



**COLORADO**

**Colorado Water  
Conservation Board**

Department of Natural Resources

# **DIRECTOR'S REPORT**

**January 2017**

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



**COLORADO**

**Colorado Water  
Conservation Board**

Department of Natural Resources

TO: Colorado Water Conservation Board Members

FROM: James Eklund  
Erik Skeie

DATE: January 23-24, 2017

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

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~INTERSTATE AND FEDERAL~

**U.S.-MEXICO, MINUTE 32X NEGOTIATIONS—** Representatives from the United States, Mexico, and the Colorado River Basin States remain engaged in intensive negotiations regarding “Minute 32X,” an agreement that would extend and replace Minute 319. Minute 319 is a binding agreement between the U.S. and Mexico which helps implement the 1944 Water Treaty between the two countries, including considerations for operations during both high and low reservoir conditions, salinity, environmental projects, and other issues. Discussions with Mexico are continuing with urgency from U.S. federal officials who hope to conclude negotiations on the current draft of the agreement before the current Administration leaves office on January 20th. Minute 319 will remain in effect through December 31, 2017 unless another Minute replaces it prior to expiration. (*Carlee Brown*)

**COLORADO RIVER BASIN DROUGHT CONTINGENCY PLANNING—** The Upper and Lower Basins of the Colorado River have been engaged in drought contingency planning on separate tracks for the past several years. The Upper Colorado River Basin Emergency Drought Contingency Response draft plan involves reservoir operational adjustments, demand management, and weather modification. Most recently, the Upper and Lower Basins have shared their draft plans with one another and are now exchanging feedback. CWCB staff members are actively engaged in these conversations, which are likely to continue for at least the next two months. (*Carlee Brown*)

**SYSTEM CONSERVATION PILOT PROGRAM—** The Upper Colorado River Commission is in the midst of reviewing proposals for the third round of System Conservation Pilot Program (SCPP) funding. The SCPP provides funding for pilot projects to test whether voluntary, compensated conservation measures can be an effective part of drought contingency efforts. Funders of the program include four major municipalities and the Bureau of Reclamation. Approximately \$1.8 million is available for one-year projects in 2017. CWCB staff is actively engaged in the review and approval of proposed projects. Successful applicants will complete contracting in the spring and will implement projects between the spring and fall of this year. (*Carlee Brown*)

**RECORD OF DECISION ISSUED FOR LONG-TERM EXPERIMENTAL AND MANAGEMENT PLAN (LTEMP)—** The Department of Interior (DOI) has released its final Record of Decision (ROD) for the Glen Canyon Dam Long-Term Experimental and Management Plan (LTEMP). The LTEMP will provide a framework for adaptively managing Glen Canyon Dam over the next 20 years, including specific options for dam operations. This process is the first look at changing operations at Glen Canyon Dam since the EIS of 1996. The goal of the ROD is to balance the need for power and water from the dam with protections for cultural and environmental resources. The ROD is available online at <http://ltempeis.anl.gov>. (*Carlee Brown*)

**UPPER COLORADO RIVER COMMISSION ANNUAL WINTER MEETING—** The Upper Colorado River Commission (UCRC) met on December 14, 2016, in Las Vegas, Nevada, in conjunction with the Annual Meeting of the Colorado River Water Users Association (CRWUA). The UCRC received reports and updates from the Bureau of Reclamation, the Salinity Control Forum, the Western Area Power Administration, and the U.S. Fish and Wildlife Service. The UCRC Summer Meeting is scheduled for June 5-6, 2017 in Jackson, Wyoming. (*Carlee Brown*)

~STATEWIDE~

GROUND WATER COMMISSION MEETING— The Ground Water Commission (GWC) held its quarterly meeting on November 18, 2016 in Castle Rock, CO. The agenda items included routine reports and the Commission upheld the Hearing Officer’s Decision on appeal in the matter of an application by Gayln Einsphar. The Commission directed Staff to give notice of a rulemaking hearing for the next meeting regarding a proposed amendment to Rule 5.2.9, which would determine that all the designated aquifers in the Upper Crow Creek Basin are over appropriated. The Commission also directed Staff to hold a public stakeholder meeting regarding proposed amendments to Rules 5.6 and 5.8 regarding replacement plans, artificial recharge, storage, and recovery plans. Information was provided to the Commission on the Office of the State Engineer’s role as an implementing agency under SB-181. The Commission also directed Staff to initiate the process of amending the Rules of Procedure for All Hearings Before the Colorado Ground Water Commission. The Ground Water Commission will hold its next regular meeting on February 17, 2016, in Denver, CO. For more information visit: <http://water.state.co.us/groundwater/CGWC/Pages/default.aspx>. (*Suzanne Sellers*)

~COLORADO RIVER BASIN~

COLORADO RIVER WATER USE—

2017 Colorado River Storage as of January 9, 2017			
	Elevation (feet above mean sea level)	Storage (MAF)	Percent of Capacity
Lake Mead	1081.76	10.157	39%
Lake Powell	3599.28	11.682	48%
Total System Active Storage		29.873	50%
2017 Total Active Storage		29.451	49%
		Flow (MAF)	Percent of Average
Forecasted Unregulated Inflow into Powell		9.514	88%

Forecasted CY 2016 Lower Basin Consumptive Use			
State		Use (MAF)	Total (MAF)
Arizona		<b>2.606</b>	
California			
California Agricultural	3.279	<b>4.415</b>	<b>7.255</b>
Metro. Water District	0.991		
Nevada		<b>0.234</b>	

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

~PLATTE RIVER BASIN~

**PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM**— The Platte River Recovery Implementation Program (PRRIP) Governance Committee (GC) held a special meeting on November 2, 2016 and its regularly scheduled meeting on December 6-7, 2016, both in Denver, CO. During the November special meeting, the GC voted to amend the J2 Water Service Agreement, which will place the project indefinitely “on hold”. The GC also approved the NPPD Water Service Agreement and an amended First Increment Extension Proposal, contingent upon approval of the related budget. The rest of the meeting was used by the GC to discuss edits to the proposed PRRIP FY17 Budget and Work Plan. During the December meeting, the GC approved the PRRIP FY17 Budget and Work Plan, 2017 Executive Director’s Contract, Broad-scale Recharge Engineering Design Services RFP, CPNRD Water Use Lease Agreement Amendment and payment in lieu of taxes to CNPPID for 2 parcels related to the J2 Regulating Reservoir project. The GC also received regular updates and presentations on the Environmental Account (EA) Annual Operating Plan and Long-Range Streamflow Forecasts from Hydroclimatic Indices. CWCB staff also participated in a Finance Committee (FC) meeting. The next regular GC meeting will be held on March 7-8, 2017 in Kearney, NE. For more information, please visit: <http://www.platteriverprogram.org/Pages/default.aspx>. (*Suzanne Sellers*)

~ SAN JUAN/SAN MIGUEL-DOLORES RIVER BASIN ~

**LOWER DOLORES PLAN WORKING GROUP UPDATE**— The team of key stakeholders appointed by the Group’s Legislative Subcommittee has met numerous times to work on refining the draft federal legislation that would establish a National Conservation Area (NCA) along the Dolores River from below McPhee Dam to Bedrock and remove the finding of Wild and Scenic suitability from the Dolores River. At meetings held in October 2016, water users, counties and the Legislative Subcommittee identified remaining issues to be resolved and committed to working through those issues. One issue is how to formally structure the Native Fish Monitoring and Recommendation Team, with the options being (1) setting up a committee under the Federal Advisory Committee Act (FACA), or (2) through establishing some type of State mechanism. The stakeholders also agreed that addressing several issues on La Sal Creek is a priority, including the fact that a rare and globally impaired riparian forest exists along the

creek, and the existence of several upstream water rights users whose interests and needs must be addressed. Currently located in a Wilderness Study Area, La Sal Creek would be part of a new Wilderness Area established via the legislation. The legislative effort continues to receive input from a variety of community stakeholders across local, state and federal entities, and conservation and recreation groups. (*Linda Bassi*)

**RIVER PROTECTION WORKGROUP—** The River Protection Workgroup (RPW) Steering Committee has not met since the last CWCB Meeting and the next meeting has not been scheduled; however, the participants of the Drafting Committee have been meeting individually to discuss specific concerns. Additional information on the RPW can be found at <http://ocs.fortlewis.edu/riverprotection>. (*Suzanne Sellers*)

**BUREAU OF LAND MANAGEMENT UNCOMPAHGRE FIELD OFFICE RESOURCE MANAGEMENT PLAN—** To follow up on the CWCB's comments on the Bureau of Land Management (BLM)'s Uncompahgre Field Office's (UFO) recommendations on suitability, Staff held a conference call on January 6, 2017 with the Nature Conservancy and the Dolores Water Conservancy District. Discussions were focused on next steps for working with the BLM on incorporating consensus language on the Dolores River suitability determinations into the final Resource Management Plan. (*Suzanne Sellers*)

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

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

Two grant applications have been received since the November 2016 Director's Report

- CORE - Roaring Fork Watershed Regional Public Education & Outreach Program
- Colorado Foundation for Agriculture - Reprint of Water Education Publications

Two grants have been approved since the November 2016 Director's Report

- City of Longmont - Water Efficiency Plan Update (\$42,350)
- Town of Frisco - Blue River Watershed Regional Water Efficiency Plan (\$94,919.60)

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

- North Weld County Water District - Water Efficiency Plan Update - *75% Progress Report*
  - Metro State OWOW Center - Water Efficiency Film - *Final Report*
  - Parker Water & Sanitation District - Water Meter Replacement Program - *50% Progress Report*
  - City of Brighton - Water Efficiency Plan Update - *Final Plan*
  - Western Resource Advocates - Tap Fee Workshops - *Final Report*
  - Metro State OWOW Center - Colorado Water Collaboratory - *50% Progress Report*
- (*Ben Wade*)

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

## DROUGHT MANAGEMENT PLANS:

### Approved Plans

- No new plans approved since last board meeting

## WATER EFFICIENCY PLANS:

### Approved Plans:

- Centennial Water and Sanitation District
- Fort Collins-Loveland Water 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 Boulder
- Skyland Metro District
- Mount Crested Butte
- Southeastern Colorado Water Conservancy District Supplemental Regional Plan
- Parker Water & Sanitation District
- North Table Mountain Water and Sanitation District
- City of Brighton
- East Larimer County Water District

### Water Efficiency Plans in review:

- No plans in review at this time  
(Kevin Reidy & Ben Wade)

GOVERNOR'S WATER AVAILABILITY TASK FORCE— The next Water Availability Task Force meeting will be held on January 19th from 9:30-11:30am 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— Following a warm and dry fall, the state has seen significant gains in snowpack over the last few weeks. As of January 3rd 65 percent of the state is experiencing abnormally dry to moderate drought conditions, while nearly three percent is classified as in severe drought. However, recent storms have pushed snowpack well above normal levels (133 percent statewide) with more mountain snow in the forecast. The lowest SNOTEL levels are in the Yampa/ White and North Platte basins both of which have 121 percent of normal accumulation for this time of year. Statewide reservoir levels remain near normal, but are slightly lower than this time last year. Looking ahead there continues to be much uncertainty, La Nina conditions currently exist, but forecasts indicate a transition to neutral conditions in the coming months. The long term Climate Prediction Center seasonal drought outlook indicates that drought will likely persist throughout much of the eastern plains into March. (Taryn Finnessey)

WATER AND GROWTH DIALOGUE— Through a Water Efficiency Grant, the Keystone Center is facilitating a dialogue to quantify water use through different land use patterns as well as bringing together land use and water managers to discuss where integration can occur. Kevin Reidy is on the technical advisory group as well as the steering committee. At present time, Denver Water has created a model for quantifying water use through land use decisions. This will be debuted on January 18 at Denver Water with invited planners participating in a directed exercise to evaluate usefulness. The Sonoran Institute/Lincoln Institute of Land Policy released an RFP for conducting a workshop to bring

together water and land use planners in the fall. This effort stems from the work done for the dialogue and also relates to SB15-008 implementation. At present, the steering committee is determining the path forward for the group 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. Curriculum will be developed with webinars and in person trainings taking place in Summer-Fall of 2016. At present, Kevin and DOLA staff have provided final comments that are being incorporated into the 3 modules and have produced 3 webinars with participation ranging from around 65 -100 participants for each one. The webinars will be posted on the Colorado Water Plan site with links on the CWCB and DOLA sites. Two additional webinar topics have been chosen with the creation of those webinars set for late March. Kevin and DOLA will also convene 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. *(Kevin Reidy)*

**CWCB/ALLIANCE FOR WATER EFFICIENCY SUSTAINABLE WATER RATE WORKSHOPS—** Staff has been working with the Alliance for Water Efficiency, a national water efficiency non-profit organization, to implement two workshops in Colorado at the end of February-early March. One workshop will take place in Glenwood Springs and the other in Lakewood, CO. The idea is to work with participants to develop rate structures that successfully balance revenue management, resource efficiency and fiscal sustainability in light of decreased supply, volatile weather and declining demand. *(Kevin Reidy)*

#### ~WATERSHED AND FLOOD UPDATES~

##### MAPPING UPDATE—

**FY15 Activities:** The CWCB was awarded several FEMA grants this past year to fund Risk Map activities including: continuation of the Cache La Poudre Watershed Risk Map Project, develop approximate floodplain delineations in the Middle South Platte Watershed located in northeast Colorado, obtain IFSAR topographic data for over twenty un-modernized counties, continuation of Phase II of the flood forecasting tool development, and to begin Phase I of the Upper Gunnison Risk Map Project. Upper White Watershed and St. Vrain Risk Map Phase III scopes of work have been finalized and task orders are being finalized. CWCB is currently working on an RFQ process to select contractors for future LiDAR acquisitions.

**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 will be made available on the Risk Map website. Survey work has been put on hold for the Upper White (Rio Blanco County) Risk Map study due to access issues and weather. A First Order Approximate (FOA) or countywide approximate mapping, for El Paso County will begin in the Spring 2016. 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 will be published in the Federal Register in the next couple of months and shortly after the appeal period will begin. Purgatoire Watershed and Pueblo County mapping projects are currently in review and are nearing the Preliminary phase.

FY12 Activities: The grant for Purgatoire Watershed was funded through floodplain mapping. All tasks have been completed for this grant. A new grant was approved in 2013 to complete this project to effective. The field survey and hydrologic tasks were approved for the Cache La Poudre watershed project. The City of Fort Collins has provided local survey data to supplement the hydraulic model. The floodplain mapping tasks are anticipated to be completed in early spring 2016. A new FEMA grant was approved in September 2015 to complete additional tasks to finalize the maps as FEMA effective products.

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. Work on Sunshine Canyon is now complete. Clear Creek Risk Map is in progress and the hydraulic analysis review has been completed by FEMA.

FY10 Activities: Chaffee and Pitkin Counties are now in the post preliminary phase. Both of these counties are awaiting the Federal Register posting before the appeal period will begin. Logan County Letter of Final Determination (LFD) was distributed on November 16, 2015. The maps are anticipated to become effective on May 16, 2016.

FY09 Activities: The Morgan County DFIRM has been converted to a seclusion project, which means a portion of the Wiggins levee will not be showing protection. The preliminary map package is being finalized for review. The Prowers County DFIRM appeal period has ended and the LFD letters were distributed on October 19, 2015. The maps are anticipated to become effective on April 19, 2016.

FY08 Activities: Montrose County DFIRMs became effective on January 6, 2012. The Elbert County and Rio Grande County DFIRMs are now effective. Gunnison County DFIRMs became effective on May 16, 2013.

The Pueblo County DFIRM scope of work has been altered to a Seclusion DFIRM and the remaining tasks were funded in 2013. The Pueblo County Arkansas River Levee floodplain study is in progress, finalization is still progressing. The Pueblo Levee Conservancy District has hired a consultant to assist in their levee certification process and District is working on resolving issues regarding the existing mural on the levee along the Arkansas River.

FY07 Activities: Summit County DFIRMs became effective November 2011. La Plata County received their effective maps in August 2010. Park County has gone effective in December 2009. Delta County maps became effective in July 2010. Teller County and Archuleta County have gone effective since September 2009. El Paso County DFIRM scope of work has been altered to complete this project as a Partial Countywide DFIRM. The Templeton Gap levee will not be included in the update. The FEMA grant was extended to September 2013 to complete this project to the preliminary phase.

FY06 Activities: Weld County completed the Appeal period in early December 2014. Weld County final DFIRMs will become effective in January 20, 2016. Fremont County DFIRMs became effective on January 6, 2012. Clear Creek County has gone effective July 17, 2012.

FY05 Activities: Mesa County DFIRM became effective in June 2010. The Garfield County DFIRMs are now in the post preliminary phase. The Montezuma County DFIRM went effective September 28th 2008.

FY04/03 Activities: Boulder County maps became effective on December 18, 2012.  
(Thuy Patton)

**FLUVIAL HAZARD MAPPING UPDATE—** The floods of September 2013 reminded Coloradans how quickly rivers and streams in their state can change and morph into extreme storm events. Approximately half of the private structure damages and losses experienced in the 2013 flood were located outside of the regulatory floodplain, or Special Flood Hazard Area (SFHA), designated by the Federal Emergency Management Agency (FEMA). These flood-related risks associated with erosion, deposition, degradation, lateral migration, and avulsion created disastrous outcomes in 2013, and those outcomes may occur again in future flood events in Colorado. The identification of fluvial hazard zones has become a high priority as Colorado recovers from the September 2013 floods and transitions toward long-term river corridor planning. Planning for erosion hazards is an essential component of effective river corridor management and the prevention of future flood damages. Broadly defined, the Fluvial Hazard Zone (FHZ) is the area a stream has occupied in recent history, could occupy, or could physically influence as it stores and transports sediment and debris during flood events. In early 2015, Colorado's Legislature passed a funding bill for the Colorado Hazard Mapping Program, which aims to provide a mitigation and land use framework in areas likely to be affected by future flooding, erosion, and debris flow events. The fluvial hazard mapping component of the project is set to begin at the end of January 2017. The program will refine mapping methodology and perform a series of pilot studies on fluvial hazards throughout the State. Map products will be available for voluntary adoption by communities by the end of June 2018. In addition to map products, a model land use code will be developed. (Stephanie DiBetitto)

**FLOODPLAIN RULES AND REGULATIONS UPDATE—** The State of Colorado, through CWCB action in November 2010, adopted increased standards for floodplain management, which are contained in the Rules and Regulations for Regulatory Floodplains in Colorado (Rules), effective January 14, 2011. Communities were provided with a three-year transition period to adopt local regulations consistent with the Rules. Through sound floodplain management practices, these standards support enhanced public health, safety and welfare and will help communities reduce future flood risk to people and property. Staff has been working very collaboratively with communities to assist them with technical questions, model ordinance templates, and transition support. CWCB staff has contacted each community that has not yet provided documentation of adoption of the Rules via phone or email to offer assistance. Staff has also met with several communities to answer questions and review the process for updating floodplain regulations. Most communities have made adopting the Rules into local floodplain regulations a priority. However, several communities have not completed the adoption or provided documentation to CWCB. There are 10 out of 252 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 working on drafting notices of non-compliance to those remaining communities while continuing to provide outreach and technical assistance to communities. (Stephanie DiBetitto)

**FLOODPLAIN HAZARD MAPPING UPDATE**— Staff and their consultant team from AECOM continue to meet and provide support to local and county officials with community meetings within Boulder County. A kick-off meeting was held in Gilpin County and the jurisdictions of the City of Black Hawk and Central City are scheduled for January 18th, 2017. A Flood Risk Review meeting for the St. Vrain Watershed was held on December 1st, 2016 at Jefferson County. These meetings allowed for community officials to get a brief overview of the Colorado Hazard Mapping Program (CHAMP). These meetings were also an opportunity to review and provide early input on draft versions of the floodplains prior to FEMA review. Coordination and data sharing among local communities and the CWCB will continue as other local efforts are underway. The CHAMP team will be coordinating with the Emergency Watershed Protection Program consultant and Boulder County Transportation to ensure timing of LOMRs and when they will be required. Floodplain mapping for year one streams is being finalized. Hydrology and Hydraulics for year two streams is also beginning. Survey is underway along the South Platte River, which will be completed this year. Left Hand Creek will also be surveyed in 2017. Flood Risk Review meetings will be scheduled with Weld and Larimer Counties in the spring. All project information can be found at <http://coloradohazardmapping.com/>.  
(Corey Elliott)

**CWCB - NATURAL RESOURCES CONSERVATION SERVICE (NRCS) EMERGENCY WATERSHED PROTECTION (EWP) PROGRAM UPDATE**— The total program funding (NRCS 75%/CWCB 12.5%/Local Sponsors 12.5%) is \$63.2 million. The technical assistance agreement with the NRCS ends on April 1, 2018. There are over 70 projects in six counties eligible for funds from the program. The primary function of the program is to protect life and property from stream erosion and flood hazards. Other benefits include improved connectivity, sediment transport, ecological/biological function, and recreational opportunities.

The CWCB provided a grant to the Colorado State Forest Service (CSFS) to collect and grow plant materials for the EWP Program. The materials are available on a first come/first serve basis for all EWP projects with the exception of those sponsored by Boulder County (they received a direct grant from CWCB to do the same). The grant enables contractors hired by local EWP project sponsors to purchase the plants for a small discount. The local sponsor can use the discount as in kind match for the EWP program. CSFS may or may not be able to provide all the plants needed by local sponsors, and they may need to approach other nurseries to fill the gaps.

The greatest challenge for the program continues to be the timeline. At the behest of the NRCS, the 220 day clock for construction will begin later this month for 31 projects. The total project costs for these projects are estimated to be greater than \$23.5 million. (Chris Sturm)

## EWP Projects Update:

### Project Update: North Fork Big Thompson River Restoration at Glen Haven on West Creek

Construction on Upper West Creek is underway and the crew hopes to wrap up construction work in the next few weeks, weather permitting. Planting work will occur in the spring.



Bank erosion, sedimentation, and unstable streambanks affected the homes, roads, crossings, and businesses along the North Fork of the Big Thompson since the flood of 2013. The project proposes to use rip-rap and bioengineering to stabilize failing streambanks throughout the project area, as well as consider alternative channel alignments. Additionally, where feasible, a floodplain will be shaped to lower flood surfaces and store excess sediment. A low-flow channel, rock clusters, and woody material will be added to create channel complexity and enhance fish habitat, and disturbed areas will be planted with willows, trees, and shrubs, and/or will be seeded and mulched.

Construction on Fox Creek has also begun and the crew is making great progress. Winter weather is upon us, so there will be days when the crew will be unable to work, however, they will be using every weather window we get to make good progress to efficiently complete construction work ahead of spring runoff and during the quiet period in Glen Haven in order to minimize disruption to the community. Planting on Fox Creek will also occur in the spring of 2017.

#### Work Items Completed

- Sediment Removal
- Bankfull Bench
- Bank Shaping
- Topsoil applied

#### Work Items Outstanding

- Erosion Control Fabric
- Seeding/Planting

#### [Example Quality Assurance and Operations & Maintenance Plans](#)

The [Quality Assurance Plan](#) and the [Operation, Inspection, & Maintenance Plan](#) for the West Creek and Fox Creek EWP Stream Stabilization

Project (Larimer County, CO) have been posted at [www.coloradoewp.com](http://www.coloradoewp.com) to provide examples of Quality Assurance and O&M plans required for the EWP Financial Assistance (FA) agreement for project construction.



Upcoming Projects - all projects overviews may be accessed at our website.

#### Left Hand Creek Restoration at N. 81<sup>st</sup> Street Bridge

Watershed: Left Hand Creek

County: Boulder

Project Sponsor: Lefthand Watershed Oversight Group

Proposed work for this location continues east of N 81st St for approximately 2,400 feet. Work includes formalized bank protection at critical structures such as private property, historic buildings, and state or county infrastructure. Clearing of invasive species, such as crack willows, is planned to encourage larger establishment of native cottonwoods and to decrease channel roughness and snags near private property to allow for more efficient flood flows. Some floodplain re-establishment and removal of large sediment deposits will also occur at select locations along the reach.



#### Upper Coal Creek Restoration

Watershed: Coal Creek

County: Jefferson

Project Sponsor: Coal Creek Canyon Watershed Partnership

Proposed work for this project begins approximately four miles west of Highway 93 on Highway 72, in Coal Creek Canyon. The project covers three separate areas along approximately 1.25 miles of the canyon; Start, Area 2, and Area 3. All sites have one or more of the following treatments: sediment removal to establish a floodplain, bioengineering to stabilize stream banks, armored resiliency to stabilize stream banks, critical area treatment including willow planting, seeding, mulching and top soiling, and cross vanes. Mature trees and bushes in the existing riparian corridor will be preserved where possible and removed only if absolutely necessary. Trees and bushes removed during the project will be utilized, if possible, onsite within the channel or on the banks for stabilization and/or fish habitat.



The focus for the project is not only to repair damage caused by the 2013 flooding, but also to build a more resilient floodplain corridor in order to better protect life, homes and structures in the event of high flows. (Jeff Conboy)

**CWCB & OIT PROJECT COORDINATION UPDATE**— The CWCB and the Governor’s Office of Information Technology (OIT) will be coordinating with various stakeholders for their interest in LiDAR products. A planned acquisition is set to begin in the spring of 2017. Additionally, the CWCB and OIT are coordinating the transition of the Colorado Hazard Mapping Portal website from the AECOM team to OIT. Project planning is underway starting in January 2017. A milestone timeline will be developed to ensure a smooth and efficient transfer to OIT staff by March 2018. Currently, the CWCB staff is taking inventory of current State LiDAR data to assess overall Quality Control and Quality Assurance review prior to the data becoming public information. A path forward for an independent review process of the existing LiDAR will be finalized in March 2017. *(Corey Elliott)*

**RIO GRANDE FORECASTING PROJECT UPDATE**— Work on developing better water supply forecasting data and modeling has been ongoing in the Rio Grande basin since 2011. The primary partners are NOAA National Severe Storms Lab, NASA Aerial Snow Observatory (ASO), and National Center for Atmospheric Research (NCAR), and they are all working to provide data to the river basin forecast center and DWR for water administration. The NOAA mobile radar is again at the Alamosa airport this winter and is working flawlessly. The goal is to again run a full winter of radar data through the national water model and compare it to the official water supply forecasts. A retired professor and several university students support NOAA during radar operations which are only during the storm events. The project ends April 15, 2017. The goal is to again demonstrate the utility of filling radar gaps and use radar data as input data for hydrologic modeling. This is value added to the official water supply forecasts that are predominantly leaning on data from NRCS SNOTEL sites. This Rio Grande R&D effort was successful during the winter of 2014-15 in providing an accurate seasonal volumetric water supply forecast using NASA ASO and radar data. The 2014-15 effort was recently presented to the Western States Water Council (WSWC) and Western Governors Association. A letter of support was provided by the WSWC in October 2016 acknowledging the Conejos WCD and CWCB efforts to spearhead this effort. This winter includes mobile radar operations from the Alamosa airport, one peak snowpack NASA Aerial Snow Observatory flight in the Conejos and Rio Grande basins, and periodic water volume forecasts using the national water model provided by NCAR. Staff is also working on a USFS permit for new snow data in the Conejos basin. Staff is working with radar vendors to figure out the financing details of a permanent gap filling radar at the airport. Several watersheds would benefit by plugging radar gaps in Colorado. Significant local leadership will be needed to support a public private partnership to implement this locally owned radar. Permanent weather radar that sees the whole SLV could support a multitude of data needs. It would be the quality input data for hydrologic modeling used to make water supply volume forecasts for water administration. This could really help with equitable apportionment among water users and meeting compact obligations. *(Joe Busto)*



**ESTES PARK HYDROLOGY REVIEW NEARING COMPLETION—** The Town of Estes Park is finalizing a controversial hydrology study on four of its watersheds. The watersheds include the Upper Big Thompson River, the Fall River, Black Canyon Creek, and Dry Gulch. The Town has prepared this study, currently in draft form, with the assistance of Community Development Block Grant - Disaster Recovery (CDBG-DR) funds. CDBG-DR funds are provided by HUD and administered by the Colorado Department of Local Affairs (DOLA) in response to the 2013 flood disaster.

The report has undergone an extraordinary amount of scrutiny and review, including by local engineers. As of early January, the Town was waiting for final peer review comments before making the study final. Once this occurs, a presentation will be given by Town staff and the Town's consultant in two public meetings, one for the Town Council and one for the public. CWCB staff will participate in these meetings to discuss next steps. The study will then be presented to the CWCB for designation. Due to the controversial nature of this study, it will probably appear as a regular agenda item, rather than the standard consent agenda process.

Results from this study will be used as a basis for remapping floodplains in the Town as part of the Colorado Hazard Mapping Program, funded by SB 15-245 and performed by CWCB staff and consultants.  
(Kevin Houck)

#### ~AGENCY UPDATES~

**CWCB SMALL FEASIBILITY STUDY GRANT FUND UPDATE—** One grant applications was received and approved.

- St Vrain and Left Hand Water Conservancy District - Lake 4 Outlet Pipeline Repairs Feasibility Study (\$5,000)  
(Anna Mauss)

#### ~GENERAL ATTACHMENTS~

- 01 Steam and Lake Protection De Minimis Cases
- 02 Instream Flow and Natural Lake Level Program - Summary of Resolved Opposition Cases
- 03 2016 Small Project Loan Report

#### ~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 Emergency Loans Status Report
- 05 Loan Repayment and Delinquency Report - Loan Financial Activity Report

**Director's Report Attachment – January 23-24, 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/Segment ID	ISF Amount (cfs)	Percent Injury (%)	Cumulative % Injury	Count
16CW3065	Stephen Hyde & Lorreen George	Clear Creek 2-77W4668	20 (1/1 - 12/31)	0.01540 0.00860	0.06540 0.05860	3
16CW3134	Indian Peaks Holdings, LLC	North Boulder Creek 1-94CW019	5 (4/1 - 9/30) 2 (10/1 - 3/31)	0.19370 0.48430	0.19370 0.48430	1

**January 23-24, 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, and the Director has authorized the Attorney General's Office to enter into stipulations that protect the CWCB's water right(s).

**(1) Case Nos. 02CW0122 and 10CW0031 (Water Division 2) (Consolidated) - Application of Cripple Creek & Victor Gold Mining Company**

The Board ratified the Statements of Opposition at its November 2002 and September 2010 meetings. The Board's main objective in filing the Statements of Opposition in this case was to ensure that the Applicant's proposed plan for augmentation does not injure the Board's instream flow water rights on Fourmile Creek by not replacing out-of-priority depletions in the proper time, place, or amount. Staff, in cooperation with the Attorney General's Office, has negotiated a settlement to ensure that the CWCB's instream flow water rights will not be injured. The case remains pending before the water court judge. Trial is set for July 2017.

The CWCB holds the following ISF water rights that could have been injured by this application:

Case Number	Stream	Upper Terminus	Lower Terminus	CFS Rate (Dates)	Approp. Date
00CW0103 (Div. 2)	Fourmile Creek	confl Cripple Creek	confl Trail Gulch	4.5 - 9.4	01/26/2000
00CW0104 (Div. 2)	Fourmile Creek	confl Trail Gulch	confl Felch Creek	4.75 - 9.1	01/26/2000
00CW0105 (Div. 2)	Fourmile Creek	confl Felch Creek	hdgt Canon Heights div structure	5 - 9.5	01/26/2000
00CW0106 (Div. 2)	Fourmile Creek	hdgt Canon Heights div structure	confl Wilson Creek	3.5 - 9.5	01/26/2000

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

- Gold is recovered from ores using an extraction or leach process in which a weak cyanide solution is applied to the mined ore and allowed to percolate down through the ore, at which point the solution is captured and cycled through a beneficiation facility to recover the gold. To contain the solution and protect the environment, the Cresson Project's "leach pads" (also referred to as leach facilities) are lined with an impervious multiple liner system. These leach pads also intercept and contain naturally occurring precipitation. Pursuant to C.R.S. § 37-92-305(12)(c) [a new 2012 statute passed during the pendency of this case, which was sought for this case], the amount of replacement water provided under this part of the Plan will equal the precipitation upon the Lined Areas, less the historical evaporation and evapotranspiration that would have occurred prior to construction of the Lined Areas. The parties agree that 70% of total precipitation was historically consumed by evaporation and evapotranspiration prior to construction of the Lined Areas.
- Pursuant to C.R.S. § 37-92-102(3)(b), ongoing depletions to Fourmile Creek from precipitation that falls on Lined Areas located within and outside the Diatreme Area that pre-date the ISF Right do not have to be replaced to protect the instream flow water rights described above. CC&V has established that the Lined Areas that pre-existed the CWCB's ISF water rights and caused depletions within the Fourmile Creek Diatreme Area measured 97.28 acres. An additional 164.96 acres of Lined Areas that pre-existed the CWCB's ISF water rights were located in the Arequa Gulch basin Outside the Diatreme Area in Fourmile Creek Basin. Notwithstanding that the specific Lined Areas have changed and will continue to change over time, the amount of depletion that is subject to C.R.S. § 37-92-102(3)(b) protection shall be 30% of the measured precipitation.
- Replacements made at the Arequa Gulch augmentation station or to Fourmile Creek upstream of the confluence with Cripple Creek will properly replace depletions to the ISF caused by CC&V's operations outside of the Diatreme Area but within the Arequa Gulch basin.
- The subordination of the decreed instream flow water right to the Applicant's depletions that pre-existed the ISF Right pursuant to section 37-92-102(3)(b) shall not interfere with the administration of CC&V's augmentation plan and shall not result in general subordination of the CWCB's decreed ISF water rights to any other water rights junior to such ISF water right.
- The replacement water sources are fully consumable, and their decrees include or will include use for mining, milling, manufacturing, industrial, augmentation, or replacement purposes. These sources are adequate to allow the use of the water for the purposes set forth in this Decree. Sources of replacement that may be leased from PBWW, CS-U, and UAWCD for use in this plan ("leased sources") must be decreed for replacement purposes and must be legally and physically available for use in this plan. CC&V's use of leased sources must not cause an expansion of diversions beyond those contemplated by the decrees for the leased sources, and cannot be used to make absolute any conditional portions of leased sources.
- The Court may authorize CC&V to use additional or alternative supplies of replacement water by direct replacement or by means of the exchanges described in Case Nos. 98CW115 and 10CW98 pursuant to the procedure described in Section 3.6 of the decree. CC&V's use of exchanges described in Case No. 98CW115 shall be subject to the terms and conditions in that case, including but not limited to the conditions [regarding instream flow water rights] in Paragraph 9.5 of the 98CW115 decree.

## (2) Case No. 13CW3000 (Water Division 2) - Application of New Elk Coal Company

The Board ratified this Statement of Opposition at its July 2013 meeting. The Board's main objective in filing the Statement of Opposition in this case was to ensure that the Applicant's proposed plan for augmentation including exchange does not injure the Board's instream flow water rights on the Purgatoire River and the South Fork of the Purgatoire River by not replacing out-of-priority depletions in the proper time, place, or amount. Staff, in cooperation with the Attorney General's Office, has negotiated a settlement to ensure that the CWCB's instream flow water rights will not be injured. This case was decreed on January 5, 2017.

The CWCB holds the following ISF water rights that could have been injured by this application:

Case Number	Stream	Upper Terminus	Lower Terminus	CFS Rate (Dates)	Approp. Date
09CW0090 (Div. 2)	Purgatoire River	confl M/N Fork Purgatoire River	confl Lopez Canyon	7 - 21	01/27/2009
09CW0088 (Div. 2)	South Fork Purgatoire River	confl unnamed tributary	confl Torres Canyon	3 - 18	01/27/2009

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 CWCB's ISF appropriations decreed in Case Nos. 09CW88 and 09CW90, Water Division 2, are subject to the uses of water being made by the Applicant on the date of the CWCB's appropriations, pursuant to Section 37-92-102(3)(b), C.R.S. (2014). Such uses consist of the production of ground water from New Elk Coal Dewatering System, and the resulting modeled depletions to stream segments from such production of ground water and the past pumping up to the date of the CWCB's ISF appropriations. Based upon the stipulation and agreement between Applicant and CWCB dated September 6, 2016, the following terms will govern the administration of this plan for augmentation as it relates to the CWCB ISF water rights claimed in Case Nos. 09CW88 and 09CW90:
  - i. Pursuant to section 37-92-102(3)(b), the CWCB's ISF water rights are subject to New Elk's uses of the Purgatoire River and South Fork Purgatoire River from New Elk Coal's Dewatering System that existed on the date of the CWCB's ISF appropriations. The volume of water production from the New Elk Coal Dewatering System at the time the ISF was appropriated in 2009 reached a peak flow rate of 2,300 gpm in 2008. Based on New Elk's projected operations and the modeling analysis completed by New Elk as part of this case, such use, and continued pumping at rates no more than the 2,300 gpm peak flow rate in 2008, will result in the following maximum depletions to each respective ISF reach:
- - 1. For the South Fork of the Purgatoire River ISF reach decreed in Case No. 09CW88: 2.307 acre-feet per year. This value represents the total modeled maximum depletions from the Applicant's model reaches 4 and 5, as determined from the CRB MODFLOW Model utilized by the Applicant in this case;

- 2. For the mainstem Purgatoire River ISF reach decreed in Case No. 09CW90: 3.482 acre-feet per year. This value represents the total modeled maximum depletions from the Applicant's model reaches 1, 2, 3, 6 and 7, as determined from the CRB MODFLOW Model utilized by the Applicant in this case.
  - ii. So long as the projected depletions to the CWCB's ISF reaches decreed in Case Nos. 09CW88 and 09CW90 are no greater than the maximum annual depletion to each respective ISF reach described above, Applicant shall not be required to make augmentation deliveries to replace the projected out-of-priority depletions to the CWCB's ISF reaches. Because the dewatering system is limited to a maximum of 1,930 acre-feet annually for all bore holes combined, and the above-described section 37-92-102(3)(b) exception is likewise limited, and because parties agree that the modeled depletions represent the maximum depletions under the water right, projected depletions under this decree will not be greater than the amounts described above in paragraphs 40(b)(i)(1) and 40(b)(i)(2).
- Confirming that the CWCB ISF water rights decreed in Case Nos. 09CW88 and 09CW90 are subject to the diversions by the New Elk Coal Dewatering System, as provided herein, shall not affect the administration of the New Elk Coal Dewatering System as against other water rights, and shall not result in a general subordination of the CWCB's ISF water rights to any other junior water rights.

### (3) Case No. 13CW3015 (Water Division 3) - Application of Robert & Carol Dugan

The Board ratified this Statement of Opposition at its March 2014 meeting. The Board's main objective in filing the Statement of Opposition in this case was to ensure that the Applicants' proposed change of water rights does not injure the Board's instream flow water right on North Fork Carnero Creek by expansion of use or altering the time, place and amount of historical return flows. In addition, the Board sought to ensure that the proposed plan for augmentation does not injure the Board's instream flow right by not replacing out-of-priority depletions in the proper time, place and amount. Staff, in cooperation with the Attorney General's Office, has negotiated a settlement to ensure that the CWCB's instream flow water right will not be injured. This case remains pending before the water court referee.

The CWCB holds the following ISF water right that could have been injured by this application:

Case Number	Stream	Upper Terminus	Lower Terminus	CFS Rate (Dates)	Approp. Date
94CW0043 (Div. 3)	North Fork Carnero Creek	confl Royal Gulch	confl Carnero Creek	0.25 - 0.5	03/09/1994

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

- Based on settlement negotiations between the parties, it was determined and agreed that the retirement of all four of the Paradise Ditches was needed to offset the annual evaporative loss from water stored in Paradise Reservoir. In addition, it was agreed that there would not be a future irrigation component to the water stored in Paradise Reservoir. The historical consumptive use resulting from the change of all four of the ditch water rights is 21 acre feet annually. Therefore, 21 acre feet annually may be

consumed under the 1909 priority of the changed rights. This water will not be used for any consumptive purpose except for the replacement of evaporation. Return flows will be maintained by leaving water in Carnero Creek to flow into the reservoir and seep into the ground to be retimed back to the stream.

(4) Case No. 14CW3011 (Water Division 3) - Application of San Luis Valley Water Conservancy District

The Board ratified this Statement of Opposition at its September 2014 meeting. The Board's main objective in filing the Statement of Opposition in this case was to ensure that the Applicant's proposed change of water rights and plan for augmentation do not injure the Board's instream flow water right on Los Pinos River by expansion of use of a senior water right or by not replacing out-of-priority depletions in the proper time, place, or amount. Staff, in cooperation with the Attorney General's Office, has negotiated a settlement to ensure that the CWCB's instream flow water rights will not be injured. This case remains pending before the water court referee.

The CWCB holds the following ISF water right that could have been injured by this application:

Case Number	Stream	Upper Terminus	Lower Terminus	CFS Rate (Dates)	Approp. Date
84CW0283 (Div. 7)	Los Pinos River	confl Lake Creek	confl Vallecito Res	32	07/13/1984

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 included tables in the proposed decree limiting monthly diversions volumes of the changed transbasin water right as a maximum for any one year and an average for 20 years.
- When diverting, the District shall divide water available under its interest in the PRWP Ditch water right as follows: one-half (1/2) of the Ditch's in priority rate of diversion changed in use in Case Nos. 84CW16 and 94CW62; and one-third (1/3<sup>rd</sup>) of the Ditch's in priority rate of diversion which is owned by the District and is changed in use pursuant to this Decree. (The remaining one-sixth (1/6<sup>th</sup>) interest is not owned by the District, and is not subject to the terms and conditions of this or any of the District's prior decrees.)
- The District will not provide augmentation water under the Plan for Augmentation decreed in this case for a structure from which out-of-priority depletions accrue above or within a Colorado Water Conservation Board ("CWCB") decreed instream flow reach on a tributary of the Rio Grande unless and until the District demonstrates to the satisfaction of the Division Engineer that it has facilities and/or exchanges available that are sufficient to replace such depletions in time, location and amount.
- The District will not approve an application for augmentation of a structure which depletes a tributary of the Rio Grande above or within a CWCB decreed instream flow reach under the Plan for Augmentation decreed in this case until such time as the District files a new water court application and obtains a decree amending this Plan for

Augmentation and approving the replacement of such depletions from storage and/or by exchange.

(5) Case No. 16CW3009 (Water Division 5) - Application of TerraCarta Energy Resources, LLC

The Board ratified this Statement of Opposition at its May 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 Colorado River by expansion of use or altering the time, place and amount of historical return flows. Staff, in cooperation with the Attorney General's Office, has negotiated a settlement to ensure that the CWCB's instream flow water rights will not be injured. This case remains pending before the water court referee.

The CWCB holds the following ISF water rights that could have been injured by this application:

Case Number	Stream	Upper Terminus	Lower Terminus	CFS Rate (Dates)	Approp. Date
92CW0286 (Div. 5)	Colorado River	tailrace Grand Valley Irr Co div	confl Gunnison River	581	03/05/1992
94CW0330* (Div. 5)	Colorado River	27.5 Road Gage	confl Gunnison River	300	11/04/1994

\* Increase

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 only change to the subject water rights is approval of an alternate point of diversion for the subject water rights; Applicant is not seeking to change the place of use or the type of use, or any other aspect of the subject water rights. Applicant's plan is the same as its predecessors' plans, *i.e.*, to use the subject water rights to develop oil and gas interests owned by Applicant in Western Colorado.
- Applicant acknowledges and agrees that this decree does not approve a change in place of use of the subject water rights and that, consistent with the terms of the decree entered in Case No. 08CW7, Applicant will seek judicial approval of a change of water right if it desires to use the subject water rights on lands that were not contemplated for use by those water rights when they were decreed.
- All terms and conditions of the decree entered in Case No. 08CW7, Water Division No. 5 shall remain applicable to the subject water rights when exercised at the alternate point of diversion.
- For each of the subject water rights, the combined rate of diversion at the alternate point of diversion and the original point of diversion on the Colorado River will be limited to the amount of water physically and legally available at the original point of diversion.

