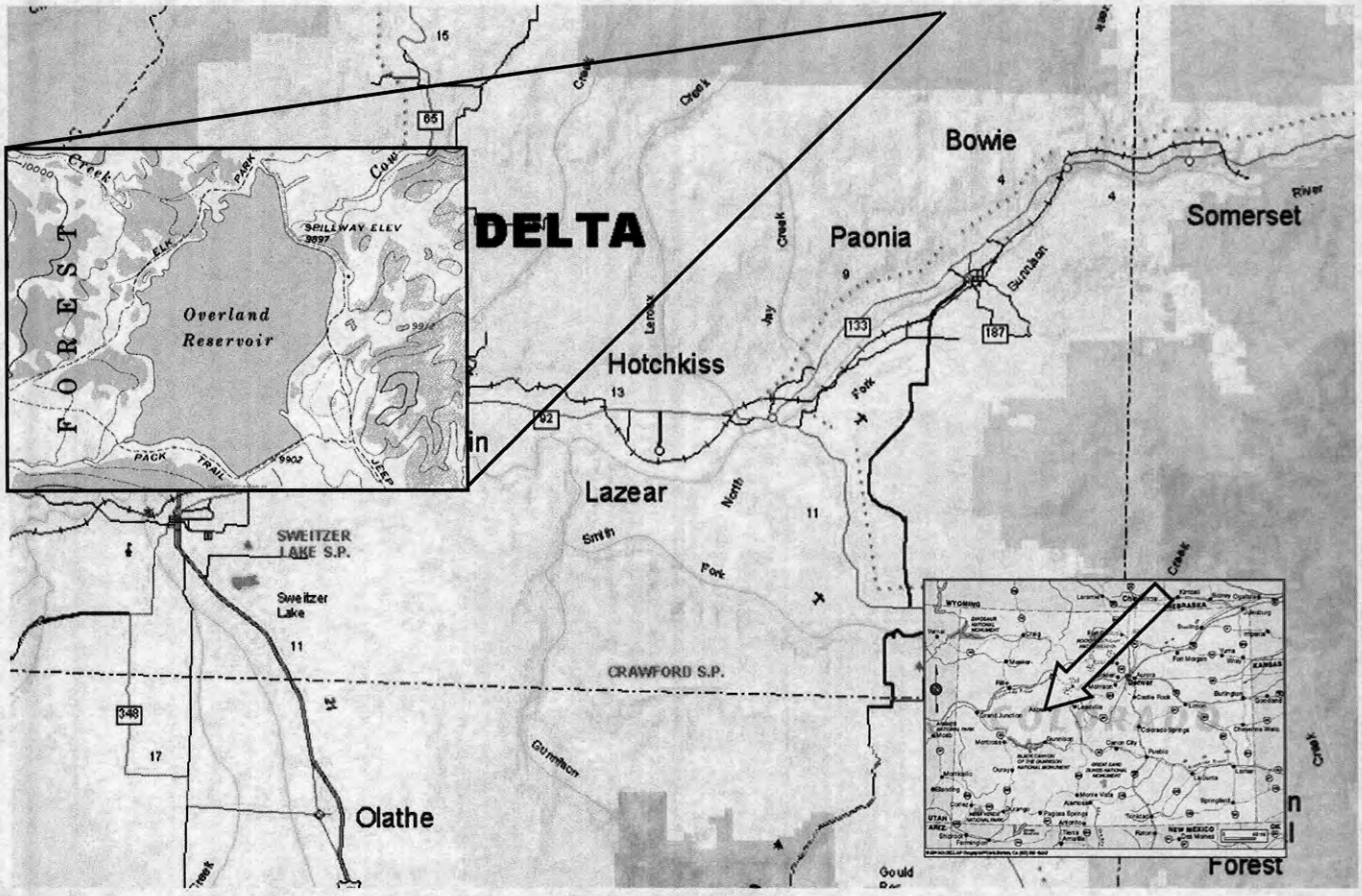
Drainage Basin: Gunnison River Basin **Water Source**: Cow Creek

Total Project Cost: $1,255,555 **Funding Sources:** CWCB & Local Bank

Type of Borrower: Agricultural **Average Delivery:** 17,000 acre-feet

Loan Amount: $1,130,000 **Interest Rate:** 2.5% **Term:** 30 years

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



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

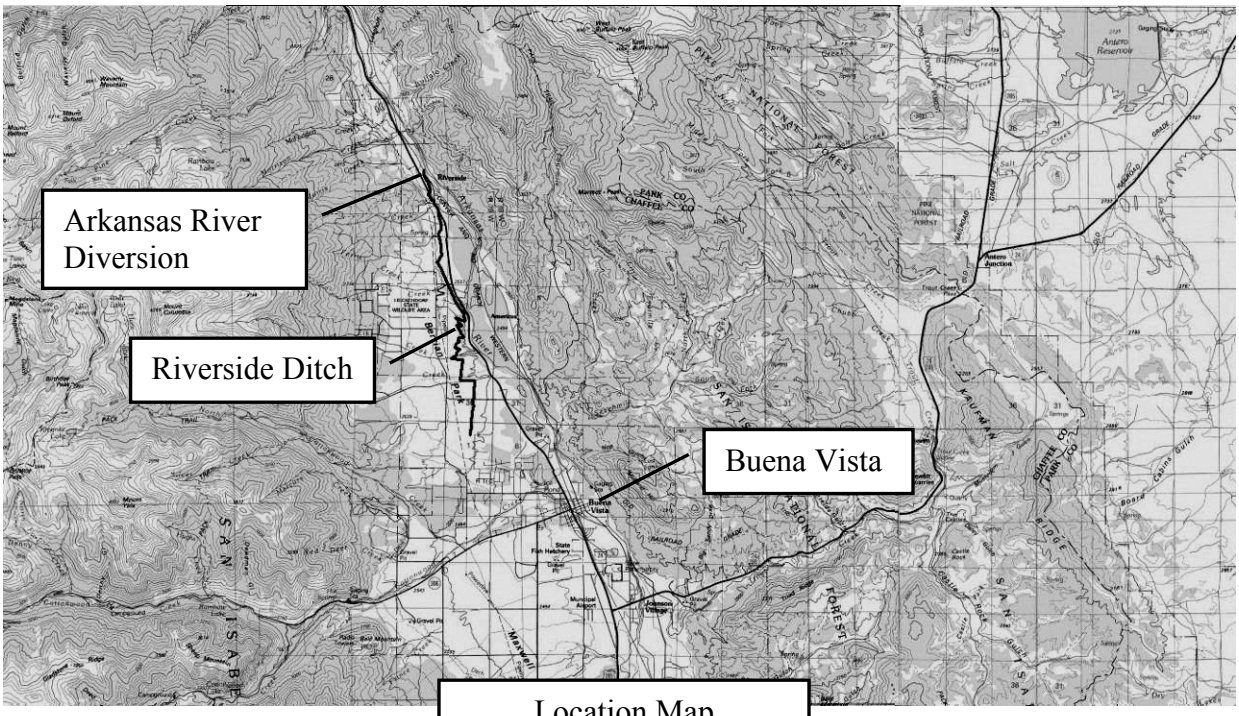
Type of Borrower: Agricultural

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.



Location Map

CWCB Construction Loan Program
Project Data Sheet

Borrower: Riverside Reservoir and Land Co.

County: Weld

Project Name: Emergency Spillway Project

Project Type: Reservoir Rehabilitation

Drainage Basin: South Platte

Water Source: South Platte River

Total Project Cost: $3,120,000

Funding Sources: Severance Tax Trust Fund Perpetual Base Account

Type of Borrower: Agricultural

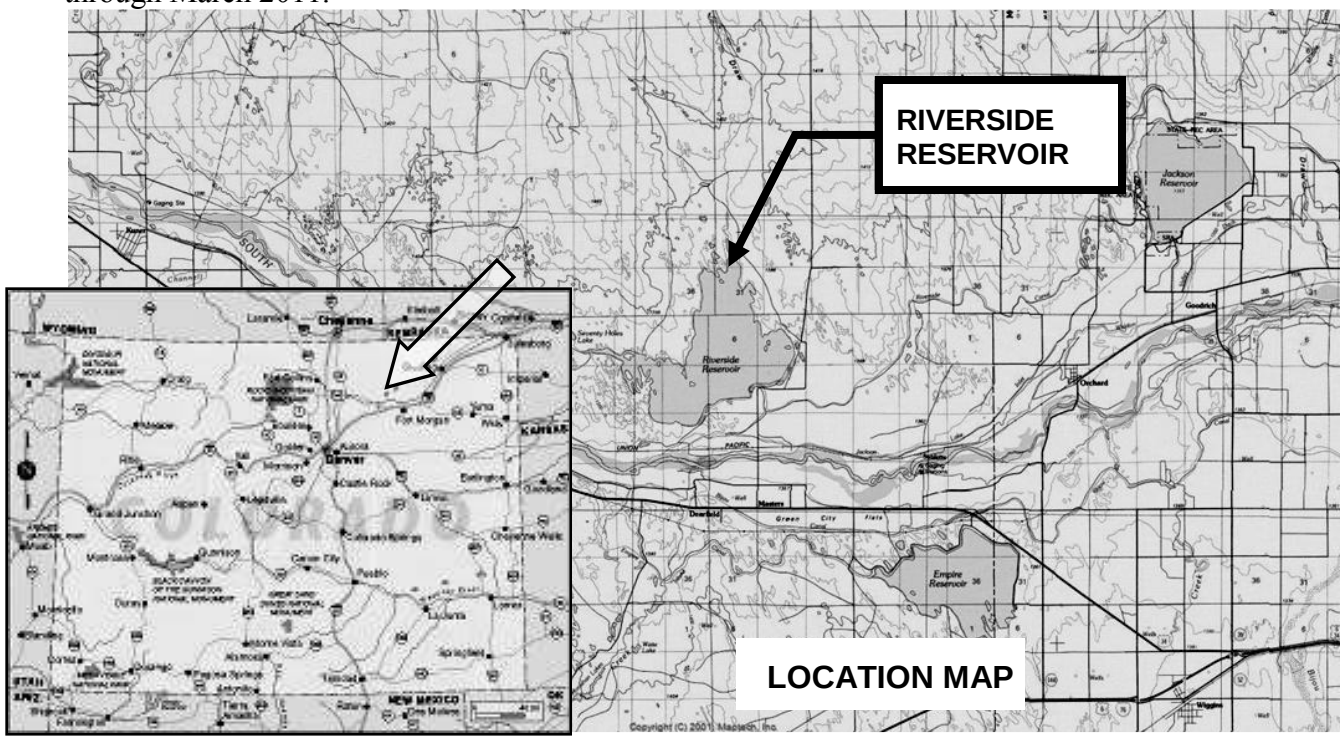
Average Delivery: 39,000 AF (from Reservoir storage) (105,000 Total AF for Company)

Loan Amount: $2,838,100 (Including 1% fee)

Interest Rate: 2.5%

Term: 30 years

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



CWCB Construction Loan Program
Project Data Sheet
(Increase)

Borrower: Sanchez Ditch and Reservoir Co.

County: Costilla

Project Name: Sanchez Reservoir Outlet 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

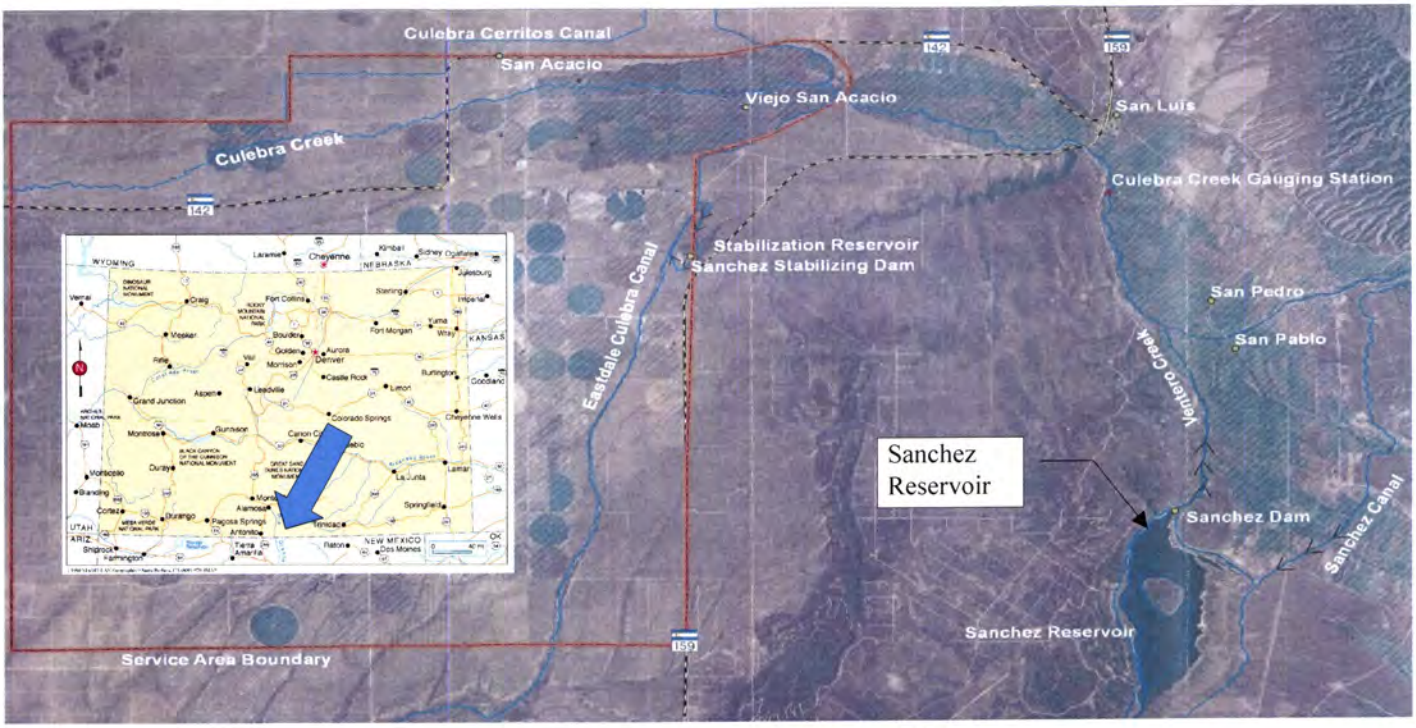
Average Diversions: 15,000 AF

(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.



COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Lake 4 Outlet Pipeline Repair

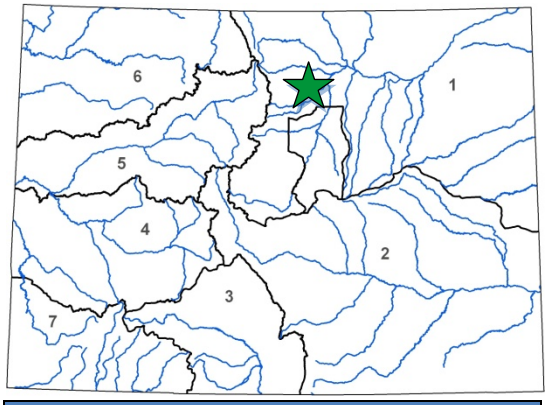
St. Vrain and Left Hand Water Conservancy District

January 2017 Board Meeting

LOAN DETAILS	
Project Cost:	$912,000
CWCB Loan (with Service Fee):	$619,130
Loan Term and Interest Rate:	30 Years @ 2.85%
Funding Source:	Construction Fund

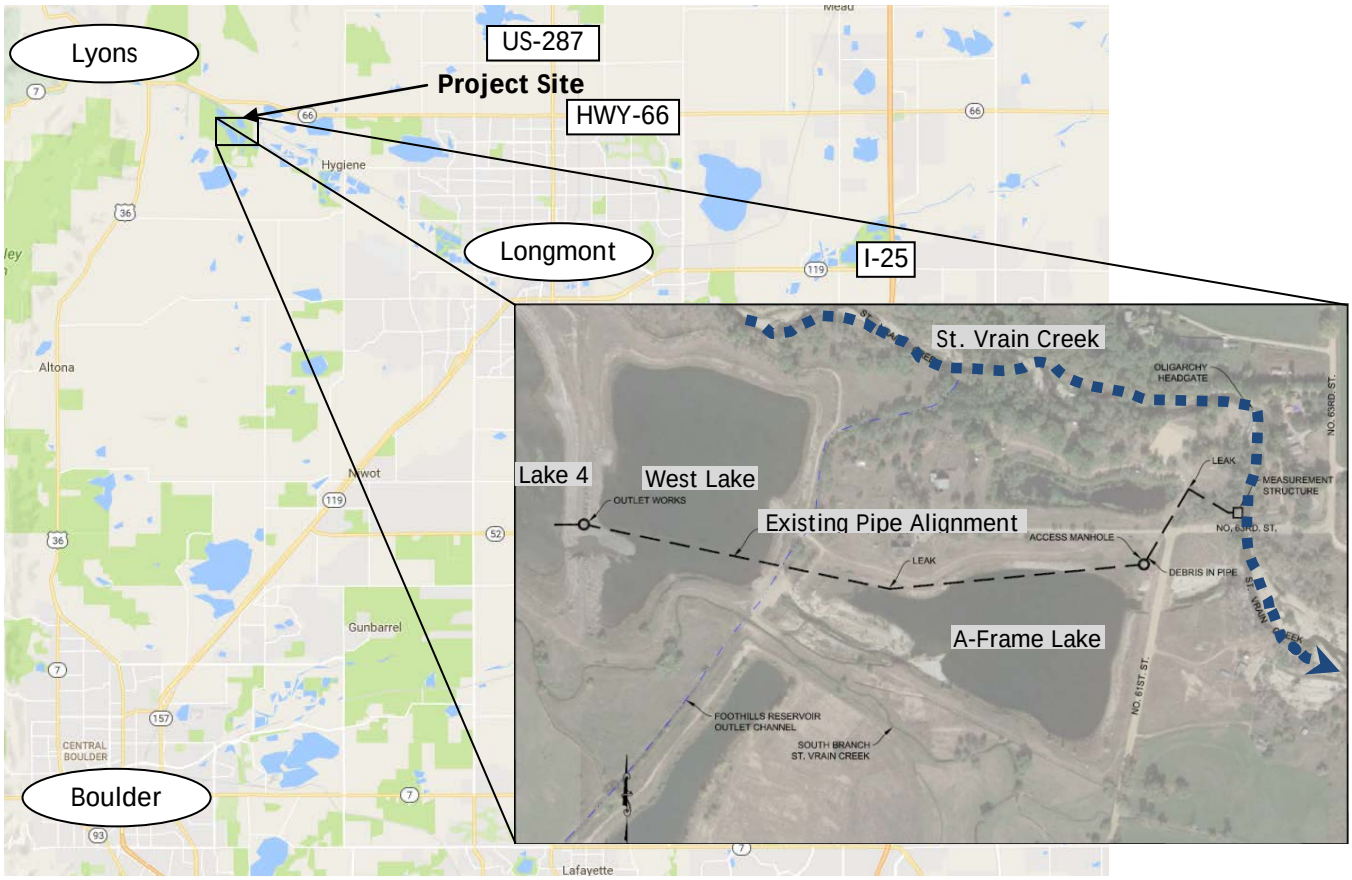
BORROWER TYPE		
Agriculture	*Municipal*	*Commercial*
0%	0% Low - 0% Mid - 97% High	3%

PROJECT DETAILS	
Project Type:	Reservoir Rehabilitation
Average Annual Delivery:	182 AF
Storage Preserved:	600 AF



LOCATION			
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 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

Total Project Cost: $9,000,000

Type of Borrower: Blended

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

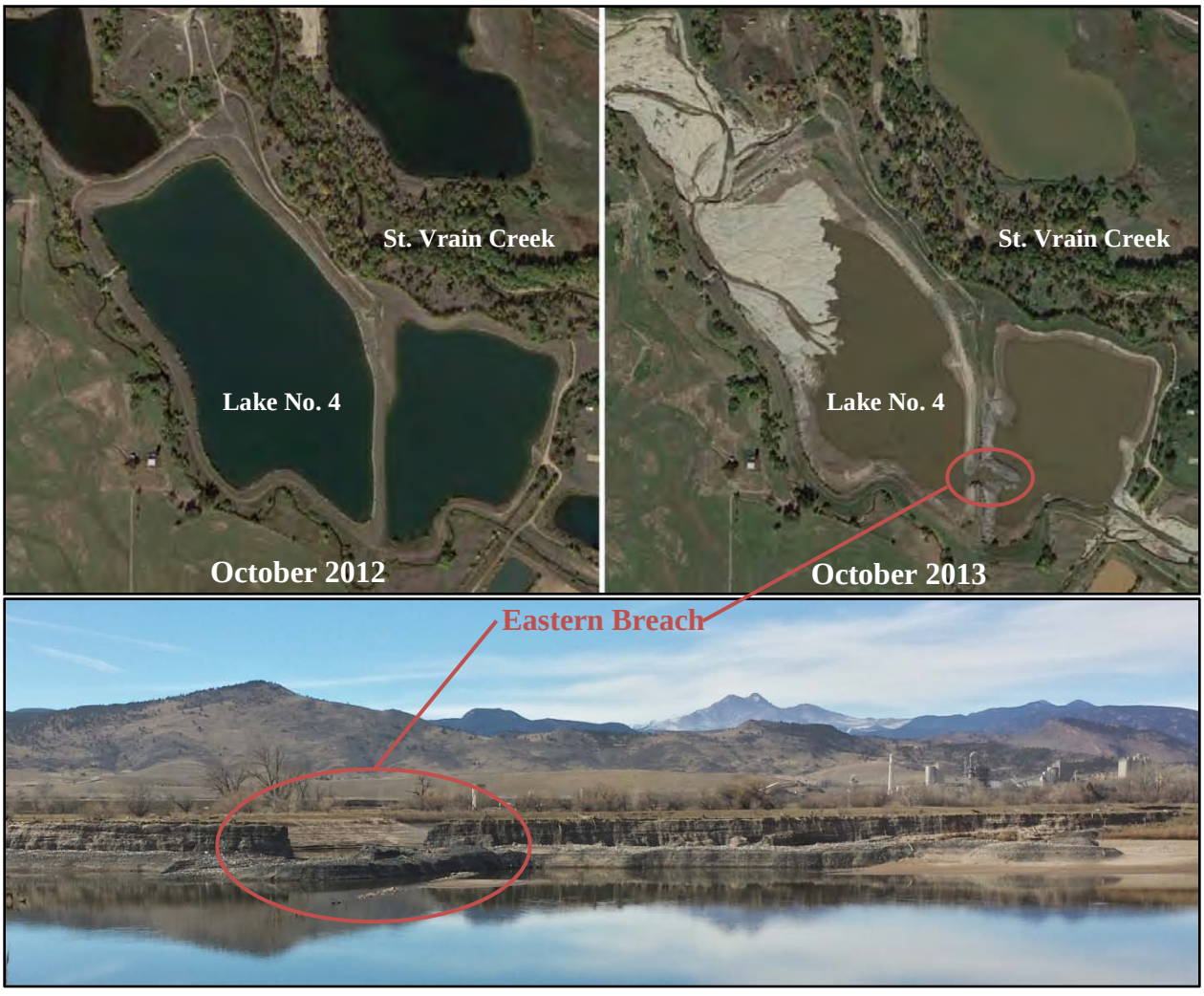
County: Boulder

Project Type: Reservoir Rehabilitation

Water Source: St. Vrain Creek

Funding Source: Severance Tax Perpetual Base Fund
Average Annual Augmentation: 200 AF
Preserved Water Supply Storage: 600 AF
Interest Rate: 3.2% **Term:** 30-years
(Ownership: 93% High Municipal, 7% Commercial)

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



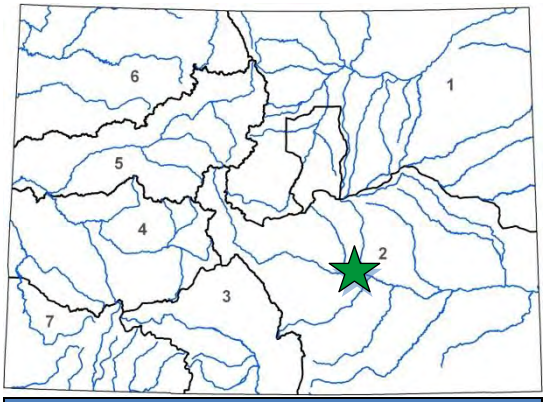
COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Arkansas Valley Conduit Phase One
Pueblo Dam Hydroelectric Project

Southeastern Colorado Water Conservancy District

July 2016 Board Meeting

LOAN DETAILS	
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
BORROWER TYPE	
Hydropower	
PROJECT DETAILS	
Project Type:	Hydroelectric
Average Annual Power Production:	28M KWh



LOCATION			
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.


Powerhouse Rendering

SOUTHEASTERN COLORADO
Water Conservancy District
"Your investment in water"

Colorado Springs Utilities
It's how we're all connected

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Emergency Supply Irrigating Ditch Repair Project

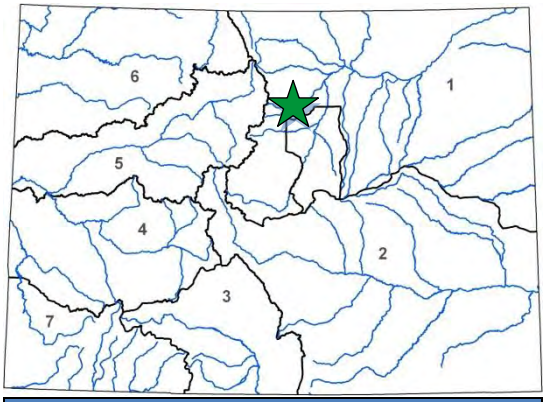
Supply Irrigating Ditch Company

November 2014 Board Meeting

LOAN DETAILS	
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*

BORROWER TYPE		
Agriculture	*Municipal*	*Commercial*
86%	0% Low - 5% Mid - 7% High	2%

PROJECT DETAILS	
Project Type:	Ditch Rehabilitation
Average Annual Diversion:	4,650 AF



LOCATION			
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.

Water Project Loan Program – Project Data Sheet

Borrower: Thunderbird Water and Sanitation District

County: Douglas

Project Name: Lambert Ranch Water Rights Purchase

Project Type: Water Rights Purchase

Drainage Basin: South Platte, District 8

Water Source: Denver Basin Aquifer

Total Project Cost: $350,000

Funding Source: Construction Fund

Type of Borrower: Middle-Income Municipal

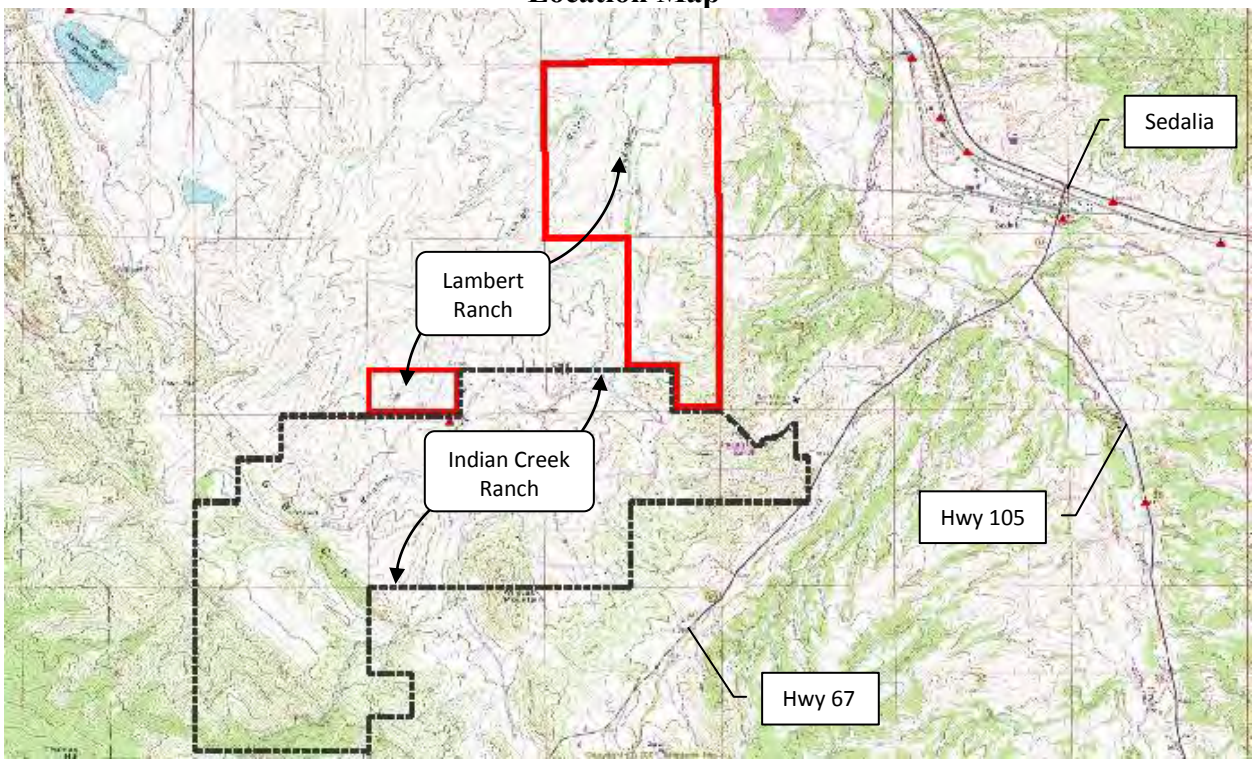
Avg. Annual Delivery: 55 AF

CWCB Loan: $318,150 (w/ 1% service fee)

Interest Rate: 4.25% **Term:** 20 years

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. The District is applying for a loan to purchase 895.9 AF of Denver Basin decreed ground water rights that underlie the property known as Lambert Ranch. On average, the District delivers approximately 55 AF annually. 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.

Location Map



COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Storage Development and Water Rights Purchase

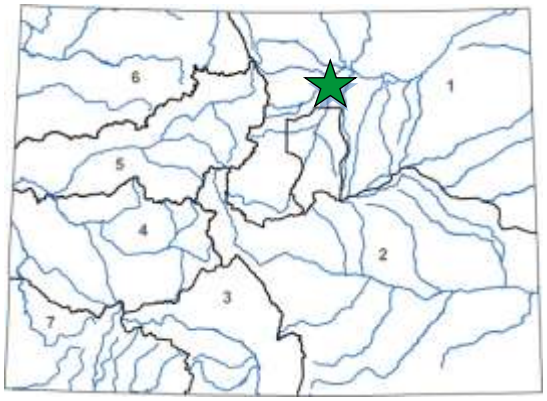
Town of Firestone

November 2016 Board Meeting

LOAN DETAILS	
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

BORROWER TYPE		
Agriculture	*Municipal*	*Commercial*
0%	0% Low - 0% Mid - 100% High	0%

PROJECT DETAILS	
Project Type:	Storage and Water Rights Purchase
Average Annual Delivery:	2442 AF
Storage Created:	1092 AF



LOCATION			
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.

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Laramie-Poudre Tunnel Rehabilitation

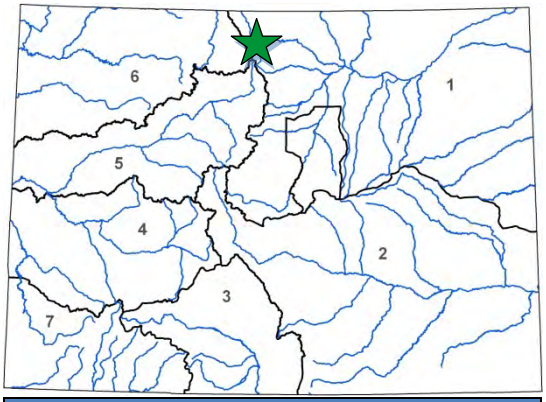
The Tunnel Water Company

September 2015 Board Meeting

LOAN DETAILS	
Project Cost:	$1,225,000
CWCB Loan (with Service Fee):	$1,111,000
Loan Term and Interest Rate:	30 Years @ 2.55%
Funding Source:	Construction Fund

BORROWER TYPE		
Agriculture	*Municipal*	*Commercial*
24%	20% Low - 24% Mid - 32% High	0%

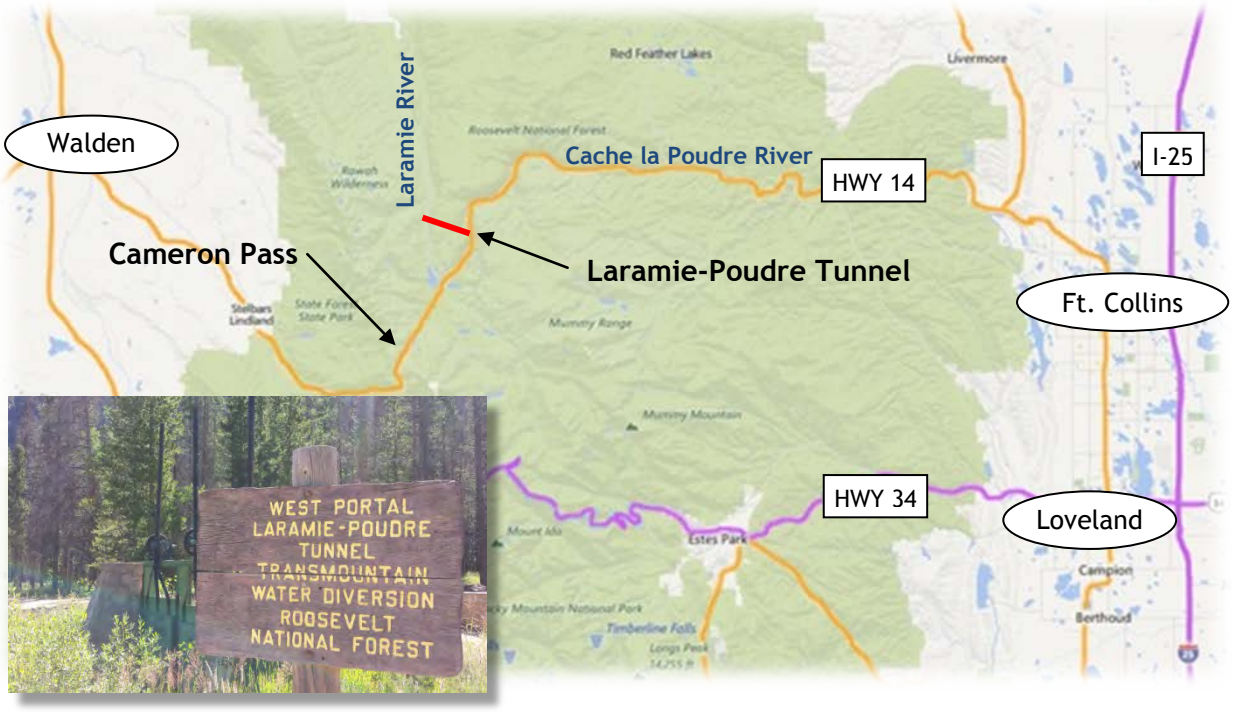
PROJECT DETAILS	
Project Type:	Ditch Rehabilitation
Average Annual Diversion:	6,875 AF



LOCATION			
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.



CWCB Construction Loan Program
PROJECT DATA SHEET

Borrower: Upper Arkansas Water Conservancy District **County**: Chaffee/Fremont/Custer

Project Name: North Fork Reservoir Rehab/Expansion **Drainage Basin:** Arkansas River

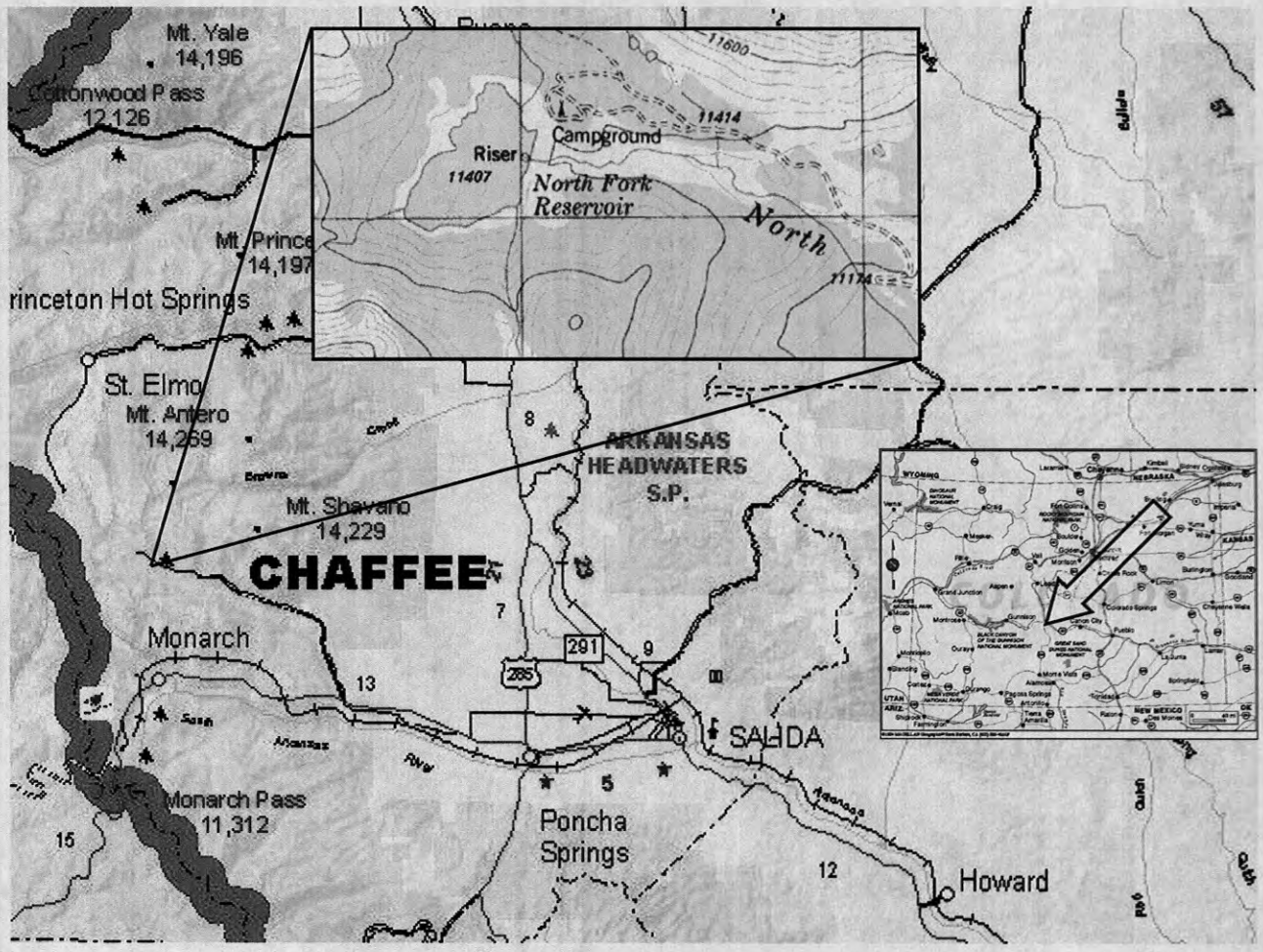
Project Type: Dam and Spillway Modifications **Water Source:** N. Fork of S. Arkansas

Total Project Cost: $3,309,850 **Funding Sources:** CWCB & Company

Loan Amount: $2,980,000 **Current Reservoir Storage:** 500 acre-feet

Type of Borrower: Low Municipal/Agricultural **Interest Rate:** 3.0% **Term:** 30 years

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 at elevation 11,400 feet and is located 10 miles from Maysville on the North Fork of the South Arkansas River. The District plans to repair the outlet gate, improve the access for construction, increase the spillway capacity, mitigate seepage along the right abutment, and raise the dam height by 15 feet. This will increase the capacity of the reservoir from 595 AF to 1095 AF. The enlargement will also require the relocation of portions of a campground. The reservoir is located on Forest Service property and currently has a Special Use Permit authorizing the repair work. The enlargement work will require a NEPA study prior to Forest Service permitting.