**(6) Case No. 15CW3009 (Water Division 6) - Application of Steamboat Ski & Resort Corporation**

The Board ratified this statement of opposition at its July 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 does not injure the Board's instream flow water rights on Beaver Creek, Burgess Creek, Fish Creek, Priest Creek and Walton Creek by expansion of use or altering the time, place and amount of historical return flows. Staff, in cooperation with the Attorney General's Office, has negotiated a settlement to ensure that the CWCB's instream flow water rights will not be injured. This case remains pending before the water court referee.

The CWCB holds the following ISF water rights in the Upper Yampa River Watershed that could have been injured by this application:

CWCB Case No.	Stream	Upper Terminus	Lower Terminus	Rate cfs	Timing	Approp. Date
77W1382	Beaver Creek	head-waters	confl. Walton Creek	2.0	1/1-12/31	9/23/1977
76W959, 959A, 959B ^	Burgess Creek	USFS Boundary	confl. Yampa River	Varies (0.0293-0.0375)	1/1-12/31	12/31/1900
77W1380	Burgess Creek	head-waters	USFS Boundary	2.0	1/1-12/31	9/23/1977
79CW103	Burgess Creek	USFS Boundary	confl. Yampa River	2.0	1/1-12/31	3/14/1979
76W959F-J ^	Fish Creek	hdgt. Mt. Werner Pipeline	confl. Yampa River	Varies (1.0-2.1)	1/1-12/31	Varies (1910-1963)
77W1379, 79CW104, 104A	Fish Creek	outlet Long Lake	confl. Yampa River	Varies (2.0-9.0)	1/1-12/31	9/23/1977, 3/14/1979
00CW075	Fish Creek	hdgt. Fish Creek filtration plant intake	confl. Yampa River	2.0	1/1-12/31	5/1/1991
77W1307	Fishhook Creek	confl. Long Park Creek	confl. Walton Creek	5.0	1/1-12/31	9/23/1977
77W1310	Hogan Creek	headwaters	confl. Fishhook Creek	1.0	1/1-12/31	9/23/1977
77W1370	Middle Fork Fish Creek	outlet Fish Creek Reservoir	confl. North Fork Fish Creek	2.0	1/1-12/31	9/23/1977
6-77W1368	North Fork Fish Creek	confl. Middle Fork Fish Creek	confl. Fish Creek	5.0	1/1-12/31	9/23/1977

CWCB Case No.	Stream	Upper Terminus	Lower Terminus	Rate cfs	Timing	Approp. Date
6-77W1381	Priest Creek	headwaters	confl. Walton Creek	2.0	1/1-12/31	9/23/1977
6-77W1312	Storm King Creek	headwaters	confl. Walton Creek	2.0	1/1-12/31	9/23/1977
6-77W1311, 79CW102	Walton Creek	confl. Fishhook Creek	hdgt Walton Creek Ditch	10.0-16.0	1/1-12/31	9/23/1977, 3/14/1979

^ Donated/Acquired Water Right

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

- The total annual amount of water that may be diverted under the subject Four Counties Ditch No. 3, Enlargement and Extension water rights at the alternate points of diversion decreed herein shall not exceed 20 acre-feet/year. In addition, between May and September of each year, cumulative diversions from the Rendezvous Saddle Well and the Beaver Creek Steamboat Pump and Pipeline shall not exceed 5 acre-feet.
- Diversions are subject to physical and legal availability at the original points of diversion as well as other restrictions as specified in the decree.

**(7) Case No. 13CW3032 (Water Division 7) - Application of Bootjack Ranch, LLC**

The Board ratified this Statement of Opposition at its March 2014 meeting. The Board's main objective in filing the Statement of Opposition in this case was to ensure that the Applicant's proposed change of water rights and plan for augmentation do not injure the Board's instream flow water rights on the San Juan River and the West Fork of the San Juan River by expansion of use, altering the time, place and amount of historical return flows, or by not replacing out-of-priority depletions in the proper time, place and amount. Staff, in cooperation with the Attorney General's Office, has negotiated a settlement to ensure that the CWCB's instream flow water rights will not be injured. This case was decreed on November 30, 2016.

The CWCB holds the following ISF water right that could have been injured by this application:

Case Number	Stream	Upper Terminus	Lower Terminus	CFS Rate (Dates)	Approp. Date
80CW0040 (Div. 7)	San Juan River	confl EF & WF San Juan River	confl McCabe Creek	30 - 50	01/30/1980
80CW0041 (Div. 7)	West Fork San Juan River	confl Wolf Creek	confl EF San Juan River	14 - 25	01/30/1980

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

conditions:

- A stipulation was reached, similar to that in Case No. 04CW97, wherein Applicant and CWCB agree to protect the instream flows by using a downstream gage, a regression equation and a procedure to measure flows on site and to voluntarily curtail out-of-priority diversions. This agreement is an alternative to installing a gage on Applicant's property to administer the water rights. Parties may agree in the future that an on-site gage is preferable.
- Applicant properly appropriated its historical irrigation season return flows as a new water right, as follows:
  - Phillipps Ditch irrigation return flows. The Applicant claims the irrigation return flows from the changed Phillipps Ditch water right described below in paragraph 10.
    - Point of Diversion: Phillipps Ditch headgate.
    - Source: West Fork.
    - Appropriation date: November 27, 2013.
      - How initiated: Filing the original application in this matter.
      - Date applied to beneficial use: October 23, 2015.
    - Amount: 0.05 c.f.s., Absolute; 0.74 c.f.s. Conditional. The maximum and current return flows that may be retained under the 2013 appropriation decreed herein are subject to the monthly limitations shown in Columns 8 and 9 of Tables 2a and 2b, respectively.
    - Uses: Piscatorial, recreation and freshening of Oxbow Lake from April through November. Uses occur in Oxbow Lake.

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 cases were negotiated to resolution:

(1) Case No. 16CW0017 (Water Division 2) - Application of Randall L. Hancock & Renate Laurie Hancock

During the October 2016 Water Court Resume Review, CWCB staff identified concerns regarding potential injury to CWCB's instream flow water rights decreed in Case No. 80CW0071 on Three Elk Creek. This case was resolved with CWCB by a letter agreement, dated December 16, 2016, by which CWCB agreed not to file a Statement of Opposition provided Applicants incorporate the following terms and conditions into any draft and final decrees in the case. This case remains pending before the water court referee.

- The Applicants have agreed that the decree in this case will not mention "feudal" or "futile" call situations with respect to CWCB's Three Elk Creek water rights.

(2) Case No. 16CW3014 (Water Division 3) - Application of Colorado Fun Valley LLC

During the September 2016 Water Court Resume Review, CWCB staff identified concerns regarding potential injury to CWCB's instream flow water rights decreed in Case No. 84CW0162 on South Fork Rio Grande. This case remains pending before the water court

referee. This case was resolved with CWCB by a letter agreement, dated December 20, 2016, 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 in the case. This case remains pending before the water court referee.

- When the instream flow water right decreed in Case No. 84CW0162 on the South Fork of the Rio Grande River is not met and being administered, Applicant shall not divert any water rights at alternate wells that deplete the stream at points upstream of the original decreed locations. However, at such times, applicant may divert at any well so long as the instantaneous diversion rate from all four wells combined is limited to a reduced rate of 600 gpm, rather than the combined decreed rate of 756 gpm. Furthermore, during such times, applicant may divert up to a combined rate of 756 gpm so long as any amount greater than 600 gpm is replaced with upstream augmentation water.

All wells may divert the original decreed rates at the original locations or at alternate points downstream of those originally drilled locations whether the instream flow water right is met or not because such wells are senior to the instream flow right decreed in 84CW162.

### (3) Case No. 16CW3099 (Water Division 5) - Application of Robert L. Cohen

During the September 2016 Water Court Resume Review, CWCB staff identified concerns regarding potential injury to CWCB's instream flow water rights decreed in Case Nos. 05CW0264 and 87CW0297 on the Blue River. This case was resolved with CWCB by a letter agreement, dated November 15, 2016, 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 in the case. This case remains pending before the water court referee.

- Applicant recognizes that the Colorado Water Conservation Board's existing instream flow water right decreed in Case No. 87CW0297, Div 5 on the Blue River was decreed prior to the filing of this case, 16CW3099.
- When the instream flow water right decreed in Case No. 87CW0297 is not met and being administered, Applicant shall not divert either the Lucky U Filling ditch or the Lucky U Lake water rights, including diversions to provide freshening flows or operate the augmentation plan decreed herein.

### (4) Case No. 16CW3123 (Water Division 5) - Application of Battle North, LLC; Battle South, LLC; Battle One Developer, LLLP; Battle One A Developer, LLC

During the October 2016 Water Court Resume Review, CWCB staff identified concerns regarding potential injury to CWCB's instream flow water right decreed in Case No. 78W3795 on Cross Creek. This case was resolved with CWCB by a letter agreement, dated December 22, 2016, 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 in the case. This case remains pending before the water court referee.

- The final decree shall include a term expressly acknowledging that the alternate points of diversion sought for the Bolts Ditch Headgate water right are subject to the

diversion limits stated in Paragraphs 3.A.vi, 3.B.vi, and 3.C.vi of the application filed in this matter.

- Diversions at the alternate points of diversion shall also be limited to the amount of water physically and legally available at the original point of diversion (Bolts Ditch Headgate). This diversion limitation does not apply to diversions at the alternate points of diversion under separately decreed water rights.
- The change in point of diversion for the Bolts Ditch Headgate to the alternate points of diversion decreed herein does not affect any other term and condition decreed in Case No. 06CW264.
- If any administrative exchanges are approved for diversions into storage at Bolts Lake, the Battle Mountain Entities shall notify the CWCB, Stream & Lake Protection Section, of such exchange.

#### (5) Case No. 16CW3124 (Water Division 5) - Application of Town of Minturn

During the October 2016 Water Court Resume Review, CWCB staff identified concerns regarding potential injury to CWCB's instream flow water rights decreed in Case No. 78W3795 on Cross Creek. This case was resolved with CWCB by a letter agreement, dated January 9, 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 in the case. This case remains pending before the water court referee.

- A maximum of 8 cfs, conditional, at any one or combination of the alternate points of diversion described in paragraph 7.A of 07CW225 and paragraph 11.A of the Application in this matter, and in combination with any diversions under the direct flow water rights decreed in Case No. 06CW264 as described in paragraph 9.C ("Battle Mountain Water Rights"). With respect to Cross Creek, diversions at any one or combination of the alternate points of diversion on Cross Creek described above or in combination with the Battle Mountain Water Rights diverting from Cross Creek may occur at a combined peak daily diversion of 12 cfs and a maximum daily total of 16 acre feet ("af"). When diversions are occurring on both the Eagle River and Cross Creek, the combined diversions are limited to a maximum daily average of 8 cfs. Diversions for the first direct use may be made through Bolts Lake to the Town's water treatment plant(s) or other locations of direct use, but no storage of water shall occur under the first use of this direct flow right.
- Diversions under the Minturn Municipal Diversion water right that would have been made at the Bolts Ditch headgate but may now be made at the new alternate points of diversion in this case (Bolts Ditch Pumpstation No. 1, Bolts Ditch Pumpstation No. 2 and Arminda Ditch Headgate) shall be limited to the amount of water physically and legally available at the original point of diversion of the Bolts Ditch headgate. The limitation shall only apply to the diversions made under the Minturn Municipal Diversion water right at Arminda Ditch Headgate, Bolts Ditch Pumpstation No.1, or Bolts Ditch Pumpstation No.2, and shall not apply to diversions made at any of the other alternate points of diversion of the Minturn Municipal Diversion water right decreed in Case No. 07CW225.
- Minturn's requested change in point of diversion to the alternate points of diversion described above does not affect any other terms and conditions of the 07CW225 Decree, and this application is only intended to address the requirements set forth in paragraph 11.N of the 07CW225 Decree.

**(6) Case No. 16CW0011 (Water Division 7) - Application of Bette R. Bell, Desiree Bell**

During the August 2016 Water Court Resume Review, CWCB staff identified concerns regarding potential injury to CWCB's instream flow water rights decreed in Case Nos. 77W1763 and 77W1764 on the Florida River. This case was resolved with CWCB by a letter agreement, dated November 17, 2016, 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 in the case. This case remains pending before the water court referee.

- Applicant recognizes that the Colorado Water Conservation Board's existing instream flow water rights decreed in Case Nos. W1763 (1977) and W1764 (1977), WD7 on the Florida River were decreed prior to the filing of this case, 2016CW11.
- This change of water right allows only a change in the point of diversion and does not authorize a change in place of use, type of use, or season of use of the water.

# **Colorado Water Conservation Board**

## **CONSTRUCTION FUND AND SEVERANCE TAX PERPETUAL BASE FUND**

### **SMALL PROJECT LOAN REPORT** (2016 CALENDAR YEAR)



**COLORADO**

**Colorado Water  
Conservation Board**

Department of Natural Resources

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

**January 15, 2017**

## **PREFACE**

Pursuant to Section 37-60-122(b) of the C.R.S. the Colorado Water Conservation Board (CWCB) is required to submit a report by January 15<sup>th</sup> of each year to the Colorado General Assembly describing the basis of all Construction Fund and Severance Tax Perpetual Base Fund loans authorized by the CWCB under \$10,000,000. This report fulfills the CWCB reporting obligations for those “Small Project” loans for calendar year 2016.

The report includes a summary spreadsheet identifying each loan approval date, the project sponsor or borrower, the project name, the loan amount, and the name of the County and river basin where the project is located. There were 13 new loan projects under \$10,000,000 approved by the CWCB in calendar year 2016. The total loan value is approximately \$19.5 million.

Included in the report is a loan project Data Sheet for each new loan project. The Data Sheet includes a project description, project location map, and other pertinent loan and project information.

January 12, 2017



## COLORADO

### Colorado Water Conservation Board

Department of Natural Resources

1313 Sherman Street, Room 718  
Denver, CO 80203

January 15, 2017

The Honorable Senator Jerry Sonnenberg  
Chair, Senate Agriculture, Natural Resources, and Energy Committee

The Honorable Representative Jeni Arndt  
Chair, House Agriculture, Livestock and Natural Resources Committee

Re: Small Project Loans Approved in 2016  
Construction Fund and Severance Tax Perpetual Base Fund

Dear Senator Sonnenberg and Representative Vigil,

Pursuant to C.R.S. § 37-60-122(b), the Colorado Water Conservation Board (CWCB) is submitting the attached written determination of the basis for all loans under \$10,000,000 authorized during the 2016 calendar year. The report will be presented to the CWCB at the January 23, 2017 Board meeting.

The report will be posted on the web at [www.leg.state.co.us](http://www.leg.state.co.us) and on the CWCB website [www.cwcb.state.co.us](http://www.cwcb.state.co.us). A copy of the report has been submitted to the Legislative Library, Room 029 of the State Capitol Building. Paper copies of the Report will be made available upon request.

If you have questions or need additional copies of the report, please contact Mr. Doug Vilsack, Legislative Liason, at 303-866-3311 x8664.

Sincerely,

James Eklund, Director  
Colorado Water Conservation Board



Colorado Water Conservation Board  
Small Project Loans - Construction and Severance Tax Funds  
For Calendar Year 2016

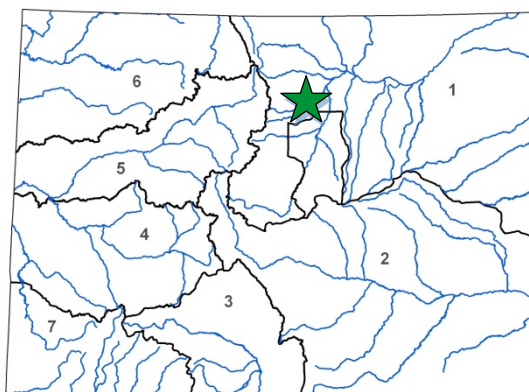
Project	Date Approved	Borrower	Project	Amount Approved	Funding Source *	County	Basin
1	01/26/16	Lake McIntosh Reservoir Company	Lake McIntosh Outlet Works Repair	\$1,727,100.00	CF	Boulder	South Platte
2	01/26/16	Orchard Ranch Ditch Company	Orchard Ranch Ditch Piping	\$151,500.00	ST	Delta	Gunnison
3	03/16/16	City of Grand Junction	Hallenbeck Reservoir No. 1 Dam Rehabilitation	\$1,010,000.00	CF	Mesa	Gunnison
4	03/16/16	Duke Ditch Company	Piping the Duke Ditch	\$90,900.00	CF	Delta	Gunnison
5	05/18/16	Dixon Canon Ditch and Reservoir Company	Dixon Reservoir Dam Improvement	\$278,100.00	CF	Larimer	South Platte
6	05/18/16	Julesburg Irrigation District	Reconstruction of the Harmony No. 1 Measurement Structure	\$203,616.00	CF	Sedwick	South Platte
7	05/18/16	Union Well Augmentation Group	Union Reservoir Water Rights Purchase	\$248,157.00	CF	Weld	South Platte
8	07/20/16	North Poudre Irrigation Company	Rehabilitation of the Livermore Irrigation Tunnel	\$1,451,673.00	CF	Larimer	South Platte
9	09/21/16	Grand Valley Water Users Association	Government Highline Canal Lining	\$151,500.00	CF	Mesa	Colorado
10	09/21/16	Larimer and Weld Irrigation Company	Headgate Structure Replacement	\$681,750.00	CF	Larimer & Weld	South Platte
11	11/16/16	Town of Firestone	Storage Development and Water Rights Purchase	\$10,000,000.00	CF	Weld	South Platte
12	11/16/16	Grand Valley Water Users Association	Grand Valley Power Plant Rehabilitation	\$1,717,000.00	CF	Mesa	Colorado
13	11/16/16	Orchard Mesa Irrigation District	Grand Valley Power Plant Rehabilitation	\$1,717,000.00	CF	Mesa	Colorado
New Small Project Loans Approved in 2016				\$19,428,296.00			
Loan Increases							
	01/26/16	Bergen Ditch and Reservoir Company	Bergen Reservoir No. 2 Rehabilitation	\$91,102.00	CF	Jefferson	South Platte
	01/26/16	North Poudre Irrigation Company	Reservoir No. 4 Rehabilitation	\$627,210.00	CF	Larimer	South Platte
	05/18/16	Oligarchy Irrigation Company	Dam Outlet Works Rehabilitation	\$120,190.00	CF	Boulder	South Platte
Loan Increases Approved in 2016				\$838,502.00			
Total Amount Approved in 2016				\$20,266,798.00			

\* Indicates whether the funding source is from Construction Fund (CF) or Severance Tax Fund (ST)

**COLORADO**Colorado Water  
Conservation Board

Department of Natural Resources

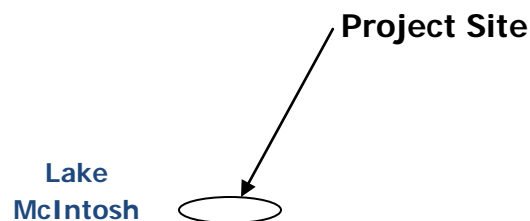
L O A N   D E T A I L S	
<i>Project Cost:</i>	\$1,900,000
<i>CWCB Loan (with Service Fee):</i>	\$1,727,100
<i>Loan Term and Interest Rate:</i>	30 Years @ 2.70%
<i>Funding Source:</i>	Construction Fund
B O R R O W E R   T Y P E	
<i>Agriculture</i>	<i>Municipal</i>
28%	0 % Low - 61% Mid - 9% High
	<i>Commercial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



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

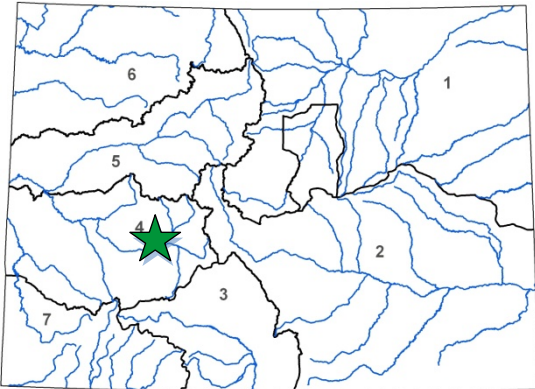


May 2015 Sinkhole

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



L O C A T I O N	
<i>County:</i>	Delta
<i>Water Source:</i>	Surface Creek
<i>Drainage Basin:</i>	Gunnison River
<i>Division:</i>	4
<i>District:</i>	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.

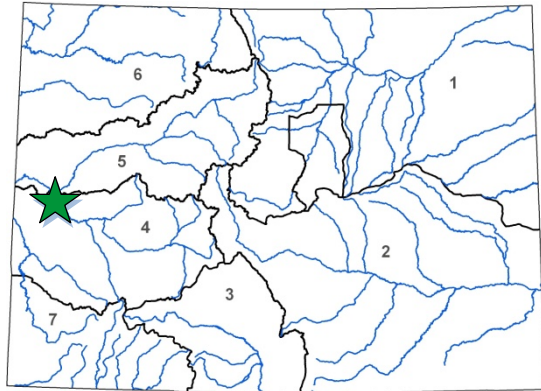
Project Site



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Conservation Board

Department of Natural Resources

L O A N   D E T A I L S	
<i>Project Cost:</i>	\$1,153,782
<i>CWCB Loan (with Service Fee):</i>	\$1,010,000
<i>Loan Term and Interest Rate:</i>	20 years @ 2.65%
<i>Funding Source:</i>	Construction Fund and WSRA Grants
B O R R O W E R   T Y P E	
<i>Agriculture</i>	<i>Municipal</i>
0%	0% Low - 100% Mid - 0% High
	<i>Commercial</i>
	0%
P R O J E C T   D E T A I L S	
<i>Project Type:</i>	Dam Rehabilitation
<i>Average Annual Delivery:</i>	5,218 AF
<i>Recovered Storage:</i>	699 AF



L O C A T I O N	
<i>County:</i>	Mesa
<i>Water Source:</i>	Kannah Creek
<i>Drainage Basin:</i>	Gunnison
<i>Division:</i>	4
<i>District:</i>	42

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.

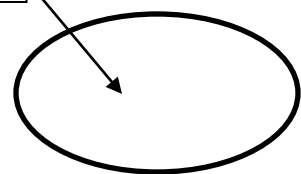
Water was immediately released from the reservoir in an effort to relieve hydrostatic pressure within the dam. The City completed a forensic evaluation of the dam that included a geotechnical investigation and structural evaluation. The purpose of this project is to repair the dam to allow the City to use all of the storage capacity. Construction involves 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. This will allow the City to make use of its 1939 absolute irrigation right, and 1993 conditional municipal right. Construction is expected to occur in the summer of 2016.

Ute Water Conservancy District Service Area

Clifton Water District

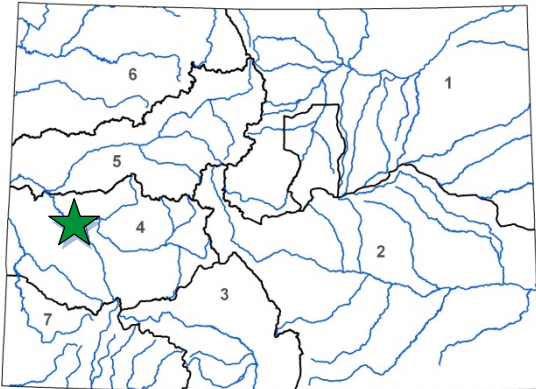
City of Grand Junction Service Area (Blue)

Project Site



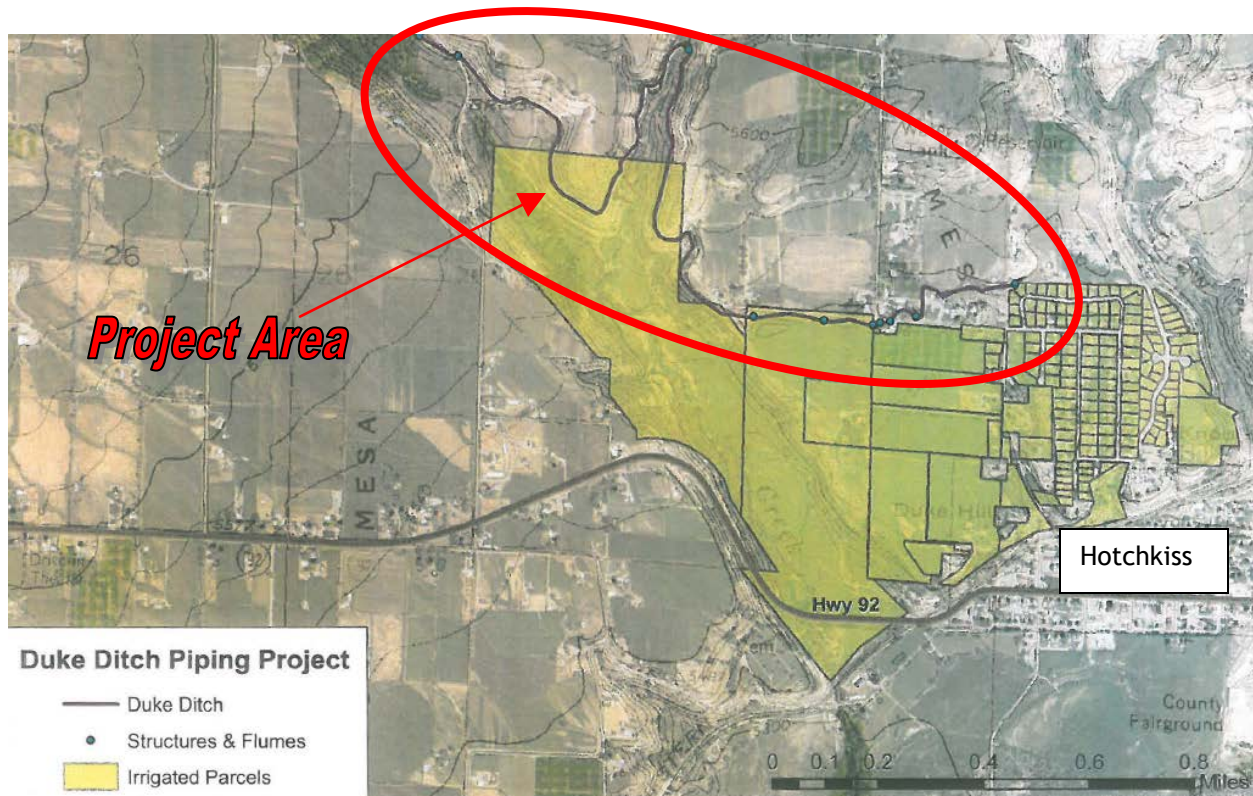


L O A N   D E T A I L S	
Project Cost:	\$749,374
CWCB Loan (with Service Fee):	\$90,900
Loan Term and Interest Rate:	30 years @ 2.0%
Funding Source:	Construction Fund, WSR, Salinity Control
B O R R O W E R   T Y P E	
Agriculture	Municipal      Commercial
68%	32% Low - 0% Mid - 0% High      0%
P R O J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



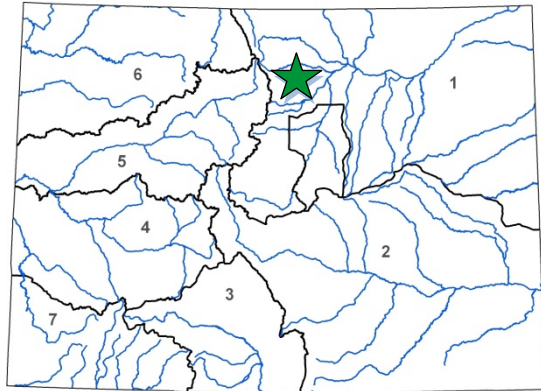
L O C A T I O N			
County:		Delta	
Water Source:		Leroux Creek	
Drainage Basin:		Gunnison	
Division: 4		District: 42	

The Duke Ditch Company diverts from Leroux Creek and Barrow Gulch, west of the Town of Hotchkiss, and delivers water through the Company's ditch to a 380-acre service area. The earthen ditch traverses a steep hillside in the Leroux Creek canyon where it is prone to washout and is subject to significant seepage and evaporative losses. As a result of the location, it has significant maintenance and aquatic vegetation growth issues. The deep percolation of irrigation water in this area contributes salinity and selenium to the Colorado River system; therefore, the Company obtained a \$464,000 Salinity Control Program grant (61% of project costs) and a \$100,900 NRCS grant (13% of project costs), as the project is expected to reduce salt loading to the Colorado River system by 395 tons/year. In addition, the Company is applying for a \$47,237 basin grant and a \$47,237 statewide grant from the Water Supply Reserve Account Grant Program to pipe the entire 2.7 miles of ditch. Construction is scheduled for the fall/winter of 2016/2017.



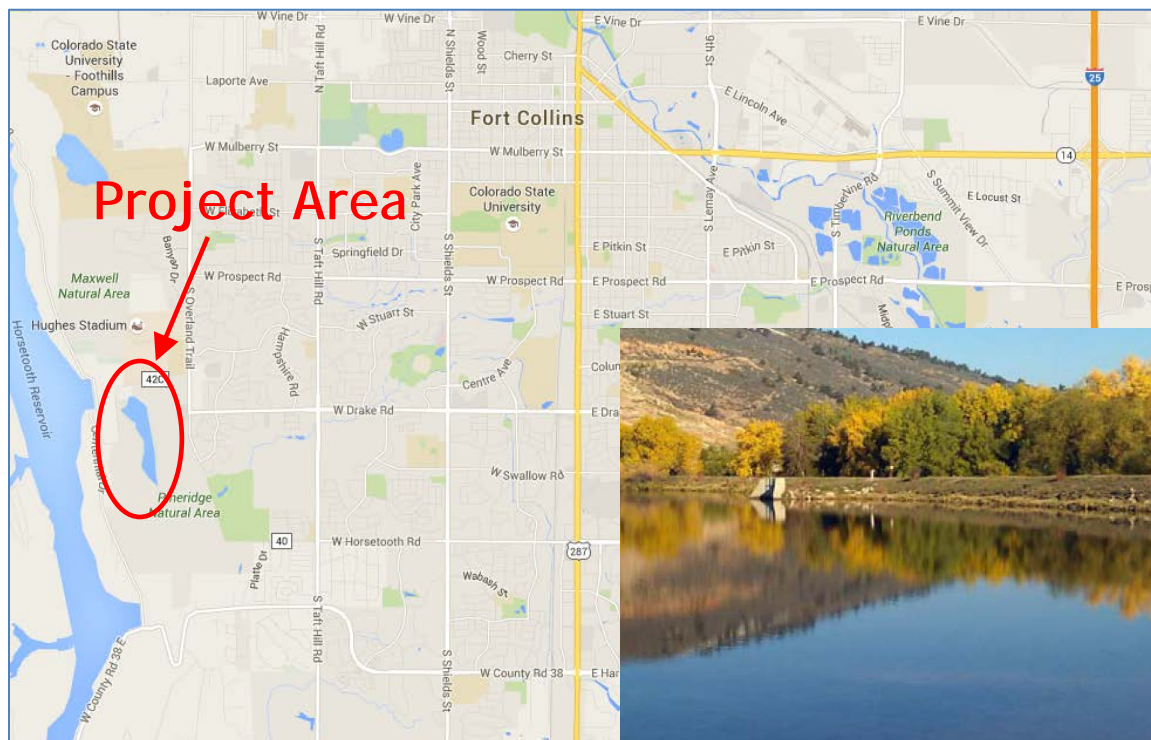


L O A N   D E T A I L S	
Project Cost:	\$309,000
CWCB Loan (with Service Fee):	\$278,100
Loan Term and Interest Rate:	30 years @ 2.55%
Funding Source:	Construction Fund
B O R R O W E R   T Y P E	
Agriculture	Municipal      Commercial
17%	0% Low - 83% Mid - 0% High      0%
P R O J E C T   D E T A I L S	
Project Type:	Dam Rehabilitation
Average Annual Delivery:	312 AF
Total Storage Effect:	412 AF



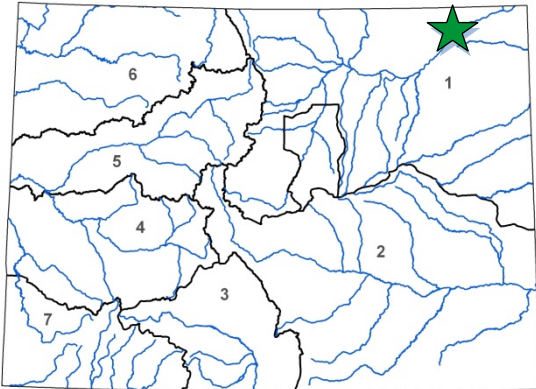
L O C A T I O N			
County:		Larimer	
Water Source:		Dixon Creek	
Drainage Basin:		South Platte River	
Division: 1		District: 3	

Dixon Canon Ditch and Reservoir Company owns and operates the Dixon Reservoir Dam and associated ditch located in Larimer County on the west side of Fort Collins. Dixon Reservoir is directly east of Horsetooth Reservoir. The ditch diverts water off of Dixon Creek and provides water for outdoor irrigation to a 206-acre service area via approximately 9,000 feet of pipe and ditch. The water is typically used to irrigate turf, agricultural crops, and the City of Fort Collins parks and open space. The dam was constructed in 1885 and is classified as a Significant Hazard Dam by the Dam Safety Branch of the Office of the State Engineer (SEO). The Reservoir has a decreed storage volume of 412 acre-feet. Recent SEO inspections identified areas of seepage that need to be addressed in order to maintain the full storage decrees. The purpose of this project is to address seepage issues and improve the dam outlet works so the Company can continue providing an adequate amount of irrigation water to shareholders while minimizing the risk of dam failure. Construction is expected to begin in late 2016.





L O A N   D E T A I L S	
Project Cost:	\$224,000
CWCB Loan (with Service Fee):	\$203,616
Loan Term and Interest Rate:	30 years @ 1.70%
Funding Source:	Construction Fund
B O R R O W E R   T Y P E	
Agriculture	Municipal      Commercial
100%	0% Low - 0% Mid - 0% High      0%
P R O J E C T   D E T A I L S	
Project Type:	Ditch Rehabilitation
Average Annual Delivery:	54,423 AF



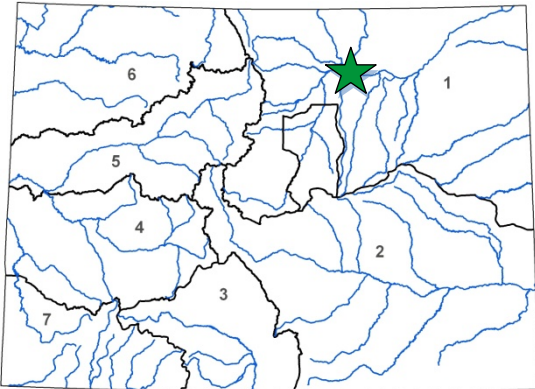
L O C A T I O N	
County:	Sedgwick
Water Source:	South Platte River
Drainage Basin:	South Platte River
Division:	1      District: 64

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 has structural damage that will cause failure. The District wishes to replace the existing structure with a new structure located just upstream, prior to the 2017 reservoir fill season beginning in November 2016. The purpose of this project is to provide a reliable measurement structure to accurately measure the flow of the Harmony No. 1 Canal during the diversion of water for the various water rights being used by the Julesburg Irrigation District.





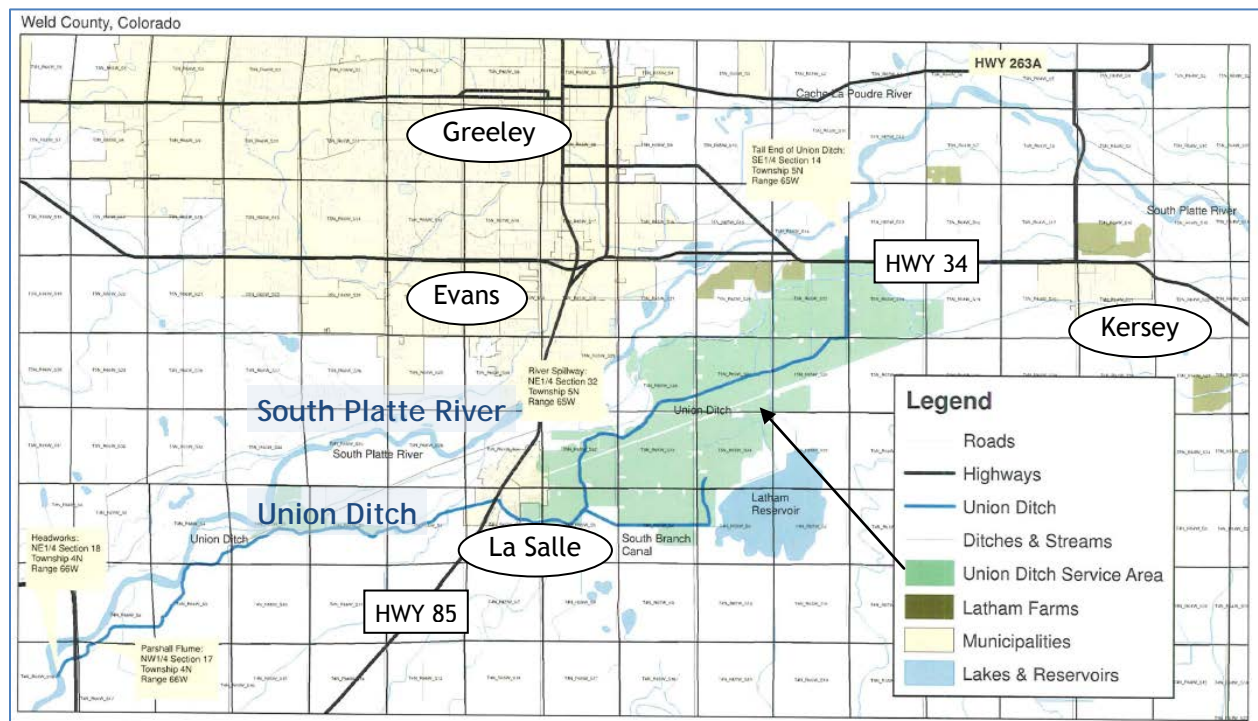
L O A N   D E T A I L S	
Project Cost:	\$273,000
CWCB Loan (with Service Fee):	\$248,157
Loan Term and Interest Rate:	20 Years @ 1.45%
Funding Source:	Severance Tax PBF
B O R R O W E R   T Y P E	
Agriculture	Municipal      Commercial
100%	0% Low - % Mid - % High      0%
P R O J E C T   D E T A I L S	
Project Type:	Water Rights Purchase
Average Annual Delivery:	116 AF



L O C A T I O N			
County:		Weld	
Water Source:		South Platte River	
Drainage Basin:		South Platte	
Division: 1		District: 2	

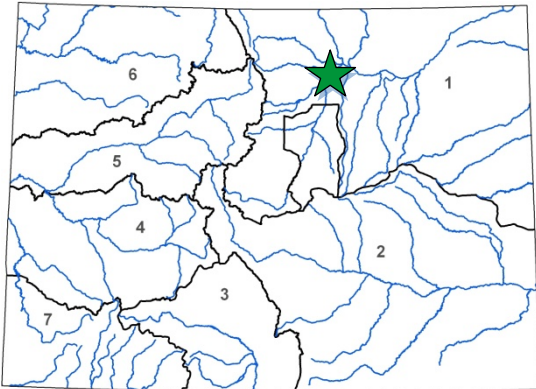
The Union Well Augmentation Group provides augmentation water for well owners of the Union Ditch Company, providing supplemental irrigation water to 29 wells covering 2,200 acres. The Company covers an average of 4 AF of well depletions per year.

The Augmentation Group seeks to purchase 2.0 shares of the Union Reservoir Company. The Augmentation Group will use these shares in the augmentation plan via a lease with the City of Longmont where Longmont will use the 2 shares and in return the Augmentation Group will receive the city's effluent, which is approved for use in the augmentation plan. It is expected that these 2 shares will add 15.3 AF to the Augmentation Group's average quota of 0.5 AF per well.





L O A N   D E T A I L S	
<i>Project Cost:</i>	\$ 1,597,000
<i>CWCB Loan (with Service Fee):</i>	\$ 1,451,673
<i>Loan Term and Interest Rate:</i>	30 years @ 2.25%
<i>Funding Source:</i>	Construction Fund
B O R R O W E R   T Y P E	
<i>Agriculture</i>	<i>Municipal</i>
26%	0% Low - 73% Mid - 0% High
	<i>Commercial</i>
	1%
P R O J E C T   D E T A I L S	
<i>Project Type:</i>	Ditch Rehabilitation
<i>Average Annual Delivery:</i>	44,400 AF



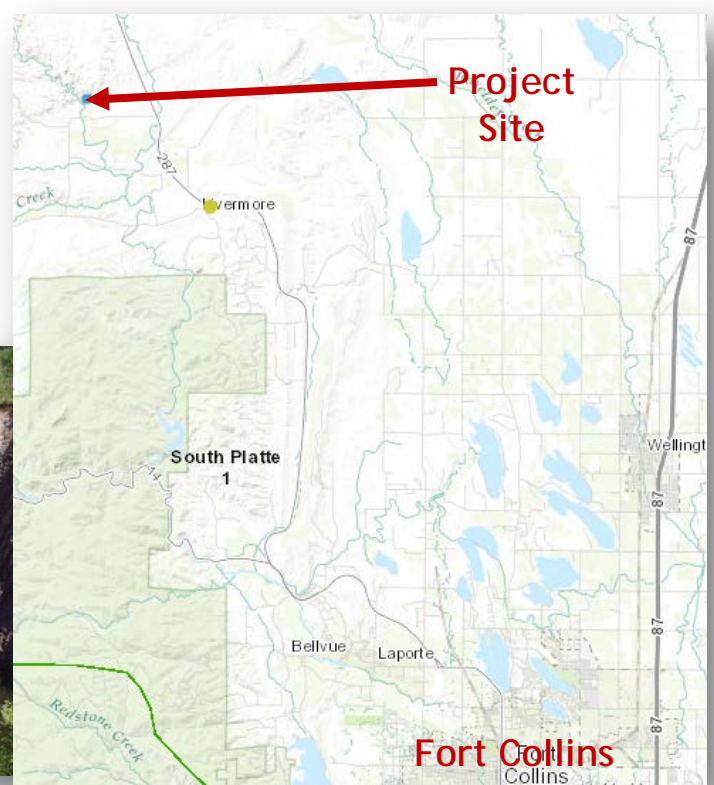
L O C A T I O N	
<i>County:</i>	Larimer
<i>Water Source:</i>	Cache la Poudre River
<i>Drainage Basin:</i>	South Platte River
<i>Division:</i>	1
<i>District:</i>	3

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 discharged into an earth-lined open canal and flows on toward the Buckeye Lateral, Park Creek Reservoir, and the Company's downstream delivery infrastructure.