LOCATION MAP

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Wiggins Recharge Facility at Glassey Farms

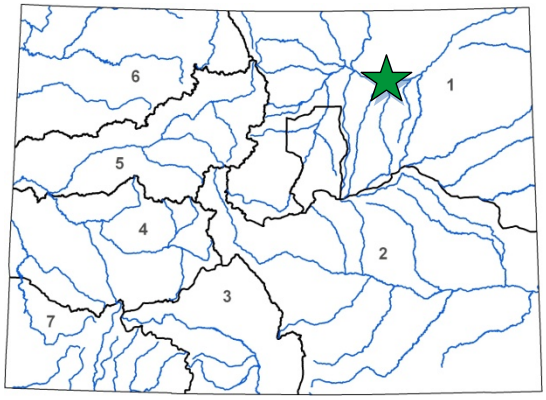
Town of Wiggins

March 2017 Board Meeting

LOAN DETAILS	
Project Cost:	$2,385,000
CWCB Loan:	$2,408,850
Loan Term and Interest Rate:	30 Years @ 2.40%
Funding Source:	Severance Tax PBF

BORROWER TYPE		
Agriculture	*Municipal*	*Commercial*
0%	100% Low - 0% Mid - 0% High	0%

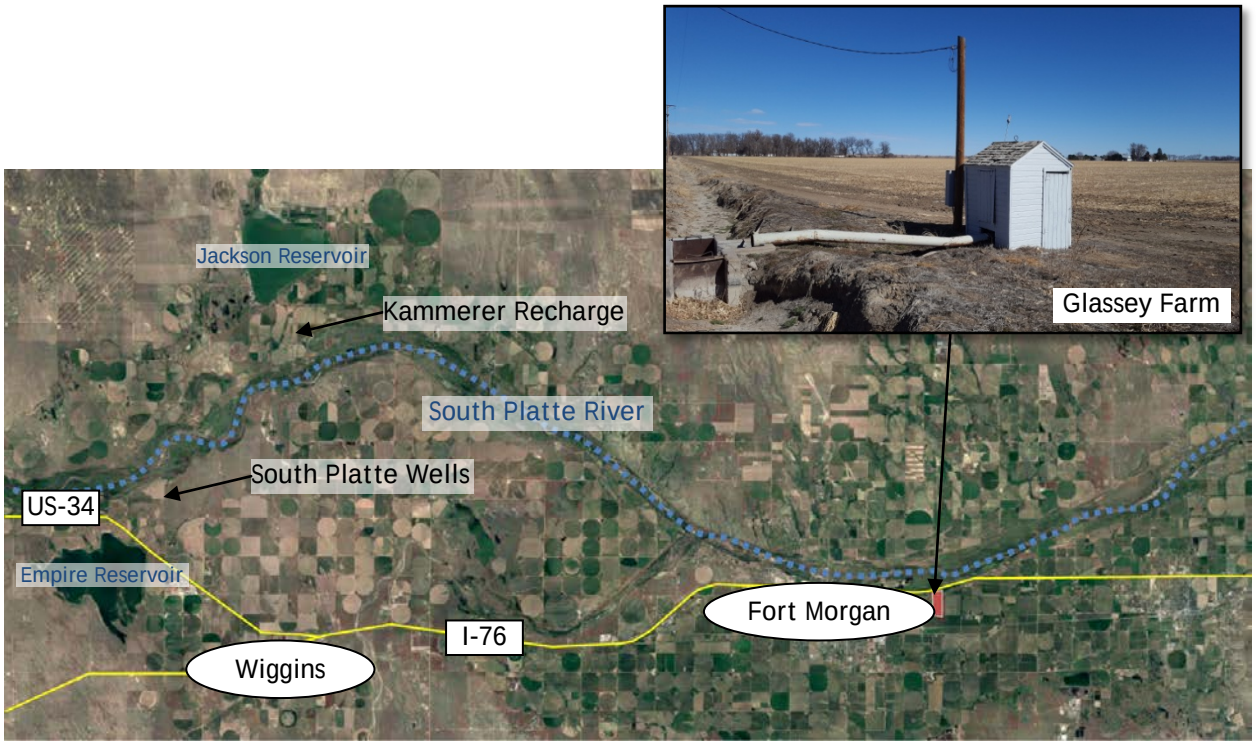
PROJECT DETAILS	
Project Type:	Augmentation
Average Annual Delivery:	140 AF



LOCATION			
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

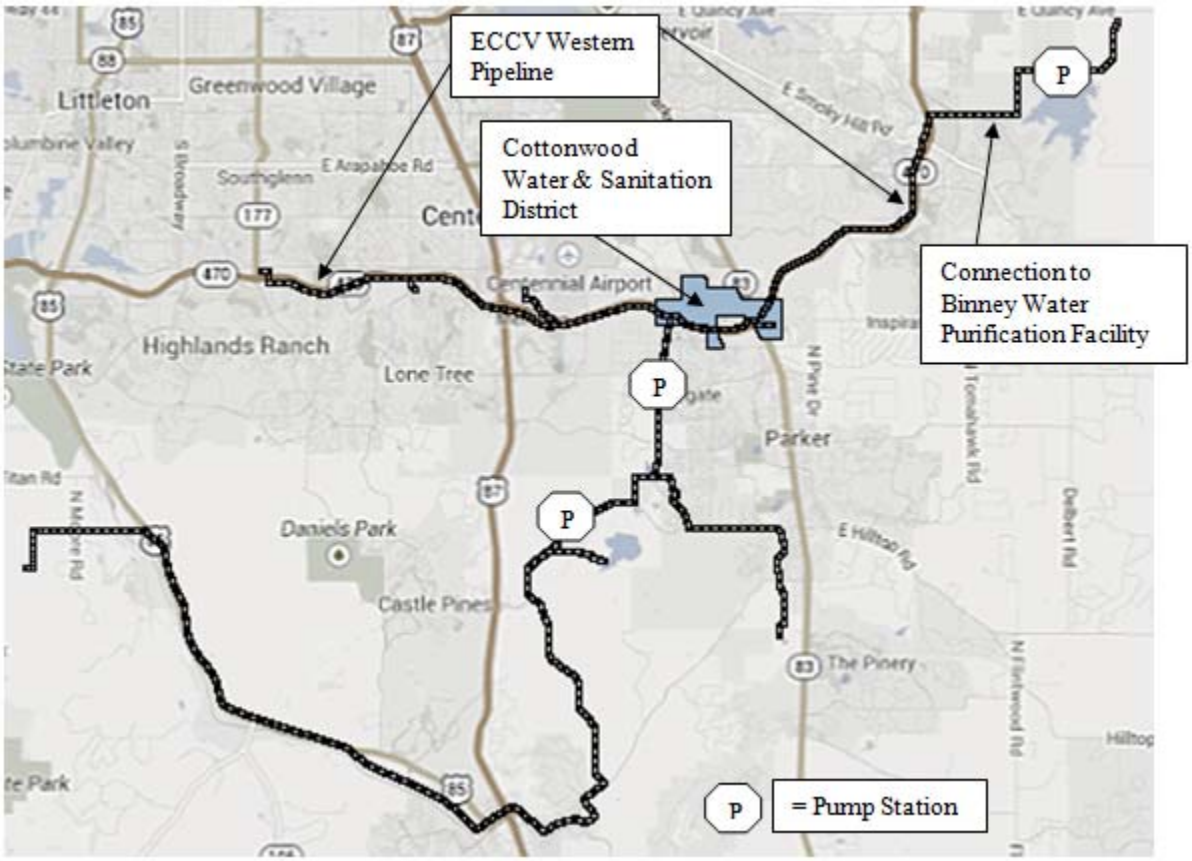
C150408

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

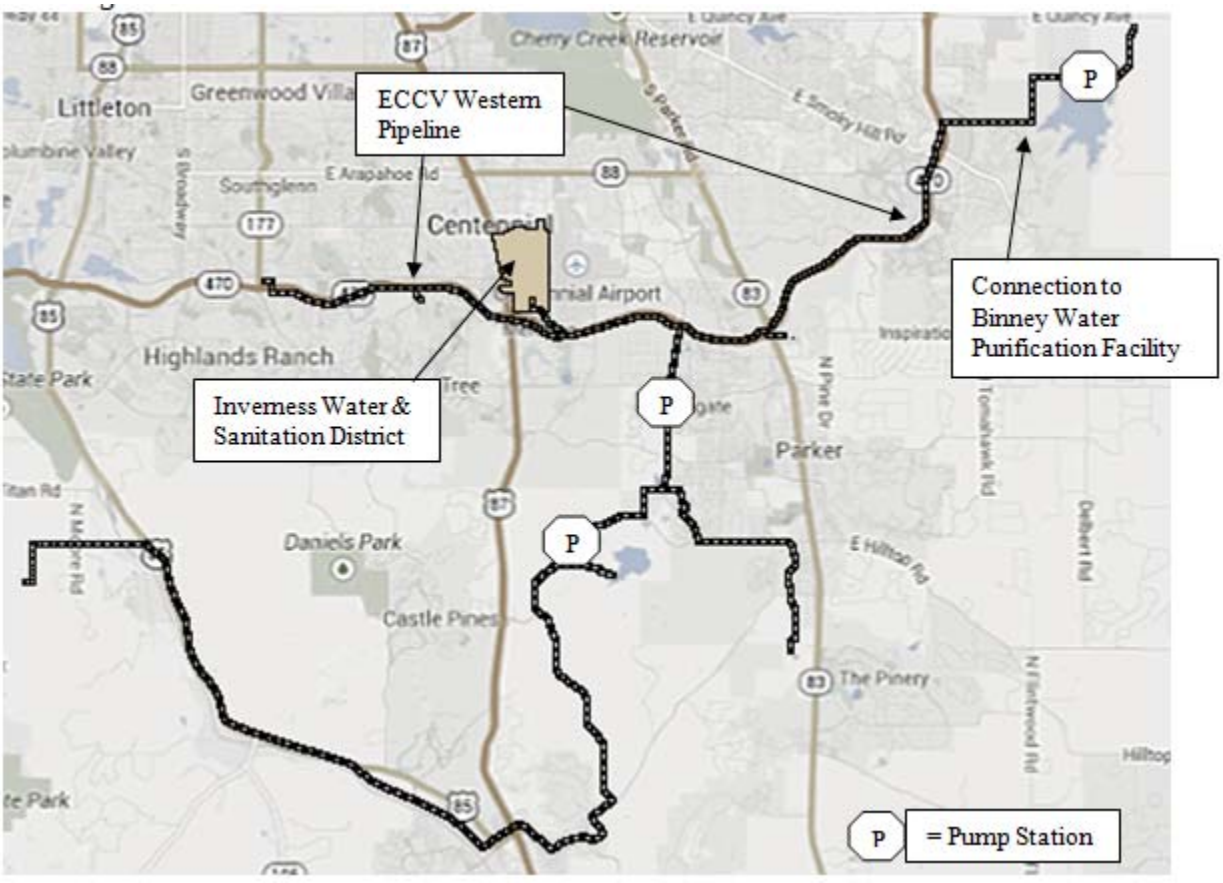
CWCB Loan: $4,908,600 (with 1% service fee)

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

Borrower: Parker 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: $17,305,500

Funding Source: Construction Fund

Type of Borrower: High-income Municipal

Average Annual Delivery: 5,000 AF

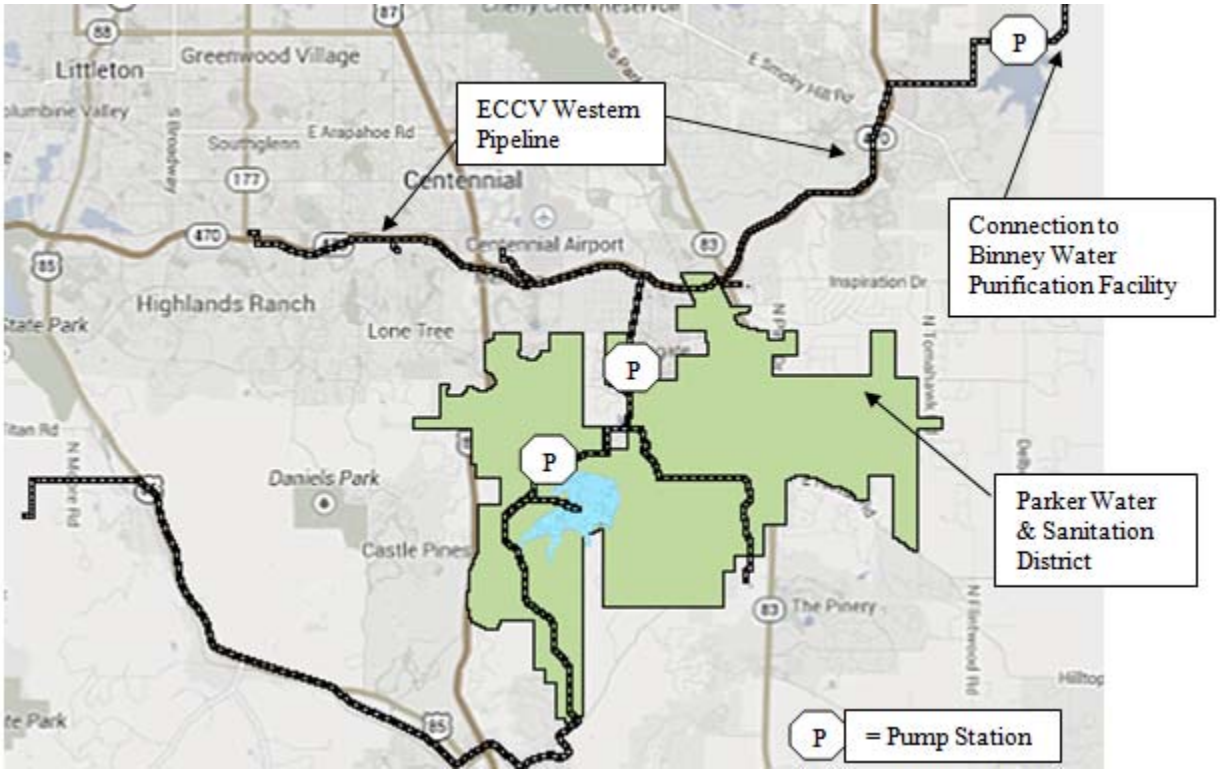
CWCB Loan: $15,734,790 (with 1% service fee)

Interest Rate: 2.75% **Term:** 20 years

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

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

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

Borrower: Denver Southeast Suburban Water and Sanitation District (dba Pinery Water and Wastewater District)

County: Douglas

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: $10,920,000

Funding Source: Construction Fund

Type of Borrower: High-income Municipal

Average Annual Delivery: 2,837 AF

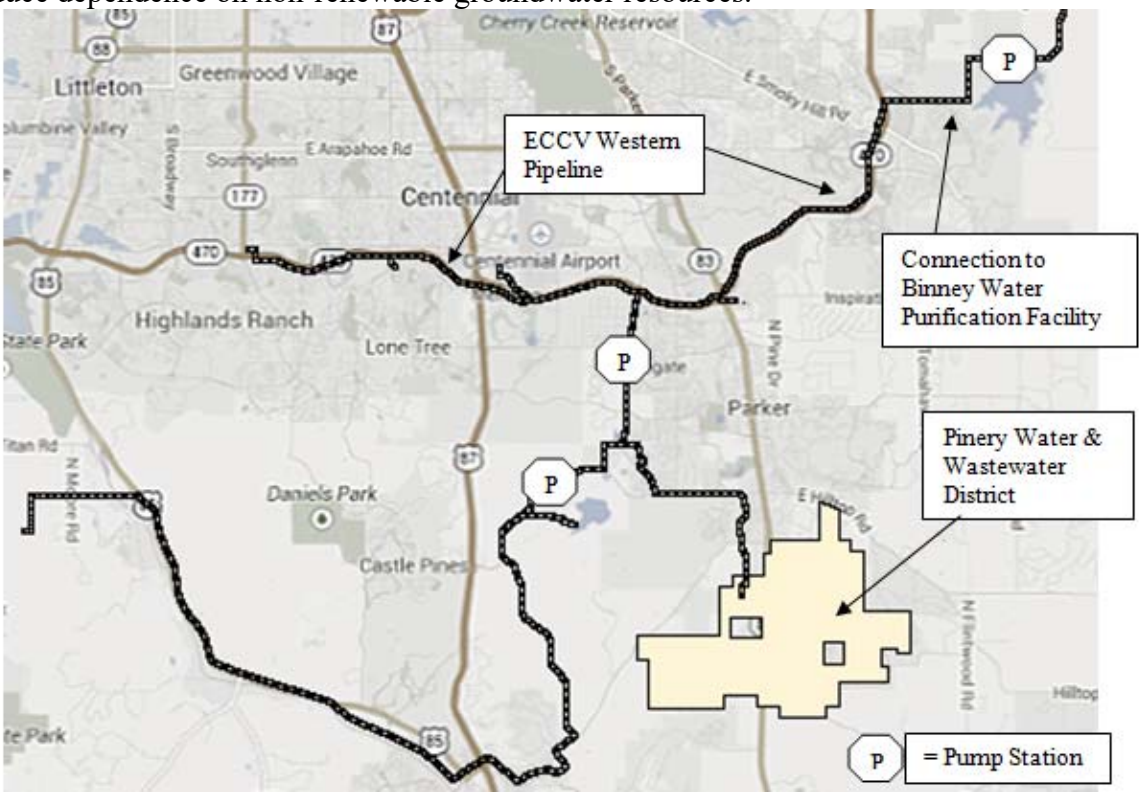
CWCB Loan: $9,926,280 (with 1% service fee)

Interest Rate: 3.00% **Term:** 30 years

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

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

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



Projects Not Under Contract

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Hess Lateral Improvement

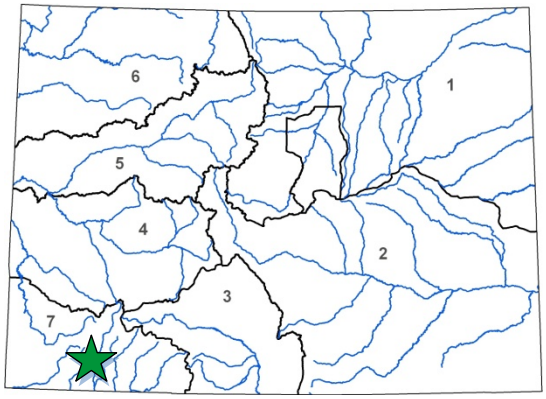
Florida Consolidated Ditch Company

May 2017 Board Meeting

LOAN DETAILS	
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

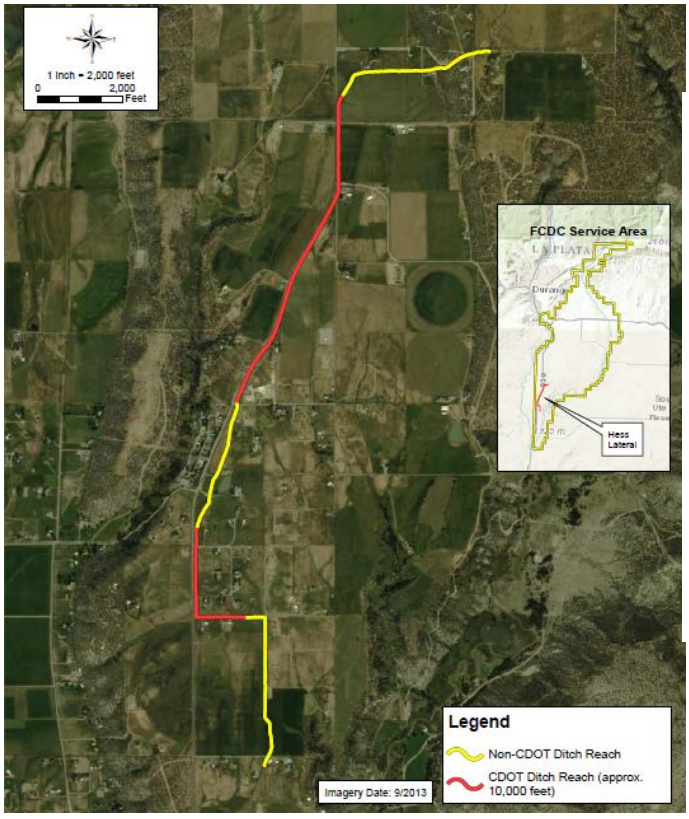
BORROWER TYPE		
Agriculture	*Municipal*	*Commercial*
100%	0%	0%

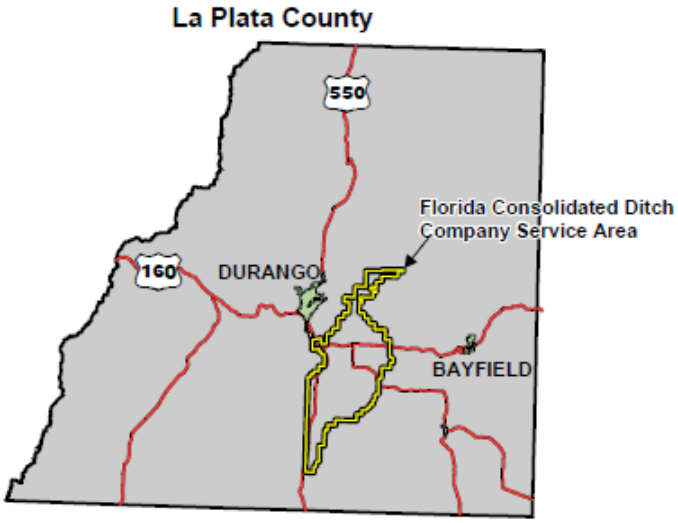
PROJECT DETAILS	
Project Type:	Ditch Rehabilitation
Average Annual Diversion:	43,000 AF



LOCATION			
County:			La Plata
Water Source:			Animas River
Drainage Basin:			San Juan/Dolores River
Division:	7	*District:*	30

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.





COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Dry Gulch Reservoir Land Acquisition

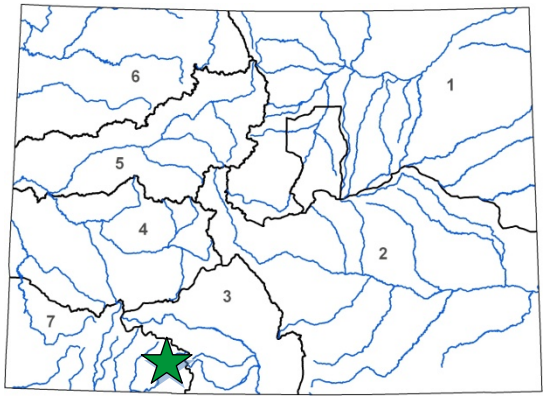
San Juan Water Conservancy District

May 2017 Board Meeting

LOAN DETAILS	
Project Cost:	$2,000,000
CWCB Loan (with Service Fee):	$2,000,000
Loan Term and Interest Rate:	30 Years @ 2.55%
Funding Source:	Construction Fund

BORROWER TYPE		
Agriculture	*Municipal*	*Commercial*
0%	100% Low - 0% Mid - 0% High	0%

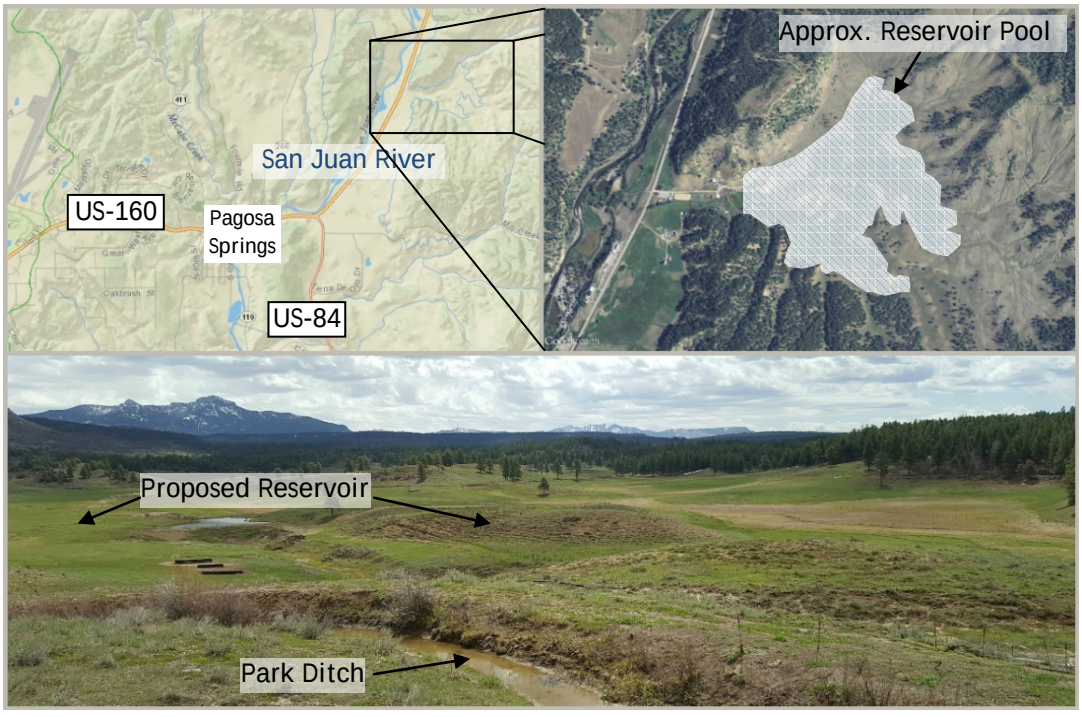
PROJECT DETAILS	
Project Type:	Water Storage Land Acquisition
Average Annual Delivery:	NA



LOCATION			
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

Borrower: SECWCD - Enterprise

County: Pueblo, Crowley, Otero, Bent, Prowers

Project Name: Arkansas Valley Conduit

Project Type: Water Supply Pipeline

Drainage Basin: Arkansas

Water Source: Arkansas – Fry-Ark Project

Total Project Cost: $300,000,000

Funding Sources: CWCB, Federal

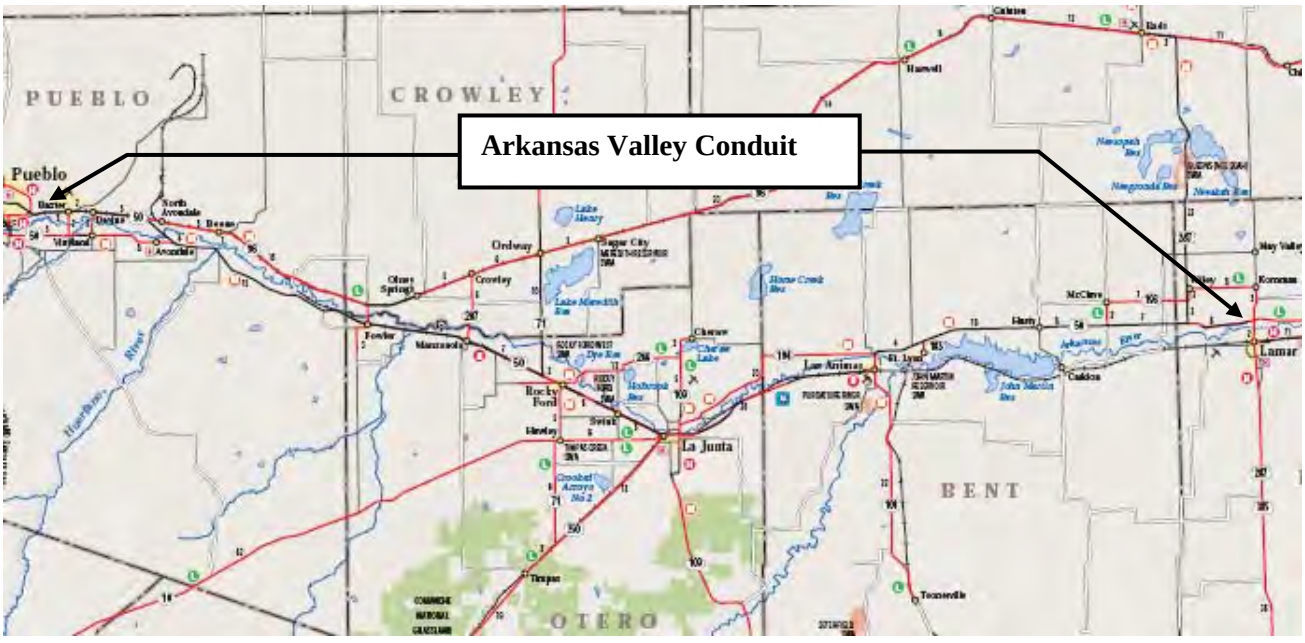
Type of Borrower: Municipal/Low

Aver. Delivery: 6,555 AF (2005 demand)

CWCB Construction Fund Loan: $60,600,000 (incl. 1% loan fee)

Interest Rate: 3.25% **Term:** 30 years

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



Location Map

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Ditch System Improvements

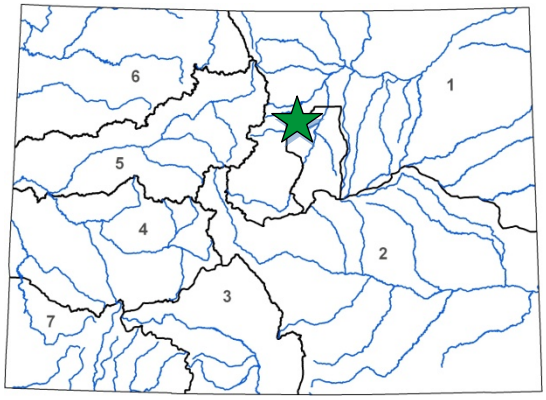
Church Ditch Water Authority

July 2017 Board Meeting

LOAN DETAILS	
Project Cost:	$3,580,000
CWCB Loan (with Service Fee):	$3,615,800
Loan Term and Interest Rate:	30 Years @ 3.0%
Funding Source:	Construction Fund

BORROWER TYPE		
Agriculture	*Municipal*	*Commercial*
0%	0% Low - 33% Mid - 67% High	0%

PROJECT DETAILS	
Project Type:	Ditch Rehabilitation
Average Annual Delivery:	10,500 AF

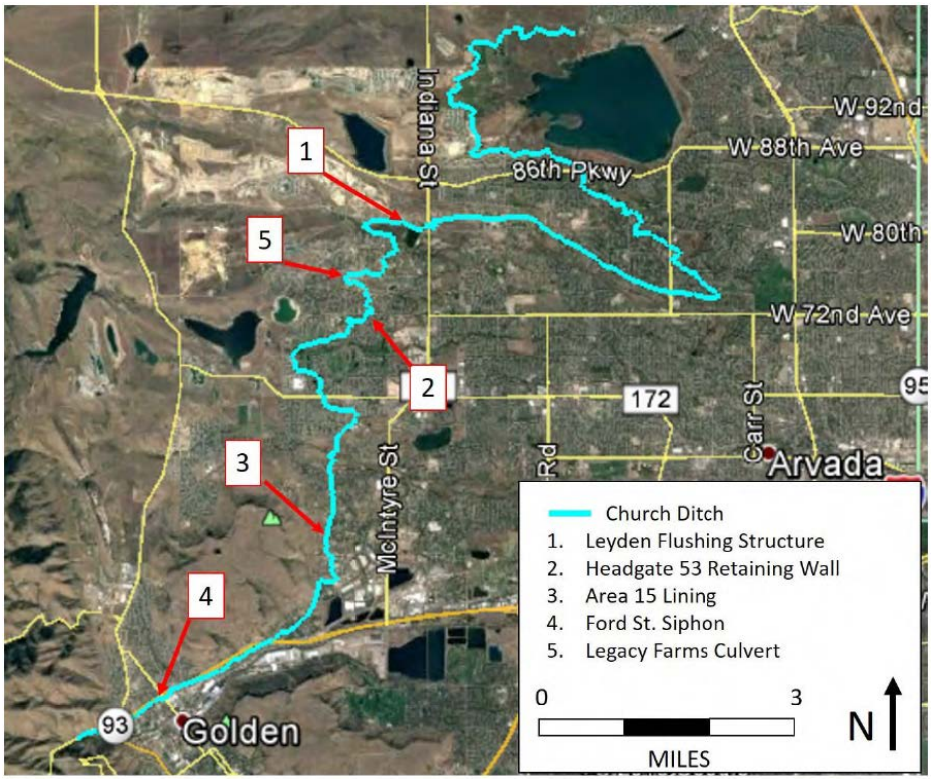


LOCATION			
County:	Jefferson		
Water Source:	Clear Creek		
Drainage Basin:	South Platte		
Division:	1	*District:*	7

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 100th 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.



COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Consolidated Diversion and Headgate Replacement

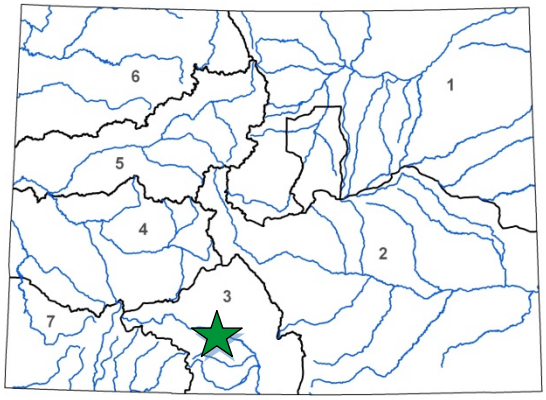
Consolidated Ditch and Headgate Company

July 2017 Board Meeting

LOAN DETAILS	
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

BORROWER TYPE		
Agriculture	*Municipal*	*Commercial*
100%	0% Low - 0% Mid - 0% High	0%

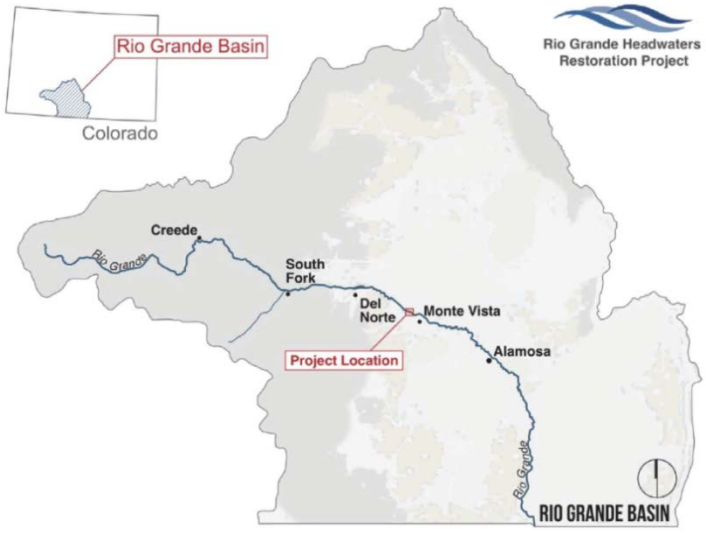
PROJECT DETAILS	
Project Type:	Ditch Rehabilitation
Average Annual Delivery:	33,500 AF



LOCATION			
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.



COLORADO
Colorado Water Conservation Board
Department of Natural Resources

City Lake Dam Rehabilitation & Enlargement

City of Walsenburg

July 2017 Board Meeting

LOAN DETAILS	
Project Cost:	$6,821,000
CWCB Loan (with Service Fee):	$6,889,210
Loan Term and Interest Rate:	30 years @ 2.0%
Funding Source:	Severance Tax

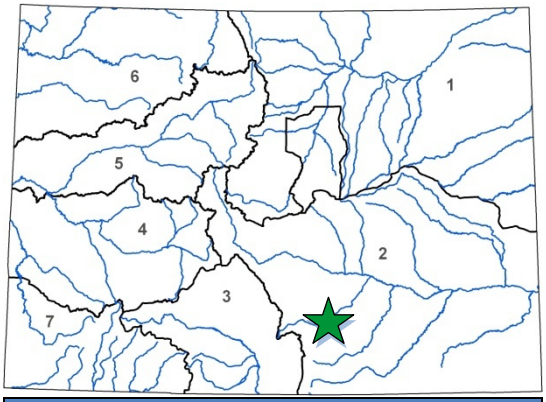
BORROWER TYPE		
Agriculture	*Municipal*	*Commercial*
0%	100% Low - 0% Mid - 0% High	0%

PROJECT DETAILS	
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.



LOCATION			
County:			Huerfano
Water Source:			Cucharas River
Drainage Basin:			Arkansas River
Division:	2	*District:*	*16*

Colorado Water Conservation Board

Construction Fund, Special Funds and Severance Tax Funds
Non-Reimbursable Investments Status Report
Fiscal Year 2016-2017

Construction Fund – Non-Reimbursable Investments

The Colorado Water Conservation Board (CWCB) Non-Reimbursable Investments Status Report has two sections. This section includes the non-reimbursable investment projects from the Construction Fund, Special Funds and Severance Tax Perpetual Base Fund. The following table summarizes the non-reimbursable investment projects in progress from July 2016 thru June 2017. This table provides the beginning balances, contracted, disbursed and funds available for each project during the fiscal year. Following this table, are project summaries provided by each project manager that detail the implementation and status of each project. Following this section is the Severance Tax Operational Fund Grant Program status for the same period.

No.	Staff	Project	July 1 Balance	Amount Contracted	Disbursed	Amount Not Contracted
1	Bassi	Acquisition-Wtr for Instream Flow	$1,000,000	$110,141	$85,723	$804,136
2	Bassi	CWCB Stream Gaging	$35,950	$18,000	$17,870	$80
3	Bassi	ISF Engineering Support Services	$67,063	$2,838	$10,306	$53,919
4	Bassi	Satellite Monitoring – SEO	$380,144	$0	$273,021	$107,123
5	Bassi	Stream Gauge Fund	$250,000	$0	$24,232	$225,768
6	Bassi	Water Education Foundation	$150,000	$0	$150,000	$0
7	Brown	Arkansas River Decision Support S.	$2,213,527	$2,182,320	$0	$31,207
8	Brown	Bear Creek Reservoir Reallocation	$2,500,000	$0	$0	$2,500,000
9	Brown	Co Decision Support System O&M	$300,000	$250,853	$49,147	$0
10	Brown	Co Flood Decision Support System	$69,239	$0	$0	$69,239
11	Brown	Co River Augmentation Project	$62,500	$0	$0	$62,500
12	Brown	Co River Delta in Mexico Consult	$40,892	$3,056	$37,836	$0
13	Brown	Co Water Needs & Alternatives	$961,471	$32,997	$180,458	$748,016
14	Brown	Emergency Dewatering Grant Pgm	$290,000	$0	$276,192	$13,808
15	Brown	Gunnison Basin Irrigation System	$181,413	$135,702	$44,413	$1,298
16	Brown	ISF Decision Support Systems	$9,575	$0	$9,307	$268
17	Brown	Litigation Fund	$2,279,260	$0	$533,377	$1,745,883
18	Brown	L. So Platte Wtr Mgmt & Storage	$500,000	$0	$0	$500,000
19	Brown	SP Groundwater Data Collect	$567,323	$40,078	$134,390	$392,855
20	Brown	So Platte Decision Support System	$352,550	$0	$345,626	$6,924
21	Brown	So Platte Storage Study	$211,168	$59,161	$152,007	$0
22	Brown	UDSA Regional Con Partner	$495,001	$297,481	$1,499	$196,021
23	Brown	Underground Storage Pilot Project	$200,000	$200,000	$0	$0
24	Brown	Water Resource Info Center	$424,145	$4,304	$11,402	$408,439
25	Brown	Wild and Scenic Rivers Fund	$642,027	$126,357	$215,126	$300,544
26	Houck	Chatfield Channel Improvement	$160,834	$48,000	$29,820	$83,014
27	Houck	Co Floodplain Map Modernization	$1,703,872	$293,766	$916,029	$494,077
28	Houck	Fish and Wildlife Resources Fund	$1,073,651	$0	$313,350	$760,301
29	Houck	Flood and Drought Response Fund	$618,190	$218,337	$260,129	$139,724

No.	Staff	Project	July 1 Balance	Amount Contracted	Disbursed	Amount Not Contracted
30	Houck	Rio Grande Forecasting Develop	$37,944	$10,202	$27,743	$0
31	Houck	Stream Restoration Grant Account	$1,940,138	$0	$1,906,599	$33,539
32	Houck	Tamarisk Control Cost-Sharing Prg	$2,185,785	$1,067,792	$892,104	$225,889
33	Houck	Water Forecasting Partnership	$300,000	$38,000	$184,164	$77,836
34	Houck	Watershed Restoration	$11,300,250	$2,968,085	$1,945,531	$6,386,634
35	Houck	Weather Modification Program	$567,541	$134,175	$431,745	$1,621
36	Mitchell	Alt Ag Water Transfer Sustain	$1,265,736	$397,585	$380,758	$487,393
37	Mitchell	Climate Change Effects on Water	$27,048	$0	$0	$27,048
38	Mitchell	Colorado Mesonet	$150,549	$209	$149,790	$550
39	Mitchell	Drought Mitigation Strategies	$124,091	$0	$0	$124,091
40	Mitchell	Statewide Water Supply Initiative	$1,083,544	$335,823	$273,213	$474,508
41	Mitchell	Water Adaptation Partnership Prg	$85,056	$0	$65,000	$20,056
42	Mitchell	Water Conservation Data Tracking	$181,064	$29,919	$151,144	$0
43	Mitchell	Water Con Public Awareness Study	$29,062	$0	$0	$29,062
44	Mitchell	Water Planning Studies	$100,000	$0	$0	$100,000
45	Russell	Chatfield Res Reallocation Project	$1,289,016	$0	$326,800	$962,216
46	Russell	Chatfield Res Reallocation Imp.	$59,708,492	$40,953,928	$3,649,913	$15,104,651
47	Russell	Chatfield Res Reallocation Study	$17,015	$17,015	$0	$0
48	Russell	Feasibility Study Grant Fund	$61,216	$49,000	$3,575	$8,641
49	Russell	Max Precipitation for Rainfall Spill	$1,561,684	$636,766	$835,114	$89,804
50	Russell	Reservoir Dredging Project	$1,000,000	$24,378	$0	$975,622
51	Russell	Rio Grande Cooperative Project	$1,044,765	$934,846	$44,529	$65,390
52	Russell	Rocky Mt. Fen Demonstration	$100,000	$0	$0	$100,000
53	Russell	Windy Gap Res Bypass Channel	$2,200,000	$0	$0	$2,200,000
		Total Balances for Non-Reimbursable Investments	$104,099,791	$51,621,114	$15,338,982	$37,139,695

Details of the Status of the above Projects are as follows:

1. Acquisitions of Water for Instream Flow
   Authorization: HB 08-1346
   Water Source: Statewide Streams
   Location: Statewide
   Sponsor: CWCB
   Project Type: Water Acquisitions
   Project Manager: Linda Bassi
   Beneficiary: Statewide Water Users

In Fiscal Year 2013-2014, CWCB and the Colorado Water Trust (CWT) executed a Master Task Order Contract under which the Trust will perform tasks related to the instream flow water acquisition program, including, but not limited to, preliminary evaluation of whether water rights offered for instream flow use will provide benefits to the ISF Program; hydrologic, engineering, and other technical analyses required to change acquired water rights to instream flow use; and economic valuation of water rights. The contract is for a term of up to 5 years and for an amount not to exceed $500,000.