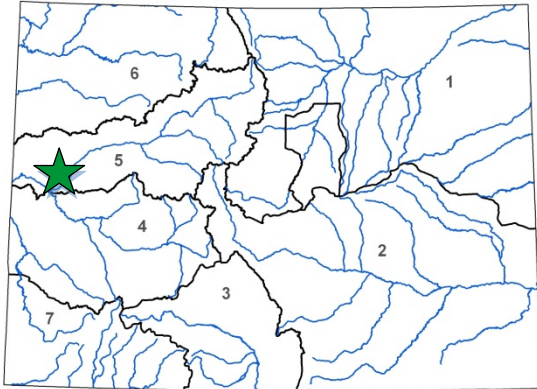
The Livermore Tunnel consists of two tunnels connected by a short section of open channel. The tunnels are approximately 8.5 feet high and 8 feet wide with a concrete invert along the entire tunnel length. The tunnels are considered generally stable with the exception of six collapse zones where large 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.



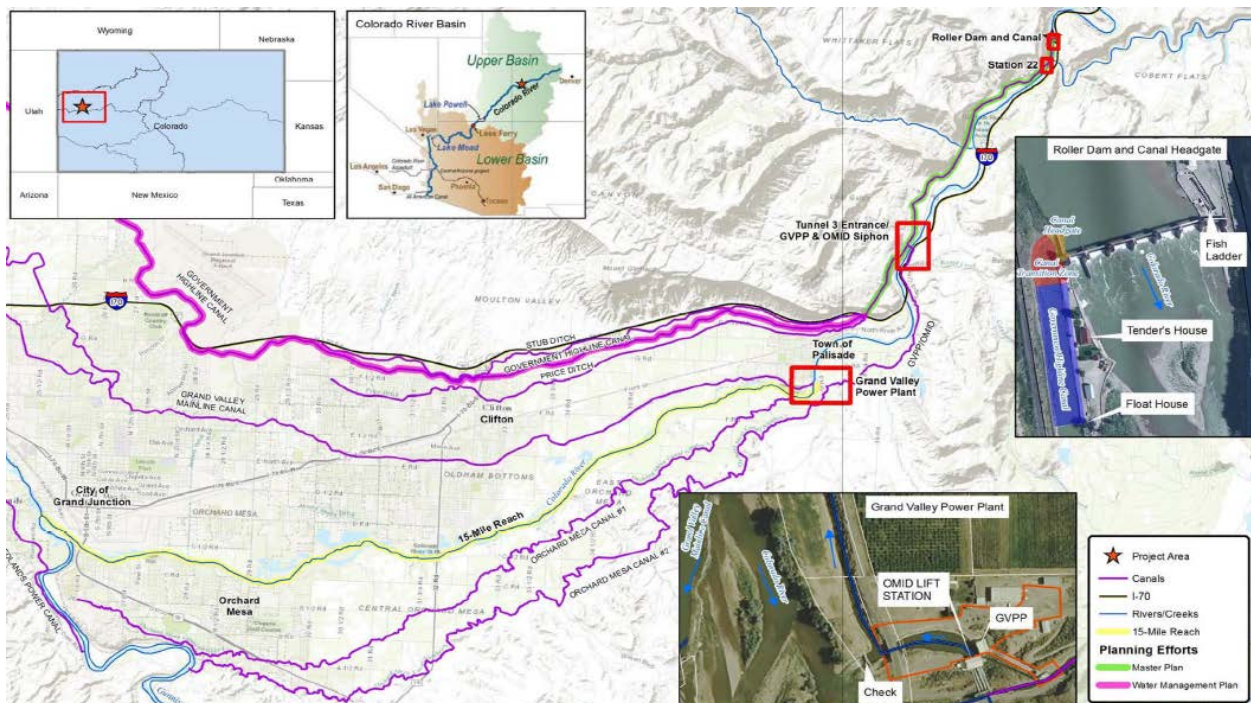


L O A N   D E T A I L S	
Project Cost:	\$800,000
CWCB Loan (with Service Fee):	\$151,500
Loan Term and Interest Rate:	30 Years @ 1.55%
Funding Source:	Construction Fund
B O R R O W E R   T Y P E	
Agriculture	Municipal
90%	0% Low - 10% Mid - 0% High
Commercial	0%
P R O J E C T   D E T A I L S	
Project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



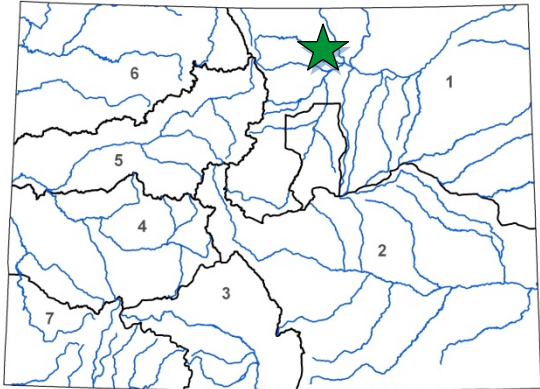
L O C A T I O N	
County:	Mesa
Water Source:	Colorado River
Drainage Basin:	Colorado
Division:	5
District:	72

The Grand Valley Water Users Association (Association), is requesting funding for the Government Highline Canal Lining Project. The Association is the managing entity of the Bureau of Reclamation's Grand Valley Project. The Grand Valley Project facilities include the Grand Valley Diversion Dam (also known as the Roller Dam) on the Colorado River in De Beque Canyon, the 55-mile-long Government Highline Canal, 150 miles of project operated laterals, 100 miles of drainage ditches, and a hydroelectric power plant. The embankment immediately below the Roller Dam is relatively narrow and separates the Government Highline Canal from the Colorado River. This section of canal was constructed around 1915. Over the last 100 years the embankment has slumped, settled and degraded. Occasional erosion within the embankment has led to material loss and sinkholes. As a result of canal degradation, water flow is restricted and the canal cross section has been reduced, causing a reduction in capacity of the canal channel. The canal is currently physically restricted to approximately 1,600 cfs while the water rights are for 1,730 cfs. To increase the capacity, the Association intends to improve first 500 feet of the canal. Permitting and final design are scheduled for completion by March 2017. Construction is anticipated in summer and fall of 2017.





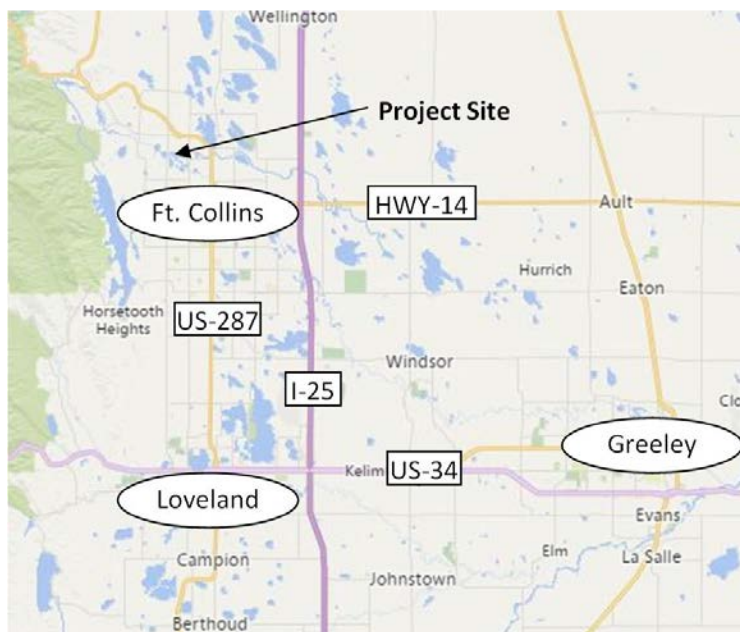
L O A N   D E T A I L S	
<i>Project Cost:</i>	\$750,000
<i>CWCB Loan (with Service Fee):</i>	\$681,750
<i>Loan Term and Interest Rate:</i>	30 Years @ 1.5%
<i>Funding Source:</i>	Construction Fund
B O R R O W E R   T Y P E	
<i>Agriculture</i>	<i>Municipal</i>
96%	0% Low - 4% Mid - <1% High
	<i>Commercial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



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

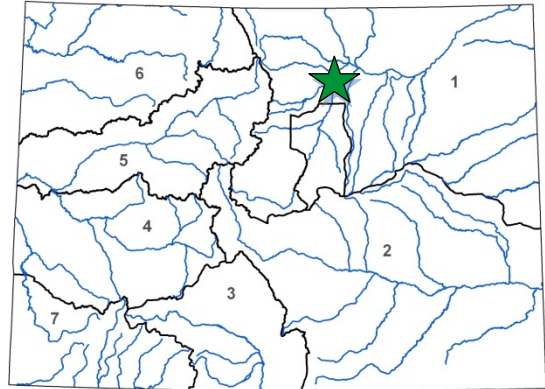
The Larimer and Weld Irrigation Company is a Colorado Mutual Ditch Company and a nonprofit corporation. The Company's service area extends from the Cache la Poudre River diversion north of Fort Collins, east to near the town of Galeton, encompassing approximately 61,000 acres of irrigated land in Larimer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





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



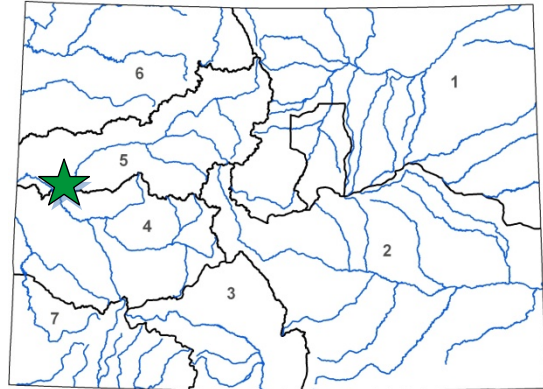
L O C A T I O N	
County:	Weld
Water Source:	St. Vrain River / Boulder Creek
Drainage Basin:	South Platte River
Division:	1      District: 2

The Town of Firestone's boundary encompasses approximately 9,089 acres and is generally located east of Interstate 25 between Highway 66 and Highway 52. The Town of Firestone provides water and wastewater services to approximately 12,110 residents and operates a water distribution network of approximately 58.5 miles of pipeline and associated facilities. The purpose of this project is to provide a water storage project to help meet the Town's current and future non-potable water needs. For planning purposes, the Town is pursuing a little over two times the demand, or 2,000 acre-feet of non-potable storage for the Town. As a short-term water supply goal, the Town is requesting funds to Purchase the Carbon Valley Resource Pit and acquire 1,092 acre-feet as part of this project.





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



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

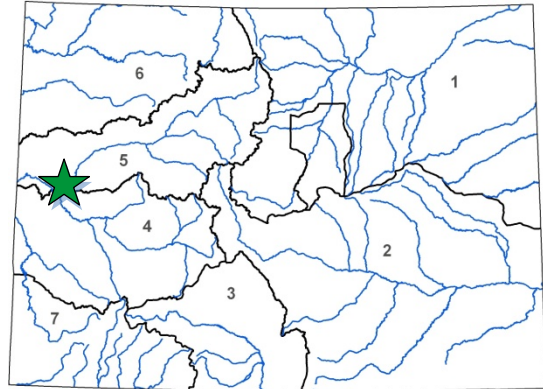
The Grand Valley Water Users Association (Association) and Orchard Mesa Irrigation District (District) are each seeking a loan to cover its cost share for the Grand Valley Power Plant (GVPP) Rehabilitation Project. The GVPP is owned by the Bureau of Reclamation and originally operated by Public Service Company of Colorado (Xcel Energy) in conjunction with the Cameo coal fired power plant. The Association and District took operational control of the plant when Xcel decided to cease its operations. The Association and District equally split costs and revenues from the GVPP under a Lease of Power Privilege with Reclamation and a Power Purchase Agreement with Xcel. In addition to being a revenue source, the GVPP serves an important role in providing water to the “15-Mile Reach” which has been designated by the Upper Colorado River Endangered Fish Recovery Program as critical habitat. The non-consumptive hydropower water right ensures continued flows for this important stretch of river.

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





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



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

The Orchard Mesa Irrigation District (District) and Grand Valley Water Users Association (Association) are each seeking a loan to cover its cost share for the Grand Valley Power Plant (GVPP) Rehabilitation Project. The GVPP is owned by the Bureau of Reclamation and originally operated by Public Service Company of Colorado (Xcel Energy) in conjunction with the Cameo coal fired power plant. The District and Association took operational control of the plant when Xcel decided to cease its operations. The District and Association equally split costs and revenues from the GVPP under a Lease of Power Privilege with Reclamation and a Power Purchase Agreement with Xcel. In addition to being a revenue source, the GVPP serves an important role in providing water to the “15-Mile Reach” which has been designated by the Upper Colorado River Endangered Fish Recovery Program as critical habitat. The non-consumptive hydropower water right ensures continued flows for this important stretch of river.

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

1313 Sherman Street  
Denver, CO 80203

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F (303) 866-4474

John Hickenlooper, Governor

Robert Randall, DNR Executive Director

James Eklund, CWCB Director

**TO:** Colorado Water Conservation Board Members

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

**DATE:** January 23-24, 2017 Board Meeting

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

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### Introduction

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

The current rates for a 30-year term are as follows:

- 1.50% - Agricultural
- 2.15% - Low-income Municipal
- 2.45% - Middle-income Municipal
- 2.75% - 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 0.90% for 10-year loans.

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





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Robert Randall, DNR Executive Director

James Eklund, CWCB Director

**TO:** Colorado Water Conservation Board Members

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

**DATE:** January 23-24, 2017 Board Meeting

**DIRECTORS REPORT:** Water Project Loan Program  
Prequalified Project List and Loan Prospect Summary

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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					
Upper Platte & Beaver Canal Company	Upper Platte & Beaver Canal Diversion Structure	Sept 1, 2016	South Platte	The purpose of this project is to replace the existing diversion structure that diverts water for both the Upper Platte & Beaver Canal Company and the Deuel & Snyder Improvement Company.	\$7,412,000
Town of Aguilar	Augmentation Project	July 1, 2016	Arkansas	The Town is proposing construction of a 99 AF augmentation reservoir to replace out-of-priority depletions as a result of the Town's overuse of alluvial wells.	\$2,800,000
Florida Consolidated Ditch Company	Hess Lateral Improvement Project	July 1, 2015	Southwest	The purpose of this project is to pipe the lateral to improve efficiencies within the ditch system. The company will also receive \$950K in CDOT funds as a part of the Hwy 550 expansion project.	\$2,500,000
Totals					\$12,712,000

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
•Colorado Trout Group	Reservoir Rehabilitation	\$300,000
•Central CO WCD	Pipeline Project	\$4,000,000
•Parker Water & Sanitation District	Water Meter Project	\$5,000,000
•Metro Homeowners Association	Water Meter Project	\$300,000
•Henrylyn Irrigation District	Reservoir Rehabilitation	\$6,000,000
•Town of Wiggins	Water Rights Purchase/Land	\$3,700,000
•Bijou Irrigation District	Reservoir Rehabilitation	\$600,000
•Subtotal		\$119,900,000

### Arkansas River Basin

•City of Walsenburg	Reservoir(s) Rehabilitation	\$6,000,000
•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
•Security Water & San District	Water Supply Project	\$3,000,000
•Subtotal		\$20,750,000

### San Miguel/San Juan River Basin

•Town of Norwood	Dual Water System	\$1,700,000
•Town of Bayfield	Ditch Piping	\$500,000
•San Juan Water Conservancy District	Land Acquisition	\$2,000,000
•Subtotal		\$4,200,000

### Colorado River Basin

•Kendall Reservoir	Reservoir Rehabilitation	\$400,000
•Private Borrower	Reservoir Rehabilitation	\$250,000
•Subtotal		\$650,000

### Gunnison River Basin

•Gunnison County Electric	Hydroelectric Project	\$1,000,000
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### Rio Grande Basin

•Manasa Land & Irrigation Co.	Ditch Rehabilitation	\$6,000,000
•Baca Grande Water and San District	Water Rights Purchase	\$1,000,000
•Sanchez Ditch and Reservoir Co.	Dam Rehabilitation	\$4,000,000
•Rio Grande WCD	Water Rights Purchase	\$5,000,000
•Subtotal		\$16,000,000

### Yampa River Basin

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

- No projects at this time

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John Hickenlooper, Governor

Robert Randall, DNR Executive Director

James Eklund, CWCB Director

**TO:** Colorado Water Conservation Board Members**FROM:** Jodie Tavares, Loan Program Assistant  
Kirk Russell, P.E., Finance Section Chief**Board Meeting:** January 23-24, 2017 Board Meeting**Directors Report:** Water Project Loan Program  
Design & Construction Status Report

The CWCB Loan Program has Substantially Completed twenty-seven (27) projects in Calendar Year 2016 as shown in Table 1. There are currently forty-eight (48) projects authorized to receive loan funding totaling \$250 million. There are forty-two (42) projects currently under contract and in the Design and Construction phase totaling \$157.7 million. There were an additional nineteen (19) Emergency Loans approved totaling \$17 million shown under a separate report.

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	Complete
1	Crystal Lakes Water and Sewer	Lower Lone Pine Lake Enlargement	Larimer	\$2,016,460	1/1/2016 (a)
2	Town of Ridgway	Lake Otonowanda Rehabilitation Project	Ouray	\$606,000	1/1/2016 (b)
3	Lower Poudre Augmentation Co.	Box Elder Ditch Water Rights Purchase	Larimer/Weld	\$454,500	1/1/2016
4	Lower Arkansas Valley WCD	Water Rights Purchase	Bent/Crowley/Otero/Prowers	\$2,560,350	3/1/2016
5	Fort Lyon Canal Company	Replacement of Horse Creek Flume	Otero/Bent/Prowers	\$1,542,296	4/1/2016
6	Fulton Irrigating Ditch Company	Diversion Structure Rehabilitation	Adams	\$1,947,138	4/1/2016
7	Bergen Ditch & Reservoir Company	Bergen Reservoir No. 2 Rehabilitation	Jefferson	\$2,110,765	4/1/2016 (c)
8	Upper Platte & Beaver Canal Co.	Hospital Rd Recharge Facility & Bridge	Morgan	\$119,685	4/1/2016
9	Owl Creek Reservoir Company	Owl Creek Reservoir Rehabilitation	Weld	\$485,000	5/1/2016
10	Brighton Ditch Company	River Breach Repair Project	Adams	\$225,000	5/1/2016
11	McDonald Ditch Company	Ditch Diversion and Headgate Replace	Rio Grande	\$101,000	5/1/2016



12	Las Animas Consolidated Canal Co	Repair and Replacement of the Las Animas Consolidated Spillway	Bent	\$95,054	6/1/2016
13	Left Hand Ditch Company	Allen Lake and Lake Isabelle Repair	Boulder	\$1,332,562	6/1/2016
14	Colorado Parks & Wildlife	Beaver Park Reservoir Rehabilitation	Rio Grande	\$10,000,000	6/1/2016 (d)
15	Greeley and Loveland Irrigation Co.	Irrigation System Improvements	Larimer	\$3,745,080	7/1/2016 (e)
16	Boxelder Basin Regional Stormwater Authority	East Side Detention Facility	Larimer/Weld	\$7,171,000	7/1/2016 (f)
17	Boxelder Basin Regional Stormwater Authority	County Road 52 Culvert	Larimer/Weld	\$818,100	7/1/2016
18	Lake Canal Reservoir Company	North Gray Reservoir Rehabilitation	Larimer/Weld	\$204,298	7/1/2016 (g)
19	Louden Irrigating Canal & Res. Co.	Emergency Diversion Structure Repair	Larimer	\$126,250	7/1/2016
20	Boxelder Basin Regional Stormwater Authority	Larimer & Weld Canal Crossing Structure	Larimer/Weld	\$1,010,000	8/1/2016
21	Farmers Pawnee Canal Company	Diversion Structure Replacement	Logan	\$2,067,470	9/1/2016
22	Northern Colorado WCD	Granby Hydropower Project	Grand	\$5,135,183	10/1/2016
23	Pisgah Reservoir and Ditch Company	Mount Pisgah Dam/Wrights Res Rehabilitation	Teller	\$990,176	10/1/2016 (h)
24	Bow Mar Water & Sanitation Dist.	Rehabilitation and Replacement of Water Meters	Arapahoe/Jefferson	\$332,795	11/1/2016
25	Union Well Augmentation Group	Union Reservoir Water Rights Purchase	Weld	\$227,250	11/1/2016
26	Parkville Water District	Evans Res. Bypass Flume Project	Lake	\$181,800	12/1/2016
27	Town of Cortez	Water Meter Replacement	Montezuma	\$858,500	12/1/2016
			Total:	\$46,463,712	

Calendar Year 2016 has added or preserved 20,118 AF of reservoir storage [ (a) 90, (b) 109, (c) 726, (d)2,201 (e) 12,925, (f) 1,800, (g) 75, (h) 2,192]



# Lower Lone Pine Lake Enlargement Project

Crystal Lakes Water and Sewer Association  
Substantially Complete January 1, 2016



AFTER

BEFORE

## Project Description

Crystal Lakes Water and Sewer Association borrowed funds to enlarge Lower Lone Pine Lake from 10.5 AF to 100.5 AF. The increase provided augmentation water for the Crystal Lakes subdivision, located in Larimer County, servicing over 800 residences. These residences derive their water supply from individual wells. This increased storage capacity will protect the community against possible well curtailments.

P R O J E C T D A T A		
<i>Sponsor:</i> Crystal Lakes Water and Sewer Association	<i>County:</i> Larimer	<i>Water Source:</i> North Lone Pine Creek (tributary to Cache la Poudre River)
<i>Type of Loan:</i> Reservoir Enlargement		<i>Board Approval Date:</i> November 15, 2011
<i>Storage Increase:</i> 90 AF		
<i>Loan Terms: (Original)</i> \$2,016,459 @ 4.0% for 30 years <i>(Final)</i> \$2,016,459.59 @ 4.0% for 30 years		
<i>Design Engineer:</i> Wenck Associates, Inc.		
<i>Contractor:</i> American Civil Constructors, Inc.		
<i>Project Elements:</i> 550 CY of concrete placed for spillway replacement, 28,000 CY of filter material placed in dam embankment, and 2,500 CY of riprap		



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Department of Natural Resources

## Lake Otonowanda Rehabilitation Project

Town of Ridgway

Substantially Complete January 1, 2016



### Project Description

The rehabilitation improvements and enlargement of Lake Otonowanda was to ensure a reliable water supply of raw water that would be available under future drought conditions. Otonowanda is the primary storage facility for the town, responsible for treating and delivering potable water to 695 SFE. Otonowanda. During 2002, all of the Town's water rights fell out of priority due to extended drought conditions and the Town was dangerously close to running out of water. The improvements to the reservoir, including: replacement of the outlet works, reservoir lining and a 254-AF enlargement, provided the Town the ability to store more of its adjudicated water rights and a controlled means to release the water, firming the Town's water supply in the event of future call outs.

P R O J E C T   D A T A		
<i>Sponsor:</i> Town of Ridgway	<i>County:</i> Ouray	<i>Water Source:</i> Ridgway Ditch
<i>Type of Project:</i> Reservoir Enlargement		<i>Board Approval Date:</i> September 2012
<i>Loan Terms: (Original)</i> \$606,000 @ 3.0% for 30 years <i>(Final)</i> \$606,000		
<i>Design Engineer:</i> Joanne Fagan, PE, City Engineer		
<i>Contractor:</i> Rundle Construction, Hotchkiss CO		
<i>Project Elements:</i> replacment of outlet works, earthwork, and reservoir lining		



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Colorado Water  
Conservation Board  
Department of Natural Resources

## Box Elder Water Rights Purchase

### Lower Poudre Augmentation Company

Substantially Complete March 1, 2016



### Project Description

The Lower Poudre Augmentation Company provides augmentation water for 62 irrigation wells in Larimer and Weld Counties owned by 28 individual owners. The wells provide irrigation water to 4,000 acres. The Company currently has in place a 1 AF of augmentation water per irrigated acre quota.

The Company's augmentation plan was awarded a decree under consolidated Case No. 04CW025/06CW295 in January 2014. The Project purchased 0.5 Box Elder Ditch shares historically used on the Morrison Farm, and 1.5 Box Elder Ditch shares historically used on the Rigden Farm. The land historically irrigated by these shares is now the site of an active gravel pit and will become a lined reservoir at the conclusion of mining. Therefore, dry-up associated with the Subject Shares has already occurred. It is expected that while the Subject Shares are undergoing a change of use case in water court, that they will be available for use in the Company's augmentation plan as early as 2016 through a Substitute Water Supply Plan.

P R O J E C T   D A T A		
Sponsor: Lower Poudre Augmentation Company	County: Larimer & Weld	Water Source: Cache la Poudre River
Type of Project: Water Rights Purchase	Board Approval Date: September 2015	
Loan Terms: (Original) \$454,500 @ 1.85% for 30 years    (Final) \$454,500 @ 1.85% for 30 years		
Design Engineer: Applegate Group, Inc.		
Contractor: NA		
Project Elements: Purchase of 0.5 Box Elder Ditch shares (Morrison Farm) and 1.5 Box Elder Ditch shares (Rigden Farm)		



## Water Rights Purchase Project

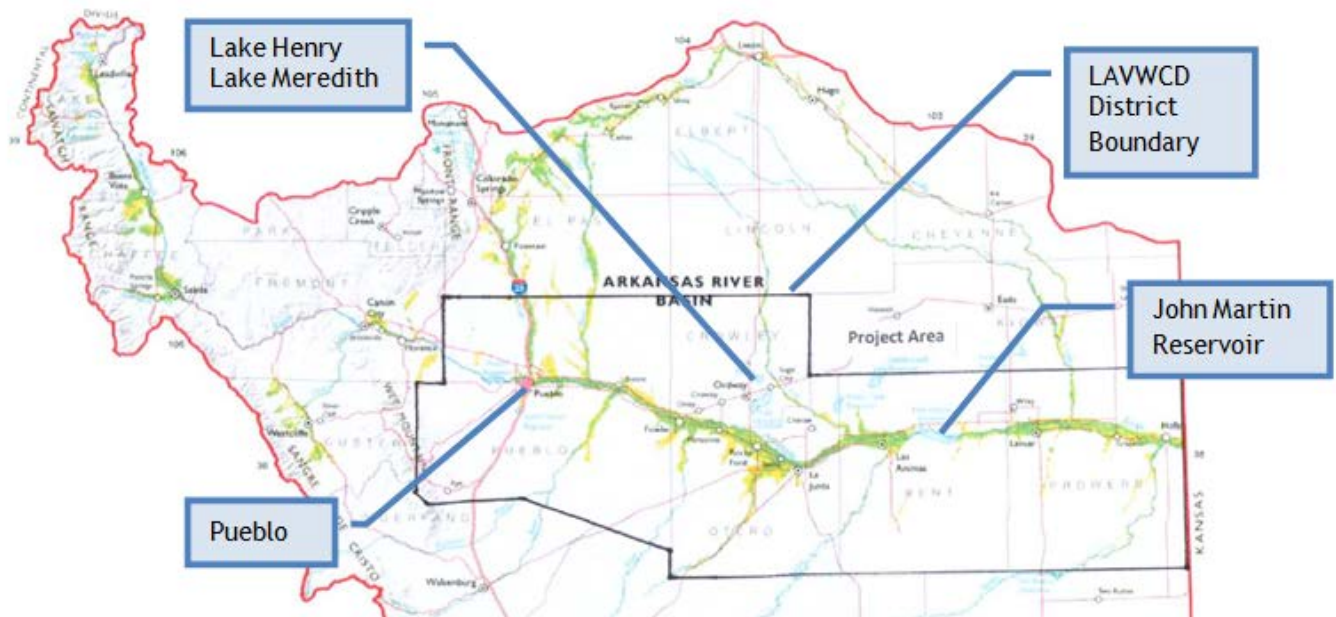
### Lower Arkansas Valley Water Conservancy District

Substantially Complete 1/1/2016

### Project Description

The Lower Arkansas Valley Water Conservancy District supports agriculture in the Lower Arkansas River valley, participating in water-related projects and providing water for Rule 10 and Rule 14 plans in compliance with the Arkansas River Compact, the Catlin Following-Leasing pilot project, and leases to farmers as needed and available.

The District purchases 400.6 Colorado Canal Company shares to complement an additional purchase of 149.4 Colorado Canal Company shares with the support of a separate WSRA Grant and District funds.



P R O J E C T D A T A		
Sponsor: Lower Arkansas Valley WCD	County: Bent, Crowley, Prowers, Pueblo	Water Source: Arkansas River
Type of Loan: Water Rights Purchase	Board Approval Date: May 2015	
Terms of Loan: \$2,560,350 @ 1.45% for 20 years		
Design Engineer: NA		
Contractor: NA		
Project Elements: Purchase of Water Rights		

## Replacement of the Horse Creek Flume

Fort Lyon Canal Company  
Substantially Complete April 1, 2016



### Project Description

The Horse Creek Flume has been in operation since 1938. The flume is a 400- foot- long, 10- foot- diameter, elevated steel pipe located on the Fort Lyon Canal where it crosses Horse Creek, approximately 10 miles northeast of La Junta and about 8 miles west of Las Animas, in Bent County, Colorado. Evaluations by multiple professional engineers found the flume to be in extremely poor condition and in need of immediate replacement. Failure of the flume, designed to convey 1800 cfs, could result in the loss of more than 50 million in crop revenue and loss of supply to more than 14, 000 acres of wildlife habitat in the downstream Queens and Thurston State Wildlife Areas. The flume was replaced with new 10-foot diameter pipe, tied into rehabilitated inlet and outlet works.

P R O J E C T D A T A		
<i>Sponsor:</i> Fort Lyon Canal Company	<i>County:</i> Otero, Bent, Prowers	<i>Water Source:</i> Horse Creek
<i>Type of Project:</i> Ditch Rehabilitation		<i>Board Approval Date:</i> September 2015
<i>Terms of Loan:</i> 1.75% for 30 years (Original) \$1,629,130 (Final) \$1,542,296		
<i>Design Engineer:</i> SM&RC Structural Engineers, Inc.		
<i>Contractor:</i> Moltz Construction, Inc.		
<i>Project Elements:</i> Replacement of elevated flume structure, repair of inlet and outlet works		



## Diversion Structure Rehabilitation

### Fulton Irrigating Ditch Company

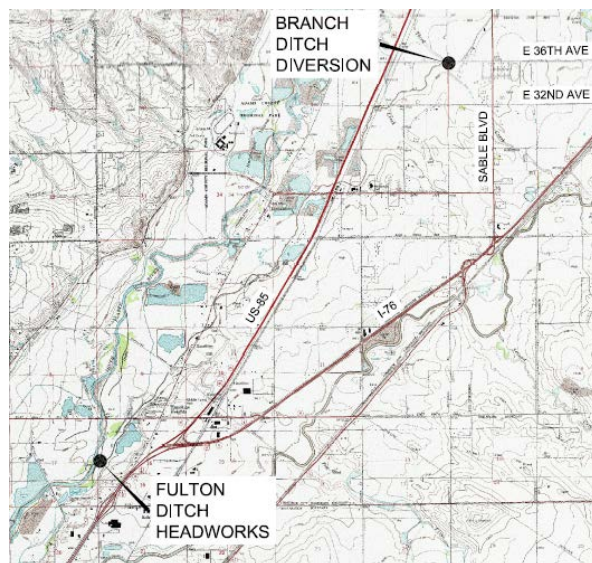
Substantially Complete April 1, 2016



### Project Description

The purpose of the Project was to replace the Company's South Platte River diversion gates, rehabilitate the existing trash rack, and install a gantry crane system to clean the trash gates automatically. The Project included reconstruction of the Branch Ditch Diversion Structure on the Fulton Ditch at a different site.

The Company diverts South Platte River water near 100th Avenue in Commerce City to a 38,000-acre service area. Increasing sago pond weed in the South Platte River was beginning to obstruct the flow of water through the existing trash rack. Construction began in spring of 2014, and completed spring of 2016.



P R O J E C T   D A T A		
<i>Sponsor:</i> Fulton Irrigating Ditch Co.	<i>County:</i> Adams	<i>Water Source:</i> South Platte River
<i>Type of Project:</i> Diversion Rehabilitation	<i>Board Approval Date:</i> May 2014	
<i>Loan Terms:</i> 2.45% for 30 years <i>(Original)</i> \$2,027,070 <i>(Final)</i> \$1,947,139		
<i>Design Engineer:</i> Deere and Ault Consultants, Inc.		
<i>Contractor:</i> Lillard & Clark Construction Company; Rodney Hunt - Fontaine (gates and hardware)		
<i>Project Elements:</i> Construction and installation of gantry crane grate cleaning system, rehabilitate trash rack, replace diversion gates and operators		



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

## Bergen Reservoir No. 2 Rehabilitation

Bergen Ditch and Reservoir Company  
Substantially Complete April 1, 2016



### Project Description

The Bergen Ditch and Reservoir Company utilizes Bergen Ditch to divert water off Turkey Creek and deliver it to shareholders through a series of open and piped ditches, reservoirs, pumps and pipelines. The Company owns three reservoirs, Bergen No.1, Bergen No. 2 and Polly Deane. Bergen No. 2 was originally constructed in 1874. The dam of Bergen No. 2 Reservoir has an ongoing history of slumping and seepage issues. In 2007 the dam's outlet works were damaged and temporary repairs were made in 2009. Ongoing SEO inspection reports have monitored seepage, stability, erosion and outlet concerns over recent years. Following the latest inspection report the SEO verbally recommended the Company consider rehabilitation of the dam or face the possibility of a storage level restriction. This project generally consisted of removing and replacing the existing outlet works with a concrete encased 24 inch HDPE outlet, modifications to the embankment drain system, and upstream slope rehabilitation. Major construction activities occurred between June 2015 and December 2015. The SEO issued their Acceptance of Construction on February 29, 2016.

P R O J E C T   D A T A		
<i>Sponsor:</i> Bergen Ditch & Reservoir Company	<i>County:</i> Jefferson	<i>Water Source:</i> Turkey Creek
<i>Type of Loan:</i> Dam Rehabilitation	<i>Board Approval Date:</i> November 2012	
<i>Loan Terms: (Original)</i> \$2,111,102 @ 3.15% for 30 years <i>(Final)</i> \$2,110,764.54 @ 3.15% for 30 years		
<i>Design Engineer:</i> W.W. Wheeler & Associates		
<i>Contractor:</i> American West Construction		
<i>Project Elements:</i> 272 LF concrete encased 24" HDPE outlet pipe, concrete inlet and outlet structures, toe drain system, riprap upstream slope		



# Hospital Road Recharge Facility

## Upper Platte and Beaver Canal Company

Substantially Complete April 1, 2016



### Project Description

The Upper Platte & Beaver Canal Company, provides irrigation water to a 9,500-acre service area composed of irrigated alluvial land situated between the South Platte River and Beaver Creek, extending from its Platte River diversion headgate just west of the City of Fort Morgan to approximately 4 miles east of the Town of Brush.

Along with supplying irrigation water to shareholders, the Company operates a recharge plan that generates recharge credits to replace out-of-priority depletions attributable to well pumping. The Company has a decreed recharge plan involving recharge ponds, reaches, and augmentation wells. Currently, the operation of the recharge plan results in restrictions on well pumping due to the lack of recharge credits and requires the use of augmentation wells. The Company needed an additional recharge pond and especially needed a pond at a greater distance to the South Platte River.

This project included the construction of an additional recharge pond at a greater distance from the river to generate recharge credits of sufficient volume and proper timing to allow well pumping to provide a full water supply.

Note that the original project included the widening of an existing bridge at its main diversion facilities on the Platte River; this element project was not constructed, as the Company is investigating additional river diversion projects that will likely include those elements.

P R O J E C T   D A T A		
<i>Sponsor:</i> Upper Platte & Beaver Canal Co.	<i>County:</i> Morgan	<i>Water Source:</i> South Platte River
<i>Type of Project:</i> Augmentation	<i>Board Approval Date:</i> July 2014	
<i>Loan Terms:</i> 1.75% for 10 years <i>(Original)</i> \$190,890 <i>(Final)</i> \$119,685.76		
<i>Design Engineer:</i> TZA Water Engineers		
<i>Contractor:</i> Castle Rock Construction Company		
<i>Project Elements:</i> Excavation of an augmentation pond		



## Owl Creek Reservoir Project

Owl Creek Reservoir Company  
Substantially Complete May 2016



### Project Description

The Owl Creek dam was originally constructed in 1896 to store water for irrigation. It was constructed of a granular material that over the years suffered structural damage due to seepage. In 1983 sand boils appeared along the toe of the dam giving evidence that piping was occurring along the dam embankment. Given the condition of the dam embankment and the potential for failure, the dam was intentionally breached in 1983. The Owl Creek Reservoir is located in Weld County, approximately 6 miles east and 3 miles north of the Town of Ault. The source of water is from surface runoff from the Owl Creek basin, encompassing over 160 square miles of drainage area. The average flow in Owl Creek ranges from 1 to 10 cfs.

The Owl Creek Reservoir Company received a loan in 2001 to rehabilitate the Owl Creek Reservoir's dam and spillway, and to increase the storage capacity of the reservoir from approximately 800 acre-feet to 1,200 acre-feet. The Company has not made substantial progress towards completion of the project and allowed the loan contract to expire. The CWCB has decided to close out the project without a construction start.

P R O J E C T D A T A		
<i>Sponsor:</i> Owl Creek Reservoir Company	<i>County:</i> Weld	<i>Water Source:</i> Owl Creek
<i>Type of Project:</i> Reservoir Rehabilitation		<i>Board Approval Date:</i> May 2001
<i>Loan Terms:</i> 3.25% for 30 years (Original) \$1,125,000.00 (Final) \$485,000.00		
<i>Design Engineer:</i> Applegate Group		
<i>Contractor:</i> Did not construct the project		
<i>Project Elements:</i> Design plans complete		



Diversion Prior to Flood



Diversion During Flood



Diversion After Construction

## Project Description

In May and June of 2015, the South Platte River experienced extended high flows. This resulted in a breach of the river bank between the Company's diversion structure and the upstream Ken Mitchell Ponds headgate owned by the City of Brighton. Approximately 120 feet of the east bank was washed out, directing the river away from the Company's diversion. The City of Brighton owns the property where the breach is located and the City of Aurora owns the Prairie Water Pipeline which was exposed by this breach. Neither the City of Brighton nor Aurora planned any immediate repairs to the breach. In order to restore flows to its headgate, the Company constructed a cofferdam on the east bank of the river to close this breach in July 2015.

P R O J E C T D A T A		
<i>Sponsor:</i> Brighton Ditch Company	<i>County:</i> Adams	<i>Water Source:</i> South Platte River
<i>Type of Project:</i> Ditch Rehabilitation		<i>Board Approval Date:</i> September 2015
<i>Loan Terms: (Original)</i> \$225,000 for 30 years @ 2.55% <i>(Final)</i> \$225,000 for 30 years @ 2.55%		
<i>Design Engineer:</i> Deere & Ault Consultants, Inc.		
<i>Contractor:</i> Claystone Construction, LLC		
<i>Project Elements:</i> Repair bank breach on the South Platte River adjacent to diversion dam.		



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

## McDonald Ditch Diversion and Headgate Replacements

McDonald Ditch Company

Substantially Complete May 1, 2016



*Photos courtesy from Rio Grande Headwaters Restoration Project's McDonald Ditch Final Report*

### Project Description

The McDonald Ditch Company is a Mutual Ditch Company formed in 1921. Their diversion structure and headgate were deteriorating, presenting a growing maintenance burden for the Company. Both the diversion and headgate were highlighted as rehabilitation priorities in a 2001 study titled "Rio Grande Headwaters Restoration Project (RGHRP)." The study analyzed the condition of riparian habitats and structures along a 91-mile reach of the Rio Grande from the town of South Fork to Alamosa and triggered a more localized effort known as the Plaza Project. The McDonald Ditch project was the first implementation phase of the Plaza Project and included the final engineering design and construction of a new diversion and headgate for the McDonald Ditch Company. During the final engineering the diversion was moved upstream of the W CR5 N Bridge (Sevenmile Plaza Bridge) in order to provide flood control benefits to the community. The project was successfully completed and was coordinated through the Colorado Rio Grande Restoration Foundation to incorporate improving community safety, enhancing aquatic and wildlife habitat, and providing boat and fish passage in addition to the Ditch Company's benefit of improving diversion efficiency and reducing maintenance.

P R O J E C T D A T A		
<i>Sponsor:</i> McDonald Ditch Company	<i>County:</i> Rio Grande	<i>Water Source:</i> Rio Grande River
<i>Type of Loan:</i> Ditch Rehabilitation		<i>Board Approval Date:</i> September 2013
<i>Terms of Loan:</i> \$101,000 for 20 years @ 2.50%		
<i>Design Engineer:</i> Natural Resources Conservation Service (NRCS)		
<i>Contractor:</i> Robins Construction		
<i>Project Elements:</i> 88 ft diversion dam with fish and boat passage; (2) radial gates with automation; 1,054 LF of 36 in HDPE pipe.		

## Repair & Replacement of the Canal Spillway Structure

Las Animas Consolidated Canal Company  
Substantially Complete June 1, 2016

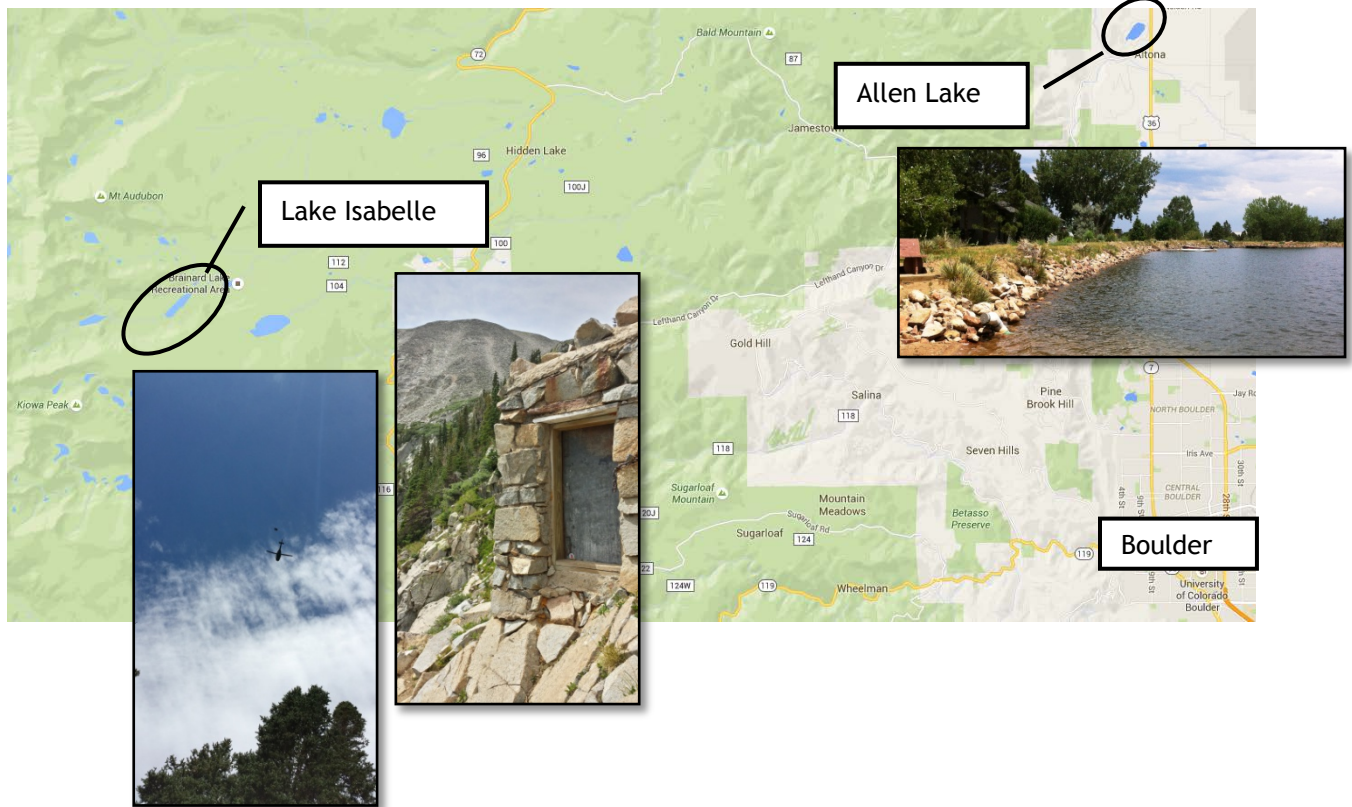


### Project Description

The Las Animas Consolidated Canal Company and the Consolidated Extension Canal Company were formed in the mid-1870s and together have continuously operated to irrigate 8,300 acres of land in the vicinity of Las Animas, Colorado. A significant, localized thunderstorm occurred during the night in April 2014, which created heavy runoff which flowed into the canal downstream of the main canal headgate through several uncontrolled and ungaged tributaries. These flows exceeded the capacity of the existing spillway structure at the river return, caused the structure to be overtopped and undermined, and resulted in catastrophic failure of the existing structure. The Company replaced the spillway structure with an improved and modernized structure similar to the original design, but with additional control and safety measures to allow automated canal operations, including response to similar flooding conditions in the future. Modernization of this structure will improve routine canal operations and safety, in addition to mitigating future canal failure risk.