In Fiscal Year 2014-2015, an amount of $262,566 was disbursed to the CWT pursuant to the Master Task Order contract. The funding was utilized for five separate projects including the McKinley Ditch

Acquisition; Coats Brothers Ditch temporary lease; Stream Assessment project on Tomichi creek, Cochetopa Creek and Crystal River; Yampa River feasibility project; and Twin Lakes System feasibility.

In Fiscal Year 2015-16, an amount of $70,213 was disbursed to the CWT pursuant to the Master Task Order contract. The funding was used for different aspects of the same projects that were identified in 2014-2015. In addition to the CWT contract, $12,006 was utilized for operation and maintenance of the Skyland Metropolitan District Breem Ditch ISF gage; and $12,666 was used in the development of an online accounting system to track acquired water rights.

In Fiscal Year 2016-17, an amount of $85,723 was disbursed pursuant to the Master Task Order contract. The funding was again used for the McKinley Ditch acquisition project, as well as the Yampa River and Twin Lakes projects. In addition, a new task order to develop a monitoring plan for previously acquired rights was initiated and funded.

2. CWCB Stream Gaging

Authorization: SB 01-157 to HB 06-1313
Water Source: Statewide Streams
Location: Statewide
Sponsor: CWCB
Project Type: Stream Gaging
Project Manager: Jeff Baessler
Beneficiary: CWCB Staff, and Statewide Water Users

As the state's water planning agency, CWCB relies upon gages operated by the Division of Water Resources (DWR), United States Geological Survey (USGS) and private entities in order to meet the needs of its mission critical program areas, including Water Supply Planning, Compact Protection, Decision Support System Development, Floodplain Management and Stream and Lake Protection. However, CWCB gaging needs are often different from those of the DWR and USGS. Although many existing gages provide needed data, the DWR's mission is to administer the state's water rights, while the USGS collects data for cooperating entities as well as for long-term scientific record purposes. As a result, stream gages are not always located where CWCB needs them, nor are they necessarily designed to fit CWCB data collection parameters. Implementation of this project enables CWCB to strengthen its cooperative efforts with the DWR and USGS to expand, refurbish, redesign and install new gages as well as develop new cost effective strategies to obtain data that will benefit both CWCB and statewide stakeholder interests.

In Fiscal Year 2016-2017, the CWCB:

- purchased integrated pressure sensor data logging equipment;
- in cooperation with Skyland Metropolitan District, operated and maintained the instream flow bypass and diversion structure for administration of the Breem Ditch water right acquisition;
- provided equipment to the BLM and USFS for installation of temporary streamflow gages on Deep Creek and Cold Springs Creek;
- installed and maintained temporary streamflow gages on Little Cimarron River, Abrams Creek, Monitor Creek, and Rio Lado Creek;
- provided funding to USGS for installation of Colorado River at Catamount Bridge, CO gage;
- provided funding to USGS for the operation and maintenance of the Slick Rock gage on the Dolores River.
- provided funding for ISF recommendation field work and investigations on Vallecito, Little Sand and Himes Creeks.

3. Instream Flow Engineering Support Services

Authorization: SB 05-084 to HB 10-1250
Water Source: N/A
Location: Statewide
Sponsor: CWCB
Project Type: Technical Services
Project Manager: Jeff Baessler
Beneficiary: Statewide

This project entails the continued implementation of a statewide engineering and technical support services program to help address consulting engineering and other professional service needs of the Colorado Water Conservation Board's Instream flow and Natural Lake Level Program. In 2017, the CWCB utilized these funds to hire database experts to help update and redesign the CWCB's Instream Flow Database.

4. Satellite Monitoring System – State Engineer's Office

Authorization: HB 93-1273 to SB 15-253

Water Source: Statewide Streams
Location: Statewide
Sponsor: State Engineer's Office

Project Type: Stream Gaging
Managers: J. Baessler / M. Hardesty
Beneficiary: Statewide Water Users

The Satellite Monitoring System includes funding for maintenance and refurbishment of the State Engineer's Satellite Monitoring System. The State Engineer is continuing to make progress in its replacement of out-dated data collection platforms and satellite telemetry transmission components and refurbishment/renovation of gaging stations. The funds support the continued operation of over 600 stream gages throughout the state.

5. Stream Gage Fund
Authorization: SB 07-122
Water Source: Statewide Streams
Location: Statewide
Sponsor: CWCB

Project Type: Stream Gaging
Project Manager: Jeff Baessler
Beneficiary: Statewide Water Users

CWCB has begun to utilize this funding, in addition to the funds authorized under CWCB's Projects Bills in 2001 through 2006, for the installation of new CWCB gages around the state (see item 2 above). Staff has identified and is working on scoping equipment needs and collaborative efforts with USGS and DWR on multiple gaging projects throughout the state. In addition, staff continues to work with various stakeholders to identify and plan for future stream gage installations that will aid Board programs with an objective of prioritizing gages that benefit multiple CWCB sections and stakeholders. When possible, matching funds or in-kind services will be requested from participating stakeholders. Funding from item 2 above (CWCB Stream Gaging) and these funds (Stream Gage Fund) have been and will continue to be utilized for these projects with the goal of first depleting funds still available under item 2.

6. Water Education Foundation
Authorization: HB 02-1152
Water Source: N/A
Location: Denver
Sponsor: Colorado Foundation for Water Education

Project Type: Education
Project Manager: Linda Bassi
Beneficiary: Statewide

Each year, CWCB staff executes a grant contract with the Colorado Foundation for Water Education (Foundation) to provide funds for the on-going operation of the Foundation. The CWCB Board is provided with an annual presentation on the Foundation's work plan during the May Board meeting each year. The Board reviews, comments on, and approves the final work plan. More information is available at www.cfwe.org and www.cwcb.state.co.us.

7. Arkansas River Decision Support System (ArkDSS)
Authorization: SB 07-122, HB 11-1274, SB 13-181, HB 14-1333, SB 15-253
Water Source: N/A
Location: Arkansas Basin
Sponsor: CWCB

Project Type: Decision Support System
Project Manager: Andy Moore
Beneficiary: Statewide Water Users

With $200,000 authorized in SB 07-122, the ArkDSS feasibility study began in February 2010, and the final report was completed in December 2011. At the July 2011 Board Meeting, the feasibility study results were presented, and the plan for implementation of the ArkDSS was approved by the Board. In the subsequent above-mentioned authorizations, $2,250,000 has been allocated for the development of ArkDSS. Previously, work had been completed on several aspects of ArkDSS, including coordination on several Roundtable projects and DWR Division 2 work, and installation of a gage on Fountain Creek.

A Request for Proposals (RFP) for three major components of ArkDSS was released in late 2016. These components include (a) spatial system integration (GIS); (b) consumptive use analysis and surface water data and modeling; and (c) administration and accounting tool development. Contractors were selected early in 2017 and are now under contract with work underway; the total of the three contracts is approximately $2,100,000. This first phase of ArkDSS is expected to be completed in approximately three years.

8. Bear Creek Reservoir Reallocation Study
Authorization: SB 16-174
Water Source: Bear Creek and Turkey Creek
Location: South Platte River Basin
Sponsor: CWCB/ US Army Corp of Engineers

Project Type: Reallocation Study
Project Manager: Suzanne Sellers
Beneficiary: Local Water Users

The Bear Creek Dam and Reservoir Project (aka "Bear Creek Lake") was completed in 1977. The project's active capacity is roughly 57,680 AF (at the spillway crest) and is currently operated at a maximum priority storage volume of roughly 1,930 AF. In May 2015, the U.S. Army Corps of Engineers ("the Corps") completed a reconnaissance study that concluded that 20,000 AF of storage may be available in Bear Creek Lake for reallocation while maintaining the structure's flood control and other purposes. In 2016, Senate Bill 174 was signed by Governor John Hickenlooper authorizing appropriation of $2,500,000 to work with the Corps to study the potential for reallocation of storage. In the fall of 2017, the Corps anticipates submitting an exception request package to the Corps' Dam Safety Officer to allow the reallocation study process to move forward. When the exception is approved, the CWCB will pursue a contract with the Corps to investigate the reallocation of up to 20,000 AF of existing storage space.

9. Colorado's Decision Support Systems (CDSS) Operations and Maintenance (O & M)

Authorization: SB 13-181, HB 14-1333
Water Source: N/A
Location: N/A
Sponsor: CWCB
Project Type: O&M
Project Manager: Andy Moore
Beneficiary: Statewide

The primary use of these funds is to support the movement of the CDSS technical software to an Open Source format. The future support and enhancement of CDSS software tools will be facilitated in this project. The project has been underway for close to a year; this contract will continue for another four years.

10. Colorado Flood Decision Support System

Authorization: SB 07-122 to HB 08-1346
Water Source: Statewide Streams
Location: Statewide
Sponsor: CWCB
Project Type: Decision Support System
Managers: Carolyn Fritz / Kevin Houck
Beneficiary: Statewide Water Users

The work on the FloodDSS was completed in 2011 and the website went public in May 2011. The remaining funds will be used to further enhance the Colorado Hazard Mapping & Risk Map Portal site, which has taken over many of the objectives of the FloodDSS website.

11. Colorado River Augmentation Project Development

Authorization: HB 08-1346
Water Source: Colorado River
Location: Colorado River Basin
Sponsor: CWCB/ Seven Basin States
Project Type: Study
Project Manager: Michelle Garrison
Beneficiary: Colorado River Compact

The seven Colorado River Basin States (States) have been investigating potential ways to augment and increase the water supply of the Colorado River for several years. In January 2010, the Bureau of Reclamation awarded the States a $1 million grant through the Basin Study Program, under the auspices of the Water Smart Program. The States provided a $1 million match under that application. This study's focus was on identifying the current and projected water supply and demand throughout the entire Colorado River Basin and adjacent areas of the seven States that receive Colorado River water up to the year 2060. The general focus of the Study included a comprehensive review, evaluation and characterization of current and long-term water supply and demands, and identification and quantification of future augmentation needs and recommended options to address these needs. Both consumptive and non-consumptive uses associated with Colorado River water were examined. A review and analysis of the known and potential effects of drought, and climate change on the Colorado River and their implications on current and future water supplies and associated uses in the Basin were completed. Strategies were developed and refined as needed to move forward on any needed augmentation project for the Basin. The estimated total cost of the Study originally was between $2 and $3 million depending on the final scope, but the total final cost was closer to $5 million. The seven basin states and the U.S Bureau of Reclamation (Reclamation) shared the costs of the study. Colorado has spent $87,500, and there remains $62,500 in funds that will be disbursed, as needed, within the next year or two, as we commence with implementation phases.

12. Colorado River Delta in Mexico Consultation

Authorization: HB 02-1152, HB 08-1346
Water Source: Colorado River and Tributaries
Location: Seven Colorado River Basin States and the Republic of Mexico
Sponsor: CWCB
Project Type: Compact Consultation
Project Manager: Carlee Brown
Beneficiary: State of Colorado, Colorado

River Basin States, and the Republic of Mexico

These funds were initially authorized for the CWCB staff and Colorado's Upper Colorado River Compact Commissioner to participate in the investigation of issues pursuant to Minute 306 of the *1944 Treaty between the United States and Mexico Concerning the Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande* to assure that such investigations and any solutions that might be offered to comply with Minute 306 do not interfere with or otherwise jeopardize the terms of the Colorado River and Upper Colorado River Compacts. In addition, these funds were authorized to support the work between the United States and Mexico, who initiated a bi-national conversation about opportunities for bi-national cooperation on water projects that will have bi-national benefits. This effort resulted in the adoption of Minutes 316, 317, 318, and 319 over the last several years. Currently, Colorado is engaged in negotiations on draft Minute 323 which would continue the work of Minute 319. These funds are being used for assistance associated with this bi-national process, and for travel and other incidental costs associated with implementation of this work.

13. Colorado Water Needs and Alternatives Analysis (Colorado River Water Availability Study)
Authorization: SB 07-122 to SB 12S-002
Water Source: Colorado River and its Tributaries
Location: Statewide
Sponsor: CWCB
Project Type: Water Availability Analysis
Project Manager: Andy Moore
Beneficiary: Statewide Water Users

Since the completion of Phase 1 of the study the Board approved the allocation of an additional $2 million for the next phase. Approximately $1,019,000 has been expended to date on Phase 2 activities including:

- Examination of the new global climate model data, CMIP 5, with comparison to the CMIP3 data used in Phase I,
- Updates to the CDSS models and tools
- Updates to the StateMod datasets for the Yampa, White, Colorado, Gunnison, and San Juan basins, including irrigated acreage and diversion structure data, consumptive use estimates and documentation.
- Simulations of western-slope StateMod models incorporating new global climate model data.

Fiscal Year 2016-2017 work included CDSS support for SWSI, additional updates and enhancements to models and tools, and development and simulation of model scenarios that incorporate climate change projections. The project will be completed in 2017.

14. Emergency Dewatering Grant Program
Authorization: HB15-1178
Water Source: N/A
Location: South Platte Basin
Sponsor: CWCB
Project Type: Grant Program
Managers: Andy Moore / Erik Skeie
Beneficiary: Statewide Water Users

HB15-1178 authorized CWCB to administer an emergency dewatering grant fund for areas of damaging high groundwater around Gilcrest and Sterling. On July 1, 2016, $165,000 was transferred from the General Fund to the Construction Fund for the grant program. An additional $290,000 has been transferred from the General Fund for FY16-17. The Board approved a grant request for $90,000 from the Town of Gilcrest in July 2016. The dewatering plan to be operated by this grant failed due to an uncooperative Farmers Independent Ditch Company, and the funds were returned to the grant fund. A second grant to Gilcrest was approved by the Board in March 2016. This grant for $139,800 is being used to develop a long-term dewatering plan for the Town. Another grant request for the Gilcrest area (West Greeley Conservation District: $140,329.50 in year one, $107,355.60 in year two) for a Pilot Project was approved by the Board in May 2016, and the second year of the Pilot was approved in May 2017. This Pilot Project utilizes alternative water management with the goal of lowering the groundwater table. The Pawnee Ridge Homeowner's Association was awarded a grant for $128,407 in September 2016 to construct a permanent dewatering system. The Town of Gilcrest was awarded $57,986.30 to construct a permanent dewatering well near its wastewater treatment plant, which was one of the recommendations of the Dewatering Improvements Study previously completed with this funding.

15. Gunnison Basin Irrigation System Planning and Optimization
Authorization: HB 14-1333
Water Source: Gunnison River
Project Type: Salinity Control Planning

Location: Gunnison River Basin
Sponsor: CWCB
Project Manager: Brent Newman
Beneficiary: Local Water Users

Approximately 20 small grants were made to ditch companies in the Gunnison River Basin at a cost of about $125,000 enabling to obtain engineering assistance to prepare for an irrigation system improvement funding competition from the Colorado River Basin Salinity Control Program (CRBSP) in 2015. Six of these companies received awards totaling over $7 million. The balance of the funds will be used to do follow up work with the unsuccessful applicants in preparation for the 2018 CRBSP funding opportunity.

16. Instream Flow Decision Support System
Authorization: SB 03-110
Water Source: Statewide Streams
Location: Statewide
Sponsor: CWCB
Project Type: Decision Support System
Managers: Carolyn Fritz
Beneficiary: CWCB Staff, and Statewide Water Users

Work began in June 2013 on an update to the ISFDSS. A contractor was hired to update the program to be compatible with current operating systems and GIS software. The project was completed in August 2016, and all funds disbursed.

17. Litigation Fund
Authorization: HB 95-1155 to SB 16-174
Water Source: N/A
Location: Statewide
Sponsor: CWCB
Project Type: Legal Services
Project Manager: Carlee Brown
Beneficiary: CWCB Staff, and Statewide Water Users

Each year, CWCB staff reports to the Board and the General Assembly about the status of the fund, including all expenditures from the fund. For more information, please refer to the litigation account agenda item, which the Staff reports on each spring. In addition, the Board has authorized additional amounts that are not reflected in the ending balance but will be disbursed in the current fiscal year. This fund is typically refreshed each fiscal year to be restored to $2 million on July 1, from the Construction Fund.

18. Lower South Platte Water Management and Storage Sites Investigation and Sustain Study
Authorization: HB 00-1419, SB 01-157
Water Source: South Platte River
Location: N/A
Sponsor: CWCB
Project Type: Multi-Use Water Planning
Project Manager: Andy Moore
Beneficiary: Potential Statewide

In the summer of 2000, the Colorado Water Conservation Board (CWCB), acting through the Water Supply Protection Section, completed a Reconnaissance Level Study of Water Management and Storage Sites in the lower South Platte River. The initial results of the study indicated several potential projects, which warranted future investigation and the CWCB authorized funding to conduct a feasibility level study of these "preferred alternative(s)", and if warranted, to complete an engineering design of the selected alternative(s).

The overall purpose of the project is to identify water management and storage options in the lower South Platte River that could facilitate Colorado's management of South Platte flows, including: 1) coordination with ground water recharge projects for in-state beneficial uses, water rights administration and South Platte River Compact administration; and 2) providing benefits for biological species of concern in Colorado and for participation in the Platte River Recovery Implementation Program.

Shortly after CWCB's authorization of the project, staff and management were approached by representatives of the Ground Water Appropriators of the South Platte (GASP), one of the potential beneficiaries of a future project, and were asked to delay the feasibility study because of a pending water right filing. The sensitivity of the water right filing and GASP's desire to implement one of the alternatives identified in the reconnaissance study lead staff and management to conclude that it would be prudent to delay implementation of the feasibility study.

Significant changes to the State Engineers authority to administer ground water diversion (Senate Bill 73) have dramatically changed water management in the South Platte River. While GASP was successful in acquiring land for one of the physical storage sites ("Ovid Reservoir"), they have experienced significant

impacts from S.B. 73. As a result, GASP is no longer a viable entity. Former members of GASP and other water management interests have formed the District 64 Reservoir Company, but it is uncertain whether the new company will be able to complete the project. A feasibility study was completed for the Ovid Reservoir site in December of 2011. The results of this study show that the reservoir is technically feasible and that several potential benefits exist for the project that warrants Colorado being a participant in the development of the project. The location of the reservoir site continues to offer potential advantages to address water user and endangered species issues/needs. Additional study for the reservoir will be required, including groundwater modeling, easement and river access analysis, and conveyance options for delivery to the reservoir.