The Company ownership is comprised of 23% agricultural interests and 77% by Xcel Energy. The loan contract was amended upon completion based upon the satisfaction of a contract condition whereby the interest rate would be reduced from 5.05% to 2% pending payment of all non-agricultural interests in the project.

P R O J E C T   D A T A		
Sponsor: Las Animas Consolidated Canal Company	County: Bent	Water Source: Arkansas River
Type of Project: Ditch Rehabilitation	Board Approval Date: November, 2014	
Terms of Loan: (Original) \$363,782, 5.05% for 30 years (Final) \$95,054, 2.00% for 30 years		
Design Engineer: Wayne E. Eckas, P.E.		
Contractor: Tezak Heavy Equipment		
Project Elements: Replacement of elevated flume structure, repair of inlet and outlet works		



## Project Description

The Left Hand Ditch Company diverts water from Left Hand and St. Vrain creeks to provide irrigation water for a 15,000-acre service area in Boulder County. The water delivery system includes an elaborate network of ditches, laterals, reservoirs and headgates. Two of the Company's five reservoirs, Lake Isabelle and Allen Lake, were the subject of the CWCB loan request. Lake Isabelle lies within the Indian Peaks Wilderness which is operated by the Forest Service. The outlet works were deteriorated and unreliable and were replaced as a part of this project. The existing outlet pipe was sleeved with new pipe and a new gate valve was installed. In addition a new access gate to the outlet works was constructed. All construction materials had to be flown in via helicopter or carried in by the construction crew. The second reservoir, Allen Lake, is located north of Boulder and west of Highway 36. The dam was constructed at a 2:1 slope, and is even greater in various locations due to years of wave action displacing rip-rap and eroding the dam face. This project flattened out the slope and re-armored it with rock rip-rap. A new outlet pipe was also installed.

P R O J E C T   D A T A		
<i>Sponsor:</i> Left Hand Ditch Company	<i>County:</i> Boulder	<i>Water Source:</i> Left Hand and St. Vrain Creek
<i>Type of Loan:</i> Dam Rehabilitation		<i>Board Approval Date:</i> July 2012
<i>Loan Terms:</i> 2.45% for 30 years (Original) \$1,475,307.00 (Final) \$1,332,562.39		
<i>Design Engineer:</i> Smith Geotechnical		
<i>Contractor:</i> Left Hand Excavating		
<i>Project Elements:</i> Lake Isabelle: Sleeved existing outlet pipe with 80-feet of new pipe. Installed 20-inch double disk valve. Allen Lake: 125 LF of 20-inch cast-in-place concrete outlet pipe, 5,600 CY embankment fill material, 4,750 tons of rip rap placed.		

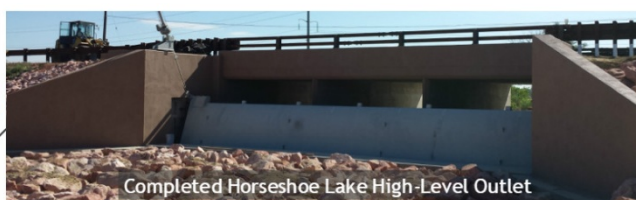
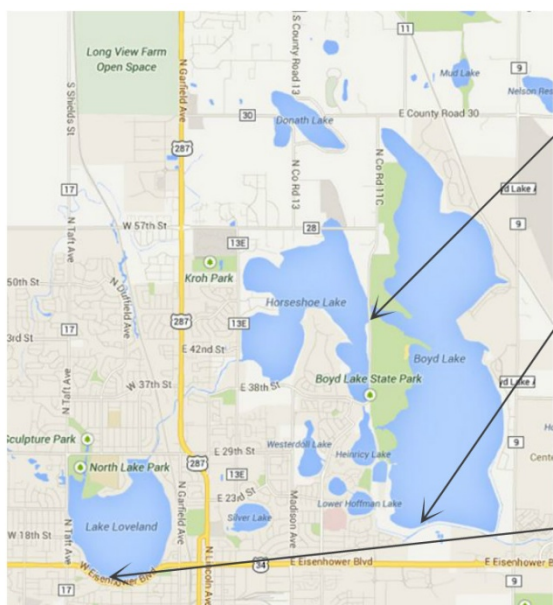


Prior to Construction

## Project Description

Beaver Park Reservoir (Reservoir) was originally constructed in 1914 and provides for general recreation, fishing, and water storage. In 2010, a sinkhole along the left abutment was observed by the State Engineer's Office (SEO), which resulted in the SEO placing a 20 foot fill restriction on the Reservoir. The restriction resulted in the Reservoir's capacity being reduced from 4,758 to 2,557 acre-feet. To remove the restriction, CPW constructed a downstream filter/drain system, constructed a new outlet control structure, lined and extended the outlet 42in. outlet pipe, and raised and rehabilitated the spillway.

P R O J E C T   D A T A		
<i>Sponsor:</i> Colorado Parks and Wildlife	<i>County:</i> Rio Grande	<i>Water Source:</i> Beaver Creek
<i>Type of Loan:</i> Reservoir Rehabilitation		<i>Board Approval Date:</i> September 2012
<i>Loan Terms:</i> 0% for 30 years (Original) \$10,000,000.00 (Final) \$10,000,000.00		
<i>Design Engineer:</i> AECOM, URS		
<i>Contractor:</i> Phase 1 - Aslan Construction, Berthoud, CO; Phase 2 - ASI Constructors Inc, Pueblo CO		
<i>Project Elements:</i> raised and rehabilitated spillway, 6,000SF of soil nail wall, 450Ft of 42in. (linning and new outlet) pipe, 24,000CY Riprap, new outlet gates and structure		



## Project Description

The Greeley and Loveland Irrigation Company (Company) is a mutual ditch company established in 1900. Together with the Seven Lakes Reservoir Company they own and operate nine reservoirs and control the Greeley and Loveland Canal.

Boyd Lake, owned by the Company, is the largest reservoir in the irrigation system and has a surface area of 1,750 acres with a storage capacity of 48,871 acre-feet. The Boyd Lake project replaced the high-level reservoir inlet and outlet from the Greeley and Loveland Irrigation Canal so that the Company can discharge water into Boyd Lake for storage during low reservoir levels, or discharge water back into the canal for deliveries during high reservoir levels. This project was completed in May 2015

Horseshoe Lake, owned by Seven Lakes, has a surface area of 650 acres and a storage capacity of 8,115 acre-feet. The Horseshoe Lake project replaced the high-level outlet in order to increase the conveyance capability from Horseshoe Lake into Boyd Lake to 1,100 cfs, at higher reservoir levels, so the Company and Seven Lakes can more efficiently provide irrigation water to shareholders. This project was completed in March 2016.

Lake Loveland, owned by the Company, had a significant amount of sand and silt deposited during the September 2013 flood and subsequent irrigation seasons. In order to ensure water could continue to flow into the lake, and therefore into Horseshoe Lake and Boyd Lake as well, construction crews removed 24,821 CY of material adjacent to the lake's inlet. This project was completed in March 2016.

P R O J E C T D A T A		
<i>Sponsor:</i> Greeley & Loveland Irrigation Company	<i>County:</i> Larimer	<i>Water Source:</i> Big Thompson River
<i>Type of Loan:</i> Reservoir Rehabilitation	<i>Board Approval Date:</i> September 2013	
<i>Terms of Loan:</i> \$3,745,080 at 2.15% for 30 years		
<i>Design Engineer:</i> URS Corporation/AECOM		
<i>Contractor:</i> Moltz Constructors (Boyd & Horseshoe projects), Coulson Excavating (Lake Loveland)		
<i>Project Elements:</i> (2) High-level reservoir outlet replacements, 300 LF spillway conduit, concrete ditch lining, concrete outlet 24,821 sand removal		



**East Side Detention Facility**  
Boxelder Basin Regional Stormwater Authority  
Substantially Complete July 1, 2016



### Project Description

The Boxelder Basin Regional Stormwater Authority was formed in 2008, through an IGA between the City of Fort Collins, Larimer County and the Town of Wellington, to facilitate the construction of regional stormwater improvements to reduce the threat of flooding and remove areas from the FEMA floodplain in the Boxelder Creek basin. The East Side Detention Facility is a key component in the Authority's master plan. The detention facility provides 1,800 AF of detention storage and will decrease downstream flows from approximately 6,700 cfs to 2,400 cfs. The reduced flow rate will allow 100-year flows to be contained in the current cross-section of Boxelder Creek and will eliminate the flow that occurs in the 100-year flood plain below the proposed detention facility. Due to the location of and inherent integration required with the authority's adjacent Country Road 52 project (CWCB Loan Contract CT15-069), these two projects were bid as one construction contract. Construction commenced in August 2015 and was Substantially Completed in July 2016.

P R O J E C T D A T A		
<i>Sponsor:</i> Boxelder Basin Regional Stormwater Authority	<i>County:</i> Larimer	<i>Water Source:</i> Boxelder Creek
<i>Type of Loan:</i> Flood Control		<i>Board Approval Date:</i> May 2013
<i>Terms of Loan:</i> \$7,171,000 at 3.0% for 15 years		
<i>Design Engineer:</i> Ayres Associates		
<i>Contractor:</i> Dietzler Construction Corporation		
<i>Project Elements:</i> ~9,000 LF Flood Control Dam (1,800 AF Capacity), 425 LF of a 17'5"x6' Box Culvert		



**County Road 52 Improvements**  
Boxelder Basin Regional Stormwater Authority  
Substantially Complete July 1, 2016



### Project Description

The Boxelder Basin Regional Stormwater Authority was formed in 2008, through an IGA between the City of Fort Collins, Larimer County and the Town of Wellington, to facilitate the construction of regional stormwater improvements to reduce the threat of flooding and remove areas from the FEMA floodplain in the Boxelder Creek basin. The County Road 52 Improvement Project was the installation of box culverts under County Road 52 to reduce roadway overtopping in a 100-year storm event. Due to the location of and inherent integration required with the authority's adjacent East Side Detention Facility project (CWCB Loan Contract CT15-070), these two projects were bid as one construction contract. Altogether, these projects are expected to reduce downstream flows in Boxelder Creek from over 7,000 cfs to less than 2,400 cfs during a 100-year storm event. The reduced flow rate will allow 100-year flows to be contained in the current cross-section of Boxelder Creek and will eliminate the flow that occurs in the 100-year flood plain below the proposed detention facility. Construction commenced in August 2015 and was Substantially Completed in July 2016.

P R O J E C T D A T A		
<i>Sponsor:</i> Boxelder Basin Regional Stormwater Authority	<i>County:</i> Larimer	<i>Water Source:</i> Boxelder Creek
<i>Type of Loan:</i> Flood Control		<i>Board Approval Date:</i> January 2014
<i>Terms of Loan:</i> \$818,100 at 2.50% for 15 years		
<i>Design Engineer:</i> Ayers Associates		
<i>Contractor:</i> Dietzler Construction Corporation		
<i>Project Elements:</i> (4) 20'x4' Box Culverts, utility line relocations		



## North Gray Reservoir Rehabilitation

Lake Canal Reservoir Company  
Substantially Complete July 1, 2016



### Project Description

The Lake Canal Reservoir Company obtained a CWCB loan to construct a new spillway on North Gray Reservoir. The reservoir was under a storage restriction by the Office of the State Engineer (SEO) due to the inadequacy of the old spillway. The old spillway was a corrugated metal pipe that had corroded through.

The original project was to abandon the old spillway and construct a new spillway between North and South Gray Reservoirs. The Project scope increased due to additional video inspection of existing structures and in coordination with the Boxelder Basin Regional Stormwater Authority's East Side Detention Facility flood control project. During final design, a video inspection of North Gray Reservoir's existing outlet pipe and the interconnect pipe between North and South Gray Reservoirs showed both structures were in need of repair. As this presented a new dam safety concern, the Company determined to add the abandonment of the existing outlet and the replacement of the interconnect structure to the Project scope so it could be completed at the same time as the original spillway project. The new interconnect structure is now used as North Gray's outlet. The Project was successfully completed in April 2016.

P R O J E C T D A T A		
<i>Sponsor:</i> Lake Canal Reservoir Company	<i>County:</i> Larimer & Weld	<i>Water Source:</i> Box Elder Creek
<i>Type of Loan:</i> Reservoir Rehabilitation		<i>Board Approval Date:</i> September 2011
<i>Terms of Loan:</i> \$204,298 at 2.10% for 30 years		
<i>Design Engineer:</i> Smith Geotechnical Engineering Consultants		
<i>Contractor:</i> Dietzler Construction Corporation		
<i>Project Elements:</i> Abandonment of old outlet works, new outlet structure with 18” diameter HDPE pipe (interconnect structure), and new 80 LF spillway		



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

# Emergency Diversion Structure and Ditch Repair

## Louden Irrigating Canal & Reservoir Company

Substantially Complete July 1, 2016



### Project Description

During the unprecedented flood of September 2013 in the tributaries to the South Platte River, a significant number of diversion structures and dams along the river corridor were damaged, including the Company's river diversion. The ditch was diverting water as the September storm started. As the flood progressed, the headgates could not be safely reached for operations. Water overtopped the headgate structure by at least 4 feet resulting in damage to the headgate and ditch system. The first 3,000 feet of the ditch were totally filled with silt and debris. The ditch breached back to the river in two places and undercutting caused slides that threatened the ditch. Construction work included cleaning out the ditch, rebuilding the ditch with concrete blocks, rebuilding the service road, and cleaning and rehabilitating the diversion headgates. The work was completed in time to deliver water by the 2014 irrigation season. Remaining funds were left available should additional repairs be necessary. However, those items were ultimately paid using Company cash.

P R O J E C T D A T A		
<i>Sponsor:</i> Louden Irrigating Canal & Reservoir Company	<i>County:</i> Larimer	<i>Water Source:</i> Big Thompson
<i>Type of Loan:</i> Ditch Rehabilitation		<i>Board Approval Date:</i> May 2014
<i>Loan Terms: (Original)</i> \$161,600 @ 2.70% for 30 years <i>(Final)</i> \$126,250 @ 2.70% for 30 years		
<i>Design Engineer:</i> Telesto Solutions, Inc		
<i>Contractor:</i> Lee Nauta, John Moen		
<i>Project Elements:</i> Ditch and headgate cleanout from flood debris and sediment.		



### Project Description

The Boxelder Basin Regional Stormwater Authority was formed in 2008, through an IGA between the City of Fort Collins, Larimer County and the Town of Wellington, to facilitate the construction of regional flood control projects to reduce the threat of flooding and remove areas from the FEMA floodplain in the Boxelder Creek basin. The crossing structure provides conveyance for 100-year flows from Boxelder Creek across the Larimer and Weld Canal in a safe and controlled manner. Previously the Boxelder Creek 100-year flows inundated the Larimer and Weld Canal, causing it to overflow west of I-25 into the Cooper Slough drainage within the City of Fort Collins. The crossing structure is made up of a side-flow spillway and erosion control features to allow flood flows to safely pass over and across the canal. Construction started in December 2015 and was completed in April 2016.

P R O J E C T D A T A		
<i>Sponsor:</i> Boxelder Basin Regional Stormwater Authority	<i>County:</i> Larimer	<i>Water Source:</i> Boxelder Creek
<i>Type of Loan:</i> Flood Control		<i>Board Approval Date:</i> May 2013
<i>Terms of Loan:</i> (Original \$1,010,000 at 2.75% for 15 years(Final) \$835,104.53 @ 2.75% for 15 years		
<i>Design Engineer:</i> Ayres Associates		
<i>Contractor:</i> Crossfire, LLC		
<i>Project Elements:</i> Spillway construction, erosion control consisting of: gabion mattress, turf reinforcement mat (TRM), riprap, and articulated concrete block (ACB) mat		



# Diversion Structure Replacement Project

Farmers Pawnee Canal Company  
Substantially Complete September 1, 2016



## Project Description

The Company provides irrigation water to a 10,000 acre service area, extending from one mile south of Merino to four miles north of Sterling along the west side of the South Platte River. The Company's diversion structure is 218-foot long rollover diversion dam that spans the width of the river. Adjacent to the dam is the Company's 40-foot canal headgate structure. Both structures were originally built in 1926. After the September 2013 flood, the river began to undermine the structures. Attempts to repair the structures with additional steel sheet piling and concrete were not successful and the undermining worsened. The Company rebuilt the diversion dam and canal headgate. Replacement of the diversion dam provides the Company with an opportunity to utilize an improved design and alleviate ongoing maintenance issues from sand accumulation within the canal.

P R O J E C T D A T A		
<i>Sponsor:</i> Farmers Pawnee Canal Company	<i>County:</i> Logan	<i>Water Source:</i> South Platte River
<i>Type of Loan:</i> Diversion Structure		<i>Board Approval Date:</i> May 2014
<i>Terms of Loan:</i> \$2,067,470 at 1.75% for 30 years		
<i>Design Engineer:</i> Gauthiere Engineering, Inc.		
<i>Contractor:</i> Concrete Specialties and Utilities		
<i>Project Elements:</i> Replacement of river diversion structure, replacement of ditch headgate structure installation of hydraulic bladders and controls		



**Granby Hydropower Project**  
Northern Colorado Water Conservation District  
Substantially Complete October, 2, 2016



### Project Description

Northern Water, acting by and through its hydropower enterprise, received a loan for the construction of the Granby Hydropower Project. The Project is located at the existing Colorado - Big Thompson Project Granby Dam and utilizes the existing releases to the Colorado River without changing the flow regime. The hydro station will use the minimum streamflow obligations and a portion of additional releases to generate power through a 1.2 megawatt facility. The Project is being operated under the U.S. Bureau of Reclamation's Lease of Power Privilege (LOPP) process. Power generated is purchased by Mountain Parks Electric, Inc. per a 30-year Power Purchase Agreement (PPA). The Project was completed and generating power by May 2016.

P R O J E C T   D A T A		
<i>Sponsor:</i> Northern Colorado Water Conservancy District, Hydropower Enterprise	<i>County:</i> Grand	<i>Water Source:</i> Colorado River
<i>Type of Loan:</i> Hydroelectric		<i>Board Approval Date:</i> May 2014
<i>Terms of Loan:</i> \$5,135,183.00 at 2.0% for 30 years		
<i>Design Engineer:</i> CH2M		
<i>Contractor:</i> Aslan Construction		
<i>Project Elements:</i> (2) 600 kilowatt Francis turbines, 70'x26' powerhouse		



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

## Mt. Pisgah Dam/Wrights Reservoir Outlet Works Rehabilitation Project

Pisgah Reservoir and Ditch Company  
Substantially Complete October 1, 2016



### Project Description

The Pisgah Reservoir and Ditch Company received a CWCB Loan and a \$161,345 WSRF grant to rehabilitate Pisgah Dam at Wrights Reservoir per the State Engineer's Office direction. The Project goal was to improve the safety and operation of the dam's low level outlet works and properly abandon the dam's original outlet conduits. Phase 1 was to properly abandon the old outlet works by injecting the old conduit with grout. Phase 2 was the installation of an upstream gate to allow for an unpressurized outlet when closed. Phase 3 was the replacement of the outlet works including gate valves, operators, and stems; new hydraulic controls and piping; replacing the access ladder and valve operator building; and concrete tunnel repairs. Phases 2 and 3 were successfully completed. The success of Phase 1 has yet to be determined and the Company plans on additional engineering and monitoring to determine if additional mitigation work is needed. Future work on Phase 1 will be completed with Company funds unless Project costs greatly exceed current estimates, thus necessitating a new loan.

P R O J E C T   D A T A		
<i>Sponsor:</i> Pisgah Reservoir and Ditch Company	<i>County:</i> Teller	<i>Water Source:</i> Fourmile Creek
<i>Type of Loan:</i> Reservoir Rehabilitation		<i>Board Approval Date:</i> September 2012
<i>Terms of Loan:</i> \$1,172,261 at 1.75% for 30 years (Original) 990,176.11 (Final)		
<i>Design Engineer:</i> RJH Consultants, Inc.		
<i>Contractor:</i> Inland Potable Services, Inc.		
<i>Project Elements:</i> Grouting of (2) 16” dia pipe, 30”x30” sluice gate (underwater construction), (2) 24” knife gate, tunnel grout repairs, hydraulic control piping, valve house construction.		



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

## Rehabilitation and Replacement of Water Meters

**Bow Mar Water and Sanitation District**  
Substantially Complete November 1, 2016



### Project Description

The Bow Mar Water & Sanitation District is a master meter distributor for Denver Water located just south of Denver. The District received loan funding for the planned rehabilitation and replacement of water meters throughout the subdivision service area.

The purpose of the project was to replace or rehabilitate the existing meters, which currently under-report actual usage due to age and wear. The meter replacement/rehabilitation program replaced 233 meters, rehabilitated 60 existing meters by replacing the meter register to accommodate automatic meter reading, and updated the District's billing system to accommodate automatic meter reading.

P R O J E C T   D A T A		
Sponsor: Bow Mar Water and Sanitation District	County: Arapahoe & Jefferson	Water Source: Denver Water (Master Meter)
Type of Loan: Water Meters	Board Approval Date: March 2015	
Loan Terms: 2.65% for 10 years (Original) \$332,795 (Final) \$331,407.15		
Design Engineer: ENS Consulting, LLC		
Contractor: Levi Contractors, Inc.		
Project Elements: Water meter rehabilitation and replacement		

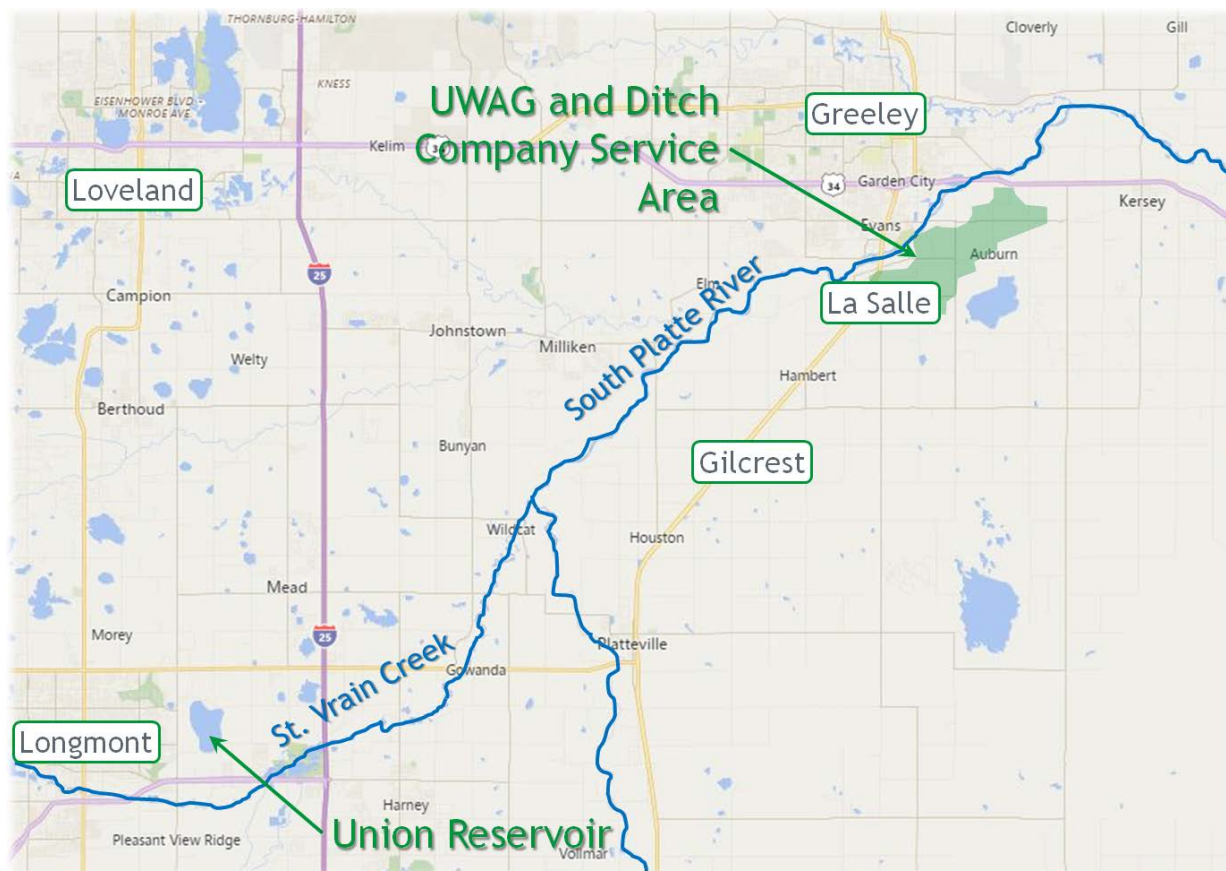


**COLORADO**  
Colorado Water  
Conservation Board  
Department of Natural Resources

## Union Reservoir Water Rights Purchase

### Union Well Augmentation Group

Substantially Complete November 1, 2016



### Project Description

The Union Well Augmentation Group provides augmentation water for well owners of the Union Ditch Company, providing supplemental irrigation water to 29 wells covering 2,200 acres. The Company covers an average of 4 AF of well depletions per year.

The Augmentation Group purchased 2.0 shares of the Union Reservoir Company with this loan. The Augmentation Group will use these shares in the augmentation plan via a lease with the City of Longmont where Longmont will use the 2 shares and in return the Augmentation Group will receive the city's effluent, which is approved for use in the augmentation plan. The water right analysis shows each share to have an average historical consumptive use of 7.65 AF per share, along with the ability to store and regulate the average annual divertible yield of 15.3 AF per share.

P R O J E C T D A T A		
Sponsor: Union Well Augmentation Group	County: Weld	Water Source: South Platte
Type of Project: Water Rights Purchase	Board Approval Date: May 2016	
Loan Terms: 1.45% for 20 years (Original) \$248,157 (Final) \$227,500		
Design Engineer: TZA Water Engineers		
Contractor: NA		
Project Elements: Purchase of (2) Union Reservoir Company shares		



## Evans Reservoir Bypass Flume Replacement

Parkville Water District  
Substantially Complete December 1, 2016



### Project Description

In the spring of 2014, sudden runoff combined with spring rains resulted in an unusually high snow melt. The flume was nearly overwhelmed and the portion that passes over the abutment of the dam failed. Significant erosion of the dam resulted, but emergency repairs prevented further damage and contamination of the water supply. Runoff in 2015 was unusually high as well, due to the amount of snowfall in April and unusually warm temperatures in June, necessitating emergency action again. This project constructed a replacement of the existing flumes with a new concrete inlet and trash structure, a concrete outlet structure, and a buried pipeline to carry the flows around the existing reservoir. This project met its two primary objectives of the project: to protect water quality for the City of Leadville, and to prevent failure of the Evans Reservoir dam related to flume failure.

P R O J E C T D A T A		
<i>Sponsor:</i> Parkville Water District	<i>County:</i> Lake	<i>Water Source:</i> Evans Gulch
<i>Type of Project:</i> Ditch Rehabilitation		<i>Board Approval Date:</i> September 2015
<i>Loan Terms: (Original)</i> \$181,800 @ 1.95% for 10 years <i>(Final)</i> \$181,800 @ 1.95% for 10 years		
<i>Design Engineer:</i> W.W. Wheeler & Associates, Inc.		
<i>Contractor:</i> Mountain Structures Inc.		
<i>Project Elements:</i> Concrete inlet and outlet outlet structures, ABS pipeline		



## Water Meter Replacement Project

City of Cortez

Substantially Complete December 1, 2016



### Project Description

The City supplies potable water to the residents of Cortez, the Ute Mountain Ute Tribe, and Montezuma County Water District No. 1. Its supply comes from McPhee Reservoir. The existing system has 3,550 meters that range in age from 25 to 70 years old. The meters are inaccurate and are failing to capture customer usage information. The City replaced its old meters with smart meters that provide data storage and the ability to better manage water within the distribution system. The City is also received a \$50,000 Water Efficiency Grant from the CWCB and a \$200,000 grant from DOLA for this project. Neptune Technology Group from Centerville, UT manufactured the meters and Caselle Connect Application Software from Provo, UT provided the software to read the meters and assist the City with billing and receiving payments.

P R O J E C T   D A T A		
Sponsor: City of Cortez	County: Montezuma	Water Source: Dolores River
Type of Loan: Meter Replacement	Board Approval Date: January 2015	
Terms of Loan: (Original) \$858,500 at 2.1% for 10 years (Final) \$850,212.30 at 2.1% for 10 years		
Design Engineer: City of Cortez Engineer, Ken Torres, P.E.		
Contractor: D & L Construction, Cortez, CO		
Project Elements: Installation services for approximately 3,550 residential and commercial water meters ranging from 3/4 "X 5/8" to 3". The project also included providing the materials and training for both handheld and mobile data collection systems, as well as installing a host software system and providing all training associated with said software.		

Contract Borrower		County	Loan Amount	Design Status	Const. Start/End	Const. Status	PM	Status Description/Update
Projects in Design or Construction								
1	Bellyache Ridge Metro District > Well Replacement Project C150356 (CT2015-015) *	Eagle	\$169,175	100%	Feb 2015 - March 2017	90%	ACM	A test well was drilled in winter of 2015 and did not produce the amount of water required by the District to meet its needs. That well was capped in Oct 2015 and appears to have had a positive impact on the water availability of the District's 2 remaining wells. The District is in a holding pattern as it continues to monitor the wells.
2	Bennett, Town of >Wells #3 and #6 Replacement Project CT2015-161 *\$	Adams Arapahoe	\$1,454,000	100%	May 2015 - Dec 2016	90%	ACM	The Project was bid in 2014 and drilling began in May 2015. All drilling was complete as of the end of July. Temporary pumps are currently in place and will be replaced with the permant pumps by winter 2016.
3	Central CO WCD - WAS > Augmentation Water Supply Project C150337 (CT2015-060) *90%	Weld/ Adams/ Morgan	\$3,030,000	50%	Apr 2013 - Mar 2017	30%	JMH	Purchased a portion of the water rights on 4/25/13. Additional water rights/projects are being identified for possible inclusion prior to Mar 2017 expiration date.
4 - CHATFIELD Reallocation Project - First Cost of Storage								\$54,633,223
	Castle Pines North Metropolitan District >(C150404A) CT2016- 2049 *\$	Arapahoe Douglas Park Weld	\$723,160	N/A	2019	N/A	JMH	This contract is to provide reimbursement for the Chatfield Reallocation Project, specific to the "first cost of storage." To date, Chatfield participants have not yet had to make this payment. It is now estimated funds may not be required until 2019.
	Centennial Water & Sanitation District >(C150405A) CT2016- 2053 *\$	Arapahoe Douglas Park Weld	\$4,978,290	N/A	2019	N/A	JMH	
	Center of Colorado Water Conservancy District >(C150406A) CT2016- 2047 *\$	Arapahoe Douglas Park Weld	\$94,637	N/A	2019	N/A	JMH	
	Central Colorado Water Conservancy District >(C150407A) CT2016- 2057 *\$	Arapahoe Douglas Park Weld	\$3,187,560	N/A	2019	N/A	JMH	
5 - CHATFIELD Reallocation Project - Phase 1 Mitigation								\$37,786,120
	Castle Pines North Metropolitan District >(C150404B) CT2016- 2050 *\$	Arapahoe Douglas Park Weld	\$4,143,020	0%	2016 - 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 to be done to allow storage to occur.
	Centennial Water & Sanitation District >(C150405B) CT2016- 2055 *\$	Arapahoe Douglas Park Weld	\$28,527,450	0%	2016 - 2022	0%	JMH	
	Center of Colorado Water Conservancy District >(C150406B) CT2016- 2048 *\$	Arapahoe Douglas Park Weld	\$511,363	0%	2016 - 2022	0%	JMH	

	Contract Borrower	County	Loan Amount	Design Status	Const. Start/End	Const. Status	PM	Status Description/Update
	Central Colorado Water Conservancy District >(C150407B) CT2016- 2058 *\$	Arapahoe Douglas Park Weld	\$18,263,830	0%	2016 - 2022	0%	JMH	
6 - CHATFIELD Reallocation Project - Phase 2 Mitigation								\$7,000,310
	Castle Pines North Metropolitan District >(C150404C) CT2016- 2051 *\$	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 will cover work remaining after storage is allowed.
	Centennial Water & Sanitation District >(C150405C) CT2016- 2056 *\$	Arapahoe Douglas Park Weld	\$10,934,260	0%	2022 - 2028	0%	JMH	
	Central Colorado Water Conservancy District >(C150407C) CT2016- 2060 *\$	Arapahoe Douglas Weld	\$7,000,310	0%	2022 - 2028	0%	JMH	
7	Dixon Canon Ditch & Reservoir Company >Dixon Reservoir Dam Improvements CT2017-914 \$	Larimer	\$278,100	95%	Fall 2016 - Winter 2017	0%	JMH	SEO is reveiwing plans. Bids will be opened 12/14/16.
8	Duke Ditch Company >Piping the Duke Ditch CT2017-915 \$	Delta	\$90,000	30%	Fall 2017 - Spring 2018	0%	ACM	Loan and grant contracts were executed in August 2016. NRCS is working on design. Construction is expected to start in the fall of 2017.
9	Ephraim Ditch Company > Ephraim Diversion and Headgate Rehabilitation C150402 (CT2015-090) *\$	Rio Grande	\$101,000	100%	Aug 2015 - Nov 2016	95%	JMH	Construction of the structure is complete and automation has been installed. Work continues on getting automation fully calibrated and operational
10	Fowler, Town of > Augmentation Pipeline Project C150359 (CT2015-054) *\$	Otero	\$277,245	100%	Fall 2016 - Spring 2017	0%	DRJ	Engineering completed. Bid process to occur in next several months.
11	Georgetown, Town of > Outlet Works Modification Project C150321 (CT2015-055) *\$90%	Clear Creek	\$2,976,975	100%	Aug 2014 - Nov 2016	99%	ACM	Construction began in August 2014 and was mostly complete by April 2016. When the new outlet gate was tested, operational issues were identified. The Town is working on solutions with additional engineering support and gate manufacturers.
12	Grand Junction, City of >Hallenbeck Reservoir No. 1 Dam Rehabilitation CT2017-916	Mesa	\$1,010,000	100%	Aug 2016 - Dec 2016	90%	ACM	Construction began in August 2016 and the final walk thru occurred in early December 2016. The contractor is working on final punchlist items.
13	Grand Mesa Water Conservancy District > Peak Res. & Blanche Park Res. Rehabilitation C150354 (CT2015-061) *\$	Delta	\$227,250	100%	Mar 2013 - Aug 2017	50%	ACM	Construction on Peak Reservoir began in the 2013 season and was completed in Oct 2014. Blanche Park construction was delayed due to Federal permitting issues. The project is on hold until the permits are issued. SEO approved construction drawings in June 2016. The District anticipates a loan extension and increase in 2017.

	Contract Borrower	County	Loan Amount	Design Status	Const. Start/End	Const. Status	PM	Status Description/Update
14	Grand Valley Water Users Association >Government Highline Canal Lining CT2017-2258	Mesa	\$151,500				ACM	
15	Huerfano County Water Conservancy District > Regional Augmentation Project C150364 (CT2015-047) *\$	Huerfano	\$2,222,000	75%	Jan 2014 - Mar 2017	60%	ACM	Land and water rights purchase occurred in January 2014. Camp Ranch augmentation site construction is underway. The Red Wing augmentation project is on hold pending a re-evaluation of sites for the augmentation site.
16	Julesburg Irrigation District >Reconstruction of the Harmony No. 1 Dam Structure CT2017-904	Sedgwick	\$203,616	100%	Nov 2016 - Dec 2016	80%	DRJ	Concrete work ongoing. December completion expected
17	Lake Durango Water Authority > Source Water Supply Project C150317 (CT2015-013) *\$90%	LaPlatta	\$2,525,000	100%	Oct 2016 - Oct 2017	10%	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.
18	Lake McIntosh Reservoir Company >Lake McIntosh Outlet Works Repair CT2016-2794 \$	Boulder	\$1,727,100	100%	Jan 2017 - May 2017	0%	JMH	Contractor has been selected and is scheduled to start construction January 2017.
19	Lamar, City of >Repurposing of Wells 12 and 13 CT2017-917	Prowers	\$101,000	50%	Jan 2017 - June 2017	0%	DRJ	Design to continue through 2016. Bidding and construction planned for early 2017 and complete same season.
20	Lookout Mountain Water District > Upper Beaver Brook Dam Spillway CT2016-2515 \$	Clear Creek	\$3,099,690	100%	June 2016 - August 2017	50%	DRJ	Spillway labyrinth weir concrete construction ongoing.
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 > Reservoir No. 4 Rehabilitation C150378 (CT2015-003) *\$	Larimer	\$2,263,410	100%	Nov 2015 - Jun 2016	99%	JMH	Design was updated per SEO suggestion to upsize spillway to meet higher classification. Wildlife Mitigation completed in January 2015. Reservoir construction began November 2015. Construction is complete, remaining invoice will cover retainage.
23	North Poudre Irrigation Co > Rehabilitation of the Livermore Irrigation Tunnel CT2017-1402	Larimer	\$1,451,673	100%	Nov 2016 - Apr 2018	5%	DRJ	Tunnels plates being coated off-site. Tunnel prep under way.
24	Oligarchy Irrigation Company > Dam Outlet Works Rehabilitation CT2016-1597 *\$	Boulder	\$901,930	100%	May 2016 - Oct 2016	99%	JMH	SEO approved plans and specification on 3/1/16. Project was put out to bid in March 2016 and construction began in May 2016. Final walkthru occurred 10/28/16.
25	Orchard Ranch Ditch Company >Orchard Ranch Ditch Pipe Project CT2016-2795 \$	Delta	\$151,500	9%	Fall 2017 - Mid 2018	0%	DRJ	Construction fall 2017, may delay to Spring 2018 depending on progress of elements of project through Buereau of Reclamation. Company continues to explore supplementary grant funding options.

	Contract Borrower	County	Loan Amount	Design Status	Const. Start/End	Const. Status	PM	Status Description/Update
26	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.
27	Plum Valley Heights Subdistrict >Raw Water Supply Project CT2015-176 *\$	Douglas	\$2,248,260	N/A	N/A	N/A	JMH	Project has completed final design and went to bid in July 2016. Construction started August 2016. Loan is for purchase of water from Aurora which has been executed. Subdistrict is currently deciding on the loan substantial completion date.
28	Prairie Ditch Company > Plaza Phase 3: Prairie Ditch Imp. Project C150400 (CT2015-134) *\$	Rio Grande	\$131,300	100%	Oct 2015 - Dec 2016	90%	JMH	Bids for the diversion dam were received August 27, 2015 and construction began October 2015. Headgate phase was bid and awarded in November 2015. Diversion dam and headgate structures are complete. Sluice channel, radial gate, and riprap will be installed Dec 2016 when the river is low.
29	Riverside Ditch and Allen Extension Company > Ditch System Rehabilitation C150301 (CT2015-050) *\$90%	Chaffee	\$186,345	85%	Jul 2010 - Oct 2017	80%	ACM	Ditch lining phase of the project was completed in December 2010. NRCS completed design plans for replacement of the river diversion structure & construction occurred in Nov 2016. Additional ditch work is expected in 2017. A long extension request is anticipated.
30	Riverside Reservoir and Land Company > Riverside Reservoir Spillway Enlargement C150291 (CT2015-026) *\$90%	Weld	\$2,838,100	90%	Spring 2017+	0%	DRJ	Plans under review by SEO. Construction timing indeterminate. Contract extension needed.
31	San Luis Valley Water Conservancy District > Anaconda Ditch Water Right Acquisition C150348 (CT2015-166) *\$	Alamosa	\$839,000	0%	N/A	N/A	ACM	Water rights purchase was pending a water court change case completion. The case was settled in December 2015. The District expects to close on the shares in late 2017. A loan increase is part of the January 2017 CWCB agenda.
32	Sanchez Ditch and Reservoir Company > Sanchez Reservoir Outlet Rehabilitation Project C150342 (CT2015-012) *\$90%	Costilla	\$1,381,276	100%	Oct 2014 - March 2017	90%	ACM	Construction began in Oct 2014. Outlet works work was completed in Jan 2015. Seepage and monitoring work is currently ongoing.
33	Sanford Canal Company > Sanford Diversion and Headgate Rehabilitation C150401(CT2015-091) *\$	Rio Grande	\$101,000	100%	Aug 2015 - Dec 2016	90%	JMH	NRCS has finalized design. Fabrication of steel structures began August 2015. Construction of diversion dam and headgates began in October 2015 and nearing completion. Concrete work is finished, sluice gate will be installed one river flow decreases
34	Thunderbird W&S Dist > Lambert Ranch Water Rights Purchase C150320 (CT2015-049) *\$90%	Douglas	\$318,150	N/A	N/A	N/A	JMH	Closing was delayed until 2015 due to easement access to purchased wells. Closing on water rights occurred September 2015. Easement acquisition process is still underway pending final pipeline alignment.
35	Tunnel Water Company >Laramie-Poudre Tunnel Rehabilitation CT2016-2001 \$	Larimer	\$1,111,000	100%	Apr 2015 - Spring 2017	70%	JMH	Phase 1 (Inlet) construction started September 2015 and is complete. Phase 2 (outlet) construction is in nearing final design and is planned for construction in Spring 2017, but may need to be extended till Fall 2017.
36	Uncompahgre Valley Water Users Association >Drop 5 Hydroelectric Project CT2015-174 *\$	Montrose/ Delta	\$6,999,300	100%	Dec 2015 - Aug 2016	99%	KGR	Plant produced power in August 2016. Upstream ditch breach being repaired this winter. Loan closeout pending. Final invoicing occurring.
37	Upper Arkansas Water Conservancy District > Reservoir Rehabilitation C150192 (CT2015-052) *\$	Chaffe/ 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 Permitting effort for the enlargement is underway and expected to be complete by Dec 2018.

	Contract Borrower	County	Loan Amount	Design Status	Const. Start/End	Const. Status	PM	Status Description/Update
38	West Reservoir and Ditch Company >Repair of West Reservoir No. 1 Outlet Works CT2015-169 *\$	Delta	\$248,378	100%	May 2015 - Sept 2016	99%	DRJ	Project complete. Loan increase sought.
39	Windsor, Town of > Kyger Reservoir Project C150366 (CT2015-057) *\$	Larimer/ Weld	\$4,545,000	100%	July 2016 - Mar 2017	70%	JMH	Town purchased reservoir and water rights in summer 2014. Town completed design and permitting in spring 2016. Construction contract was awarded at the end of June 2016 and commenced July 2016
40 - WISE Project - Phase 1 Infructure								\$16,802,501
	Cottonwood W&S Dist - C150408B (CT2015-106) *\$	Douglas/ Arapahoe	\$2,636,100	90%	Spring 2015 - Jan 2017	12%	DRJ	Infrastructure to treatment plant completed. Pipeline construction on Ridgeway line under way. E470 bore 90% complete.
	Inverness W&S Dist - C150409B (CT2015-118) *\$	Douglas/ Arapahoe	\$1,181,700	90%	Spring 2015 - Jan 2017	34%	DRJ	
	Parker W&S Dist - C150410B (CT2015-108) *\$	Douglas/ Arapahoe	\$6,785,321	90%	Spring 2015 - Jan 2017	16%	DRJ	
	Pinery (Denver SE Sub W&S Dist) C150411B (CT2015-085) *\$	Douglas/ Arapahoe	\$6,199,380	90%	Spring 2015 - Jan 2017	6%	DRJ	
41 - WISE Project - Phase 2 Infructure								\$7,400,078
	Cottonwood W&S Dist - C150408C (CT2015-105) *\$	Douglas/ Arapahoe	\$1,127,160	0%	Spring 2018 - Fall 2021	0%	DRJ	
	Inverness W&S Dist - C150409C (CT2015-119) *\$	Douglas/ Arapahoe	\$1,427,130	0%	Spring 2018 - Fall 2021	0%	DRJ	
	Parker W&S Dist - C150410C (CT2015-109) *\$	Douglas/ Arapahoe	\$3,418,658	0%	Spring 2018 - Fall 2021	0%	DRJ	
	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								
	Cottonwood W&S Dist - C150408D (CT2015-104) *\$	Douglas/ Arapahoe	\$363,600	23%	N/A	NA	DRJ	Annual diisbursement to be made on this loan through 2021.Design Status indicates percent of funds disbursed to date.

Contract Borrower	County	Loan Amount	Design Status	Const. Start/End	Const. Status	PM	Status Description/Update
Inverness W&S Dist - C150409D (CT2015-120) *\$	Douglas/ Arapahoe	\$454,500	23%	N/A	NA	DRJ	Annual diisbursement to be made on this loan through 2021.Design Status indicates percent of funds disbursed to date.
Parker W&S Dist - C150410D (CT2015-110) *\$	Douglas/ Arapahoe	\$1,099,890	13%	N/A	NA	DRJ	Annual diisbursement to be made on this loan through 2021.Design Status indicates percent of funds disbursed to date.
Denver SE Sub. W&S Dist (Pinery) - C150411D (CT2015-087) *\$	Douglas/ Arapahoe	\$454,500	36%	N/A	NA	DRJ	Annual diisbursement to be made on this loan through 2021.Design Status indicates percent of funds disbursed to date.

Projects Under Contract \$157,730,812

\*= No Option Ltr || \$= 1% SF in CORE || 90%= Contract Restriction

Approved Projects - Not Under Contract							
a	Southeastern CO Water Conserv. District > Arkansas Valley Conduit C150238	Crowley	\$60,600,000	In Contracting	KGR	Pending Federal Appropriation. Hydro project may be considered from these loan funds	
b	Southeastern CO Water Conserv. District >Pueblo Dam Hydroelectric Project CT2017-1424	Crowley	\$16,725,600	In Contracting	DRJ		
c	Larimer & Weld Irrigation Company >Headgate Structure Replacement CT2017-	Larimer & Weld	\$681,750	In Contracting	JMH	Bids received in September 2016 exceeded budget and the Company elected not to award the project at this time. Company and engineer will work towards bidding again in 2017.	
d	Town of Firestone >Storage Development and Water Rights Purchase CT2017-	Weld	\$10,000,000	In Contracting	DRJ		
e	Grand Valley Water Users Association >Grand Valley Power Plant Rehabilitation CT2017-	Mesa	\$1,717,000	In Contracting	JMH		
f	Orchard Mesa Irrigation District >Grand Valley Power Plant Rehabilitation CT2017-	Mesa	\$1,717,000	In Contracting	JMH		

Not Under Contract SubTotal = \$91,441,350

Grand Total = \$249,172,162

Contract Borrower	County	Loan Amount	Design Status	Const. Start/End	Const. Status	PM	Status Description/Update	
reuction projects involving storage: new, enlargment, dredging or removal of a SEO restriction =								
Projects Substantially Completed in Calender Year 2016								
1	Crystal Lakes Water and Sewer Association > Lower Lone Pine Lake Enlargement Project C150325 (CT2015-045)	Larimer	\$2,016,460	100%	Apr 2012 - Nov 2014	100%	ACM	1/1/2016
2	Ridgway, Town of > Lake Otonowanda Rehabilitation Project C150340 (CT2015-056)	Ouray	\$606,000	100%	June 2014 - July 2015	100%	KGR	1/1/2016
3	Lower Poudre Augmentation Company >Box Elder Ditch Water Rights Purchase CT2016-2005	Larimer, Weld	\$454,500	N/A	N/A	N/A	JMH	1/1/2016
4	Lower Arkansas Valley WCD >Water Rights Purchase CT2015-175	Bent, Crowley, Otero, Prowers, Pueblo	\$2,560,350	NA	Fall 2015	100%	DRJ	3/1/2016
5	Fort Lyon Canal Company >Replacement of Horse Creek Flume CT2016-1987	Otero, Bent, Prowers	\$1,542,296	100%	Nov 2015 - Apr 2016	100%	DRJ	4/1/2016
6	Fulton Irrigating Ditch Company > Diversion Structure Rehabilitation Project C150399 (CT2015-092)	Adams	\$1,947,138	100%	Fall 2014 - Summer 2015	100%	DRJ	4/1/2016
7	Bergen Ditch & Reservoir Company > Bergen Reservoir No. 2 Rehabilitation C150344 (CT2015-017)	Jefferson	\$2,110,765	100%	June 2015 - Apr 2016	100%	JMH	4/1/2016
8	Upper Platte & Beaver Canal Company > Hospital Rd Recharge Facility & Bridge Project CT2015-101	Morgan	\$119,685	49%	Nov 2014 - Spring 2017	49%	DRJ	4/1/2016
9	Owl Creek Reservoir Company > Owl Creek Reservoir Rehabilitation C150089 (CT2015-048)	Weld	\$485,000	N/A	N/A	N/A	TF	5/1/2016
10	Brighton Ditch Company >River Breach Repair Project CT2016-2040	Adams	\$225,000	100%	July 2015 - Aug 2015	100%	JMH	5/1/2016
11	McDonald Ditch Company > Ditch Diversion and Headgate Replacement C150334 (CT2015-044)	Rio Grande	\$101,000	100%	Dec 2014 - Apr 2016	100%	JMH	5/1/2016

	Contract Borrower	County	Loan Amount	Design Status	Const. Start/End	Const. Status	PM	Status Description/Update
12	Las Animas Consolidated Canal Company >Repair and Replacement of the Las Animas Consolidated Canal Spillway Structure CT2016-1007	Bent	\$95,054	100%	Jan 2016 - Spring 2016	100%	DRJ	6/1/16
13	Left Hand Ditch Company > Allen Lake and Lake Isabelle Repair Project C150336 (CT2015-088)	Boulder	\$1,332,562	100%	Nov 2012 - Oct 2015	100%	ACM	6/1/16
14	Colorado Parks & Wildlife > Beaver Park Reservoir Rehabilitation C150343	Rio Grande	\$10,000,000	Ph1 100% P2 100%	July 2013 - Nov 2015	100%  100%	KGR	6/1/16
15	Greeley and Loveland Irrigation Company > Irrigation System Improvements C150362 (CT2015-022)	Larimer	\$3,745,080	100%	Summer 2014 - Apr 2016	100%	JMH	7/1/2016
16	Boxelder Basin Regional Stormwater Authority > East Side Detention Facility Project C150353 (CT2015-070)	Larimer/ Weld	\$7,171,000	100%	Aug 2015 - June 2016	100%	JMH	7/1/2016
17	Boxelder Basin Regional Stormwater Authority > County Rd 52 Culvert Project C150393 (CT2015-069)	Larimer/ Weld	\$818,100	100%	Aug 2015 - June 2016	100%	JMH	7/1/2016
18	Lake Canal Reservoir Company > North Gray Reservoir Rehab Project C150322 (CT2015-042)	Larimer/ Weld	\$204,298	100%	Nov 2015 - Mar 2016	100%	JMH	7/1/2016
19	Louden Irrigating Canal & Reservoir Company > Emergency Diversion Structure and Ditch Repair C150398 (CT2015-151)	Larimer	\$ 126,250	100%	Summer 2014 - June 2016	100%	JMH	7/1/2016
20	Boxelder Basin Regional Stormwater Authority > Larimer & Weld Canal Crossing Structure Project C150352 (CT2015-071)	Larimer/ Weld	\$1,010,000	100%	Dec 2015 - April 2016	100%	JMH	8/1/2016
21	Farmers Pawnee Canal Company > Diversion Structure Replacement Project C150394 (CT2015-132)	Logan	\$2,067,470	100%	Mar 2014 - Nov 2015	100%	DRJ	9/1/2016
22	Northern Colorado WCD- Hydropower Enterprise > Granby Hydropower Project C150396 (CT2015-140)	Grand	\$5,135,183	100%	May 2015 - May 2016	100%	JMH	10/1/2016
23	Pisgah Reservoir and Ditch Company > Mount Pisgah Dam/Wrights Res Rehabilitation C150341 (CT2015-027)	Teller	\$990,176	100%	June 2015 - Sep 2016	100%	JMH	10/1/2016

	Contract Borrower	County	Loan Amount	Design Status	Const. Start/End	Const. Status	PM	Status Description/Update
24	Bow Mar Water & Sanitation District >Rehabilitation and Replacement of Water Meters CT2016-2516	Arapahoe & Jefferson	\$332,795	100%	July 2016 - Oct 2016	100%	DRJ	11/1/2016
25	Union Well Augmentation Group >Union Reservoir Water Rights Purchase CT2016-3463	Weld	\$227,250	N/A	N/A	N/A	JMH	11/1/2016
26	Parkville Water District >Evans Reservoir Bypass Flume Project CT2016-2004	Lake	\$181,800	100%	Aug 2016 - Oct 2016	100%	DRJ	12/1/2016
27	Cortez, City of > Water Meter Replacement Project CT2015-152	Montezuma	\$858,500	100%	June 2015 - Oct 2016	99%	ACM	12/1/2016
28	Cottonwood W&S District >WISE - ECCV Pipeline Purchase C150408A (CT2015-102)	Douglas/ Arapahoe	\$342,921	100%	N/A	N/A	DRJ	1/1/2017
29	Inverness W&S District >WISE - ECCV Pipeline Purchase C150409A (CT2015-117)	Douglas/ Arapahoe	\$1,845,270	100%	N/A	N/A	DRJ	1/1/2017
30	Gypsum, Town of > LEDE Ditch and Reservoir Rehabilitation C150296 (CT2015-058) *\$	Eagle	\$2,689,731	100%	Jul 2013 - Sep 2016	100%	DRJ	1/1/17

SubTotal = \$51,341,634

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

**Borrower:** Bellyache Ridge Metropolitan District **County:** Eagle

**Project Name:** Well Replacement Project

**Project Type:** Well Drilling

**Drainage Basin/ District:** Colorado / 37

**Water Source:** Groundwater

**Total Project Cost:** \$355,000

**Funding Source:** Construction Fund/  
DOLA Energy and Mineral Impact  
Assistance Fund

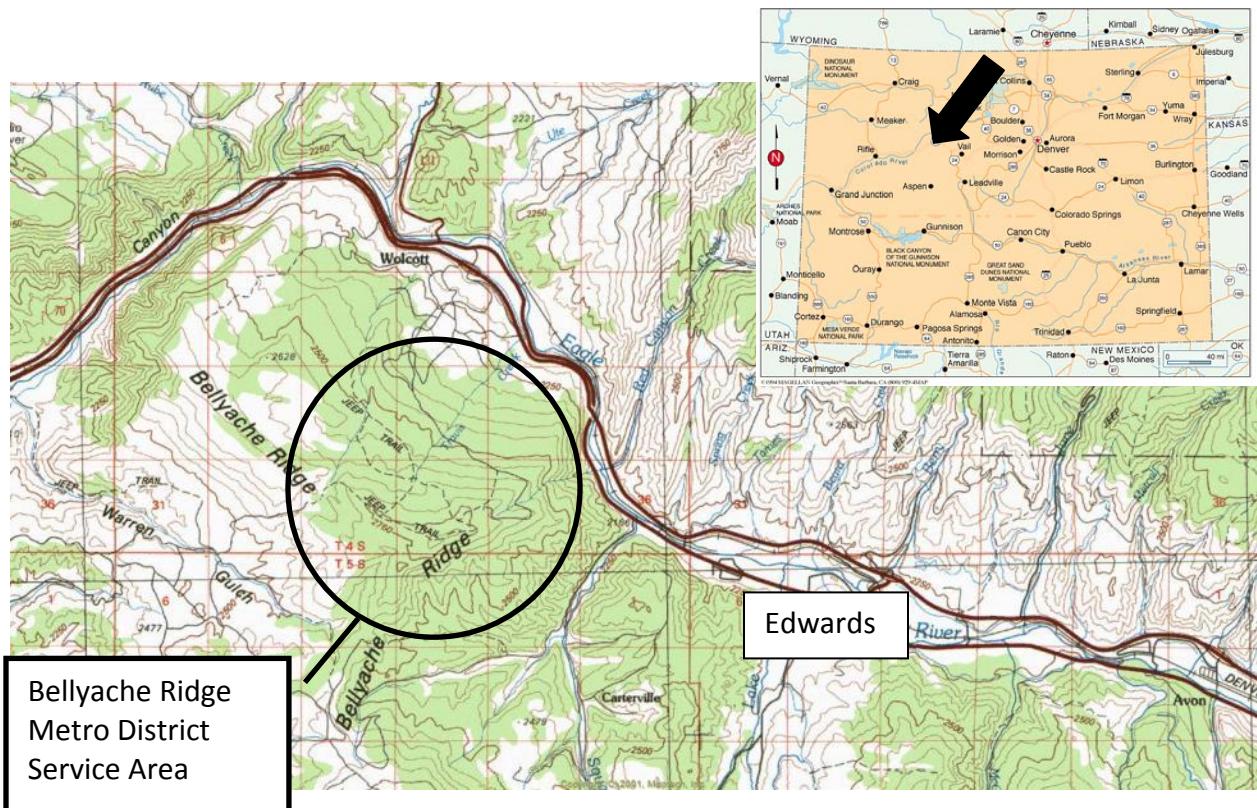
**Type of Borrower:** Municipal (High)

**Average Annual Diversion:** 11 AF

**CWCB Loan:** \$169,175  
(with 1% Service Fee)

**Interest Rate:** 3.0% **Term:** 30 years

The District is located in Eagle County approximately six miles west of Edwards, Colorado. The District's water system includes three wells 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. Spring storms recharged the groundwater supply such that the District has not hauled water since March, but unless a new well is drilled hauling water will likely be required in the future. A new replacement well will be drilled as soon as funding is available.



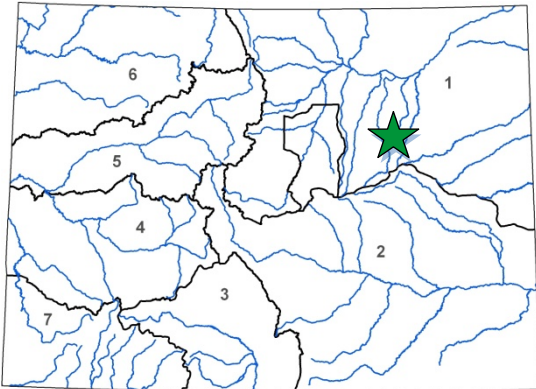


## Wells #3 and #6 Replacement Project

Town of Bennett

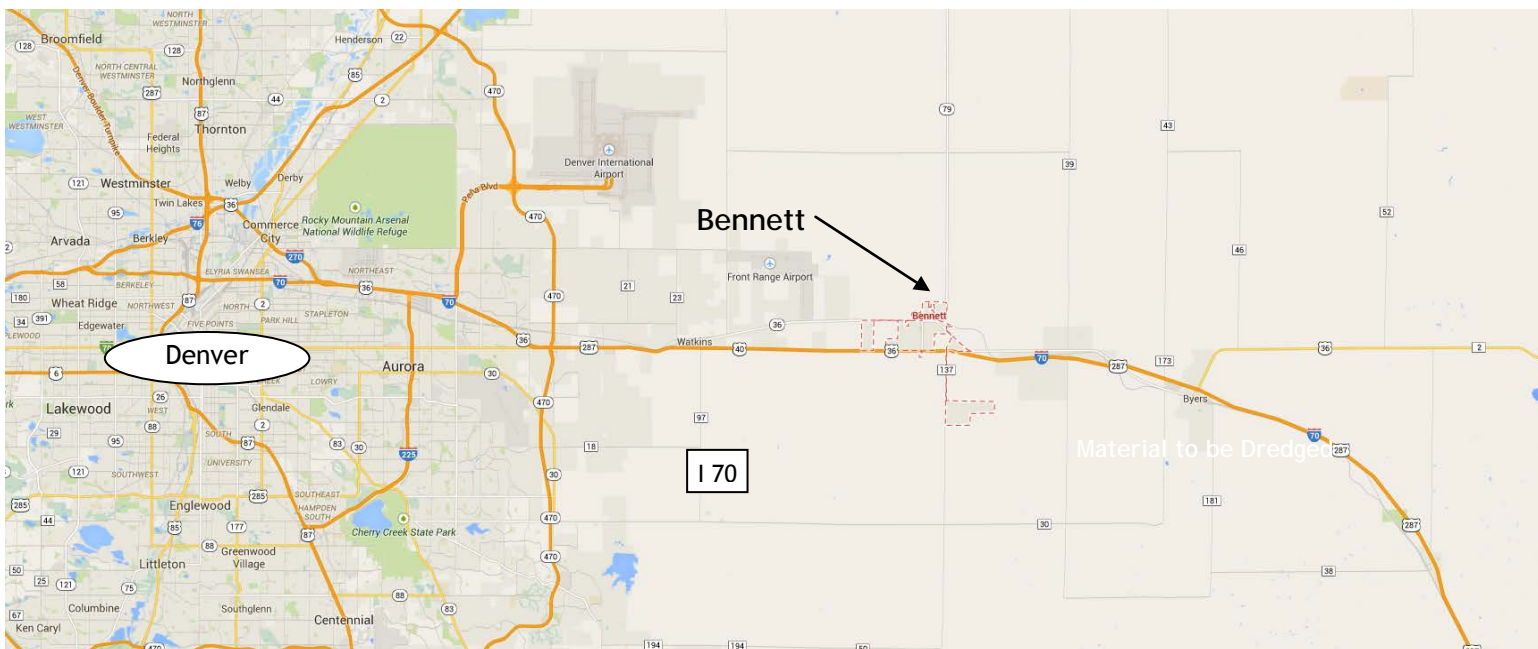
November 2014 Board Meeting

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



The Town of Bennett provides water to its 2,500 residents from the Denver, Upper Arapahoe and Lower Arapahoe, and Laramie-Fox Hills aquifers. A recent study revealed the need to address operational reliability, efficiency, and safety of the Town of Bennett's well #3 and well #6. The Town currently has 11 wells. The replacement of wells #3 and #6 will provide the Town with additional supply to meet demands and needed redundancy in its water supply system. Both wells need to be replaced due to the age of the existing wells. Construction is expected to occur during the spring of 2015.

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

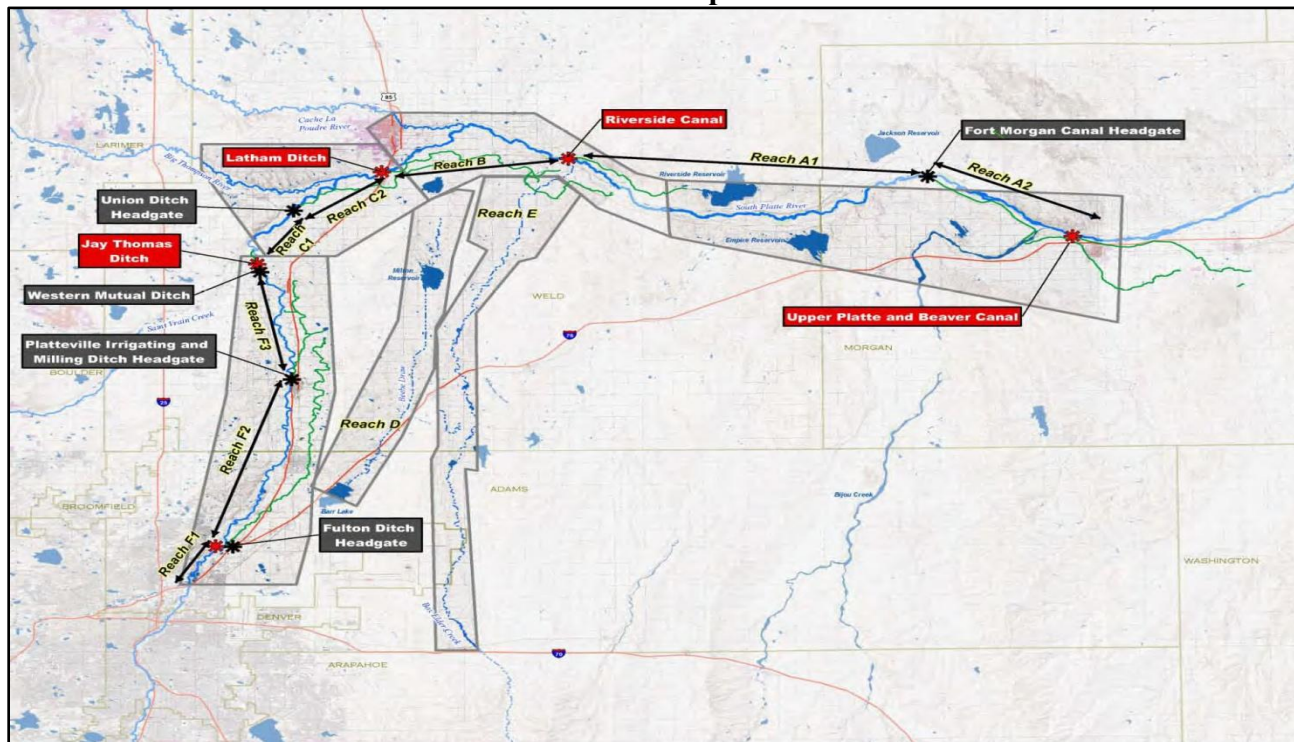


## Water Project Loan Program – Project Data Sheet

<b>Borrower:</b>	Well Augmentation System of the Central Colorado Water Conservancy District	<b>County:</b>	Weld, Adams, Morgan		
<b>Project Name:</b>	Water Rights Purchase & Gravel Pit Storage Project	<b>Project Type:</b>	Water Rights Purchase & Augmentation Facility		
<b>Drainage Basin:</b>	South Platte	<b>Water Source:</b>	South Platte Basin		
<b>Total Project Cost:</b>	\$3,333,400	<b>Funding Source:</b>	Construction Fund		
<b>Type of Borrower:</b>	Agricultural	<b>Annual Depletions Covered:</b>	20,400 AF		
<b>CWCB Loan:</b>	\$3,030,000 (w/ 1% service fee)	<b>Interest Rate:</b>	1.75%	<b>Term:</b>	30 years

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 has requested a loan for purchasing more water and storage rights to enable WAS to issue a pumping quota to member wells for the first time since 2006. The WAS General Fund will cover the remaining project expenses.

### Location Map



**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

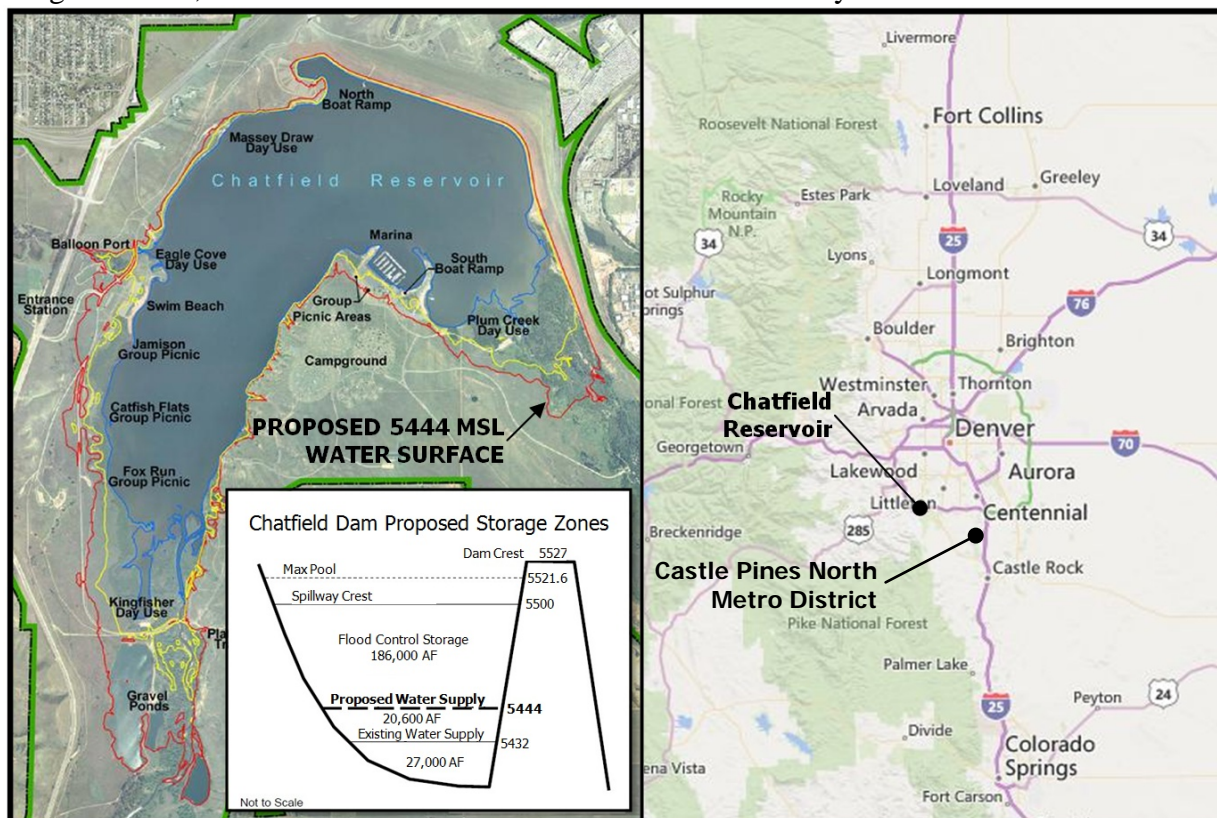
**Added Water Supply Storage:** 1005.8 AF

**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

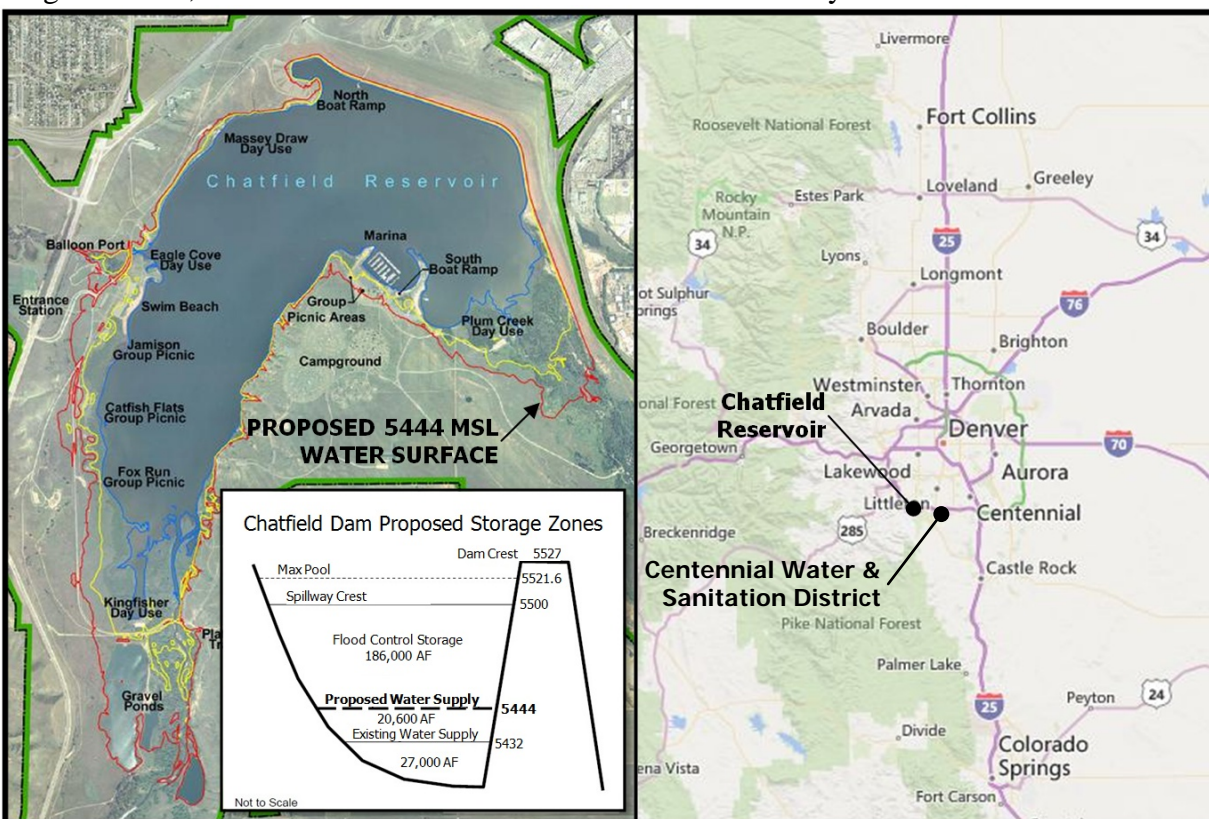
**Average Annual Delivery:** 17,500 AF

**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

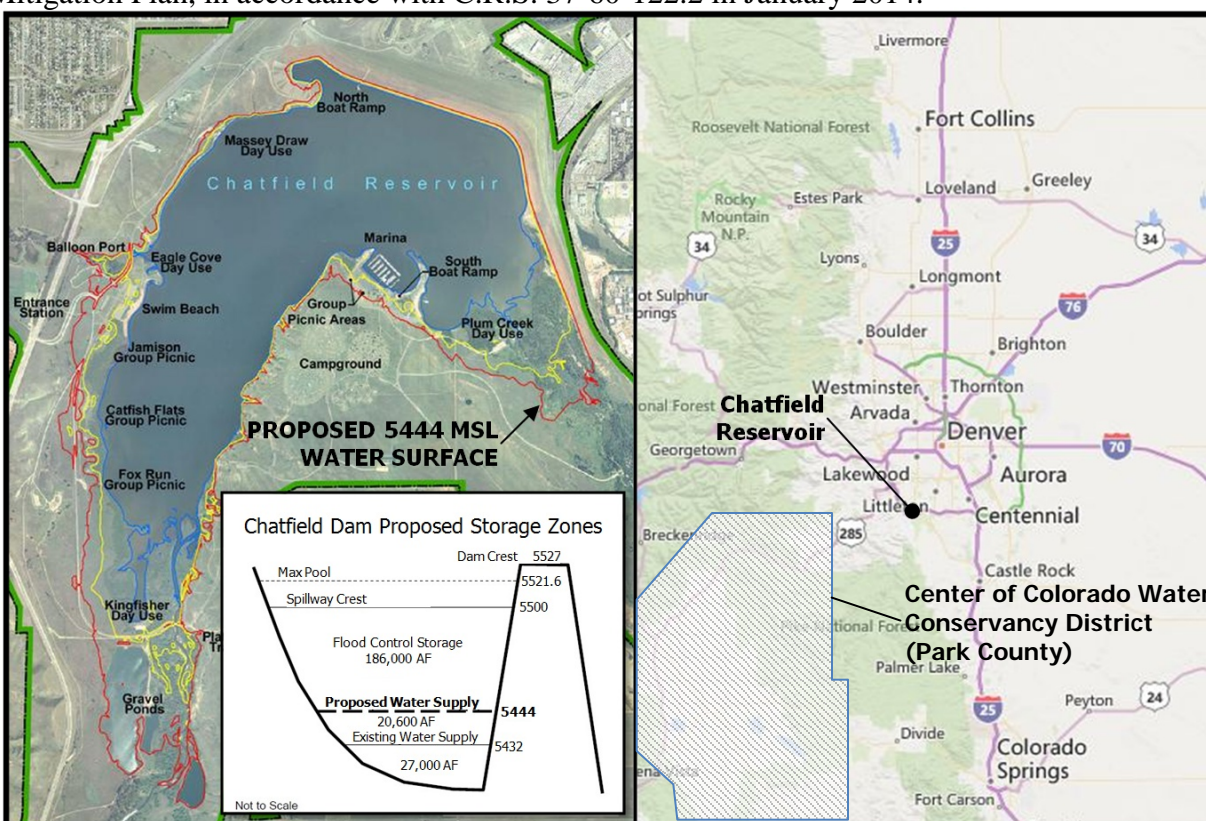
**Average Annual Diversion:** 700 AF

**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

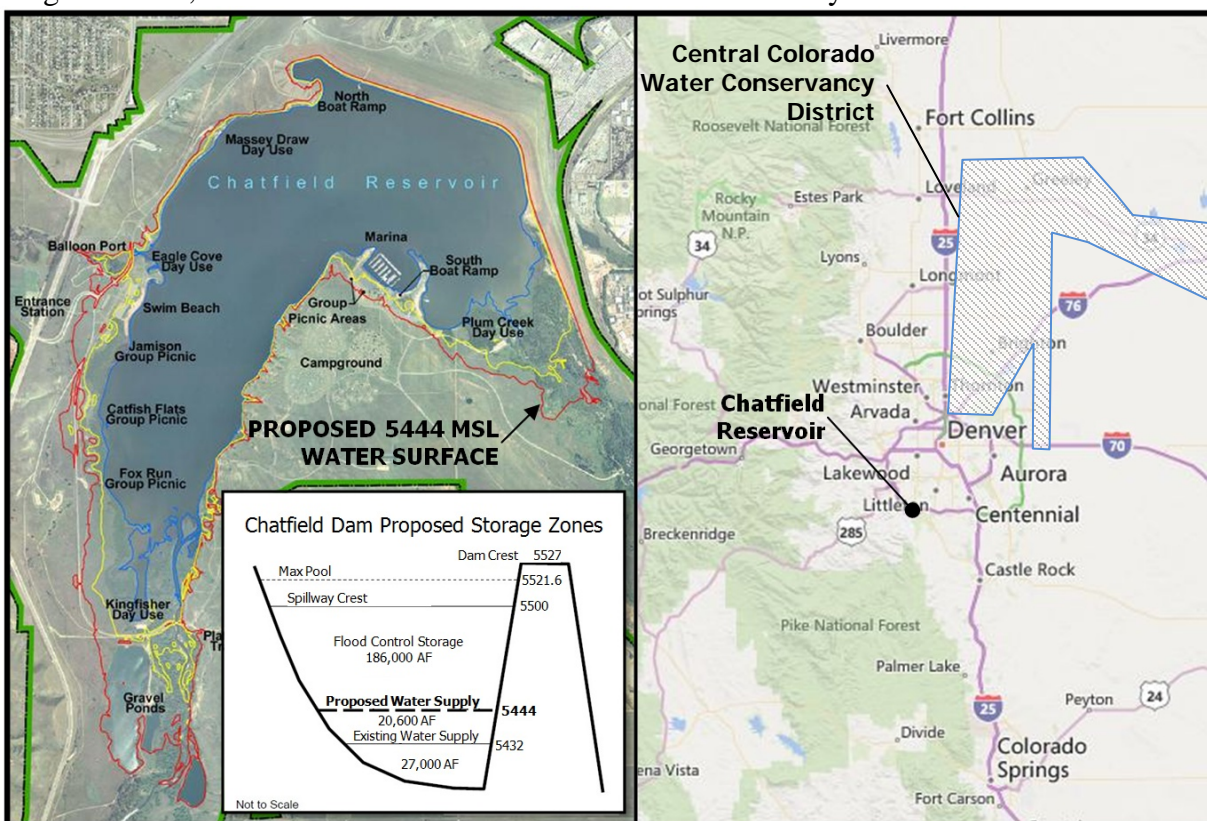
**Type of Borrower:** Agricultural

**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.



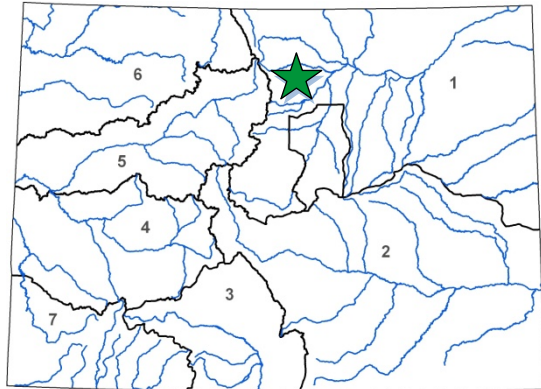


# Dixon Reservoir Dam Improvement

## Dixon Canon Ditch and Reservoir Company

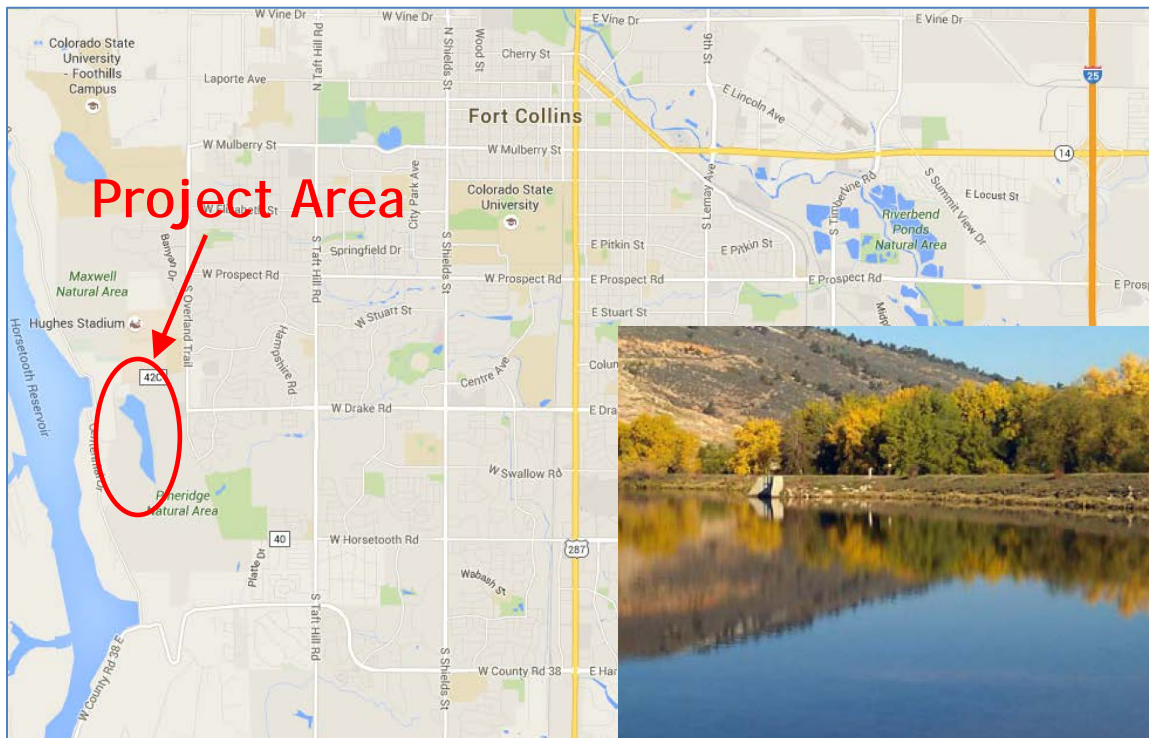
May 2016 Board Meeting

L O A N   D E T A I L S	
Project Cost:	\$309,000
CWCB Loan (with Service Fee):	\$278,100
Loan Term and Interest Rate:	30 years @ 2.55%
Funding Source:	Construction Fund
B O R R O W E R   T Y P E	
Agriculture	Municipal
17%	0% Low - 83% Mid - 0% High
	Commercial
	0%
P R O J E C T   D E T A I L S	
Project Type:	Dam Rehabilitation
Average Annual Delivery:	312 AF
Total Storage Effect:	412 AF



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

Dixon Canon Ditch and Reservoir Company owns and operates the Dixon Reservoir Dam and associated ditch located in Larimer County on the west side of Fort Collins. Dixon Reservoir is directly east of Horsetooth Reservoir. The ditch diverts water off of Dixon Creek and provides water for outdoor irrigation to a 206-acre service area via approximately 9,000 feet of pipe and ditch. The water is typically used to irrigate turf, agricultural crops, and the City of Fort Collins parks and open space. The dam was constructed in 1885 and is classified as a Significant Hazard Dam by the Dam Safety Branch of the Office of the State Engineer (SEO). The Reservoir has a decreed storage volume of 412 acre-feet. Recent SEO inspections identified areas of seepage that need to be addressed in order to maintain the full storage decrees. The purpose of this project is to address seepage issues and improve the dam outlet works so the Company can continue providing an adequate amount of irrigation water to shareholders while minimizing the risk of dam failure. Construction is expected to begin in late 2016.