Staff will continue to coordinate with the CWCB's Board member from the South Platte Basin as to how best to proceed in the use of these funds. Given the complexity of the project, Staff recommends that the current authorization remain in place to allow coordination with the District 64 Reservoir Company for future work associated with the potential reservoir. Additionally, the South Platte storage study currently underway as per HB16-1256 may further inform how best to proceed with this funding.

19. South Platte Groundwater Data Collection and Analysis
Authorization: SB 12S-002 to HB 14-1333
Water Source: N/A
Location: South Platte Basin
Sponsor: CWCB
Project Type: Data Collection/Planning
Project Manager: Andy Moore
Beneficiary: Local Water Users

This project is a cooperative effort with the Division of Water Resources in response to reported high groundwater levels in the Gilcrest-LaSalle and Sterling areas. It includes the collection of alluvial aquifer water level data at pilot projects at each of the areas. Continuous water level monitoring equipment has been installed in 20 new observation wells in the Sterling area, and groundwater level data are also being collected in 16 existing wells in the area. In the Gilcrest-LaSalle area, 47 existing wells are being monitored. Data from both areas are available online. This effort included an independent analysis and interpretation of the potential causal relationships of the high groundwater; the report was completed in July 2015. As part of this project, the SPDSS alluvial groundwater model has also been enhanced and extended to include more recent data; the updated model and report are now available.

20. South Platte Storage Study
Authorization: HB 16-1256
Water Source: South Platte River
Location: South Platte Basin
Sponsor: General Assembly /CWCB
Project Type: Study
Project Manager: Andy Moore
Beneficiary: Local Water Users

In 2016, the Colorado Legislature passed HB 16-1256, which commissioned a study of storage sites in the South Platte Basin downstream of Greeley. As per the legislation, the funds were transferred to the Water Supply Reserve Fund, with a grant application from the Lower South Platte Water Conservancy District on behalf of the South Platte Basin and Metro Roundtables. The grant was approved by the Board in September 2016, and work was underway later that year. The study includes the evaluation of new storage sites, rehabilitation and enlargement of existing sites, and underground storage sites. A report will be completed and provided to the legislature by December 31, 2017.

21. South Platte Decision Support System (SPDSS)
Authorization: SB 99-173 to SB 09-125
Water Source: South Platte River
Location: South Platte Basin
Sponsor: CWCB
Project Type: Decision Support System
Project Manager: Andy Moore
Beneficiary: Statewide Water Users

The development of SPDSS is complete; the surface water planning model was the last component remaining to be finalized. Sub-basin models were developed for the St. Vrain, Big Thompson, Boulder Creek, and the Upper and Lower South Platte mainstem. These sub-basin models have been integrated into one basin-wide model; the model and documentation are now available on the CDSS site.

22. UDSA Regional Conservation Partnership Program (RCPP)
Authorization: SB15-253
Water Source: Gunnison River
Location: Gunnison Basin
Sponsor: CWCB
Project Type: Technical
Project Manager: Brent Newman
Beneficiary: Local Water Users

Funds are being used to support the first phase of the Gunnison Basin RCPP project sponsored by the Colorado River Water Conservation District (CRWCD). This will provide technical support to water users and ditch companies through local conservation districts and for advanced design work by the CRWCD. Construction on several features of the Phase 1 RCPP began during this fiscal year.

23. Underground Storage Pilot Projects
Authorization: SB16-174
Water Source: N/A
Location: South Platte and Arkansas Basins
Sponsor: CWCB
Project Type: Storage Study
Project Manager: Andy Moore
Beneficiary: Local Water Users

Funds were authorized for underground storage pilot projects. In May 2017, the Board approved two grants for $100,000 each. The first grant was to the Upper Arkansas Water Conservancy District (District) for the Trout Creek Park Pilot Project. This project will install a recharge pond delivery system and metering equipment, monitor recharge rates and groundwater levels, and install and monitor additional test wells. The project will be complete in approximately two years. The second grant was to the City of Aurora for the Lost Creek Pilot Project. The objective of this project is to identify a suitable recharge site using site-specific data collection that builds on previous studies. This project should be completed in approximately one year.

24. Water Resource Information Center & Data Harvesting
Authorization: SB 09-125
Water Source: N/A
Location: Statewide
Sponsor: CWCB
Project Type: Water Information
Project Manager: Erik Skeie
Beneficiary: Statewide

Funds were provided to: (1) adopt and implement a standard for sharing/harvesting data among document management systems; (2) integrate the CWCB's and Colorado State University's (CSU) systems using the above standard; (3) join with other interested water entities who want to share their water-related information; and (4) provide funding for furthering CSU's digitization of documents, such as the Delph Carpenter collection.

The accomplishments of this initiative has concentrated on appropriating money to CSU's digitization efforts, which included scanning, indexing and making available (through the CSU Water Resources Archive) papers, maps and slides from the Littleworth collection (documenting *Kansas v. Colorado*), irrigation research papers, Delph E. Carpenter Papers, Royce Tipton Papers, North Poudre Irrigation Company records, and Wright Water Engineers records.

25. Wild and Scenic Rivers Fund
Authorization: SB 09-125
Water Source: Various
Location: Various
Sponsor: CWCB
Project Type: Study
Project Manager: Suzanne Sellers
Beneficiary: Statewide

In 2009, the General Assembly passed legislation establishing a fund for this project that is automatically refreshed every July 1 up to $400,000 for work in this regard. Within Colorado, a number of river segments have been classified as eligible or suitable for "wild and scenic" designation by various federal agencies. In response, a number of stakeholder groups have formed to explore and implement alternatives for resource protection that may include wild and scenic designation as well as many other options. Over the past year, these groups were located in the San Juan River Basin, the Dolores River Basin, and the Upper Colorado River Basin. To date, funds have been used within each of these different basins for facilitators, informational studies, and other operating expenses. This Wild and Scenic Rivers Fund is needed to fund ongoing work, including the implementation of: 1) the Upper Colorado River Wild and Scenic Alternative Management Plan and 2) the Implementation, Monitoring and Evaluation Plan and other work by the Lower Dolores Plan Working Group in the Dolores River Basin.

26. Chatfield Channel Improvement
Authorization: SB 79-537 – SB 90-41
Water Source: South Platte River
Location: Downstream of Chatfield Reservoir
Sponsor: CWCB
Project Type: Flood Control
Project Manager: Joe Busto
Beneficiary: CWCB – Metro Area

Since inception, these funds assisted in constructing a flood control project to accommodate flood releases out of Chatfield which is owned and operated by CWCB. Each year the project is inspected by the Omaha Army Corps of Engineers. This funding has been used for maintenance and repair activities. Some funding was used to help with recreation river safety signage report and graphics for new signs from downstream of Chatfield to the Denver County line. CWCB provided funds for River Run Phase II that focused on trail construction from Oxford to the Big Dry Creek Bridge. Funding should be replenished in order to continue with vegetation removal and maintenance and repair activities as prescribed by the Corps of Engineers. Due to the relationship with the Reservoir Reallocation Study and implications to floodplain maps in Sheridan, Englewood, and Littleton additional funding would continue activities that will help the CWCB maintain a minimally satisfactory rating through the Corps Public Works Inspection Program. It is estimated that about $50,000 annually is needed for vegetation removal, culvert cleaning, and bank stabilization projects to meet the requirements of the Corps of Engineers' inspection report items.

27. Colorado Floodplain Map Modernization

Authorization: SB 03-110 to SB 16-174
Water Source: N/A
Location: Statewide
Sponsor: Statewide

Project Type: Floodplain Delineation
Project Manager: Thuy Patton
Beneficiary: CWCB – Statewide

This program is a federally funded but state-managed floodplain mapping program, with matching funding from state and local governments. Floodplain maps originally prepared as part of the Federal Emergency Management Agency's (FEMA's) National Flood Insurance Program (NFIP) are being updated and revised. The new maps are digital and are prepared in a countywide format. Beginning in Fiscal Year 2004, CWCB worked directly with FEMA and the affected local governments to start the process of updating and revising old Flood Insurance Rate Maps into the new digital format. Counties, which include the county and its incorporated communities, that have been completed or are in progress are: Boulder, Garfield, Pitkin, Fremont, Clear Creek, Pueblo, Weld, Summit, El Paso, Rio Grande, Montrose, Morgan, Prowers, Logan, Chaffee, Prowers, La Plata, Montezuma, Mesa, Delta, Elbert, Fremont, Las Animas, Larimer, Teller, Clear Creek, Park, Rio Blanco, and Gunnison Counties and the City of Boulder.

Starting in 2009, the program has transitioned to Risk Map, which will incorporate additional products to assist local communities in conveying flood risk hazards within their communities. FEMA floodplain maps will continue to be updated based on a watershed level instead of a countywide level.

The Denver Metropolitan area counties are all managed by the Urban Drainage and Flood Control District with technical and financial assistance from CWCB. All other studies are being managed by CWCB staff with consulting assistance from two engineering teams that were selected and contracted for this work.

The CWCB Map Modernization program has been instrumental for leveraging local and state funds to maximize federal grants to the program. Typically the local funding is contributed to CWCB at some point during the project duration. The local contribution is reflected as a donation as listed above. Colorado is seen as a floodplain mapping leader within FEMA Region VIII and within the country as a whole.

28. Fish and Wildlife Resources Fund

Authorization: SB 01-157, HB 02-1152
Water Source: Various
Location: Various
Sponsor: CWCB

Project Type: Grant Program
Managers: Chris Sturm / Carlee Brown
Beneficiary: Statewide

In 1987, HB 87-1158 created the Fish and Wildlife Resources Account, also known as the "Mitigation" Account, in the Construction Fund. Procedures for obtaining mitigation grant approvals are found under section 37-60-122.2, CRS. SB 01-157 transferred the account into a special fund. Expenditures from the fund in Fiscal Year 2017 were to support travel associated with the Platte River Recovery Implementation Program via a Long Bill appropriation.

Two grants were awarded from the Fish and Wildlife Resources Fund according to Board Policy 15. The Chatfield Reservoir Mitigation Company was awarded $814,270 for channel stabilization and restoration on Plum Creek, and the Urban Drainage and Flood Control District was awarded $439,000 for flood mitigation and habitat improvement on the South Platte River below Chatfield.

29. Flood and Drought Response Fund

Authorization: SB 01-157 to SB 16-174
Water Source: All Colorado Streams
Location: Statewide
Sponsor: CWCB

Project Type: Response to Flood & Drought
Managers: Kevin Houck / Taryn Finnessey
Beneficiary: CWCB - Statewide

The Flood and Drought Response Fund (Fund) provides CWCB with opportunities to participate in flood and drought preparedness, response and recovery activities throughout Colorado. The Fund supports five elements of the program, which are Flood and Drought Forecasting and Preparation, Aerial Photography of Flooded Areas, Flood Documentation and Identification of Specific Hazards, Evaluations and Revisions of Floodplain Designations, and Development of Disaster and Recovery Mitigation Plans.

The Board has previously approved the staff's program mission and guidelines for the administration of the Fund. The program is administrated jointly by the CWCB's Flood Protection Section and the Water Supply Section and is fully operational at this time. These activities included snowmelt flood preparation activities, long-term weather outlooks for flood and drought purposes, on the ground drought response, post-flood documentation for various flooding events, post-flood aerial photography, and floodplain evaluations to assess CWCB designated floodplains for validity. A portion of this work also proved to be valuable for the Colorado Flood Task Force and Water Availability Task Force.

Monies from this account continued to be used for post-wildfire flood mitigation purposes for a number of the large wildfires that occurred in both 2012 and 2013 as well as the damaging floods from September 2013.

Specific tasks accomplished using funds from this account during FY 2016 included the daily Flood Threat Bulletin during the flood season from May through September, and seasonal climate forecasts from the University of Colorado for the purpose of flood and drought forecasting. In addition, numerous projects associated with general flood prediction, mitigation and recovery were funded. These included a cost share for design of a flood mitigation project in Canon City , a reevaluation of flood hydrology for the Colorado River mainstem for the purposes of updating floodplain maps and flood risk data, a cost share with the USGS for Lidar acquisition for the Mesa County Hazard Mitigation Plan, and a study of the projected impacts to heavy rainfall intensities due to climate change for the purposes of estimating increases in risk from those effects.

30. Rio Grande Forecasting Development Project Implementation

Authorization: SB 13-181
Water Source: Rio Grande & Conejos Rivers
Location: Rio Grande
Sponsor: CWCB, USBR, Rio Grande BRT

Project Type: Demonstration Project
Project Manager: Kevin Houck
Beneficiary: Rio Grande Water Users, West Gulf River Forecast Center, DWR

A NOAA mobile weather radar was rented and used from October 2016 through March 2017 to scan all winter precipitation events and create radar precipitation estimates for the national water model, NASA ASO was hired for the third time to conduct one spring snowpack mapping flight of the Conejos and Rio Grande Basins on June 8, 2017. The National Center for Atmospheric Research was hired to help permit and deploy snow data stations in the Rio Grande and also provide non official forecast modeling for comparison to the official water supply forecast modeling provided by both the NRCS Snow Survey Program and the West Gulf River Basin Forecast Center in Fort Worth, TX.

31. Stream Restoration Grant Account – Flood and Drought Response Fund

Authorization: SB 14-179
Water Source: South Platte
Location: South Platte Basin
Sponsor: CWCB

Project Type: Watershed Cleanup Efforts
Project Manager: Chris Sturm
Beneficiary: Local Water Users

Twenty projects were awarded funds totaling $2,443,655 through a competitive grant program designed to restore streams and remove debris from channels affected by flooding in September 2013. All projects are complete. The funds were used to restore streams in Larimer, Boulder, and Jefferson Counties.

32. Tamarisk Control Cost-Sharing Program

Authorization: HB 08-1346, SB 12S-002, HB15-1006
Water Source: Various
Location: Various
Sponsor: CWCB

Project Type: Phreatophyte Control
Managers: Chris Sturm / Erik Skeie
Beneficiary: Statewide Water Users

This activity combines two distinct $1 million authorizations from the Construction Fund. HB08-1346 created what is now called the Phase 1 TRO Grant Program. Grants ranging from $10,000 to $100,000 were awarded to the entities in 2009 and all work completed by December 2013. The remaining funds from the 2008 authorization have been rolled into the 2012 program described below. Staff will be posting the final reports from each project on the Board's website.

Pursuant to SB14-195, the Board is conducting a study of the effects of the 2013 flood event on phreatophyte recruitment and water use in the S. Platte basin. SB195 instructed the Board to use funds available within the IPCP grant authorization to conduct the study, and approximately $125,000 has been budgeted for that purpose. Several researchers from Colorado State University, the Colorado Water Institute, and the Tamarisk Coalition have been hired to conduct the study. An interim report was reviewed by the Board and provided to the General Assembly as required in May 2016, with a final report due in December 2016.

Senate Bill 12S-002 authorized an additional $1 million grant program, the Invasive Phreatophyte Control Program, which is now managed by the Watershed and Flood Protection Section. In January 2014, five applications to the Invasive Phreatophyte Control Program (IPCP) were awarded funding totaling $238,090. Grants were awarded to the Ute Mountain Ute Tribe (Mancos River), Denver Parks and Rec (Bear Creek), Yuma County Pest Control District (Republican River), Weld County Weed Division (St. Vrain River), and Larimer County Weed District (Swift Ponds). CWCB also entered into two one-year agreements, each for $50,000, with the Colorado Youth Corps Association wherein the CYCA awarded mini-grants to regional Youth Corps units working with local governments and landowners to do control projects.

In Fiscal Year 2014-2015, four projects were completed. The total grant amount for those projects was $133,530. Eight projects that were awarded funding in the 2014 remain active. Total funding for these projects is $482,802. In addition, $80,000 was awarded to the Colorado Youth Corps Association to fund 6 Youth Corps projects across the state. $50,000 was awarded in February, 2015, with the additional $30,000 awarded in July, 2015.

In Fiscal Year 2015-2016, HB 15-1006 authorized $2 Million for Fiscal Year 2015-2016 and Fiscal Year 2016-2017 (totaling $4 Million) for the grant program. Due to its Tier 2 nature, only $1.8 Million was provided for FY 2015-2016, and it is anticipated there will be no additional funds for FY 2016-2017. Currently, 19 projects across the State have been awarded funding through this program, 7 of which are under contract and have begun work. All projects are anticipated to be complete in June of 2018.

33. Water Forecasting Partnership Project

Authorization:	SB 16-174		
Water Source:	Rio Grande & Conejos Rivers	Project Type:	Forecasting
Location:	Rio Grande & Gunnison Basins	Project Manager:	Joe Busto
Sponsor:	CWCB	Beneficiary:	Statewide

The Water forecasting partnership project is a continuation of work that originated in the Rio Grande where the NASA Aerial Snow Observatory, mobile radars, implementation of the national water model and gap filling data were all showed utility and were used to increase the accuracy of official water supply forecasts for the Rio Grande. Planned expenditures for this project are mapping the Gunnison Basin above the Aspinall Unit with the NASA ASO, new gap filling snowpack data in the Taylor River Basin, and matching funding for the purchase of a weather radar in partnership with a large coalition in the Rio Grande. The remainder of this funding will be used to help get the NASA ASO LIDAR data collected to QL2 standards and then available for the CWCB partnership with local communities through the all hazard mapping program.

34. Watershed Restoration

Authorization:	HB 06-1313 to SB 16-174		
Water Source:	Various	Project Type:	Watershed Restoration
Location:	Statewide	Project Manager:	Chris Sturm
Sponsor:	CWCB	Beneficiary:	Watershed Interests

The grant funding has been allocated to projects through the CWCB Colorado Watershed Restoration Program January 2011 - 2016 competitive grant cycles. Complete projects from the 2011 grant cycle include ditch diversion reconstruction (Relief Ditch) on the Gunnison River (upstream of Delta). Complete projects from the January 2012 grant cycle include forest road restoration/erosion control in the Coal Creek Basin (Redstone). Complete projects from the September 2013 grant cycle include post fire watershed restoration for the High Park fire. Complete projects from the September 2014 grant cycle include restoration prioritization in Park County. Active projects from the October 2015 grant cycle include wetland restoration

in the upper Animas watershed, riparian re-vegetation in gullies formed by the Waldo Canyon fire in the Fountain Creek watershed, post fire restoration design in the Poudre River watershed, education and outreach for the fledgling Purgatoire Watershed Partnership, and riparian re-vegetation on James Creek in Jamestown. The October 2015 grant cycle approved stream management planning grants for the San Miguel River, North Fork Gunnison River, and Yampa River in Steamboat. Complete projects from the October 2015 grant cycle include river restoration on Tomichi Creek in the Gunnison basin, mine/gully restoration in the Dolores River watershed, riparian re-vegetation and protection along the Florida River, and a Watershed Assessment of River Stability and Sediment Supply (WARSSS) along Fountain Creek. The Colorado River Roundtable received a grant to work on a stream management plan framework in 2015. This project is still active, as is the Colorado Water Trust's funding to develop a stream management plan workshop. Several 2013 flood affected watershed coalitions were awarded grants to support capacity. These grants continued into 2016. They include the Big Thompson, Little Thompson, Estes Valley, Coal Creek, Left Hand, and St. Vrain Creek coalitions. These grants are leveraging large federal capacity grants. New grants were awarded through the November 2016 grant cycle. They include continued gully re-vegetation in the Waldo Canyon burn area, river restoration on the Colorado River in Grand Junction, riparian re-vegetation on the Swan River, and channel restoration in the High Park Fire (Poudre Basin). Stream Management Planning grants were awarded for the South Platte below Chatfield, Roaring Fork, and the Upper Gunnison Watershed. The River Network was awarded a grant to help local watershed groups and districts develop Stream Management Plan grant applications. They are presently working with four groups to develop applications for the Nov 2017 grant cycle.