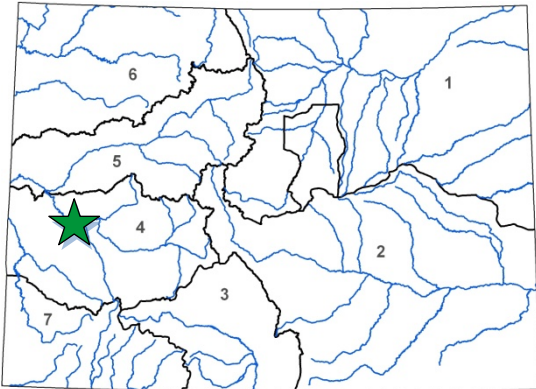




# Piping the Duke Ditch

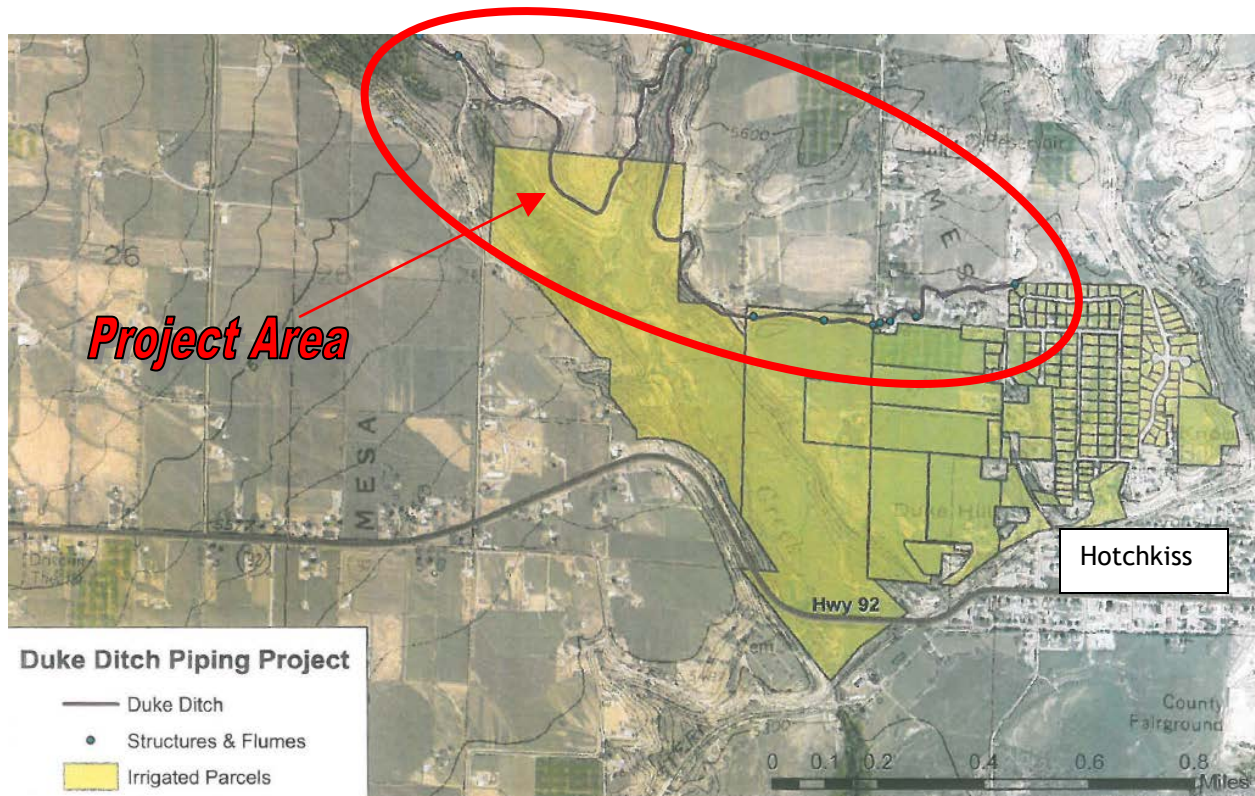
Duke Ditch Company  
March 2016 Board Meeting

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



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

The Duke Ditch Company diverts from Leroux Creek and Barrow Gulch, west of the Town of Hotchkiss, and delivers water through the Company's ditch to a 380-acre service area. The earthen ditch traverses a steep hillside in the Leroux Creek canyon where it is prone to washout and is subject to significant seepage and evaporative losses. As a result of the location, it has significant maintenance and aquatic vegetation growth issues. The deep percolation of irrigation water in this area contributes salinity and selenium to the Colorado River system; therefore, the Company obtained a \$464,000 Salinity Control Program grant (61% of project costs) and a \$100,900 NRCS grant (13% of project costs), as the project is expected to reduce salt loading to the Colorado River system by 395 tons/year. In addition, the Company is applying for a \$47,237 basin grant and a \$47,237 statewide grant from the Water Supply Reserve Account Grant Program to pipe the entire 2.7 miles of ditch. Construction is scheduled for the fall/winter of 2016/2017.



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

**C150402**

**Borrower:** The Ephraim Ditch Company

**County:** Rio Grande

**Project Name:** Ephraim Diversion and  
Headgate Rehabilitation

**Project Type:** Ditch Rehabilitation

**Drainage Basin/ District:** Rio Grande / 22

**Water Source:** Conejos River

**Total Project Cost:** \$201,500

**Funding Source:** Construction Fund,  
WSRA Grants

**Type of Borrower:** Agricultural

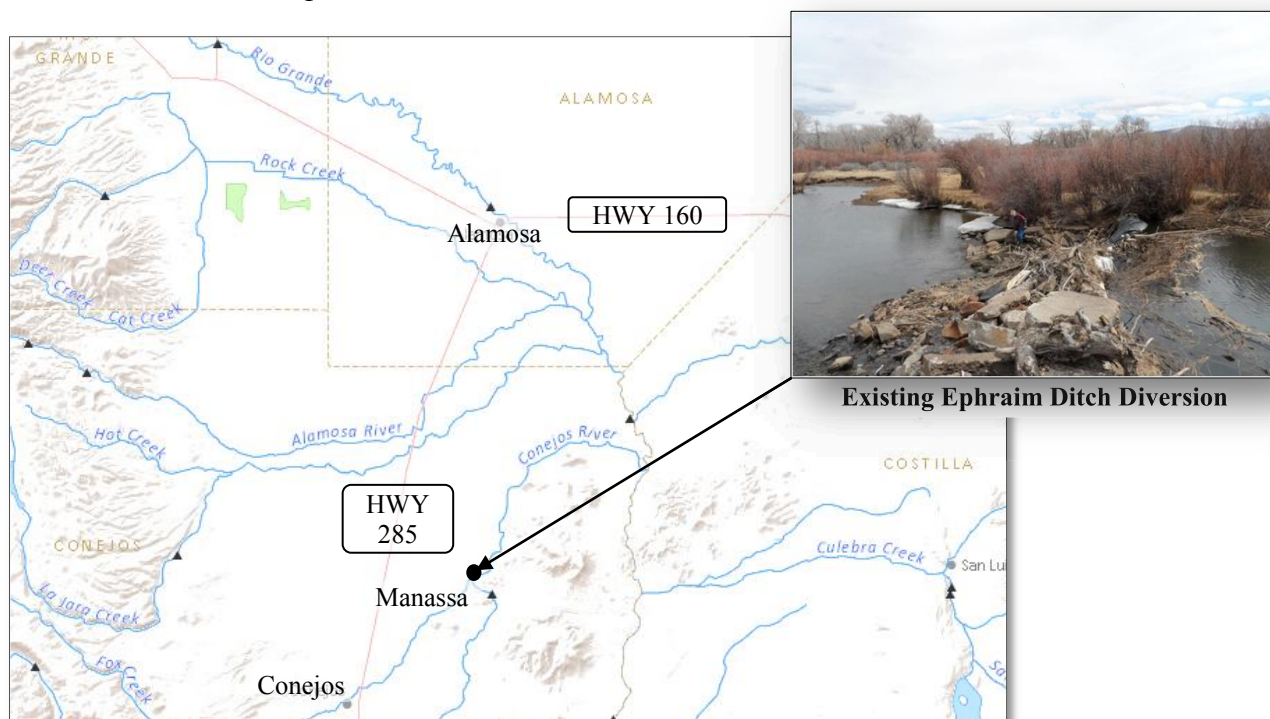
**Average Annual Diversion:** 4,100 AF

**CWCB Loan:** \$101,000  
(with 1% service fee)

**Interest Rate:** 1.75% **Term:** 30-years

The Ephraim Ditch Company formed in 1883 and incorporated in 1927 as a Mutual Ditch Company. Its diversion is located on the Conejos River just below the confluence with the San Antonio River and a service area covering approximately 5,000 irrigated acres. The purpose of this Project is 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 Ephraim Ditch diversion structure has been washed away over time, contributing to decades of limited diversion to irrigators and potential over payment to the Compact. Currently irrigators divert their water right by piling debris such as tree trunks or cinderblocks to act as the diversion dam. This Project will remove and replace the diversion and headgate structure and install automated headgates and five gauging stations. Construction is expected to start around July 2015.

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, has 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 will extend this whole river strategy to the Confluence, specifically to the Sanford Canal, Ephraim Ditch, and East Bend Ditch.



**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

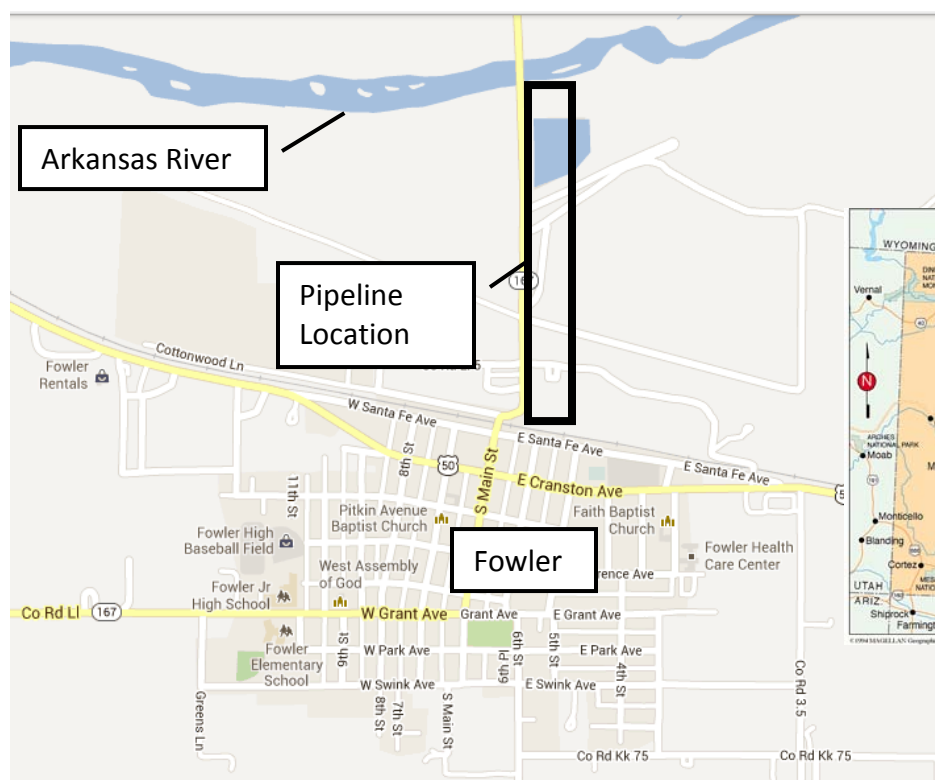
**Type of Borrower:** Municipal (Low)

**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

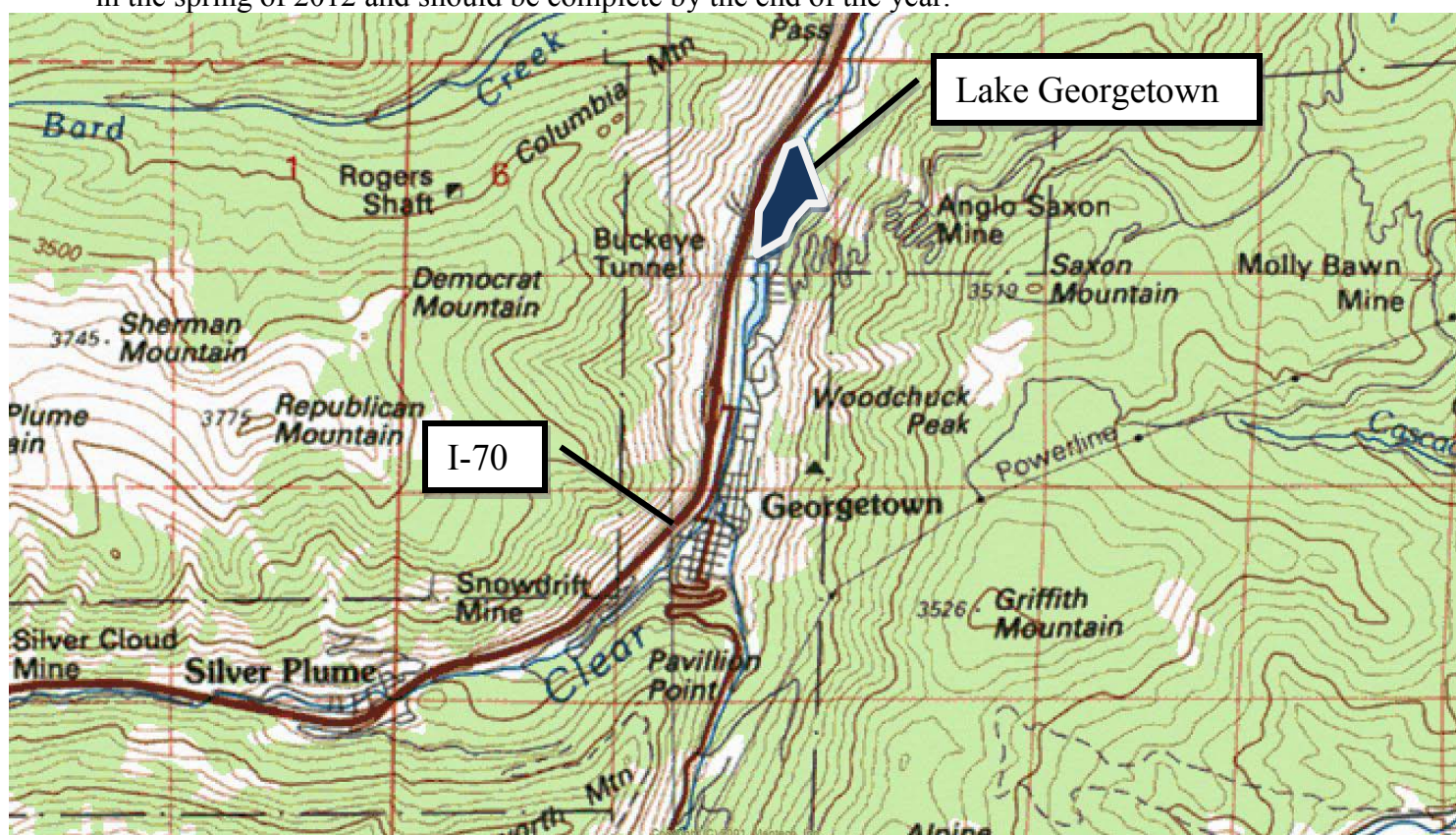
**Type of Borrower:** Middle-Income Municipal

**Average Diversion:** 208 AF

**CWCB Loan:** \$2,976,975 (w/ 1% service fee)

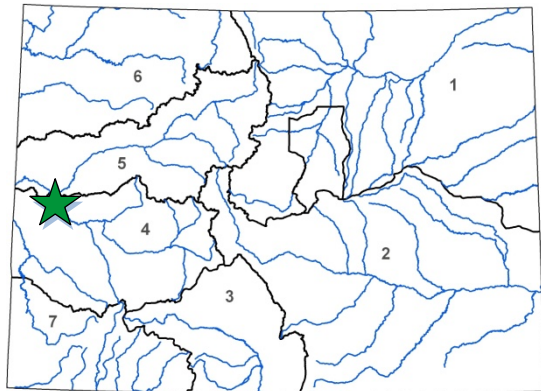
**Interest Rate:** 4.5% **Term:** 30 years

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.





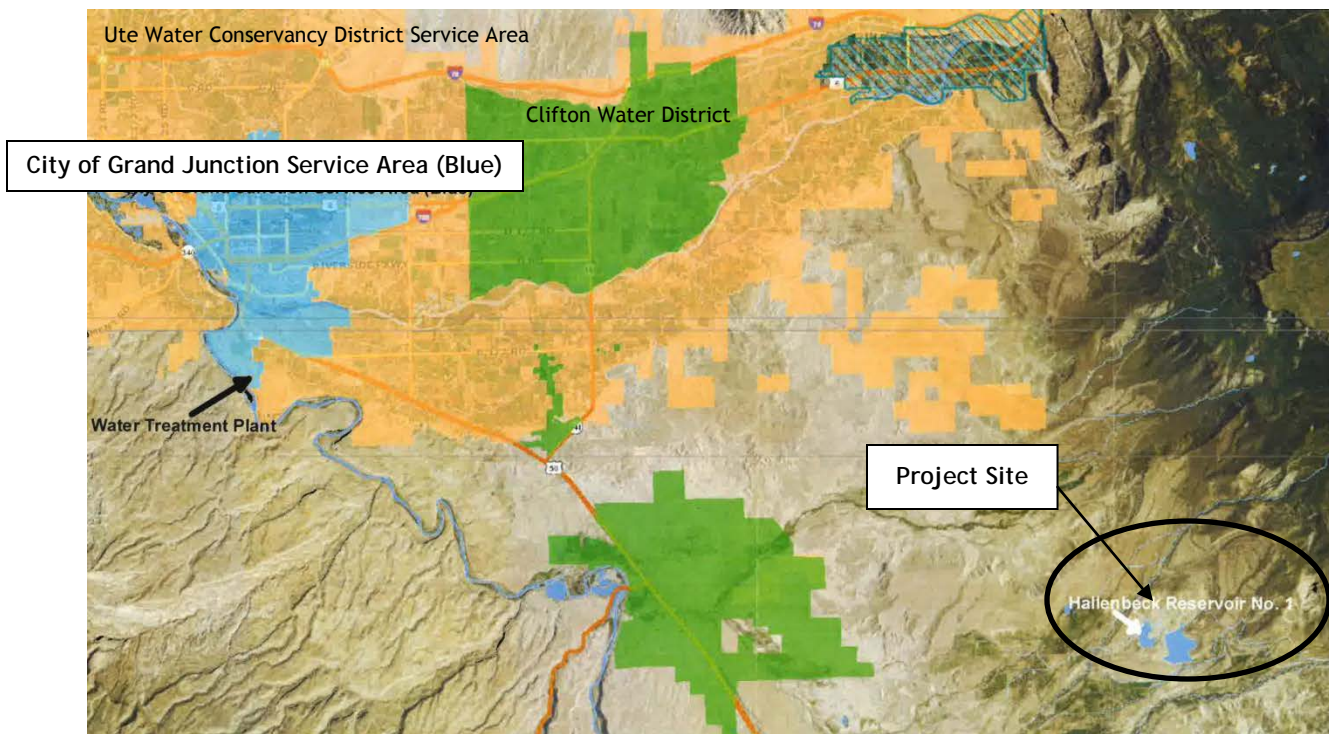
L O A N   D E T A I L S	
Project Cost:	\$1,153,782
CWCB Loan (with Service Fee):	\$1,010,000
Loan Term and Interest Rate:	20 years @ 2.65%
Funding Source:	Construction Fund and WSRA Grants
B O R R O W E R   T Y P E	
Agriculture	Municipal
0%	0% Low - 100% Mid - 0% High
	Commercial
	0%
P R O J E C T   D E T A I L S	
Project Type:	Dam Rehabilitation
Average Annual Delivery:	5,218 AF
Recovered Storage:	699 AF



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

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. The purpose of this project is to repair the dam to allow the City to use all if the storage capacity. Construction involves 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. This will allow the City to make use of its 1939 absolute irrigation right, and 1993 conditional municipal right. Construction is expected to occur in the summer of 2016.



## CWCW Water Project Loan Program Project Data Sheet

**Borrower:** Grand Mesa Water Conservancy District

**County:** Delta

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

**Project Type:** Reservoir Rehabilitation

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

**Water Source:** Surface Creek

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

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

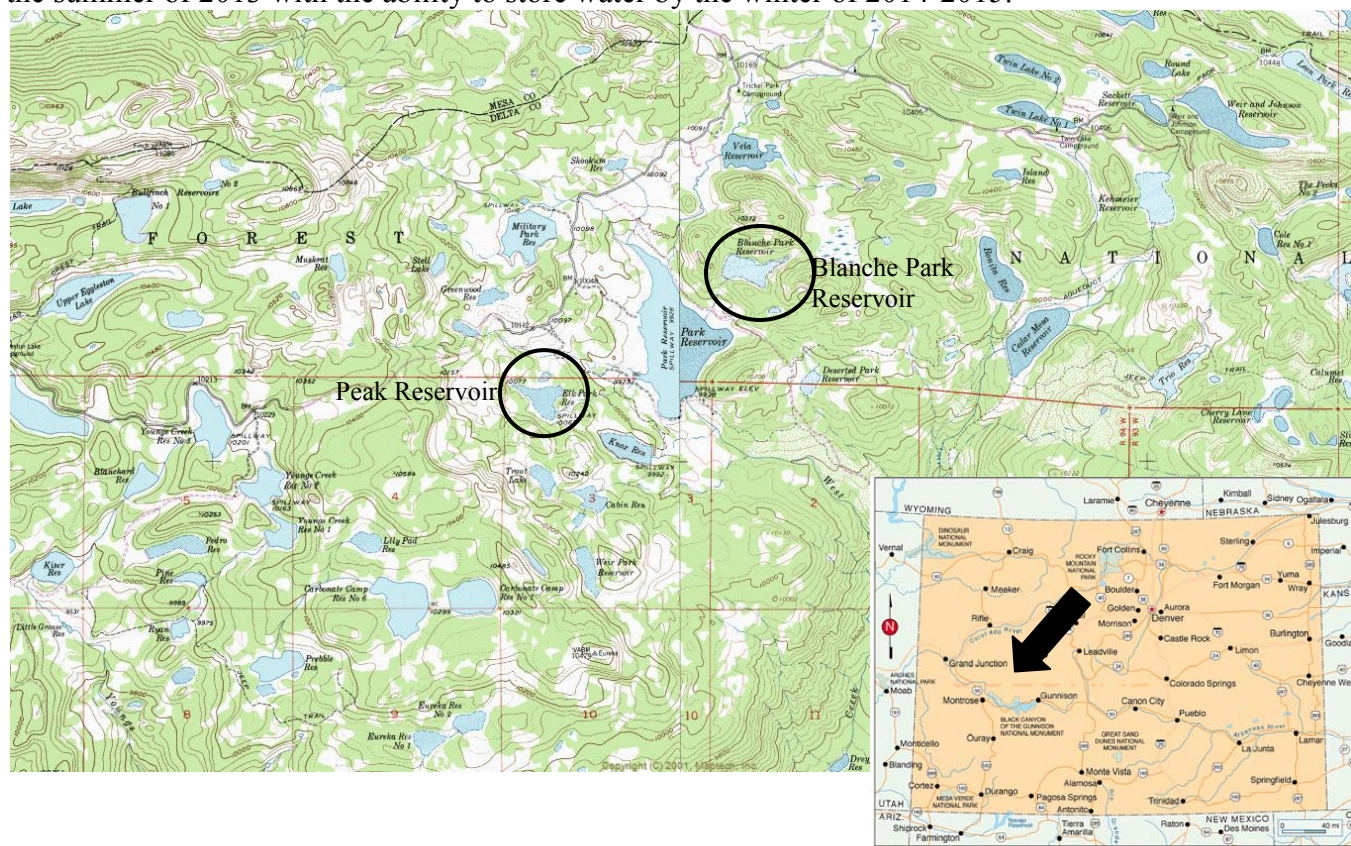
**Type of Borrower:** Municipal/Agricultural

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

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

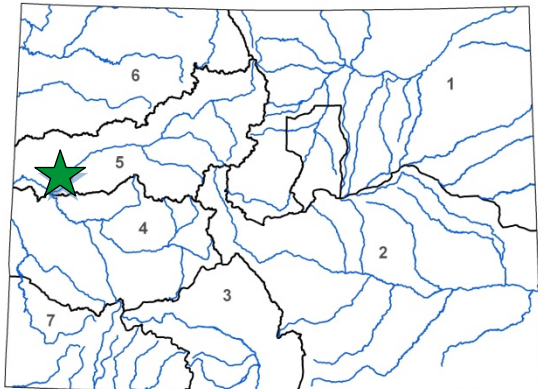
**Interest Rate:** 1.55%\* **Term:** 20 years  
(Reduced from 1.8% blended rate)

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



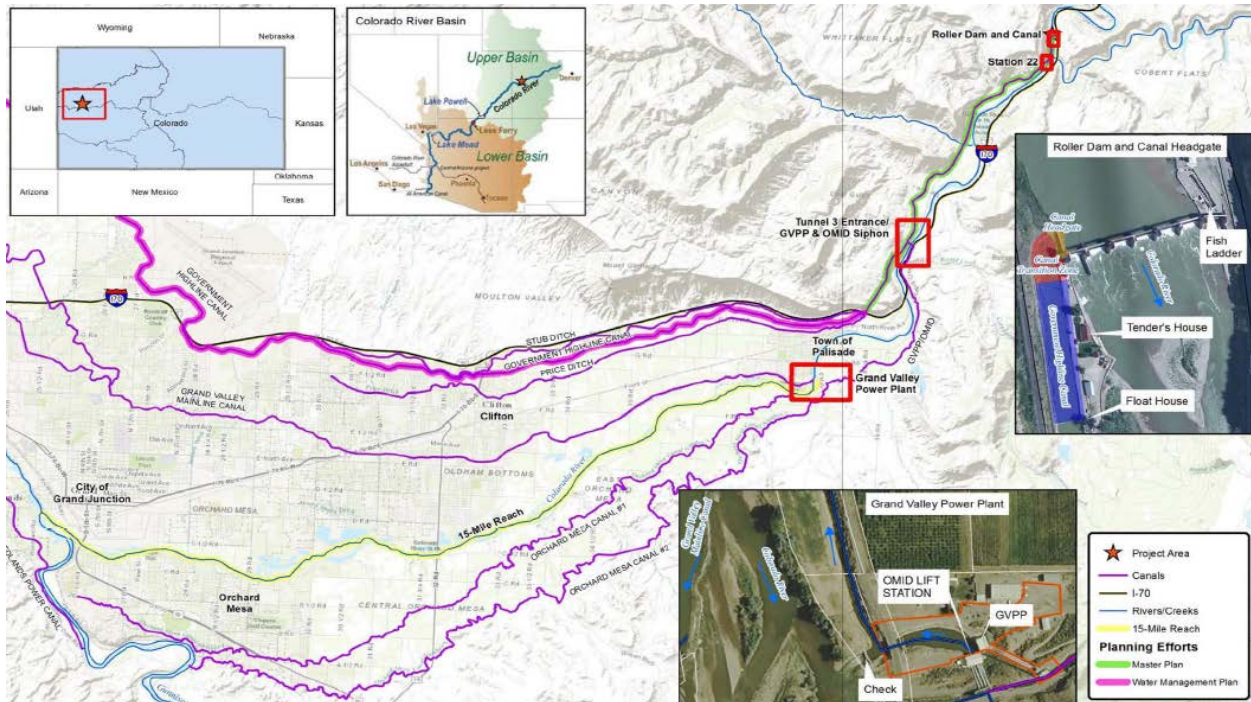


L O A N   D E T A I L S	
Project Cost:	\$800,000
CWCB Loan (with Service Fee):	\$151,500
Loan Term and Interest Rate:	30 Years @ 1.55%
Funding Source:	Construction Fund
B O R R O W E R   T Y P E	
Agriculture	Municipal      Commercial
90%	0% Low - 10% Mid - 0% High      0%
P R O J E C T   D E T A I L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



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

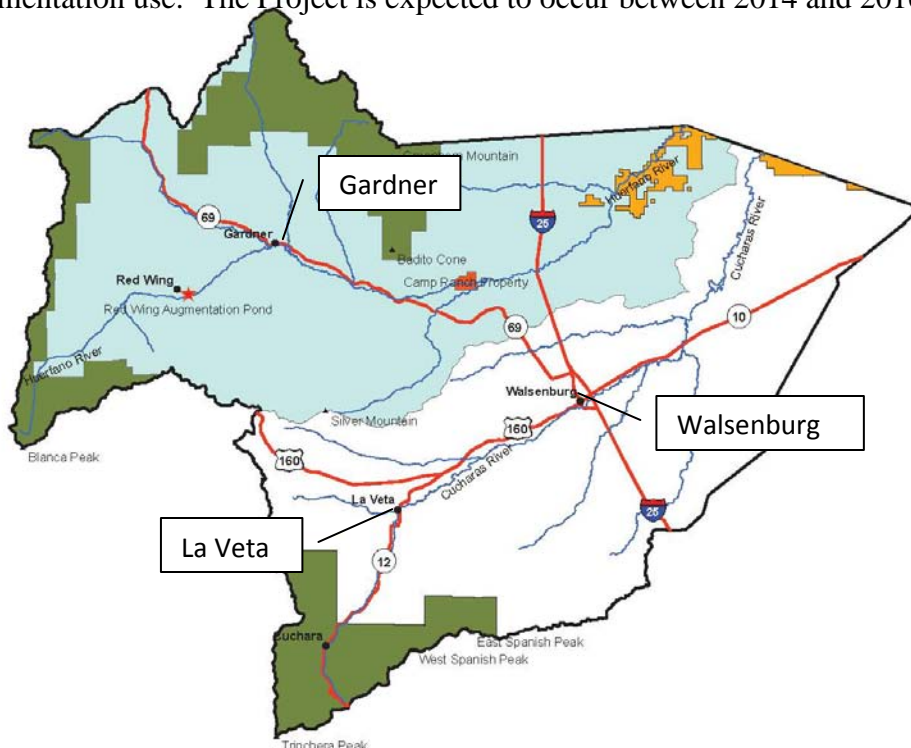
The Grand Valley Water Users Association (Association), is requesting funding for the Government Highline Canal Lining Project. The Association is the managing entity of the Bureau of Reclamation's Grand Valley Project. The Grand Valley Project facilities include the Grand Valley Diversion Dam (also known as the Roller Dam) on the Colorado River in De Beque Canyon, the 55-mile-long Government Highline Canal, 150 miles of project operated laterals, 100 miles of drainage ditches, and a hydroelectric power plant. The embankment immediately below the Roller Dam is relatively narrow and separates the Government Highline Canal from the Colorado River. This section of canal was constructed around 1915. Over the last 100 years the embankment has slumped, settled and degraded. Occasional erosion within the embankment has led to material loss and sinkholes. As a result of canal degradation, water flow is restricted and the canal cross section has been reduced, causing a reduction in capacity of the canal channel. The canal is currently physically restricted to approximately 1,600 cfs while the water rights are for 1,730 cfs. To increase the capacity, the Association intends to improve first 500 feet of the canal. Permitting and final design are scheduled for completion by March 2017. Construction is anticipated in summer and fall of 2017.



## Water Project Loan Program Project Data Sheet

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

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

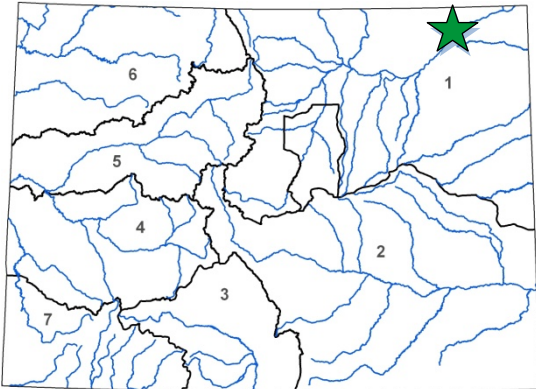




# Reconstruction of the Harmony No. 1 Measurement Structure

Julesburg Irrigation District  
May 2016 Board Meeting

L O A N   D E T A I L S	
Project Cost:	\$224,000
CWCB Loan (with Service Fee):	\$203,616
Loan Term and Interest Rate:	30 years @ 1.70%
Funding Source:	Construction Fund
B O R R O W E R   T Y P E	
Agriculture	Municipal      Commercial
100%	0% Low - 0% Mid - 0% High      0%
P R O J E C T   D E T A I L S	
Project Type:	Ditch Rehabilitation
Average Annual Delivery:	54,423 AF



L O C A T I O N	
County:	Sedgwick
Water Source:	South Platte River
Drainage Basin:	South Platte River
Division:	1      District: 64

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 has structural damage that will cause failure. The District wishes to replace the existing structure with a new structure located just upstream, prior to the 2017 reservoir fill season beginning in November 2016. The purpose of this project is to provide a reliable measurement structure to accurately measure the flow of the Harmony No. 1 Canal during the diversion of water for the various water rights being used by the Julesburg Irrigation District.



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

**Borrower:** Lake Durango Water Authority

**County:** La Plata

**Project Name:** Source Water Supply Project

**Project Type:** Water Rights  
Purchase/Infrastructure

**Drainage Basin:** San Juan / Dolores

**Water Source:** ALP

**Total Project Cost:** \$3,000,000

**Funding Source:** Construction Fund and  
WSRA Statewide Funds

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

**Average Delivery:** 309 AF

**CWCB Loan:** \$2,525,000 (w/ 1% service fee)

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

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

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



0 0.4 0.8 1.6 2.4  
Miles

2009 NAIP aerial imagery provided by  
the US Farm Service Agency



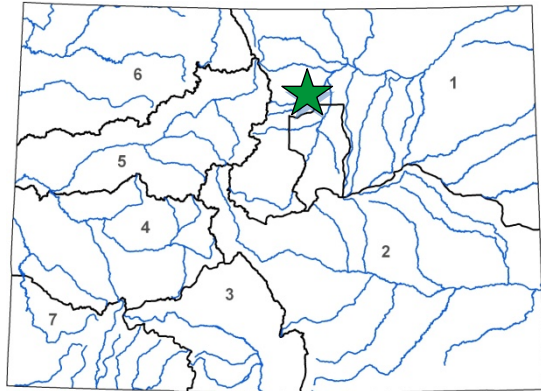


## Lake McIntosh Outlet Works Repair

Lake McIntosh Reservoir Company

January 2016 Board Meeting

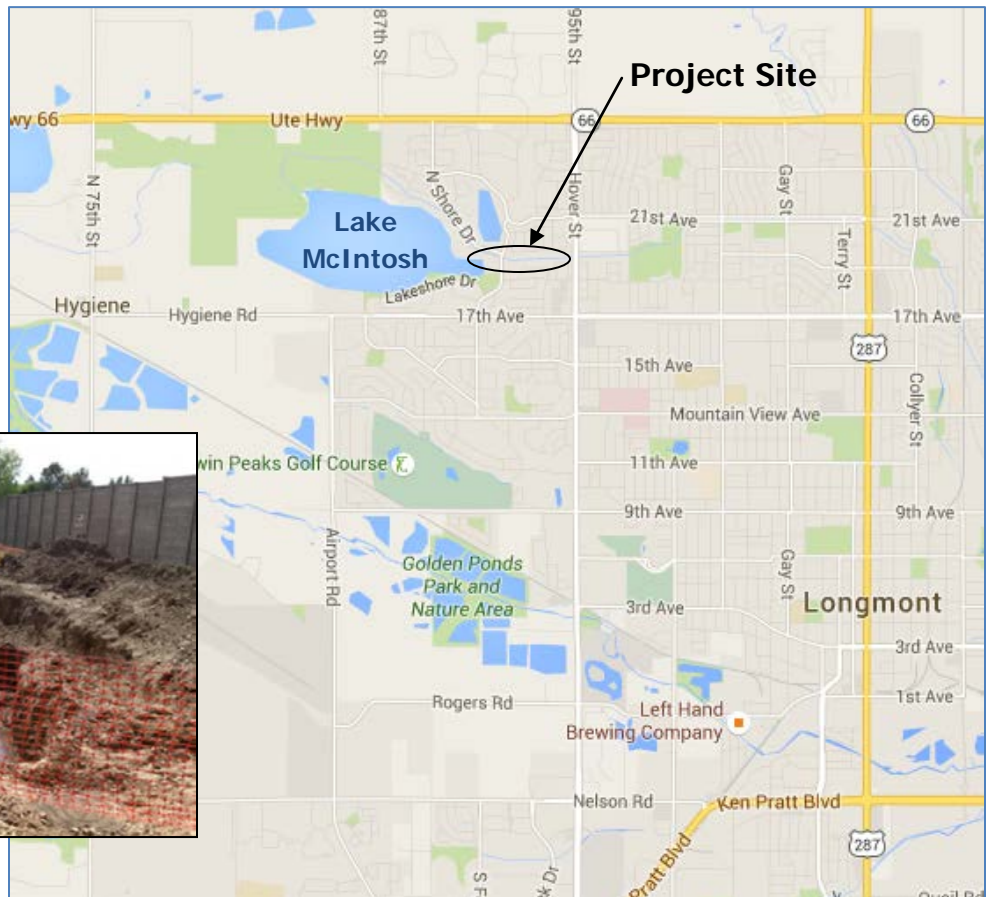
L O A N   D E T A I L S	
Project Cost:	\$1,900,000
CWCB Loan (with Service Fee):	\$1,727,100
Loan Term and Interest Rate:	30 Years @ 2.70%
Funding Source:	Construction Fund
B O R R O W E R   T Y P E	
Agriculture	Municipal
28%	0 % Low - 61% Mid - 9% High
	Commercial
	2 %
P R O J E C T   D E T A I L S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



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

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

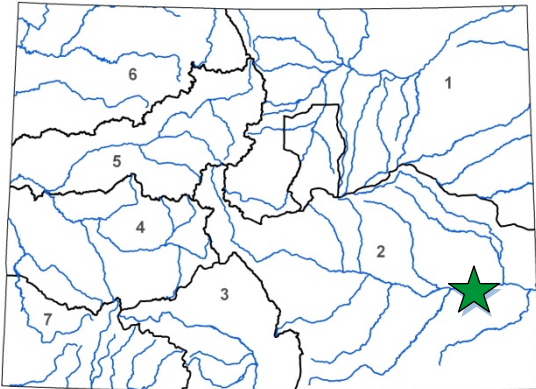
The reservoir was constructed in 1890 and enlarged in 1902. In May 2015, a section of the reservoir's outlet pipe collapsed, creating a sinkhole which deposited soil in the outlet works pipes downstream for approximately 300 feet. This has rendered the reservoir's outlet works unusable and thus water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



May 2015 Sinkhole



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



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

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



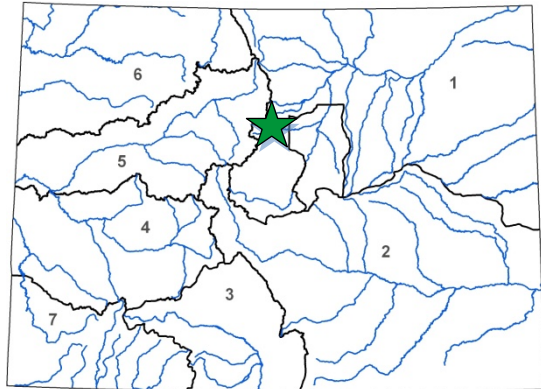
Water Project Loan Program - Project Data Sheet



# Upper Beaver Brook Dam Spillway

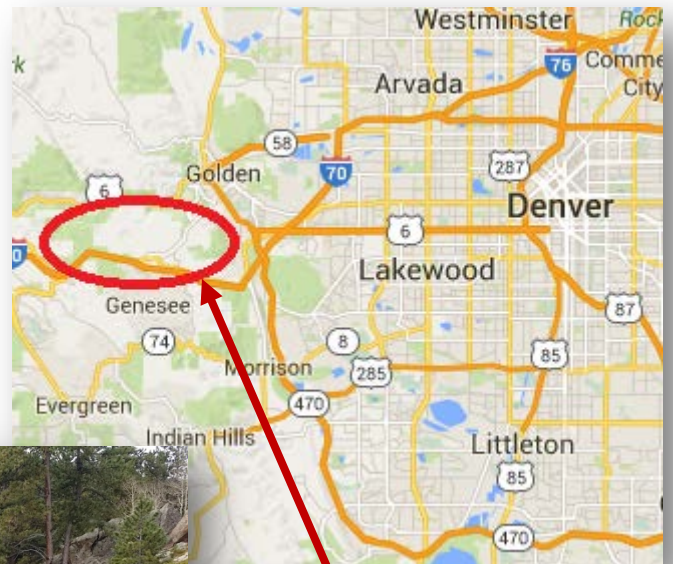
Lookout Mountain Water District  
November 2015 Board Meeting

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



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

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



Service Area



## Water Project Loan Program - Project Data

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

**Project Name:** Augmentation Water Rights  
Acquisition

**Drainage Basin:** Rio Grande

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

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

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

**County:** Rio Grande

**Project Type:** Water Rights Purchase

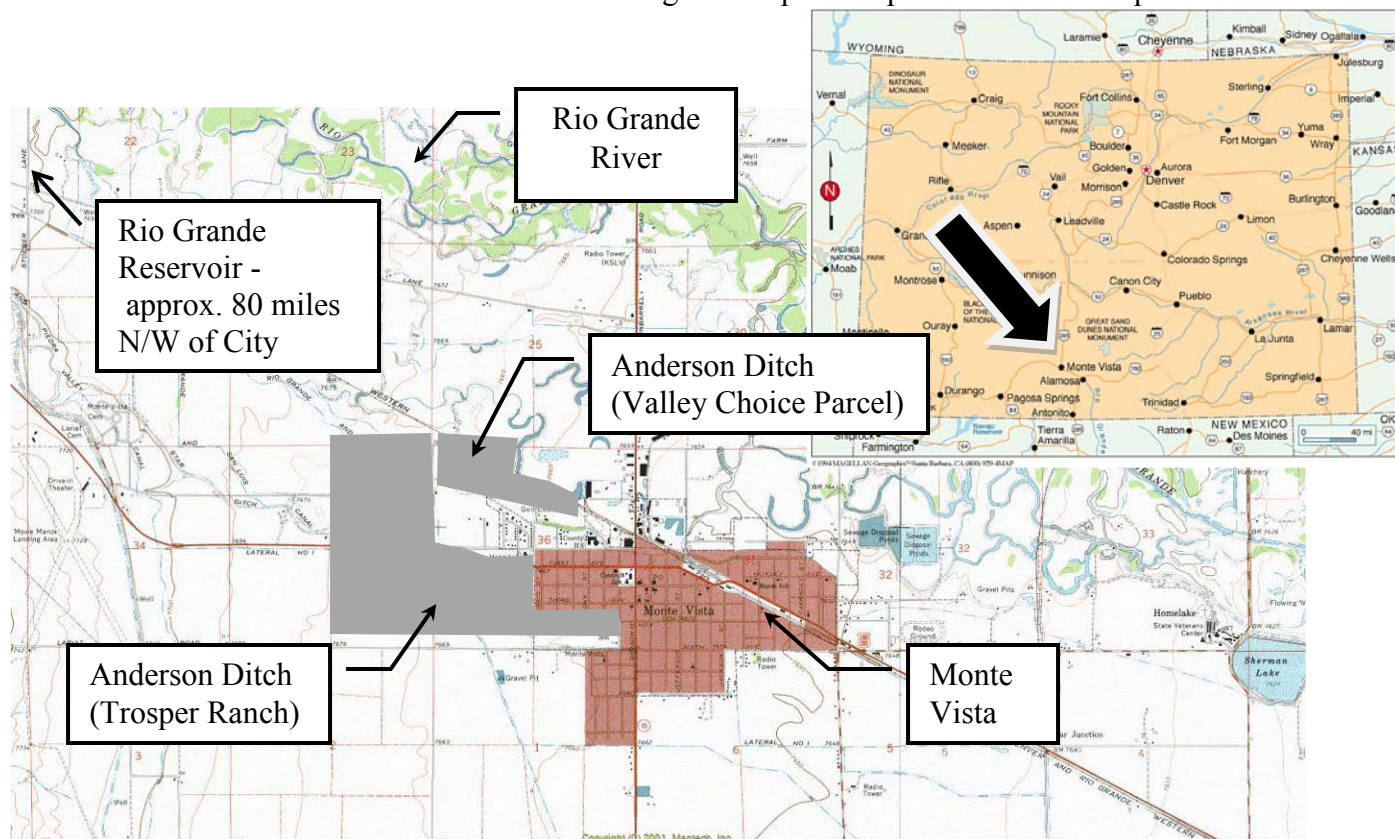
**Water Source:** Rio Grande River

**Funding Source:** Construction Fund

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

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

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



Location Map

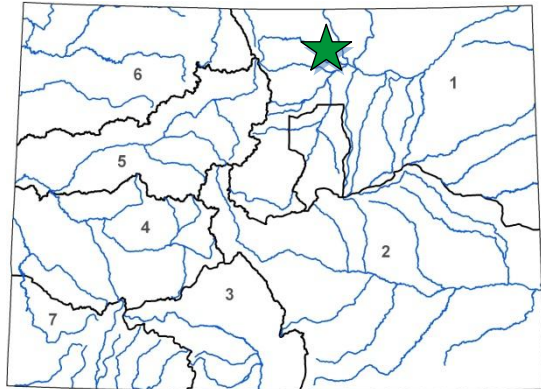


# Reservoir No. 4 Rehabilitation

North Poudre Irrigation Company  
January 2016 Board Meeting

(Loan Increase)

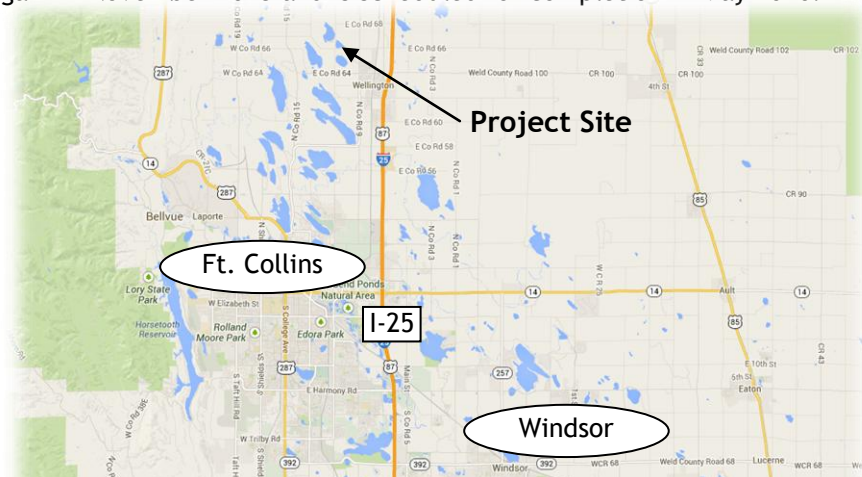
L O A N   D E T A I L S	
Project Cost:	\$2,490,000
CWCB Loan (with Service Fee):	\$2,263,410
Loan Term and Interest Rate:	30 Years @ 2.35%
Funding Source:	Construction Fund
B O R R O W E R   T Y P E	
Agriculture	Municipal      Commercial
37%	1% Low - 57% Mid - 4% High      <1%
P R O J E C T   D E T A I L S	
Project Type:	Reservoir Rehabilitation
Average Annual Delivery:	44,400 AF
Storage Preserved:	1,781 AF



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

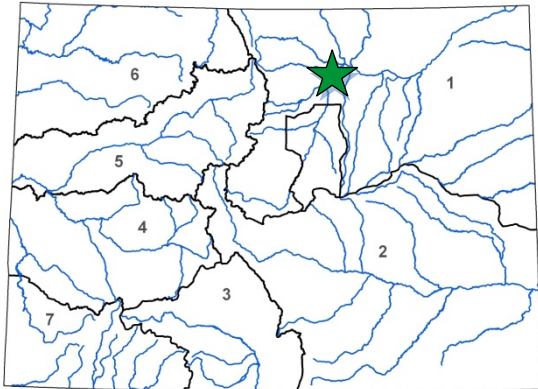
The North Poudre Irrigation Company is a mutual ditch company established in 1901. The Company's office is located in Wellington with a service area of approximately 28,000 irrigated acres of farm land.