35. Weather Modification Program

Authorization: HB 04-1221 to SB 16-174
Water Source: N/A
Location: Denver
Sponsor: CWCB
Project Type: Cost Share Grants
Project Manager: Joe Busto
Beneficiary: Statewide

CWCB funds of $175,000 were matched with $150,000 in Lower Basin Funds. In partnership with WSRF, two Idaho Power remote seeders were purchased for the Upper Gunnison River WCD and the Dolores WCD. Funding was used to continue a lease with an option to purchase a radiometer; which was deployed all winter at Norwood, Colorado, upwind of Telluride. Funding was also provided to operational grants for the permitted programs: Central Mountains, Grand Mesa, Gunnison, Telluride/Dolores, Western San Juan Mountains, and Eastern San Juan Mountains Programs.

36. South Platte River and Arkansas River Basins Alternative Agriculture Water Transfer Sustainability Grant Program

Authorization: SB 07-122 to HB 14-1333
Water Source: Statewide
Location: Statewide
Sponsor: CWCB
Project Type: Alternative Methodologies
Project Manager: Craig Godbout
Beneficiary: All State River Basin Water Users

This grant program focuses on identifying and assisting in the development of agricultural transfer methods (ATM)/programs that reduce consumptive use by reducing the amount of irrigation water applied to the crops, change in the type of crops planted, reducing the number of irrigated acres from historic levels while lessening the impact to rural communities. Several types of agricultural transfers have been proposed as potential alternatives to the traditional agricultural transfers that often result in permanent dry-up of all or a large portion of irrigation systems as a means to obtain additional water supplies for emerging needs. Possible transfer methods include, but are not limited to: 1) interruptible water supply agreements; 2) long-term agricultural land fallowing; 3) water banks; 4) reduced consumptive use through efficiency or cropping changes while maintaining historic return flows; and 5) purchase by end users with leaseback under defined conditions.

Through FY 2016-2017, the Board approved twenty-seven grant applications that totaled approximately $4,800,000. The most recent amount awarded in August 2016 was $200,000 for a Larimer County Open Space Pilot ATM Project in the vicinity of Berthoud, CO involving CBT units and Northern Colorado Water Conservancy District.

Since these projects were awarded their funding, much progress has been made by CWCB and the project sponsors in furthering alternatives to permanent water transfers in Colorado. Through these ATM grant projects, CWCB and others have identified numerous hurdles that must be overcome for these alternative water transfer methods to be successful in Colorado. Specifically, the major hurdles facing the implementation of ATM programs in Colorado include: (1) high transaction costs, (2) ability to transfer a portion of a water right (3) certainty of long-term supplies and (4) water rights administration.

37. Climate Change Effects on Colorado Water Resources Study

Authorization: HB 08-1346
Water Source: N/A
Location: Statewide
Sponsor: CWCB
Project Type: Study
Project Manager: Taryn Finnessey
Beneficiary: Statewide

Climate change has the potential to greatly impact Colorado's natural resources, especially water resources. In support of local government efforts to prepare for and adapt to the effects of climate change CWCB is working with the City of Aspen and the Compact for Colorado Communities to provide online training for local governments to better prepare for what the future may hold. Training will be through the Association of Climate Change Officers which has already developed a suite of modules including climate change effects on water resources and the water energy nexus. This will occur in fiscal year 2018.

38. Colorado Mesonet

Authorization: SB 15-253 – SB 16-174
Water Source: N/A
Location: Statewide
Sponsor: CWCB/CSU
Project Type: Weather Monitoring
Project Manager: Taryn Finnessey
Beneficiary: Statewide

These funds were used for improving and expanding the Colorado Agricultural Meteorological Network (CoAgMet) towards a multipurpose state "Mesonet" focusing both on agricultural and water resources as well as long-term climate monitoring and short term real-time weather tracking to aid weather prediction, emergency management and long term water planning. This year the funds were used to: maintain inventory and index station data and include additional inputs to fill missing information such as the landowners. A new field, "Rain Gauge Funnel Screen" was added to the index; Updated 8 stations to collect near real time data every 5 minutes by installing new data loggers. Five stations were updated from land-line communications to cell phone modem communications; There are now 42 stations collecting 5-minute data and 40 stations calling every 5-minutes; CSU's eRAMS development team made upgrades to improve the mapping, metadata and station photo management system and also corrected issues to the system to improve features and usability; the 17 acquired stations were visited and serviced in the last year to empty the water, oil, antifreeze mixture from the weighing buckets. The Western Regional Climate Center (WRCC) is now pulling the data from the stations via satellite connection and work continues to get data flowing into the CoAgMet system; Presentations and being present at meetings and conferences have improved the stakeholder input process and the network has been expanded with new stations and new users who can better assist with station maintenance.

39. Colorado Drought Mitigation Strategies Implementation

Authorization: HB 14-1333
Water Source: N/A
Location: Statewide
Sponsor: CWCB
Project Type: Drought Planning
Project Manager: Taryn Finnessey
Beneficiary: Statewide

In compliance with the Federal Emergency Management Agency (FEMA) requirements, CWCB completed a comprehensive revision to the State Drought Mitigation Response Plan, approved by the CWCB Members, Governor Hickenlooper and FEMA in 2014. . CWCB has contracted with AMEC Foster Wheeler for the project and will spend the next 18 months developing and enhancing the plan to best fit the needs of the state and local communities.

40. Statewide Water Supply Initiative Continuation

Authorization: SB 13-181, SB 16-174
Water Source: N/A
Location: N/A
Sponsor: CWCB
Project Type: Study
Project Manager: Rebecca Mitchell
Beneficiary: Statewide Water Users

The ongoing SWSI update will serve two primary purposes: Provide a consistent statewide framework for examining future water supply and demand under different scenarios, and provide tools and data for Basin Roundtables to use in updating their Basin Implementation Plans (BIPs) and developing detailed local solutions to identified gaps.

Since this is the first time that SWSI is completed in the context of Colorado's Water Plan (CWP) and the Basin Implementation Plans (BIP), this SWSI update will be different from previous versions. SWSI 2010 was

a relatively straightforward update of the original SWSI 2004 analysis, and did not focus on methodology refinement. In addition to complementing CWP and the BIPS, this SWSI update will also include a number of new approaches and additions, such as quantifying a scenario planning approach, providing a more detailed and scientifically rigorous hydrologic modeling approach, and addressing agricultural, environmental, and recreational gaps. As a result, the first step in this SWSI update involves reviewing and refining the methodologies with stakeholder input from Technical Advisory Groups (TAGs), designed to ensure that the new methodologies are scientifically sound, effective, and appropriate.

41. Water Adaptation Partnership Program

Authorization: SB 09-125
Water Source: N/A
Location: Various
Sponsor: CWCB
Project Type: Planning
Managers: T. Finnessey /A. Moore/ M. Garrison/J. Busto
Beneficiary: Statewide

One of the goals of the Colorado Climate Plan, released in September 2015, is to prepare the state to adapt to unavoidable climate changes. To help meet that goal, CWCB has partnered with multiple state agencies and stakeholders to undertake Water Adaptation Projects to increase understanding of climate change; communicate the information to those who need to plan and implement adaptation strategies and build partnerships that will produce the models and data upon which actions are based. CWCB is working to implement its strategy in the following areas: enhance our climate observation systems with the goal of identifying long-term trends; scrutinize and detect bias in climate change models; fund partnerships to ensure new data is useful at a local planning level; adapt information for use in the Colorado Decision Support System; utilize information to meet federal drought planning requirements; and to improve forecasting and projections.

In FY 2015-2016, this fund was utilized to fund NASA areal snow observatory snow pack mapping for hydrologic modeling in the Rio Grande as part of the Rio Grande Forecasting Project.

42. Water Conservation Data Tracking Project

Authorization: HB 11-1274
Water Source: N/A
Location: Various
Sponsor: CWCB
Project Type: Research Study
Project Manager: Kevin Reidy
Beneficiary: Statewide Water Users

To better understand Colorado's future water supply needs and options, more local information must be incorporated into demand forecasts. During the last 4 years, water providers have been submitting water use and water efficiency data into the Water Efficiency Data Portal which now houses 4 years of data. The data collected from the portal is informing planning work and is being mined for the next SWSI update. CWCB staff is also working with Leonard Rice Engineers on additional output tools and reports as needed and has set up a multi-year maintenance (out to 2020) and customer support plan to spend down the remaining balance.

43. Water Conservation Public Awareness Research Study

Authorization: SB 07-122
Water Source: N/A
Location: Statewide
Sponsor: CWCB
Project Type: Research Study
Project Manager: Rebecca Mitchell
Beneficiary: Statewide Water Users

A statewide water awareness survey and report (formerly referred to as the value of water study) were completed several years ago. This report is available on-line, and provided some insights to public perceptions that fed into portions of Colorado's Water Plan.

44. Water Planning Studies

Authorization: SB 99-173, SB 09-125
Water Source: N/A
Location: N/A
Sponsor: CWCB
Project Type: Water Planning
Project Manager: Rebecca Mitchell
Beneficiary: Statewide

Funding has been used for various water planning studies as needed. Fiscal Year 2017 efforts have been devoted to the implementation of Colorado's Water Plan and funds for these studies were not utilized. As needs arise, these funds will be available for new water planning studies.

45. Chatfield Reservoir Reallocation Project

Authorization: HB 08-1346
Water Source: South Platte River
Location: 10 miles South of Denver
Sponsor: CWCB, U.S. Army Corps of Engineers
Project Type: Study
Project Manager: Kirk Russell
Beneficiary: Statewide Water Users

Chatfield Reallocation is an important storage project, located along the Front Range, involving strong participation from the State as well as six other municipal and agricultural water providers. The permitting phase of the project is complete. Design and implementation are now underway. This authorization not only provided for relevant underpinnings to facilitate state-federal contracting, but it also provided for $2 million in seed money for project implementation. A vast majority of the seed money is still available for use, but is being tagged for the operational component (costs) for the mitigation company to support CWCB and CPW involvement.

46. Chatfield Reservoir Reallocation Project Implementation
Authorization: SB 12S-002
Water Source: South Platte River
Location: 10 miles South of Denver
Sponsor: CWCB, U.S. Army Corps of Engineers
Project Type: Study
Project Manager: Kirk Russell
Beneficiary: Statewide Water Users

Related to the item above, this piece of legislation focused on CWCB's role of owning storage shares in the Chatfield project. 6,883 AF out of the 20,600 AF of total project shares are owned by CWCB. CWCB will retain ownership of those shares until such time as they are used for: 1) the environmental pool or 2) sold back to providers within the water community.

47. Chatfield Reservoir Reallocation Study
Authorization: SB 97-008 to SB 07-122
Water Source: South Platte River
Location: 10 miles South of Denver
Sponsor: CWCB, U.S. Army Corps of Engineers
Project Type: Reservoir Supply Study
Project Manager: Kirk Russell
Beneficiary: Colorado Water Users

Funding from a series of authorizations allowed CWCB to act as the non-federal sponsor with the U.S. Army Corps of Engineers to develop a feasibility study and EIS for the Chatfield project. The contract was first signed in 1999 and was based on a 50/50 cost-share arrangement.

48. Feasibility Study Grant Fund
Authorization: SB 99-173, SB 03-110
Water Source: N/A
Location: Statewide
Sponsor: CWCB
Project Type: Feasibility Study
Project Manager: Anna Mauss
Beneficiary: Local Water Users

In 1999, the Legislature authorized the Board to establish a special fund reserved for feasibility studies for water resources infrastructure systems projects. Grants are awarded to water users to help pay for the costs of preparing feasibility studies in conformance with the CWCB Water Project Loan Program Guidelines. The fund is intended to encourage planning by local water supply entities and to evaluate technical feasibility and the financial aspects of projects if funded through Water Project Loan Program. In Fiscal Year 2017, two grants were awarded.

49. Maximum Precipitation for Rainfall Spillway Sizing Project
Authorization: SB 15-253
Water Source: N/A
Location: Various
Sponsor: CWCB
Project Type: Study
Project Manager: Anna Mauss
Beneficiary: Statewide

This project is funding the CO-NM Regional Extreme Precipitation Study. It is a peer reviewed project to use existing methodologies and science to create updated tools and procedures for estimating regional extreme precipitation depth, area, and duration relationships and regional precipitation frequency estimates for the regional area including Colorado and New Mexico. The project also desires to develop an accepted standard of practice for these studies to be used as a national model. Finally, the project will evaluate the uncertainty of the various components, and create a list of additional future research projects to reduce the uncertainty of the chosen methods.

50. Reservoir Dredging Project

Authorization: SB 16-174
Water Source: South Platte River
Location: Morgan County
Sponsor: CWCB
Project Type: Dredging
Project Manager: Kirk Russell
Beneficiary: Local Water Users

Senate Bill 16-174 appropriated $1 Million for the purpose of funding reservoir dredging projects. Grants can fund feasibility studies, engineering, and to develop or restore reservoir storage capacity. In Fiscal Year 2017, one feasibility study grant was awarded to Jackson Lake Reservoir and Irrigation Company. Funds for dredging projects are available until July 1, 2018.

51. Rio Grande Cooperative Project

Authorization: SB 12S-002
Water Source: Rio Grande River
Location: Rio Grande County
Sponsor: CWCB / SLVID
Project Type: Reservoir Rehabilitation
Project Manager: Kirk Russell
Beneficiary: Rio Grande Water Users

Six contracts worth $5M have been executed towards this effort that included project design, project management, embankment material processing, federal land exchange, and seepage control. To-date, the San Luis Valley Irrigation District (SLVID) has completed the: clay liner project, final design of the outlet works, the federal land exchange and is expected to complete the access road to the outlet works this winter. The SLVID is authorized funding of $25M for additional rehabilitation work which would be in the form of a grant/loan; the proportion is still to be determined.

52. Rocky Mountain Fen Demonstration Project

Authorization: SB 07-122
Water Source: N/A
Location: N/A
Sponsor: Colorado Mountain College
Project Type: Demonstration Project
Project Manager: Kirk Russell
Beneficiary: Statewide

Funding was awarded to the Colorado Mountain College-Timberline Campus for a demonstration project designed to explore the extent to which the harvest and transplantation of slow-forming organic peat soils, from an area of potential impact to specifically prepared receiver sites, can serve as mitigation of impacts to fens. The funding for the project is dependent on the project sponsor acquiring a 50/50 cost share from other outside sources to match the CWCB funds. CWCB was contacted in the summer of 2017 by the CMC regarding a project planned to start in 2018.

53. Windy Gap Reservoir Bypass Channel Project

Authorization: SB 13-181, SB 16-174
Water Source: Colorado River
Location: Windy Gap Reservoir
Sponsor: Northern Colorado WCD
Project Type: Diversion Structure
Project Manager: Kirk Russell
Beneficiary: Water Users

Funding was provided for the planning, design and construction of the Windy Gap Reservoir Bypass Project by CWCB and the Northern Colorado Water Conservancy District in an amount of $2 million each toward the project. However, the estimated cost of the project exceeds $10 million and the project is on hold while additional funding options are explored. Senate Bill 16-174 provided funding in the amount of $200,000 toward a feasibility study which should expedite commencement of the project.

NOTE: ***Severance Tax Operational Fund Project Status begins on the following page.***

Severance Tax Operational Fund

The following table summarizes the Severance Tax Operational Fund projects authorized by the Long Bill and monitored by the Colorado Water Conservation Board Staff during the fiscal year. Details of the projects follow this summary.

No.	Manager	Project Name	FY 17 Amount
		Interstate, Federal, and Water Information Programs	
1	Sellers	Work related to Recreational Projects	$30,000
2	Brown	Colorado River Contingency Planning Work	$75,000
3	Fritz	CSU Water Resources Archive	$25,000
4	Garrison	Colorado River Basin Climate Station Monitoring, O&M	$40,114
5	Newman	John Martin Reservoir Storage Account, Phase I	$48,708
6	Newman	Irrigation Well Data Collection Enhancements	$30,000
7	Newman	Fountain Creek Transit Loss Model Upgrade	$50,000
8	Moore	Water Budget Analysis of the Upper Big Sandy Alluvial Aquifer	$50,000
9	Moore	Lake Ranch Multi-Use Pilot Project Feasibility Study - Alluvial Aquifer Storage	$45,290
10	Moore	Quantifying Pumping-Induced Streamflow Depletion in the So Platte River Corridor	$45,310
11	Moore	Developing a Refined Groundwater Flow Model for the LaSalle/Gilcrest Area	$49,234
12	Newman	Agronomic Responses to Partial and full Season Fallowing of Alfalfa and Grass Hayfields	$4,994
13	Newman	Colorado Irrigation Center Design and Concept Development	$49,876
14	Moore	Data Collection and Analysis in Support of Improved Water Management in the Arkansas River Basin, Phase 3	$50,000
15	Moore	Enhanced Open Data for Colorado's Water Resources	$50,000
16	Moore	Aquifer Storage and Recovery - Fountain Formation	$50,000
17	Brown	CSU Water Tables	$5,000
		Finance Programs	
18	Hernandez	Dam Safety Inundation Mapping Grant Program	$19,979
19	Hernandez	Dam Safety Dam Records Digitization Project	$20,000
20	Russell	Regulation 84 Re-Use Rulemaking	$40,000
21	Mauss	Pedal the Plains	$5,000
		Stream and Lake Protection Programs	
22	Bassi	Case Management and Litigation Support	$90,226
23	Baessler	Stream and Lake Protection Section Outreach and Education	$5,282
		Watershed and Flood Protection Programs	
24	Houck	Flood Mitigation and Project Compliance	$105,328
25	DiBetitto	FEMA Coordinator Matching Program	$49,694
26	DiBetitto	Colorado Dam Release - Floodplain Impacts Study	$50,000
27	Busto	Colorado Dust on Snow Program	$25,000
28	Busto	Enhanced Snowpack Assessment Products for Co Water Managers	$55,000
29	Patton	Online Flood Inundation Maps of the South Platte River	$45,000
30	Sturm	Watershed Program	$10,000

31	MacKillop	Watershed Summit and STEM Project	$41,450

Total Severance Tax Expended for FY 17 **$1,260,485**

Details of the Grants Provided for the above Projects are as follows:

1. Work Related to Recreational Projects
   Water Source: Various
   Location: Various
   Sponsor: CWCB
   Project Type: Technical Assistance
   Project Manager: Suzanne Sellers
   Beneficiary: Local Water Users

   These funds are used to help assist mountain communities with their economies by increasing recreation-based tourism. In particular, these funds were granted to the City of Durango to make modifications to the existing whitewater park to provide a better and safer experience for boaters during periods of high water.

2. Colorado River Contingency Planning Work
   Water Source: Colorado River Basin
   Location: Colorado River Basin
   Sponsor: CWCB
   Project Type: Technical
   Project Manager: Carlee Brown
   Beneficiary: Statewide

   These funds supported modeling of potential outcomes of drought contingency planning in the Upper Colorado River Basin. The four Upper Basin States have been working towards creating a strategic Colorado River Storage Project reservoir operations agreement in the event of severe drought in the Upper Basin. This funding supported modeling of the various scenarios. Modeling of the Lower Basin's draft drought contingency plan also was supported through these funds. This helped the Colorado – and the Upper Basin as a whole – understand the implications of proposed drought response plans.

3. CSU Water Resources Archive
   Water Source: N/A
   Location: N/A
   Sponsor: CSU
   Project Type: Digitizing
   Project Manager: Carolyn Fritz
   Beneficiary: Statewide

   CSU's Water Resource Archive digitized 59,138 pages/items from several collections, including but not limited to; Irrigation Research Papers, and the Delph E. Carpenter and Family Papers, Arthur L. Littleworth Papers, Royce J. Tipton Papers, Wright Water Engineers Records, and North Poudre Irrigation Company records. Material types selected include trial transcripts, data, drafts, administrative records, research notes, correspondence, meeting minutes, and safety negatives. Digitized materials can be found at: https://dspace.library.colostate.edu (home page; click through "Colorado State University, Fort Collins" and "CSU Archives and Special Collections" links to get to Water Resources Archive).

4. Colorado River Basin Climate Station Monitoring, Operation and Maintenance
   Water Source: N/A
   Location: Western Colorado
   Sponsor: CSU Colorado Climate Center
   Project Type: Climate Data Collection & Monitoring
   Project Manager: Michelle Garrison
   Beneficiary: Water Users, Upper CO River Commission

   In cooperation with the Upper Colorado River Commission and the Bureau of Reclamation, the CSU Colorado Climate Center analyzed data, selected sites, ordered equipment and began installation of ten new climate stations on the Western Slope. The new climate stations will provide climate data for agricultural areas not well represented by existing stations. Installation will be completed, data collection, analysis and quality control will be conducted and the stations will be operated and maintained by the CSU Colorado Climate Center with funds from Reclamation.