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 will modify the dam including its slope, outlet works, drains, spillway, and measurement structure and will also provide a new parking area and floodplain improvements. The purpose of the project is to lift the State Engineer's storage restriction on the reservoir and dam and improve the overall reservoir facility. Project costs have increased from the feasibility cost estimate as a result of design changes and bids received in September 2015. Reservoir construction began in November 2015 and is scheduled for completion in May 2016.





L O A N   D E T A I L S	
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
B O R R O W E R   T Y P E	
Agriculture	Municipal      Commercial
26%	0% Low - 73% Mid - 0% High      1%
P R O J E C T   D E T A I L S	
Project Type:	Ditch Rehabilitation
Average Annual Delivery:	44,400 AF



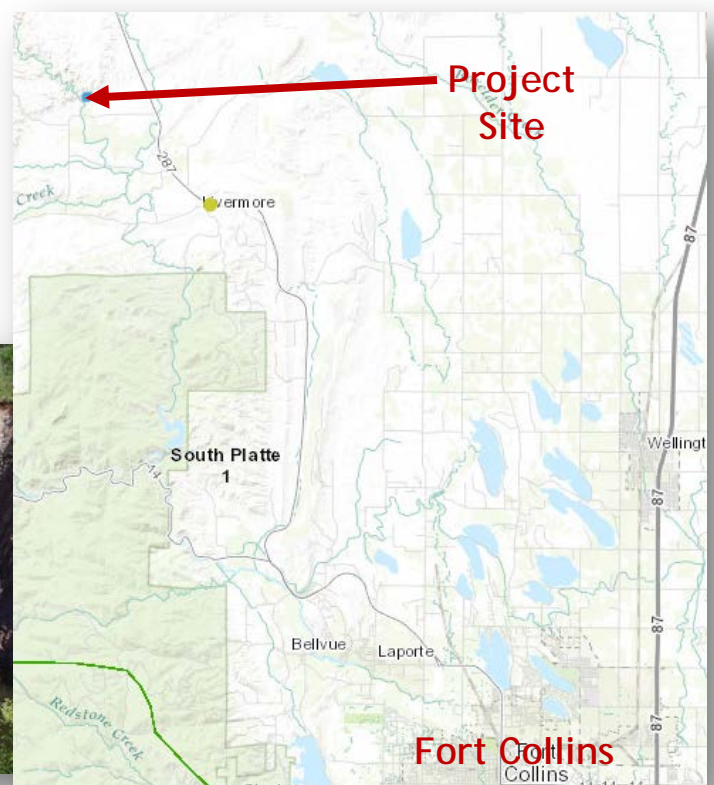
L O C A T I O N	
County:	Larimer
Water Source:	Cache la Poudre River
Drainage Basin:	South Platte River
Division:	1      District: 3

The North Poudre Irrigation Company 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 discharged 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.





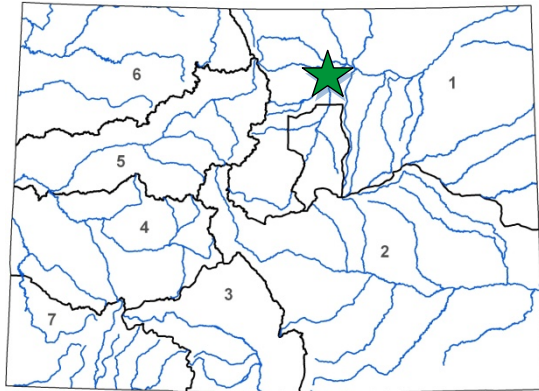
## Dam Outlet Works Rehabilitation

Oligarchy Irrigation Company

May 2016 Board Meeting

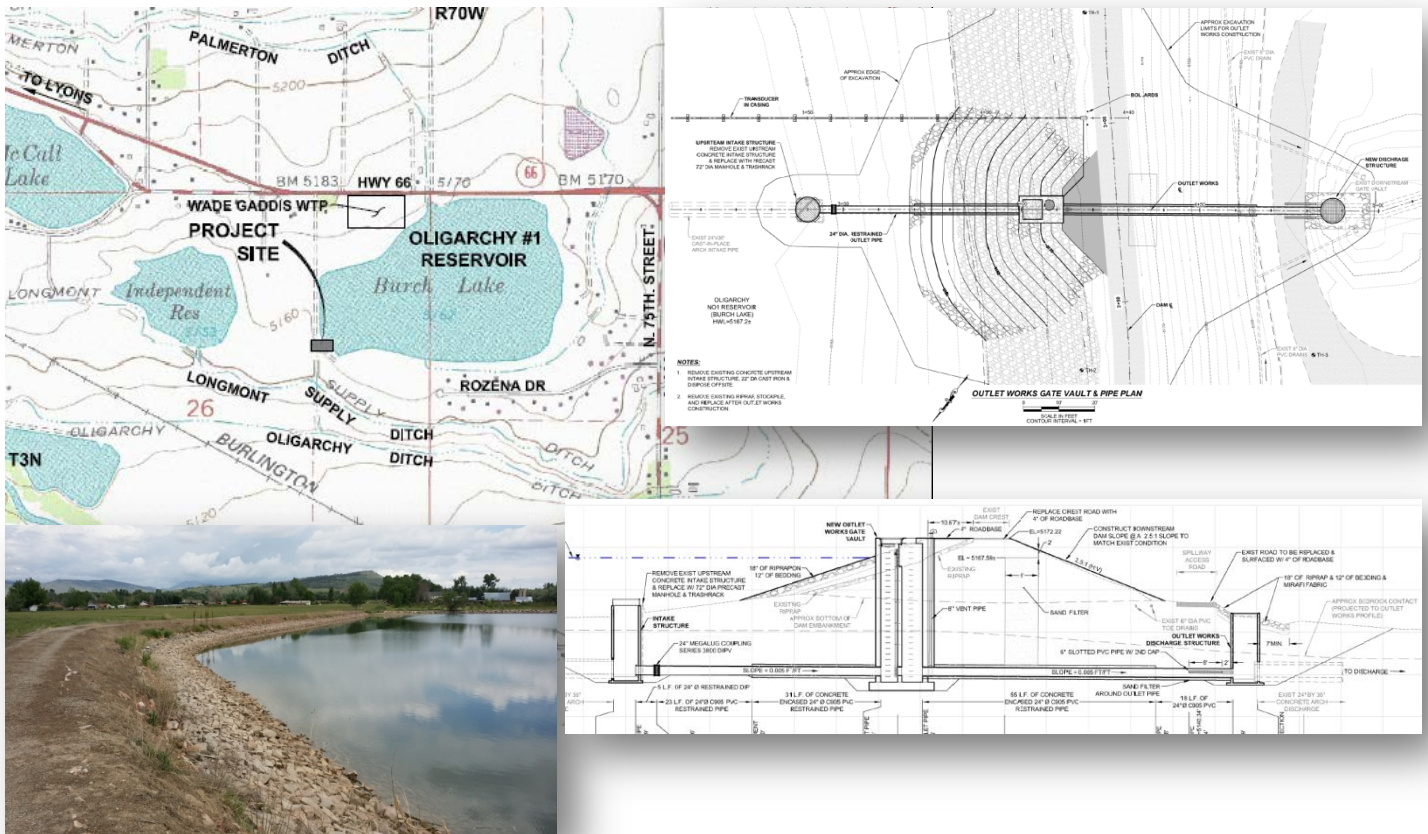
(Loan Increase)

LOAN DETAILS	
Project Cost:	\$992,200
CWCB Loan (with Service Fee):	\$901,930
Loan Term and Interest Rate:	30 Years @ 2.40%
Funding Source:	Construction Fund
BORROWER TYPE	
Agriculture	Municipal (TBD)
25.4%	0% Low - 74.6% Mid - 0% High
Commercial	0%
PROJECT DETAILS	
Project Type:	Dam Rehabilitation
Average Annual Delivery:	7,966 AF
Water Supply Storage Preserved:	1,737 AF



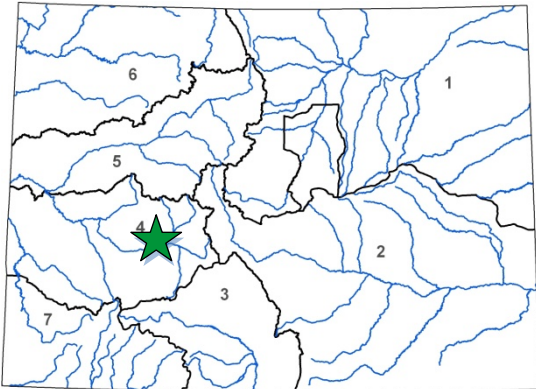
LOCATION	
County:	Boulder
Water Source:	St Vrain Creek
Drainage Basin:	South Platte
Division:	1
District:	5

The Oligarchy Irrigation Company owns and operates the Oligarchy Res No. 1 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 Office of the State Engineer (SEO). The purpose of the project is to avoid a SEO storage restriction by rehabilitate the reservoir's outlet works. Work is to include a new unpressurized outlet pipe, an upstream guard gate, and a way to inspect the outlet works system. Bids were received in April 2016 and were higher than the original construction estimate. Construction is expected to start in summer 2016 and be complete by fall 2016.



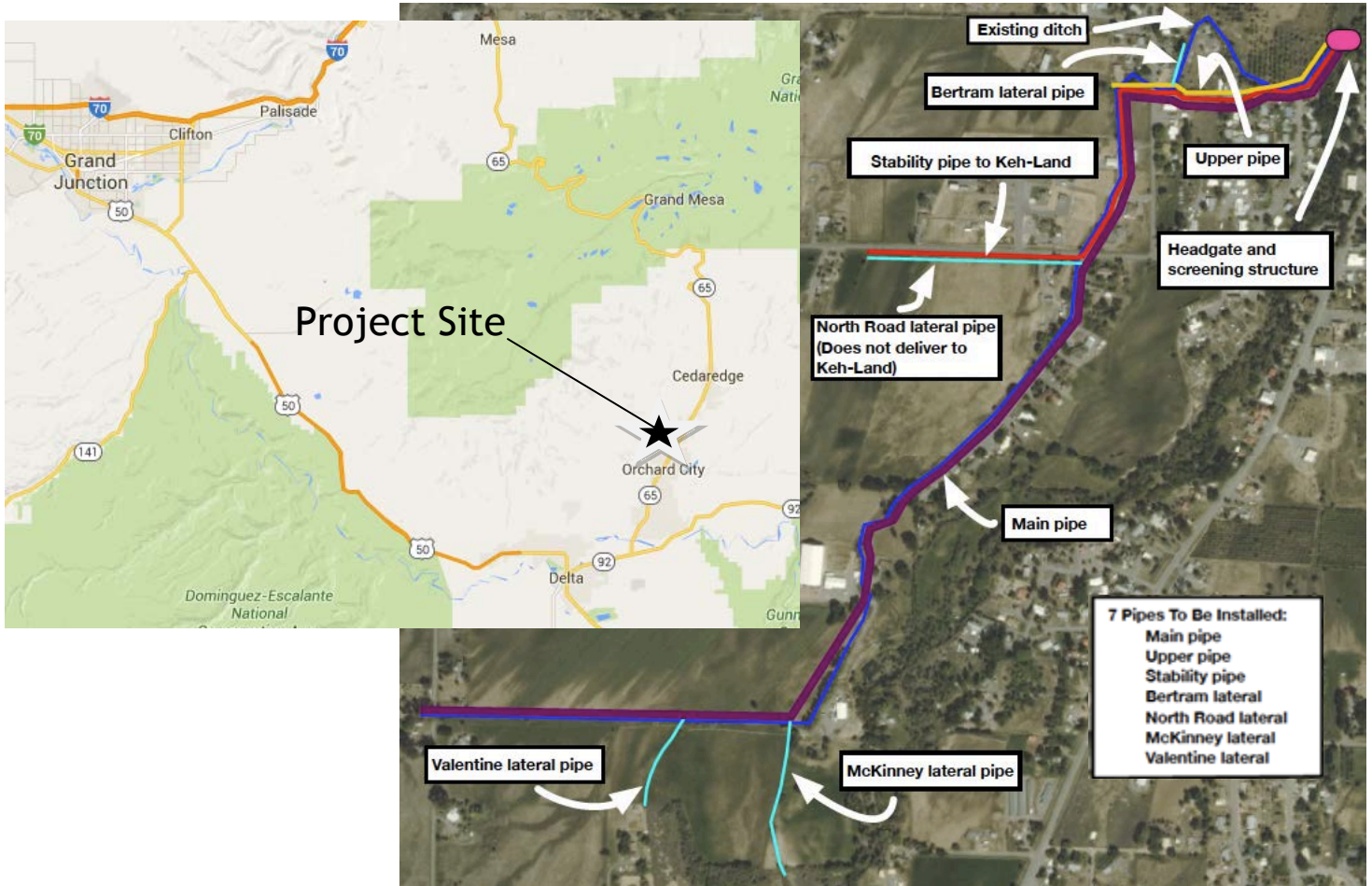


L O A N   D E T A I L S	
Project Cost:	\$1,430,720
CWCB Loan (with Service Fee):	\$151,500
Loan Term and Interest Rate:	30-Years @ 1.95%
Funding Source:	Severance Tax Perpetual Base Fund
B O R R O W E R   T Y P E	
Agriculture	Municipal      Commercial
86%	14% Low - 0% Mid - 0% High      0%
P R O J E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



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

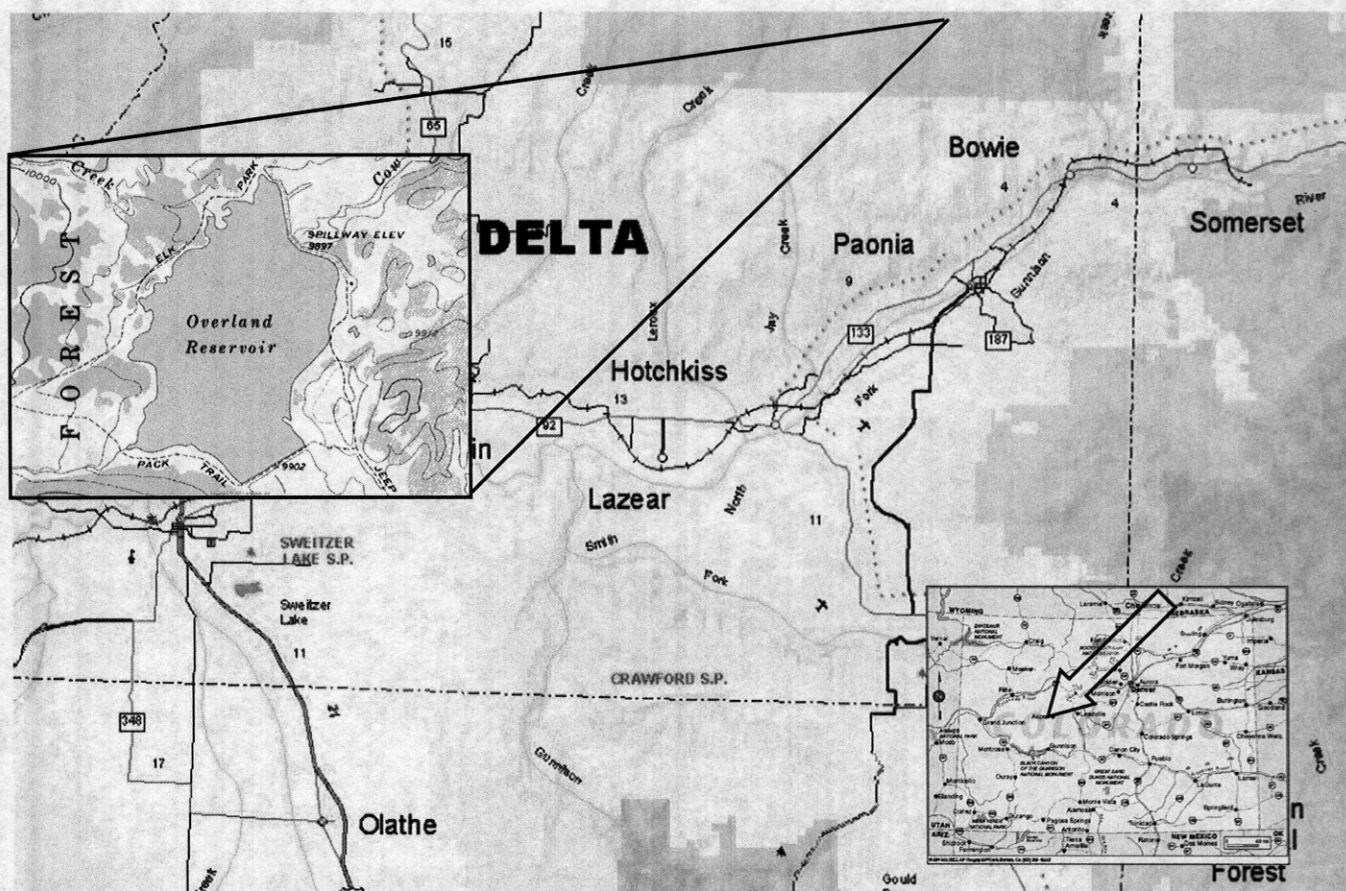
The Company serves approximately 350 irrigated acres in Delta County, approximately 10 miles north of the town of Delta, diverting all its supplies via a concrete diversion structure on Surface Creek. The Company's ditch was constructed in the late 1800s by a group of early settlers cooperating to get water to their new farms, and has been in continuous operation since that time. The proposed project will pipe the 1.6 mile long main earthen canal and portions of 4 laterals. The project will be done in conjunction with the U.S. Bureau of Reclamation's Colorado River Basin Salinity Control Program. Approximately 90% of project costs will be provided by a grant from the the U.S. Bureau of Reclamation. Construction is expected to begin in mid-2016 with completion by mid-2017.



## CWCB Construction Loan Program Project Data Sheet

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

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



LOCATION MAP

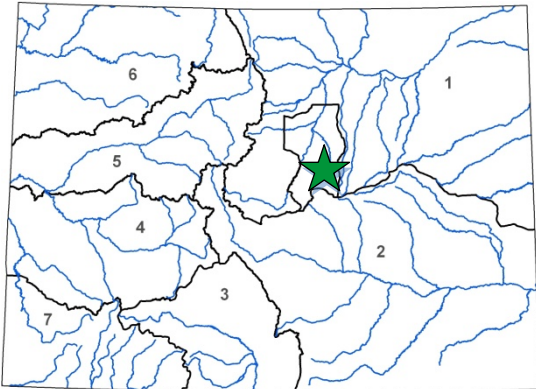


# Raw Water Supply Project

## Plum Valley Heights Subdistrict of the Roxborough Water and Sanitation District

May 2015 Board Meeting

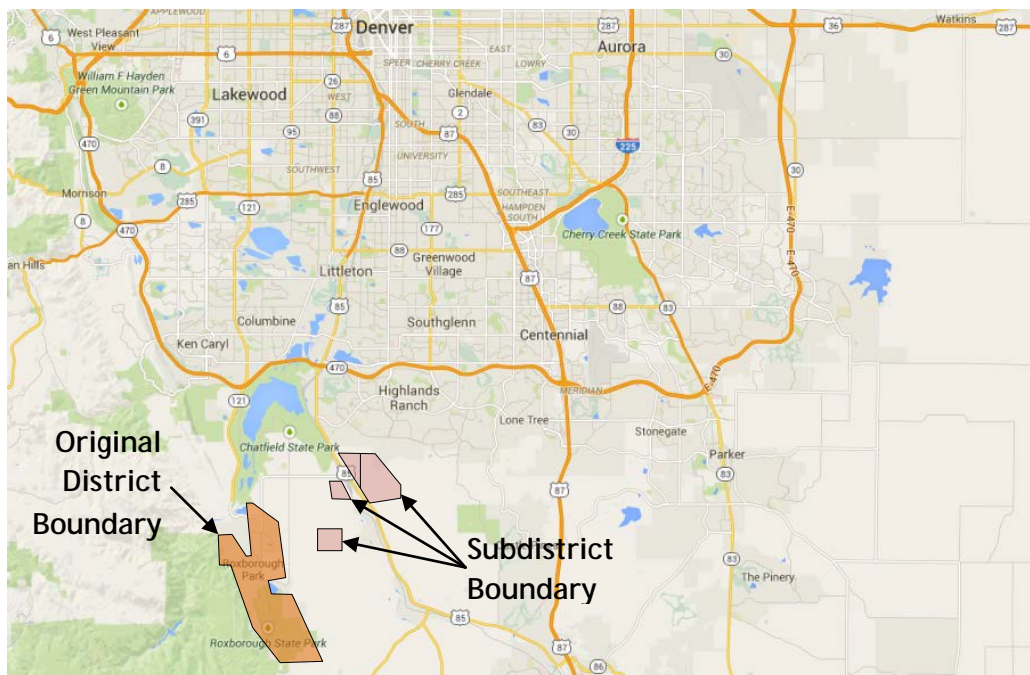
L O A N   D E T A I L S	
Project Cost:	\$2,473,605
CWCB Loan (with Service Fee):	\$2,248,260
Loan Term and Interest Rate:	30 Years @ 3.05%
Funding Source:	Construction Fund
B O R R O W E R   T Y P E	
Agriculture	Municipal
0%	0% Low - 0% Mid - 100% High
Commercial	0%
P R O J E C T   D E T A I L S	
Project Type:	Water Rights Purchase
Average Annual Delivery:	150 AF



L O C A T I O N	
County:	Douglas
Water Source:	South Platte River
Drainage Basin:	South Platte
Division:	1
District:	8

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 WSR grant, CWRPDA loan, and Douglas County. The total project cost (including infrastructure) is approximately \$14.9M. The CWCB loan will finance 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 has 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.



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

**C150400**

**Borrower:** The Prairie Ditch Company

**County:** Rio Grande

**Project Name:** Plaza Project Phase 3:  
Prairie Ditch Implementation Project

**Project Type:** Ditch Rehabilitation

**Drainage Basin/ District:** Rio Grande / 20

**Water Source:** Rio Grande River

**Total Project Cost:** \$975,000

**Funding Source:** Construction Fund,  
WSRA Grants

**Type of Borrower:** Agricultural

**Average Annual Diversion:** 16,000 AF

**CWCB Loan:** \$131,300  
(with 1% service fee)

**Interest Rate:** 1.25% **Term:** 10-years

The Prairie Ditch Company is a Mutual Ditch Company formed in 1887. The Prairie Ditch diversion structure and headgate is located seven miles northwest of Monte Vista, Colorado on the Rio Grande River and has a service area of approximately 23,000 acres. The diversion and headgates were constructed in the early 1900s and was most recently reworked in 1962. They are now deteriorating, presenting a growing concern the diversion structure may soon completely wash out. Both the diversion and headgate were highlighted as river rehabilitation priorities in a 2001 study titled "Rio Grande Headwaters Restoration Project." The study analyzed the condition of riparian habitats and structures along a 91-mile reach of the Rio Grande from the town of South Fork to Alamosa and triggered a more localized effort known as the Plaza Project.

The Plaza Project is a multi-phased project intended to improve the health and function of the Rio Grande River in the Sevenmile Plaza area through stream bank restoration, wetland restoration, and the replacement of aging and inefficient diversion and headgate structures. Phase 1 was a planning phase and identified several diversion and headgate structures in need of replacement. Phase 2 (McDonald Ditch Implementation Project) was the Plaza Project's first implementation project and was funded in part with a CWCB Loan and WSRA grant. Phase 3 is the second implementation project and the subject of this loan request. Project Tasks include the final engineering design and construction of the new Prairie Ditch diversion and headgate, as well as stream bank stabilization, monitoring, outreach, and education. Construction is expected to occur fall 2014.



## Water Project Loan Program - Project Data

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

**County:** Chaffee

**Project Name:** Phased Canal Improvements

**Project Type:** Ditch Rehabilitation

**Drainage Basin:** Arkansas

**Water Source:** Arkansas River

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

**Funding Source:** Construction Fund

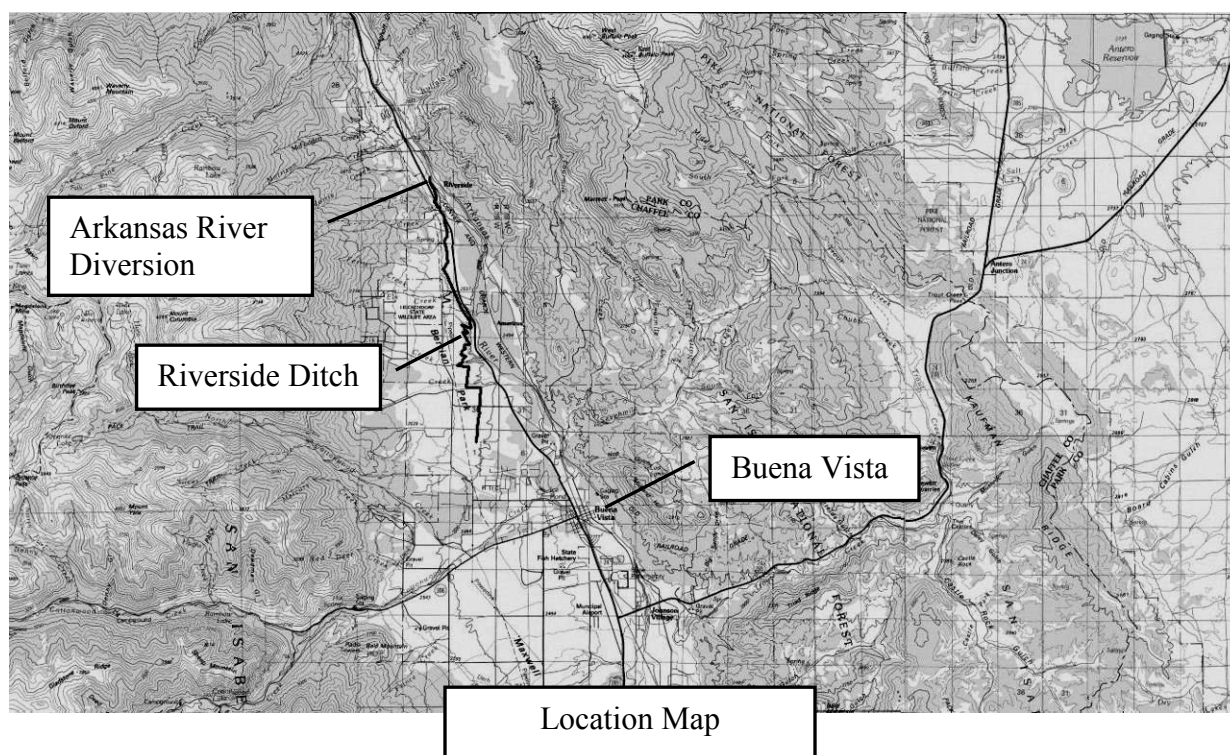
**Type of Borrower:** Agricultural

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

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

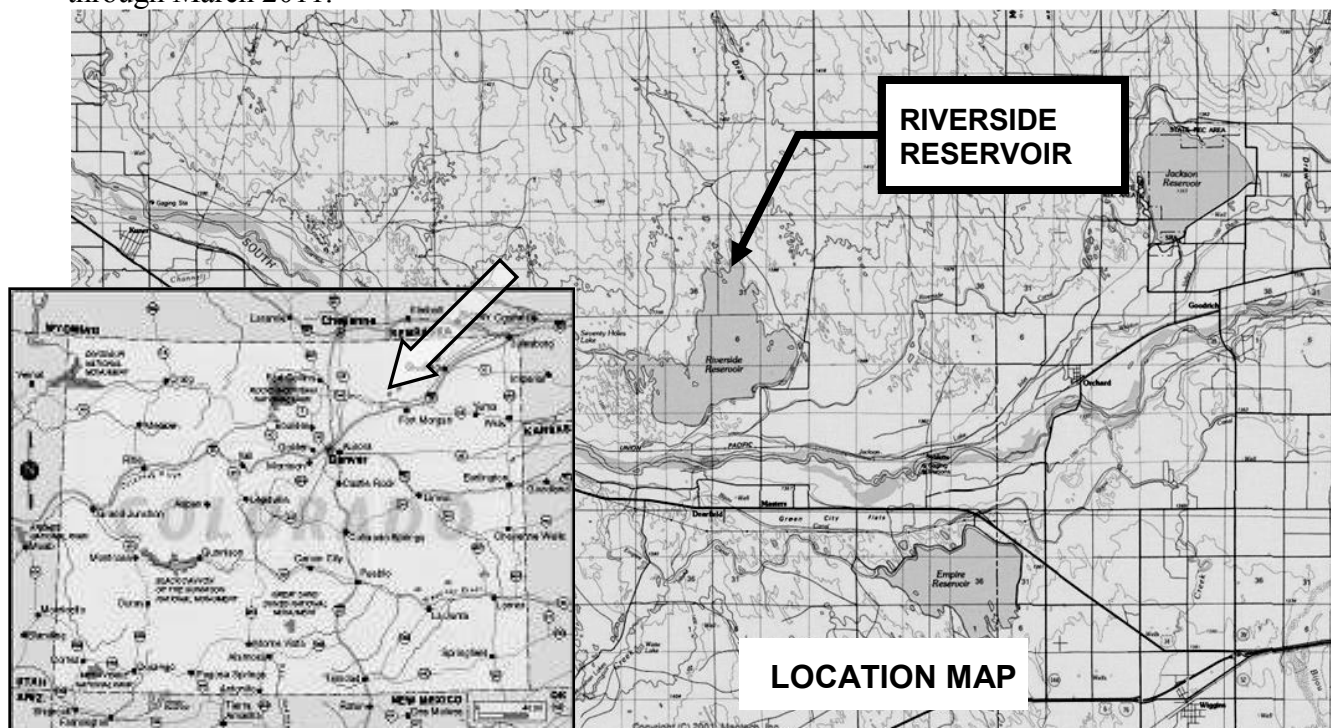
**Interest Rate:** 2.75% **Term:** 30 years

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



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

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



## Water Project Loan Program - Project Data Sheet

**Borrower:** San Luis Valley Water Conservancy District      **County:** Alamosa

**Project Name:** Anaconda Ditch Water Right Acquisition      **Project Type:** Water Rights

**Drainage Basin / District:** Rio Grande / 20

**Water Source:** Rio Grande River

**Total Project Cost:** \$923,000

**Funding Sources:** Construction Fund

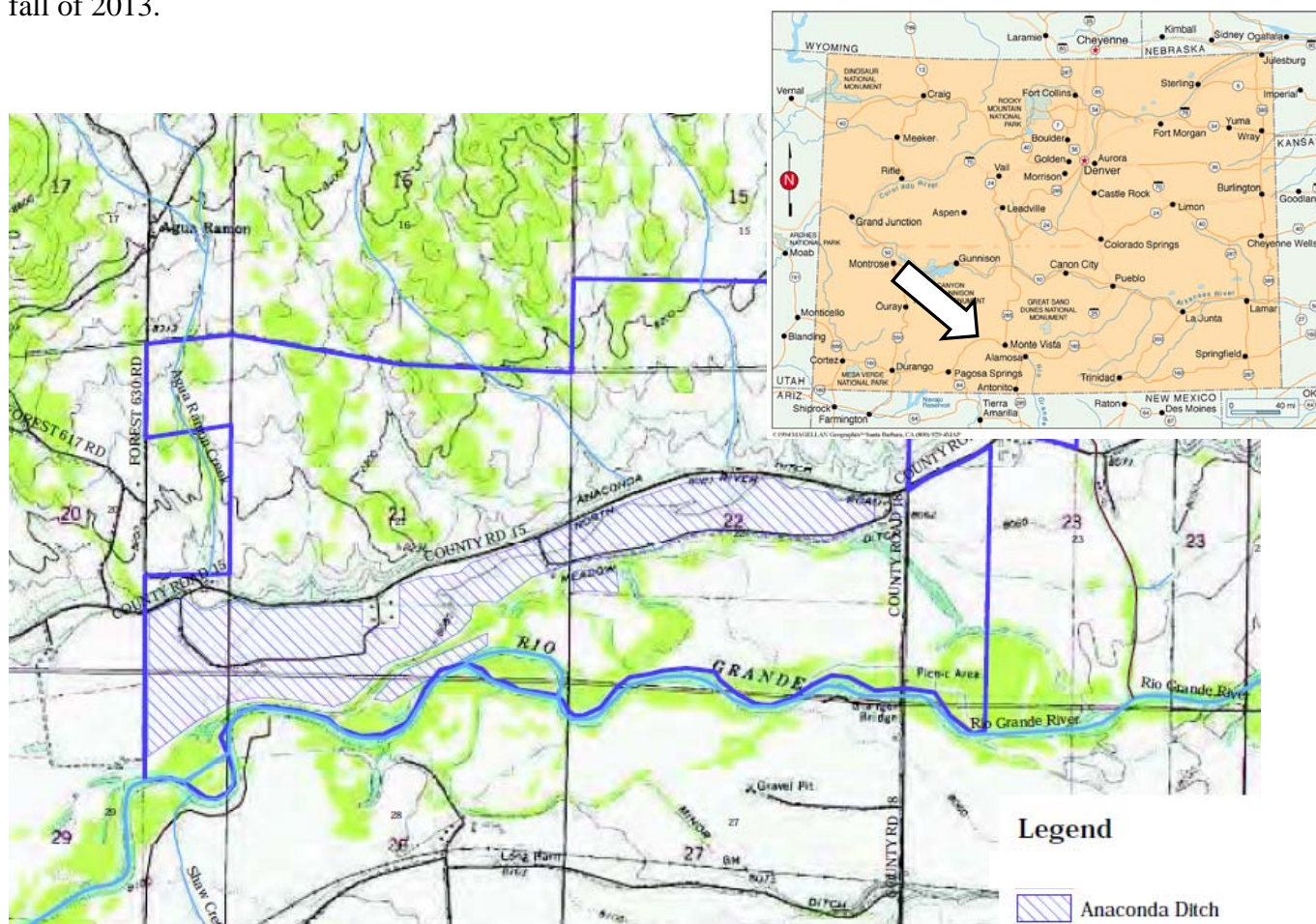
**Type of Borrower:** Municipal Low Income

**Average Delivery:** 386 acre-feet

**CWCB Loan:** \$839,000 (Including 1% fee)

**Interest Rate:** 2.5%      **Term:** 30 years

The San Luis Valley Water Conservancy District (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. The District intends to acquire additional water rights to add to its existing program, including the subject of this loan request, the Anaconda Ditch water rights. The District is purchasing a 58% interest in the ditch providing an estimated 260 acre-feet. The purchase will be finalized once the water rights have been through water court. The decree is expected in the fall of 2013.



## CWCB Construction Loan Program Project Data Sheet

**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:** \$2,032,000

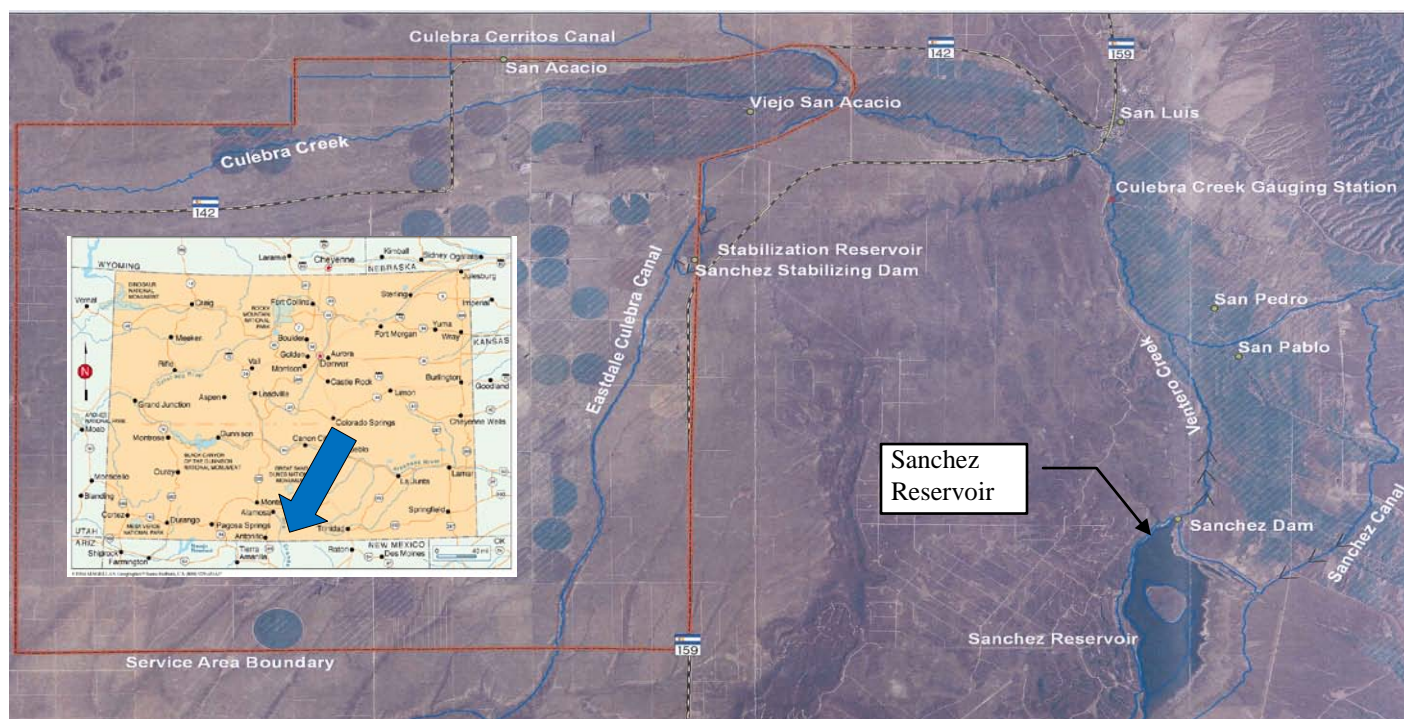
**Funding Sources:** Construction Fund &  
WSRA (Basin & Statewide funds)

**Type of Borrower:** Agricultural

**Average Diversions:** 15,000 AF

**Loan Amount:** \$1,128,776 (Including 1% fee)    **Interest Rate:** 1.75%    **Term:** 30 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; lining the existing outlet conduit with shotcrete; 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 between January 2013 and January 2014; bid the project in May of 2014; award the bid by June of 2014; start construction in September of 2014; complete construction by March of 2015.



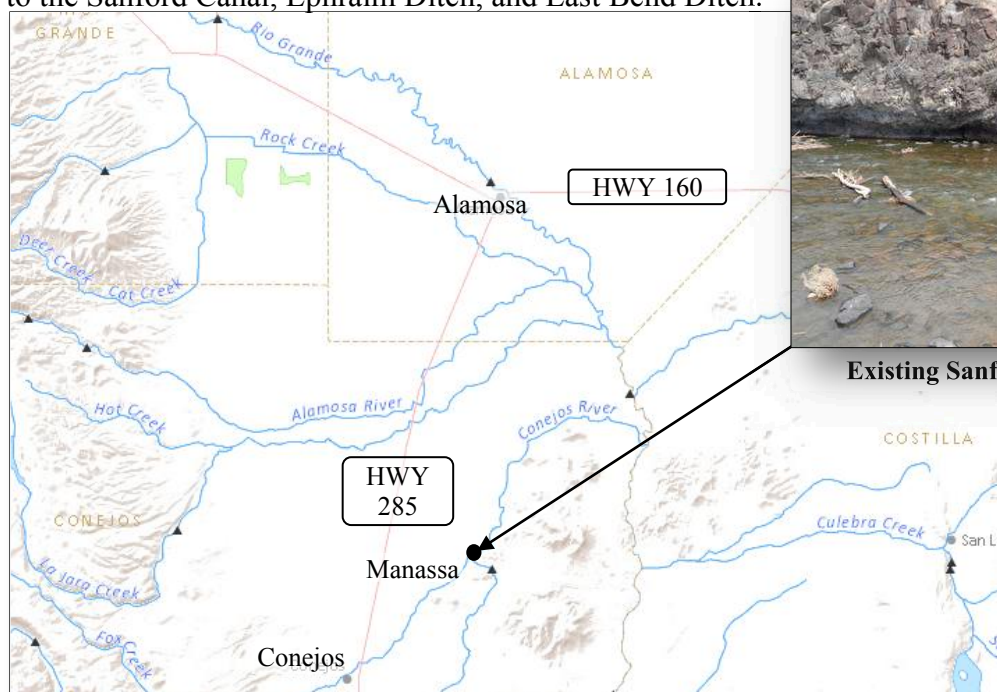
CWCW Water Project Loan Program  
Project Data Sheet

C150401

**Borrower:** The Sanford Canal Company**County:** Rio Grande**Project Name:** Sanford Diversion and  
Headgate Rehabilitation**Project Type:** Ditch Rehabilitation**Drainage Basin/ District:** Rio Grande / 22**Water Source:** Conejos River**Total Project Cost:** \$213,000**Funding Source:** Construction Fund,  
WSRA Grants**Type of Borrower:** Agricultural**Average Annual Diversion:** 4,000 AF**CWCW Loan:** \$101,000  
(with 1% service fee)**Interest Rate:** 1.75% **Term:** 30-years

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 is 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 has been washed away over time, contributing to decades of limited diversion to irrigators and potential over payment to the Compact. Currently irrigators divert their water right by piling debris such as tree trunks or cinderblocks to act as the diversion dam. This Project will remove and replace the diversion and headgate structures and install automated headgates and four gauging stations. Construction is expected to start by September 2014.