5. John Martin Reservoir Storage Account Phase 1
   Water Source: Arkansas River
   Location: Arkansas River Basin
   Sponsor: CWCB / LAVWCD
   Project Type: Study
   Project Manager: Brent Newman
   Beneficiary: Local Water Users

These funds supported a study to establish a 40,000 acre-foot Colorado Water Users Account in John Martin Reservoir. The study provided basic information regarding the initial interested participants, the initial sources of water they have proposed for storage, and uses for that water. Account characteristics such as capacity and carryover, spill priority, evaporation loss, and operations and accounting were also discussed. Finally, the study identified remaining questions and tasks for Phase 2. Establishing the Colorado Water Users Account can provide benefits that would accrue to both Colorado water users and to Kansas, which would promote interstate comity. The fundamental concepts proposed are such that establishing the account would not cause injury to occur to any existing John Martin Reservoir storage account users, or to any Colorado or Kansas water users.

6. Irrigation Well Data Collection Enhancements

Water Source: Arkansas River and Tributaries
Location: Lower Arkansas Valley
Sponsor: CWCB / LAVWCD
Project Type: Upgrade Program
Project Manager: Brent Newman
Beneficiary: Local Well Water Users

These funds, managed by the LAVWCD, supported the implementation of a well data reporting upgrades program. Staff from LAVWCD worked with water users to upgrade well use reporting mechanisms, through a voluntary opt-in process. Greater efficiencies and accuracy will be gained through these upgrades, providing for greater ease in compact compliance and water rights administration.

7. Fountain Creek Transit Loss Model Upgrade

Water Source: Fountain Creek
Location: Fountain Creek
Sponsor: PPRWA
Project Type: Technical
Project Manager: Brent Newman
Beneficiary: Local Water Users

The funds for this project were provided to the Pikes Peak Regional Water Authority (PPRWA) and were used to help upgrade and enhance an existing transit loss accounting model used to track and credit valuable consumptive use return flows on Fountain Creek, a major tributary in the Arkansas River Basin.

8. Water Budget Analysis of the Upper Big Sandy Alluvial Aquifer

Water Source: N/A
Location: Arkansas Basin
Sponsor: USGS
Project Type: Study
Project Manager: Andy Moore
Beneficiary: Local Water Users

The objective of this project is to evaluate changes in groundwater storage within the Upper Big Sandy Designated Groundwater Basin by comparing water-budget results from the Denver Basin groundwater–flow model to a water budget analysis previously developed for the Upper Big Sandy. This project includes best estimates for the major water-budget components, including groundwater storage and interaction with underlying bedrock aquifers.

9. Lake Ranch Multi-Use Pilot Project Feasibility Study - Alluvial Aquifer Storage

Water Source: Arkansas River
Location: Arkansas Basin
Sponsor: Upper Arkansas WCD
Project Type: Pilot Project
Project Manager: Andy Moore
Beneficiary: Local Water Users

Currently, the Upper Arkansas Water Conservancy District is moving forward with two multi-use projects: the Lake Ranch Multi-Use Pilot Project (LRMUPP) and the Trout Creek Park Multi-Use Project (TCPMUP). In its implementation of the LRMUPP, the District is looking at alluvial aquifer storage as one potential component of the project. This project examined the feasibility of alluvial aquifer storage at the Lake Ranch property. A comprehensive analysis of the aquifer was performed through a geotechnical engineering study. Well logs were analyzed to determine geologic materials, alluvial aquifer layers, and static water levels. Analysis was performed on groundwater flow characteristics and storage potential. The general finding was that alluvial aquifer storage at Lake Ranch is not promising because the aquifer is shallow and thin, and contains numerous, relatively impermeable clay layers.

10. Quantifying Pumping-Induced Streamflow Depletion in the So Platte River Corridor

Water Source: N/A
Location: South Platte Basin
Sponsor: CSU
Project Type: Study
Project Manager: Andy Moore
Beneficiary: Local Water Users

The purpose of this ongoing project is to gain further insight and understanding into stream-aquifer interactions with regard to pumping induced streamflow depletion. The first phase of this study has been conducted along a short reach of the South Platte River located in Littleton, CO. The reach is located just downstream of Chatfield Dam and is adjacent to a well field consisting of four alluvial pumping wells operated by the Centennial Water and Sanitation District. Monitoring wells were installed to collect groundwater level data, and a MODFLOW model was constructed of the area.

11. Developing a Refined Groundwater Flow Model for the LaSalle/Gilcrest Area

Water Source: N/A
Location: South Platte Basin
Sponsor: CSU
Project Type: Study
Project Manager: Andy Moore
Beneficiary: Local Water Users

This is a multi-year CSU research project that is focusing on the critical linkages between groundwater pumping for irrigation and the coupled groundwater/surface water regimes in the South Platte River Basin. The study will rely on the use of the South Platte Decision Support System (SPDSS) alluvial groundwater flow model. While the purpose of the first few years of this project were to review the SPDSS model, the long-term goal of this project is to provide a refined groundwater model for the LaSalle/Gilcrest area, in order to more fully evaluate the high groundwater conditions in the area. Year five of this combined effort has been completed.

12. Agronomic Responses to Partial and full Season Fallowing of Alfalfa and Grass Hayfields

Water Source: Gunnison River Tributaries
Location: Delta, Montrose, & Gunnison Counties
Sponsor: CSU
Project Type: Study
Managers: Michelle Garrison / Brent Newman
Beneficiary: Local Water Users

Extensive on-field measurements of irrigation deliveries and evapotranspiration were made to document the crop water budget under varying levels of irrigation supply at various locations. Crop yield for all fields was measured, and possible relationships between yield and irrigation supply were analyzed. A CSU Completion Report is being prepared and will provide useful data to evaluate future ATM's and deficit irrigation proposals.

13. Colorado Irrigation Center Design and Concept Development

Water Source: N/A
Location: Fort Collins
Sponsor: CSU, CWI, ARDEC
Project Type: Planning and Outreach
Project Manager: Brent Newman
Beneficiary: Statewide

The main objective of this project is to develop a business plan to create and operate a Colorado Irrigation Technology Center (ITC) within Colorado State University. A partnership is proposed between private business and the public sector to create a new Center of excellence in irrigation methods, automation, SCADA, modernization, evaluation, management, training to enhance the economic and environmental opportunities for water sharing arrangements in CO, the U.S. and across the globe. Over the course of this project, the team developed a business plan; developed a collaborator group; visited an existing Center for Irrigation Technology at Fresno State University; contracted with a local irrigation engineering company to assist in the design of the ITC; identified a potential location in Fort Collins at the intersection of Interstate 25 and Prospect; sought pledges of support from external partners including the Irrigation Association.

14. Data Collection and Analysis in Support of Improved Water Management in the Arkansas River Basin, Phase 3

Water Source: N/A
Location: Arkansas Basin
Sponsor: CSU
Project Type: Data Collection
Project Manager: Andy Moore
Beneficiary: Local Water Users

Colorado State University (CSU) recently completed a multi-year water resources data collection project funded through the Arkansas Basin Roundtable and the WSRF. This project continues that data collection effort, which is providing useful data in support of the development of the Arkansas River Decision Support System (ArkDSS).

15. Enhanced Open Data for Colorado's Water Resources

Water Source: N/A
Location: Statewide
Sponsor: CSU
Project Type: Data Visualization
Managers: Andy Moore / Greg Johnson
Beneficiary: Statewide Water Users

Significant progress on water resources data visualization tools resulted from the project, which can be utilized by the State on the SWSI Update and other projects. OWF will continue to enhance and implement the visualization tools on State and other projects, to the benefit of the CWCB and the water resources community. Improved access to data will allow integration of datasets to address larger and more difficult issues such as those addressed in the Colorado Water Plan (CWP).

16. Aquifer Storage and Recovery - Fountain Formation

Water Source: N/A
Location: South Platte Basin
Sponsor: CSU
Project Type: Study
Project Manager: Andy Moore
Beneficiary: Local Water Users

Aquifer storage and recovery (ASR) is a promising strategy for water storage in Colorado. Potential attributes of coupling ASR to existing infrastructure include reduced losses to evaporation and seepage, lower costs, and greater reliance including drought storage.

Recent research at CSU has led to the realization that the Fountain Formation in Northern Colorado could be a remarkable resource for ASR. The Fountain Formation in Northern Colorado:

- Lies immediately above the crystalline rock of the Front Range.
- Is composed of approximately 800 feet of interbedded sandstones and siltstone.
- Extends along the Front Range, is largely undeveloped, and appears to be largely isolated by surrounding aquitards and structural features.
- Dips to the east providing the potential for large yields due to the potential to apply large drawdown or mounding.
- Lies in close proximity to key complementary infrastructure associated with the Colorado-Big Thompson project and the cities of Northern Colorado.

The purpose of this project is to synthesize and apply available data to assess the feasibility of incorporating ASR in the Fountain Formation into Colorado's water supply infrastructure.

17. Water Tables Conference

Water Source: N/A
Location: Denver
Sponsor: CSU
Project Type: Outreach
Project Manager: Carlee Brown
Beneficiary: Local Water Users

This funding was used to educate and inform the water community and the greater public about a variety of water related activities, including the Colorado Water Plan, agricultural water use, drought contingency planning on the Colorado River, and federal permitting processes for new water projects.

18. Dam Safety Inundation Mapping Grant Program

Water Source: Various
Location: Various
Sponsor: SEO
Project Type: Mapping Study
Project Manager: Jonathan Hernandez
Beneficiary: Local Water Users

These funds were for the preparation of flood inundation mapping for two different entities, totaling two dams. The effort included dam breach modeling to assess the extent of downstream impacts should the dam(s) fail. Deliverables included a letter report for the inundation mapping and inundation maps, prepared by a licensed professional engineer, and a copy of the project's Colorado Division of Water Resources, Dam Safety Branch, approval letter.

19. Dam Safety Dam Records Digitization Project

Water Source: N/A
Location: Denver
Sponsor: DWR
Project Type: Digitizing
Managers: Jonathan Hernandez / Bill McCormick
Beneficiary: Statewide

These funds were used for "The *Dam Safety Branch Statewide Dam Records/Files Digitization Project."* CWCB funds of $20,000 were leveraged with $27,000 from the FEMA National Dam Safety Program. A Denver temporary employee scanned and digitized all dam safety records from DWR's Dam Safety Engineers located in the Colorado Springs office. Dam files from Water Districts 8, 10, 11, 14, 17, 23, 67 and 80 were scanned, indexed and cataloged in the Laserfische Document Management System.

This effort provided searchable documents by DWR staff as well as outside entities relative to Potential Failures Modes Analysis (PFMA) for existing dams, and for evaluation of dam history and performance for dams that are candidates for rehabilitation, repair and/or enlargement.

20. Regulation 84 Re-Use Rulemaking

Water Source: N/A
Location: N/A
Sponsor: CDPHE
Project Type: Regulatory
Project Manager: Kirk Russell
Beneficiary: Local Water Users

Colorado Department of Public Health and Environment (CDPHE) regulates non-potable reuse through Regulation #84 (Reclaimed Water Control Regulation) and Regulation #86 (Graywater Control Regulation). CDPHE does not have regulations for indirect or direct potable reuse. This $40K was needed to kick-start the efforts to update regulations and support planning efforts for water reuse. This funded a 0.5 FTE to support managerial and staff participation in this effort. CDPHE received legislative approval for $375K for calendar years 2017-2019 from the Colorado Water Resource and Power Development Authority and an additional $260K in CWCB funding through HB17-1248.

21. Pedal the Plains

Water Source: N/A
Location: Statewide
Sponsor: Co Governor's Office
Project Type: Outreach and Education
Project Manager: Anna Mauss
Beneficiary: Local Water Users

These funds were provided for the "Pedal The Plains" (PTP) Event; an initiative of the State of Colorado. It is an annual cycling event that celebrates the agricultural roots of the Eastern Plains of Colorado. The ride creates an opportunity for cyclists from the Front Range and beyond to learn about farming and ranching, while experiencing the culture, history and landscape of Colorado's high plains. The Tour incorporates interactive on-route experiences by staging rest stops on farms, posting educational points of interest and serving community meals composed of locally sourced food.

22. Case Management and Litigation Support

Water Source: N/A
Location: Denver
Sponsor: CWCB
Project Type: Admin Support
Project Manager: Linda Bassi
Beneficiary: Statewide

These funds were used to retain three part time temporary employees to assist the Section with ISF case resolution and management, including database design and implementation, organizing and tracking case files, coordinating with the Attorney General's Office, tracking court deadlines, and drafting pleadings, memos, correspondence and other documents as appropriate. The CWCB is a party in approximately 60 active water court cases. In these cases, the Stream and Lake Protection Section staff is responsible for: (1) protecting the CWCB's water rights, (2) obtaining decrees for new ISF water rights; or (3) obtaining decrees for changes of acquired water rights to ISF use. This project enables staff to focus on the substantive aspects of water court cases, and to resolve more cases in a timely manner.

23. Stream and Lake Protection Section Outreach and Education

Water Source: N/A
Location: Denver
Sponsor: CWCB
Project Type: Operations
Project Manager: Jeff Baessler
Beneficiary: CWCB

These funds were used to support outreach and education activities to address issues associated with new appropriations and to inform the general public and stakeholders regarding the CWCB's acquisition program and the Colorado Water Trust's efforts to purchase water for donation to the Colorado Water Conservation Board.

24. Flood Mitigation and Project Compliance

Water Source: Various
Location: Various
Sponsor: CWCB
Project Type: Design/Study
Project Manager: Kevin Houck
Beneficiary: Statewide Water Users

Monies from this source were used for multiple uses relating to floodplain identification, flood mitigation, and related studies/designs. Specific projects funded from this source include a cost share with the Town of Estes Park for the purpose of an updated reanalysis of flood hydrology for the Town for the ultimate purpose of re-evaluating floodplains and updating floodplain maps, a project with the Lower Arkansas Valley Water

Conservancy District for the purpose of hydrologic modeling for the Arkansas River in La Junta for the purposes of flood mitigation activities, a study with the City of Creede to reevaluate the floodplain for Willow Creek through town for the purpose of an updated floodplain map and flood risk data, a project with the Tamarisk Coalition for activities in the Dolores, South Platte, and Arkansas River watersheds, and a partnership with the Colorado Climate Center for the purpose of purchasing new rain gauges for the CoCoRahs cooperative climate observer network.

25. FEMA Coordinator Matching Program

Water Source: N/A
Location: Various
Sponsor: CWCB

Project Type: Matching Program
Project Manager: Stephanie DiBetitto
Beneficiary: NFIP Interests

These funds are available to match the federal grant (75 federal / 25 non-federal) for the full-time position within the CWCB known as the Community Assistance Program (CAP) coordinator. This position works closely with FEMA and carries out the missions and objectives of the National Flood Insurance Program (NFIP) for Colorado. The CAP position is fully operational at this time and several highly successful workshops have been conducted in addition to the regular programmatic responsibilities and regular coordination with FEMA and local government.

26. Co Dam Release - Floodplain Impacts Study

Water Source: N/A
Location: Various
Sponsor: DWR

Project Type: Planning & Study
Project Manager: Stephanie DiBetitto
Beneficiary: Statewide Water Users

Funding to evaluate the magnitude of the statewide issue of dams operating within their design limits, but releasing water through spillway or outlets that results in damaging flooding downstream. The problem is especially pronounced where large dams and constricted floodplains coincide. Study conducted to understand potential impacts of conditions statewide caused by flooding below a dam caused by outlets works or spillway releases. Compares the conveyance capacity (ability to handle discharge) of the downstream channel below these dams, to the the full range of spillway and outlet releases. This will allow a quick assessment of the dams to determine where dangerous conditions exist and actions might be warranted to mitigate them. This is a screening level study that seeks to maximize the use of existing information for these comparisons. Criteria will be developed to rank the severity of the conditions as a means to prioritize the future efforts. Future studies will be scoped to obtain greater detail on impacts and potential mitigation strategies.

27. Colorado Dust on Snow Program

Water Source: N/A
Location: Statewide
Sponsor: CSAS

Project Type: Planning and Study
Project Manager: Joe Busto
Beneficiary: Statewide Water Users

On behalf of the Colorado and Colorado River Basin water management community, the Center for Snow and Avalanche Studies (CSAS), based in Silverton, conducts the Colorado Dust-on-Snow program (CODOS) at its Senator Beck Basin Study Area at Red Mountain Pass and at ten additional sites located throughout the Colorado Mountains. Over the past year CODOS created site-specific web pages for all of those sites, and for the CODOS program, containing archived dust-on-snow, SNOTEL, hydrologic, snowpack, snowmelt, and spring weather datasets for your handy reference. CODOS also introduced a conceptual Dust Enhanced Snowmelt Space capturing the interactions of March 1 snowpack conditions, dust-on-snow, and March/April/May weather. The WY Summary report is at: http://www.codos.org/#codos. In high dust years the Colorado Basin River Forecast Center now uses this CODOS information to adjust peak timing of stream flows on the western slope of Colorado.

28. Enhanced Snowpack Assessment Products for Co Water Managers

Water Source: Various
Location: Statewide
Sponsor: OWF

Project Type: Snowpack Monitoring Tool
Managers: Joe Busto/Carolyn Fritz
Beneficiary: Water Administrators

Since 2004, the NOAA – Snow Data Assimilation Model (SNODAS) became a daily operational federal product and tool used by CWCB. In 2009, Riverside Technologies Inc. integrated the national snowpack SNODAS data set and provided the values and mapping for the Rio Grande Division Engineer. This effort was

so successful that it was sought as a statewide product. The SNODAS maps provided DWR with some sense of remaining snowpack in the hills once SNOTEL sites read zero and they needed some sense of remaining water in the mountains that would contribute to the numbers they got from the official federal water supply forecasts. In this project, Steve Malers, Open Water Foundation (OWF), developed the necessary tools to provide this national data set to be specific to Colorado water users and be integrated into the Colorado DSS.

29. Online Flood Inundation Maps of the South Platte River

Water Source: South Platte River
Location: Fort Morgan, CO
Sponsor: USGS
Project Type: Hydraulic Study and Online Mapping
Project Manager: Thuy Patton
Beneficiary: Local Water Users

The objective of this study is to build a flood inundation map library for areas adjacent to the South Platte River near Fort Morgan, CO, based on USGS Streamgage No. 06759500. During a flood event, emergency personnel can use the current gage height transmitted via the internet and the predicted gage height of the crest to make decisions regarding evacuation routes and areas-at-risk.

30. Watershed Program

Water Source: Various
Location: Statewide
Sponsor: CWCB
Project Type: Watershed Restoration
Project Manager: Chris Sturm
Beneficiary: Watershed Interests

The grant funding was split between two beneficiaries; the Tamarisk Coalition and the Big Thompson River Coalition. The Tamarisk Coalition received a grant to support the cross watershed network, an effort designed to bring watershed groups together to learn from each other. The Big Thompson River Coalition received a grant for education and outreach. This coalition is implementing very large federal flood recovery grants to restore the Big Thompson. This funding was used to educate the public about the types of projects, multiple benefits associated with the projects, and other services that the coalition can provide for the benefit of the watershed.

31. Watershed Summit and STEM Project

Source: N/A
Location: Denver
Sponsor: MSU
Project Type: Education and Outreach
Project Manager: Mara MacKillop
Beneficiary: Local Water Users

The third annual Watershed Summit (Shed '17) was hosted on June 29, 2017 at the Denver Botanic Gardens. The planning committee consisted of the City of Boulder, Aurora Water, CWCB, Denver Water, Denver Botanic Gardens (DBG), Center for Resource Conservation, and the One World One Water (OWOW) Center. It was a one-day workshop that focused on water conservation, agricultural viability, outdoor recreation and watershed health, climate change, and public outreach. There were over 200 people in attendance and feedback about the event was very positive.

MSU Denver faculty worked with the Englewood Public Schools STEM K-12 teachers to use the South Platter River as a teaching tool to give students experiential and hands-on learning opportunities. Teachers attended a one day workshop working together and with MSU Denver Education Department faculty to learn about how to incorporate the River and water resources into their lessons. Some of the materials used for the workshop included water quality testing supplies and literature such as "All the Way to the Ocean" and "You Wouldn't Want to Live Without Clean Water." Approximately 30 Englewood teachers attended the workshop.