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 will extend this whole river strategy to the Confluence, specifically to the Sanford Canal, Ephraim Ditch, and East Bend Ditch.



Existing Sanford Ditch Diversion

## 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

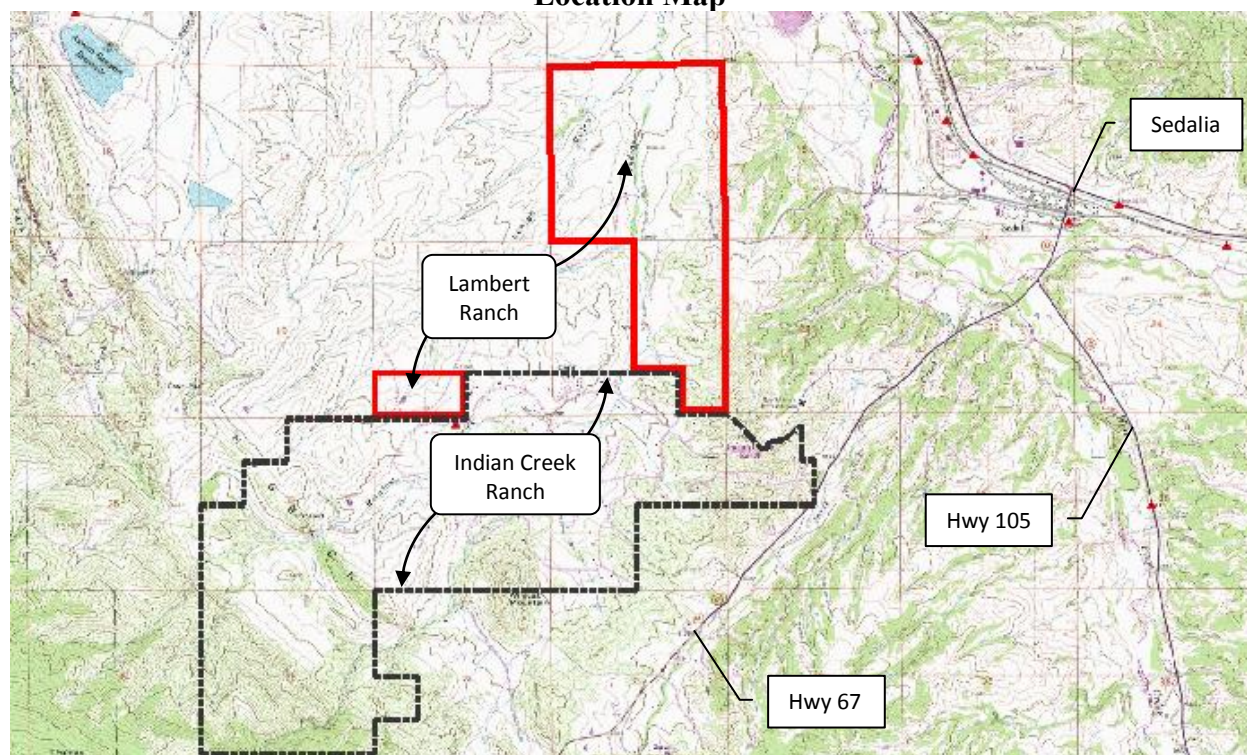
**Avg. Annual Delivery:** 55 AF

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

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

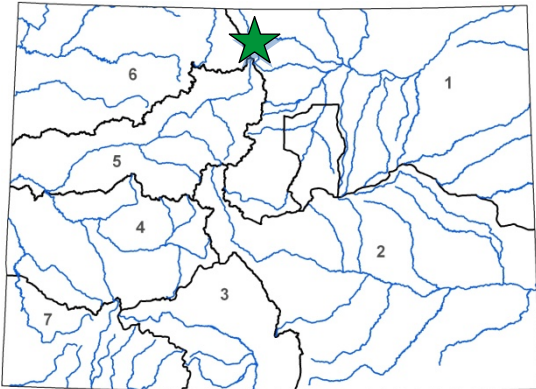
The Thunderbird Water and Sanitation District (District) provides potable water service for the Indian Creek Ranch subdivision, consisting of 2,420 acres and 175 customers. The District is applying for a loan to purchase 895.9 AF of Denver Basin decreed ground water rights that underlie the property 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**





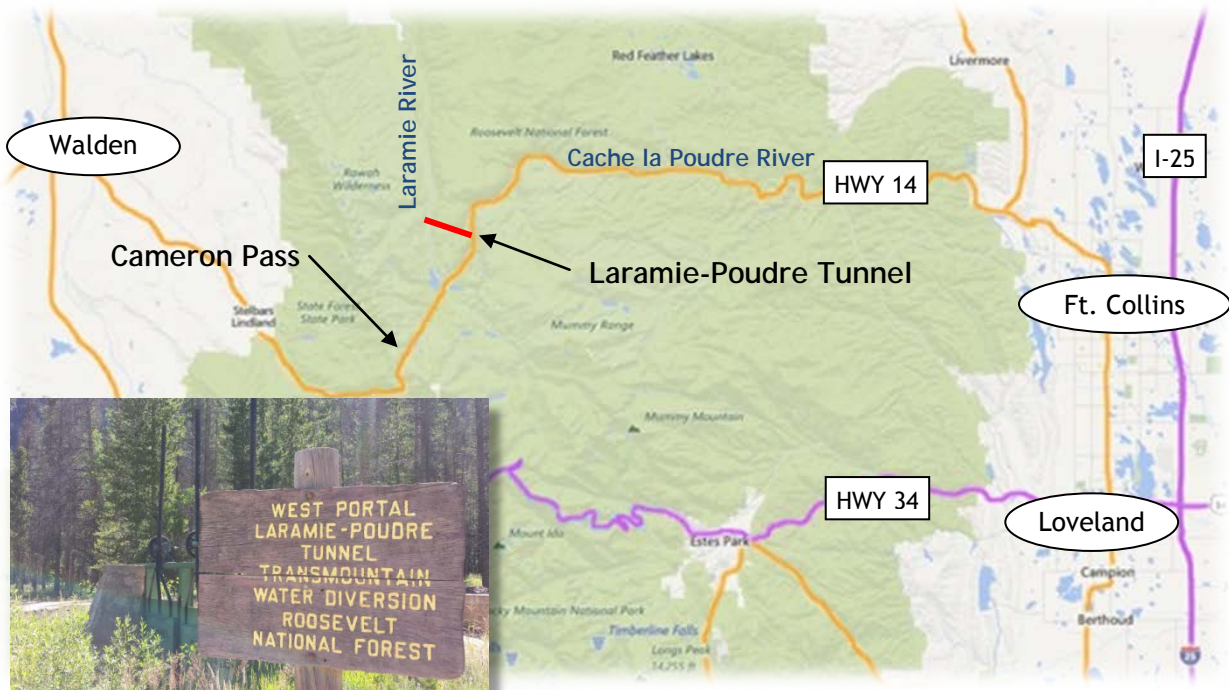
L O A N   D E T A I L S	
Project Cost:	\$1,225,000
CWCB Loan (with Service Fee):	\$1,111,000
Loan Term and Interest Rate:	30 Years @ 2.55%
Funding Source:	Construction Fund
B O R R O W E R   T Y P E	
Agriculture	Municipal      Commercial
24%	20% Low - 24% Mid - 32% High      0%
P R O J E C T   D E T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



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

The Tunnel Water Company operates the Laramie-Poudre Tunnel for the benefit of its two shareholders: Water Supply and Storage Company (WSSC) and Windsor Reservoir and Canal Company (WRCC). The tunnel diverts from the Laramie River, about 60 miles west of Fort Collins, and delivers water through a 2.15-mile tunnel to the Poudre River. WSSC delivers irrigation water to its shareholders, primarily for agricultural irrigation on approximately 40,000 acres lying below the Larimer County Canal. WRCC delivers water to its municipal shareholders via the Soldier Canyon and Bellvue Water Treatment Plants.

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



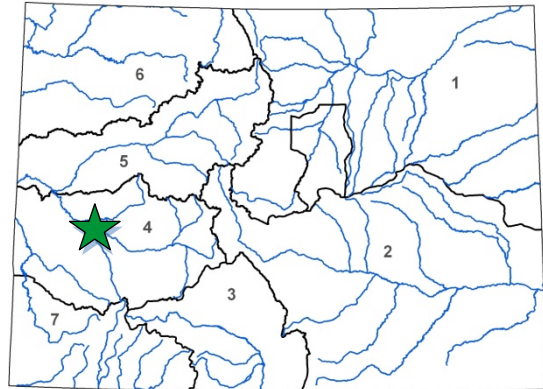


# Drop 5 Hydroelectric Project

## Uncompahgre Valley Water Users Association

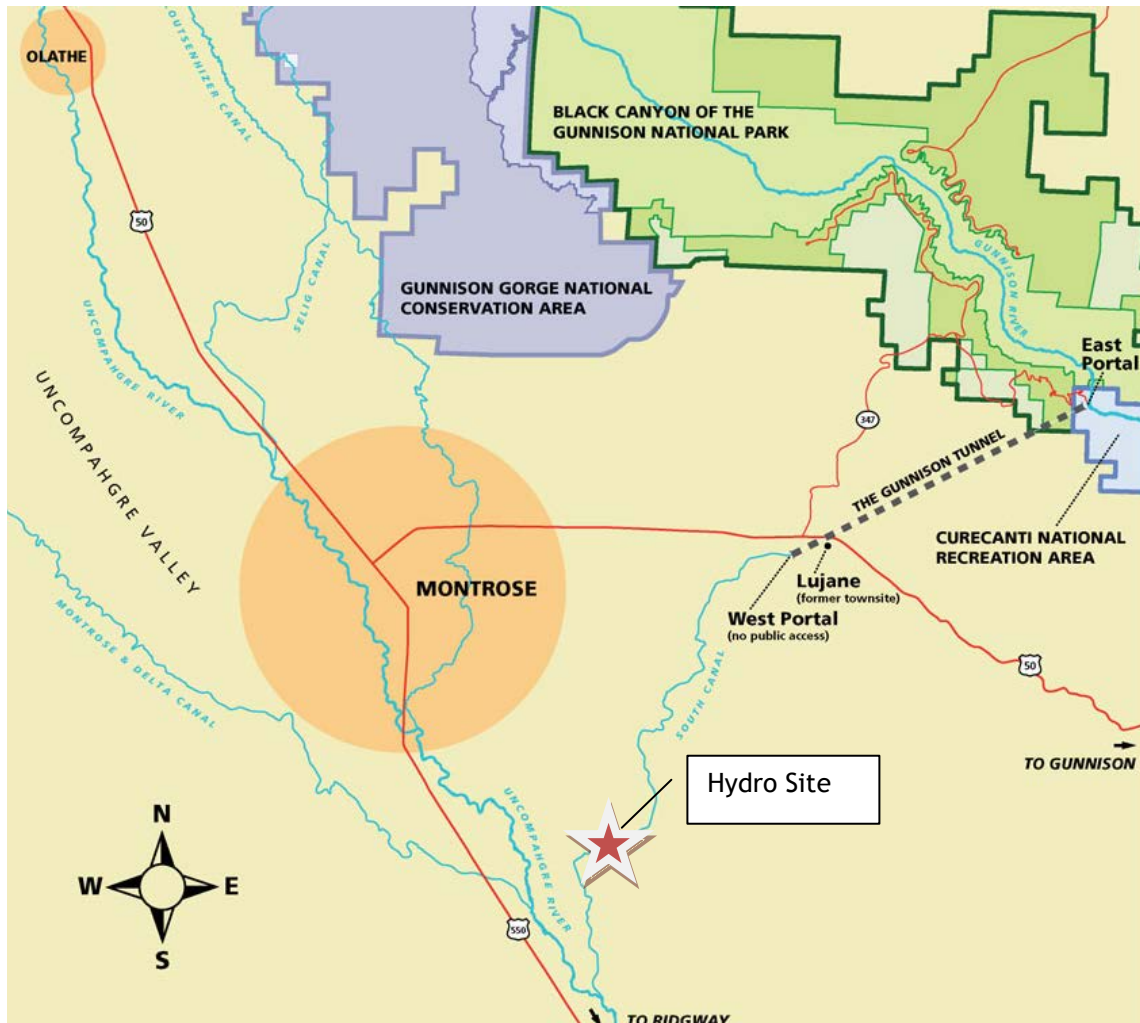
May 2015 Board Meeting

L O A N   D E T A I L S	
Project Cost:	\$7,700,000
CWCB Loan (with Service Fee):	\$6,999,300
Loan Term and Interest Rate:	20-years @ 2.0%
Funding Source:	Severence Tax Perpetual Base Fund
B O R R O W E R   T Y P E	
Agricultural	
P R O J E C T   D E T A I L S	
Project Type:	Hydroelectric
Average Annual Power Production	2.2 MW



L O C A T I O N	
County:	Montrose & Delta
Water Source:	Gunnison River
Drainage Basin:	Gunnison
Division:	4
District:	41

The Uncompahgre Valley Water Users Association provides irrigation water to over 85,000 acres in Montrose and Delta Counties. It intends to develop a 2.2 MW hydroelectric project known at the Drop 5 Hydroelectric Project alongside an existing canal. The existing canal will be used as a by-pass during non-power generation times. The power will be sold to Delta Montrose Electric Association and will be used locally. Power production is anticipated by summer of 2016.

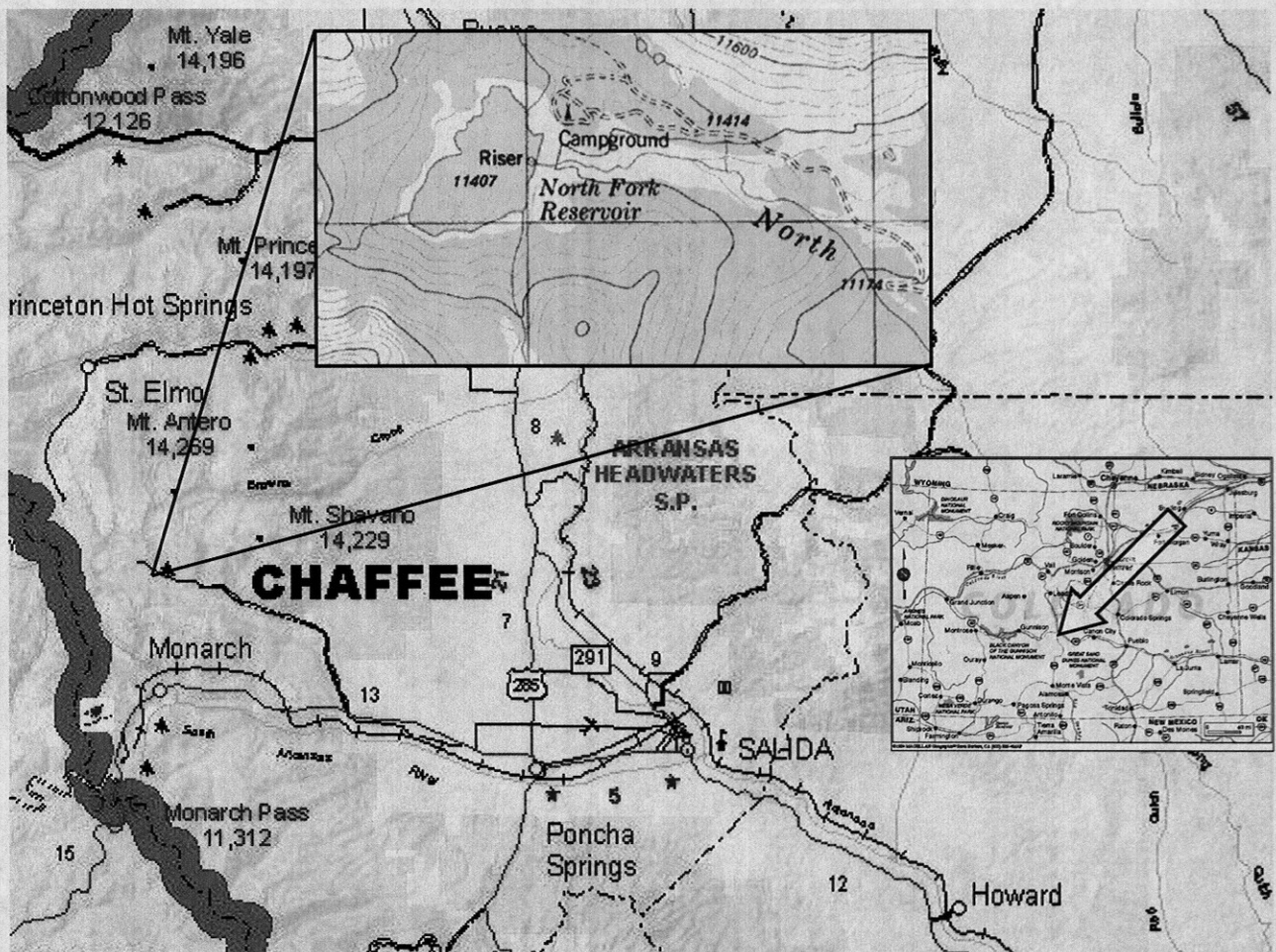


**CWCB Construction Loan Program  
PROJECT DATA SHEET**

Loan Program  
Attachment 3

<b>Borrower:</b> Upper Arkansas Water Conservancy District	<b>County:</b> Chaffee/Fremont/Custer
<b>Project Name:</b> North Fork Reservoir Rehab/Expansion	<b>Drainage Basin:</b> Arkansas River
<b>Project Type:</b> Dam and Spillway Modifications	<b>Water Source:</b> N. Fork of S. Arkansas
<b>Total Project Cost:</b> \$3,309,850	<b>Funding Sources:</b> CWCB & Company
<b>Loan Amount:</b> \$2,980,000	<b>Current Reservoir Storage:</b> 500 acre-feet
<b>Type of Borrower:</b> Low Municipal/Agricultural	<b>Interest Rate:</b> 3.0% <b>Term:</b> 30 years

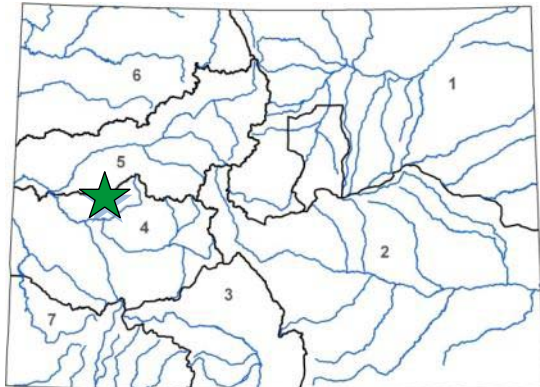
The Upper Arkansas Water Conservancy District is located in Salida, Colorado, and serves to protect and develop water supplies in Chaffee, Western Fremont and Custer Counties. The District has operated the North Fork Reservoir since 1979 for domestic, municipal, industrial, recreational and augmentation 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



L O A N   D E T A I L S		
Project Cost:		\$ 471,577
CWCB Loan (with Service Fee):		\$248,378
Loan Term and Interest Rate:		30 Years @ 2%
Funding Source:		
B O R R O W E R   T Y P E		
Agriculture	Municipal	Commercial
100%	0%	0%
P R O J E C T   D E T A I L S		
Project Type:		Outlet Rehabilitation
Average Annual Diversion:		604 AF



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

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 is now under a storage restriction order from the Office of the State Engineer due to deterioration of the outlet pipe. This project will include a low-level outlet sized to meet SEO release requirements, an outlet stilling basin structure downstream of the dam for energy dissipation, and an intake structure for a manually-operated slide gate and trash racks. Construction is scheduled for Spring of 2015.

West Reservoir  
No. 1

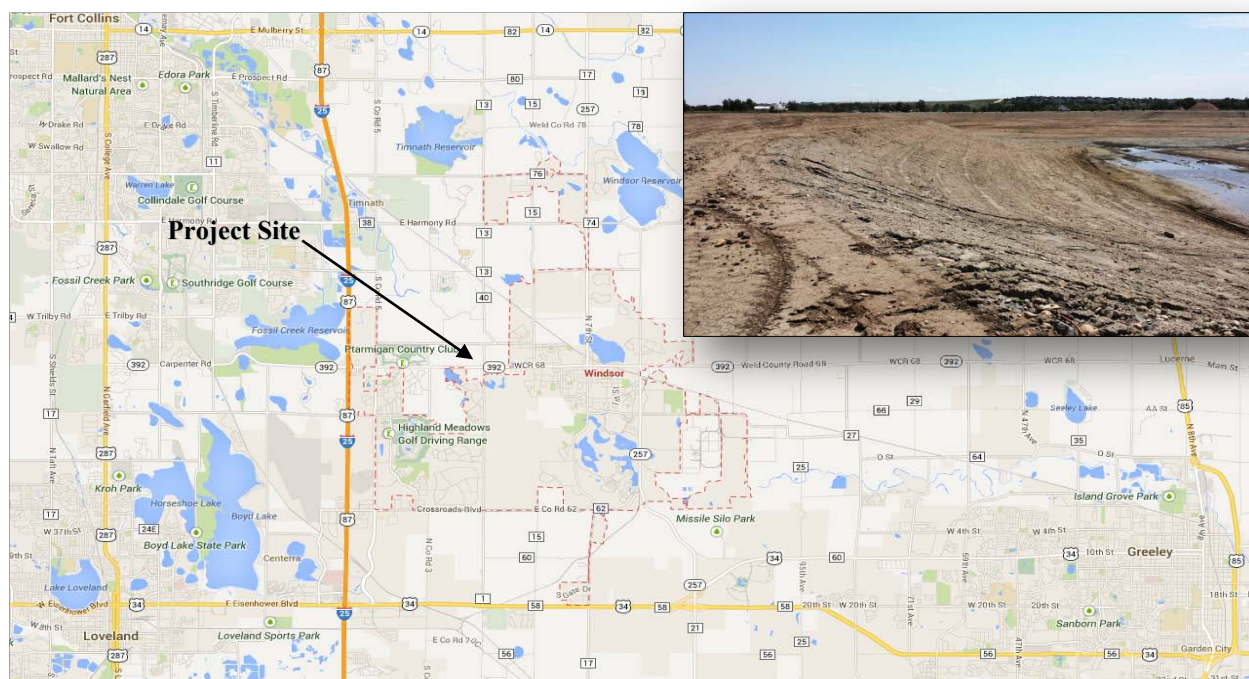


# **CWCB Water Project Loan Program Project Data Sheet**

**C150366**

<b>Borrower:</b> Town of Windsor Water Enterprise	<b>County:</b> Larimer/Weld
<b>Project Name:</b> Kyger Reservoir Project	<b>Project Type:</b> Reservoir Construction
<b>Drainage Basin/ District:</b> South Platte / 3	<b>Water Source:</b> Cache la Poudre River
<b>Total Project Cost:</b> \$6,300,000	<b>Funding Source:</b> Construction Fund
<b>Type of Borrower:</b> Municipal (High)	<b>Average Annual Delivery:</b> 2035 AF
<b>CWCB Loan:</b> \$4,545,000 (with 1% service fee)	<b>Interest Rate:</b> 2.75% <b>Term:</b> 20-years

The Town of Windsor was incorporated in 1890 and adopted its Home Rule Charter in 2003. The Town has seen tremendous growth over the last decade and has a current population of approximately 18,700 people. The Town's Water Activity Enterprise was created by a Town Ordinance in 1994 and serves 5,604 taps. The Enterprise revenues come from water usage fees. The average water bill is \$45 per month. The purpose of this project is to provide the Town new water storage to help meet their current and future non-potable and augmentation water needs. This CWCB loan will go towards the purchase of the Kyger reservoir, the design and construction of the reservoir infrastructure, and the purchase of water rights.



**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

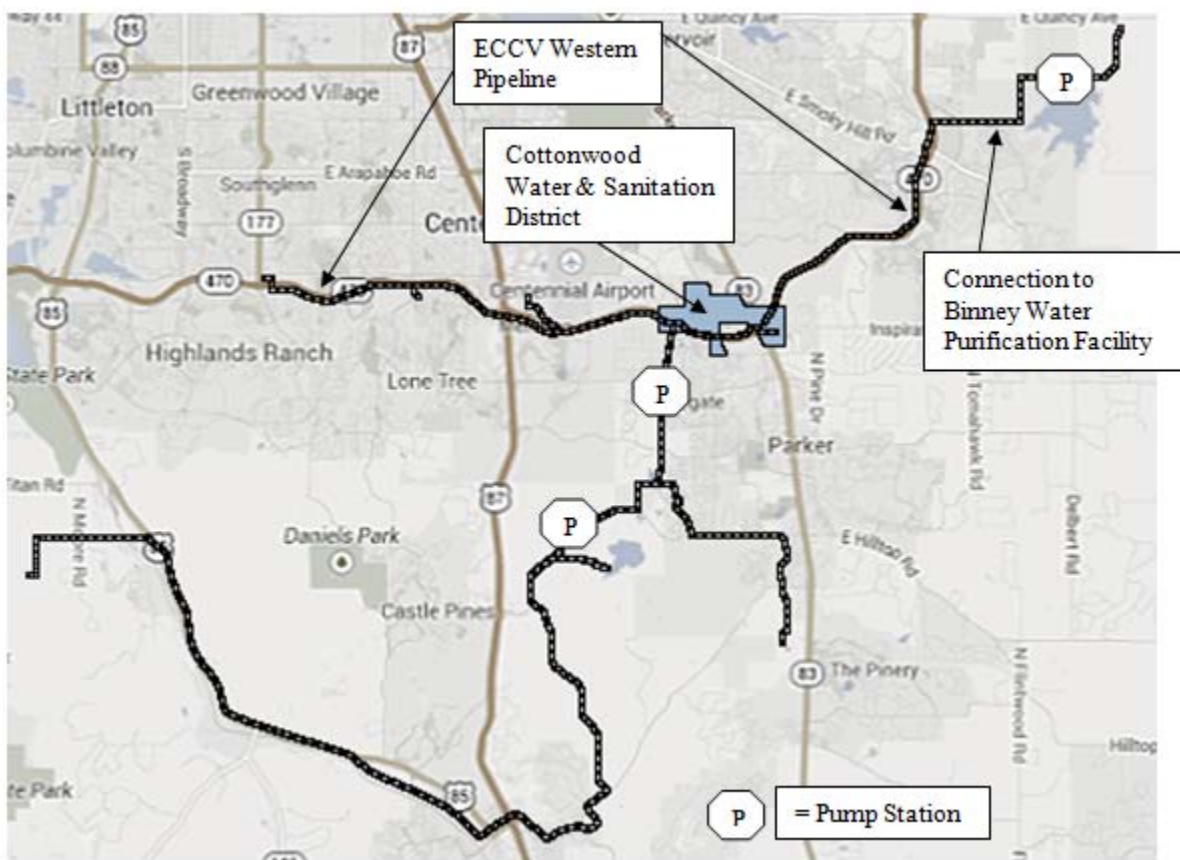
**Average Annual Delivery:** 789 AF

**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

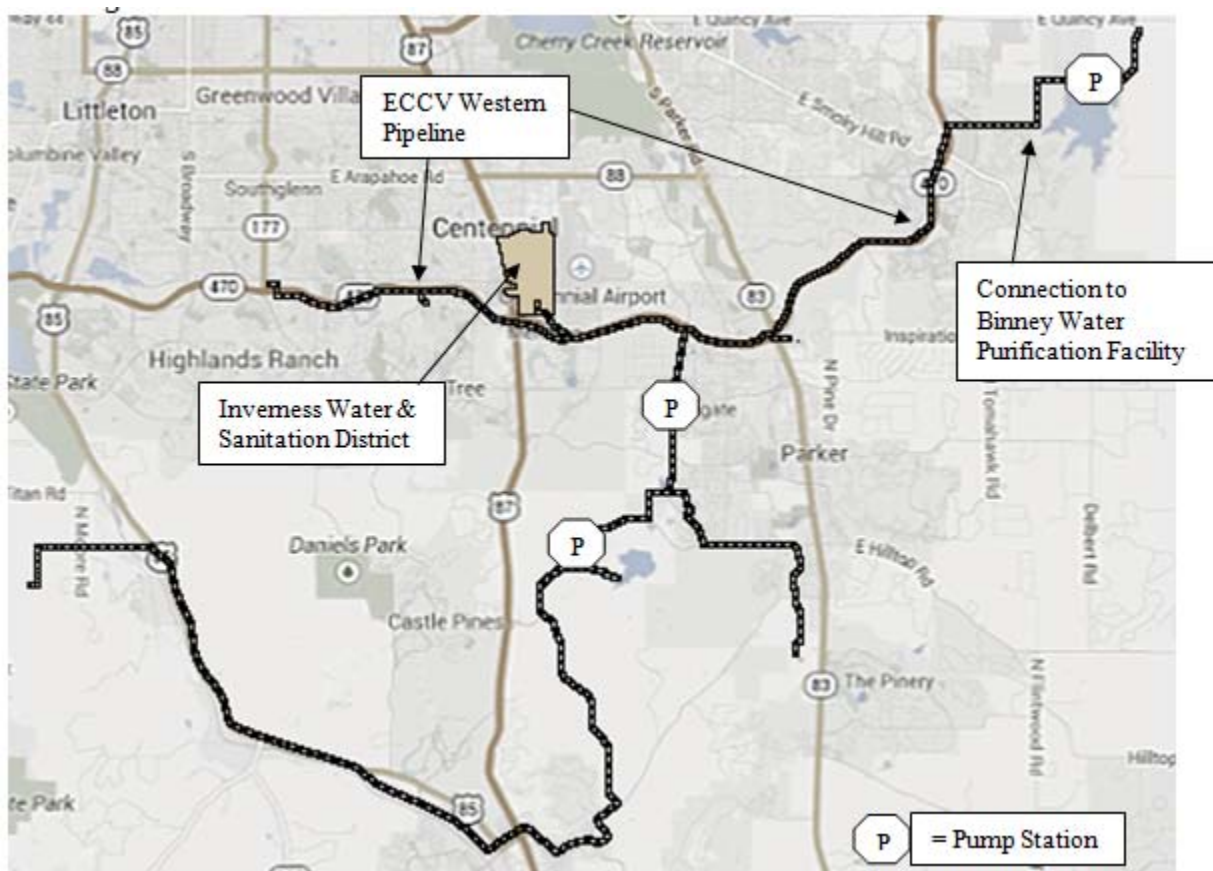
**Average Annual Delivery:** 1,100 AF

**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

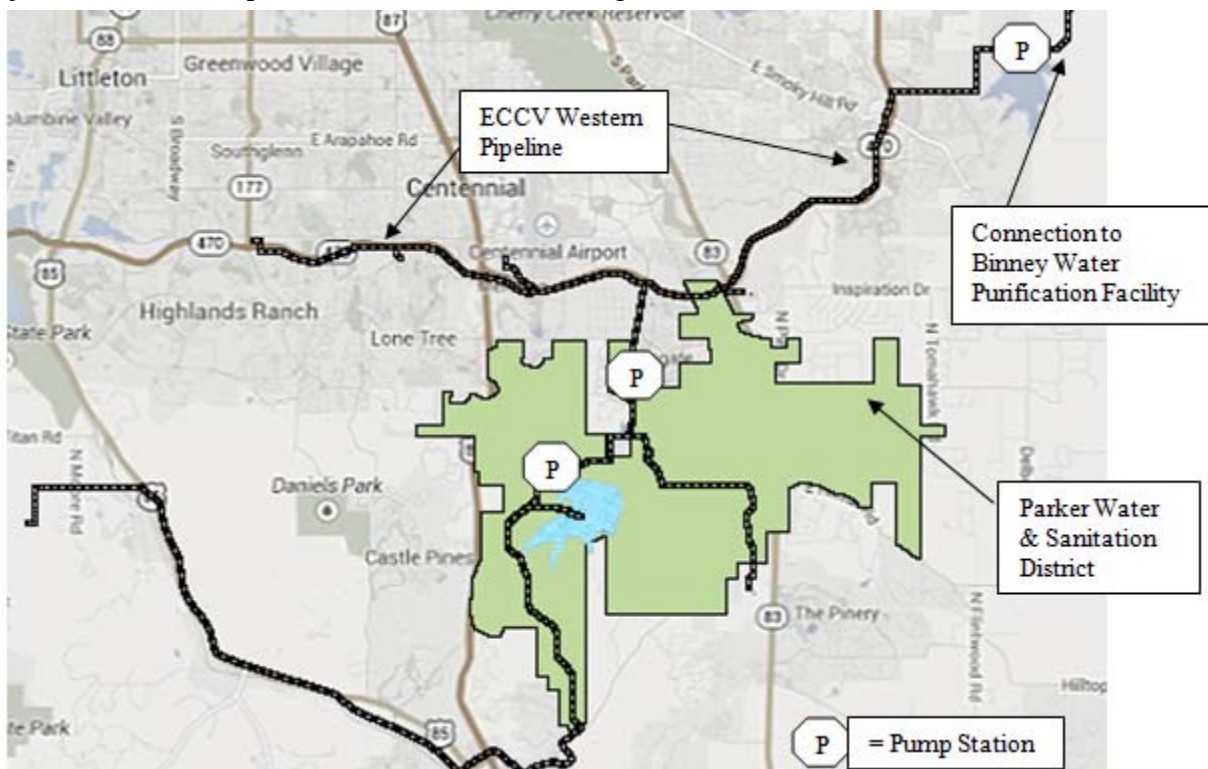
**Type of Borrower:** High-income Municipal      **Average Annual Delivery:** 5,000 AF

**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**

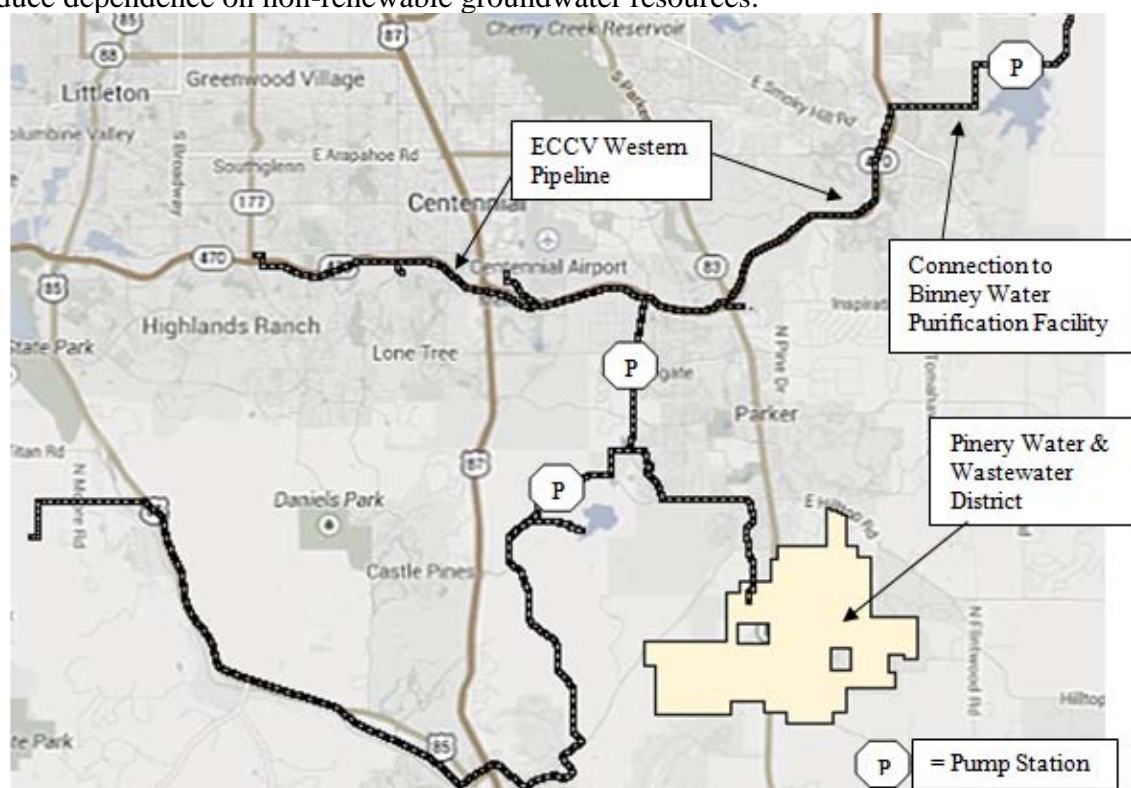
**C150411**

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

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

The District will participate in Parker's WISE infrastructure components including 20,300 feet of new 42-inch pipeline from near the intersection of Chambers Road and E-470 to the Parker Water Treatment Plant located just south of Reuter-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.

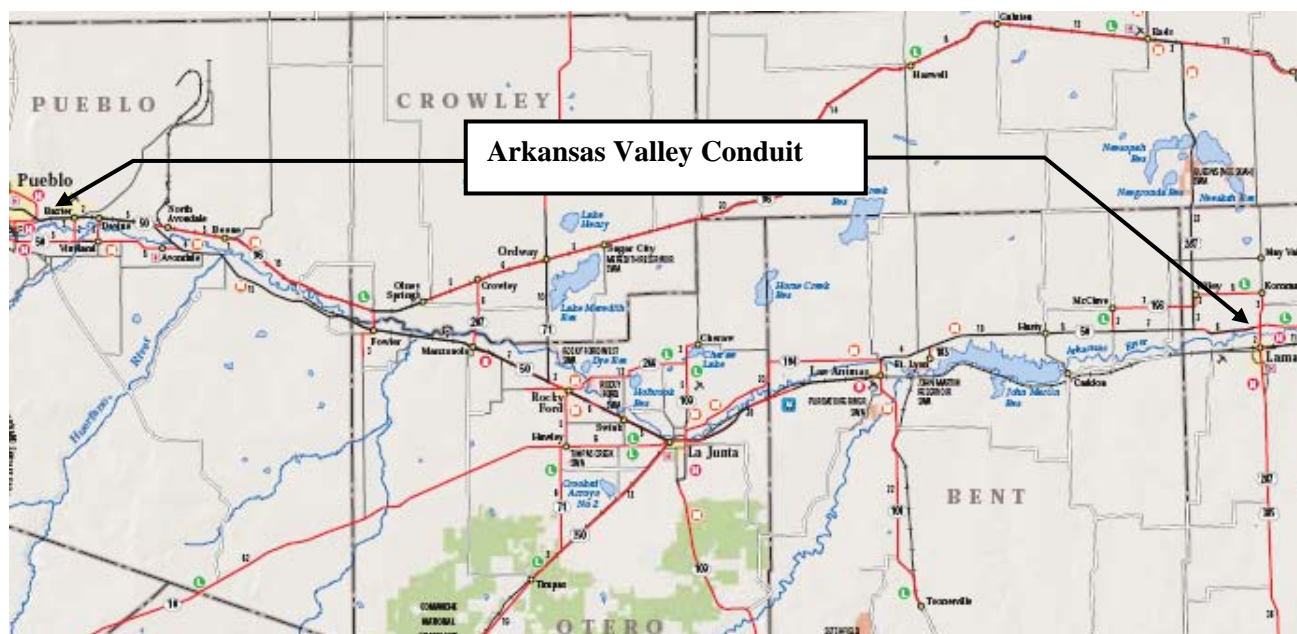


## **Projects Not Under Contract**

## Water Project Construction Loan Program - Project Data

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

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



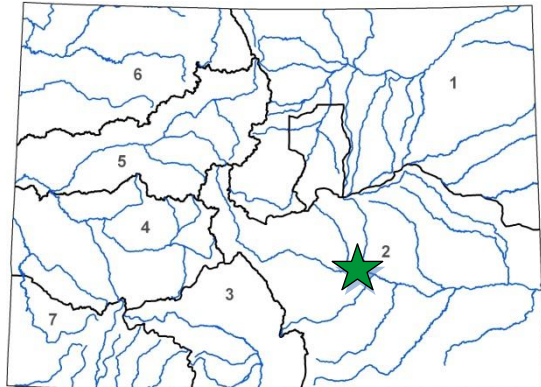
Location Map



# Arkansas Valley Conduit Phase One Pueblo Dam Hydroelectric Project

Southeastern Colorado Water Conservancy District  
July 2016 Board Meeting

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



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

Southeastern Colorado Water Conservancy District, acting by and through its water activity enterprise, is applying for a loan for the construction of the Pueblo Dam Hydroelectric Project. The Project is located at the existing Pueblo Dam and will utilize the existing releases to the Arkansas River without changing the flow regime. This Project is being constructed as Phase One of the overall Arkansas Valley Conduit project, authorized in the 2007 and 2009 Projects Bill (SB07-122, SB09-125). The purpose of the Project is to develop a revenue source to offset the operational and maintenance cost of the Arkansas Valley Conduit.

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



**Powerhouse Rendering**

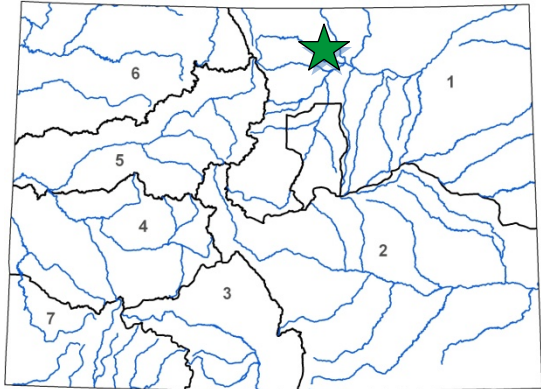




# Headgate Structure Replacement

Larimer and Weld Irrigation Company  
September 2016 Board Meeting

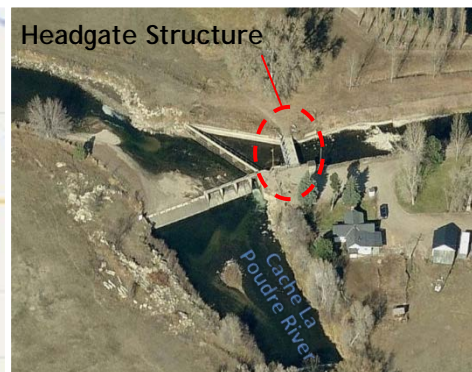
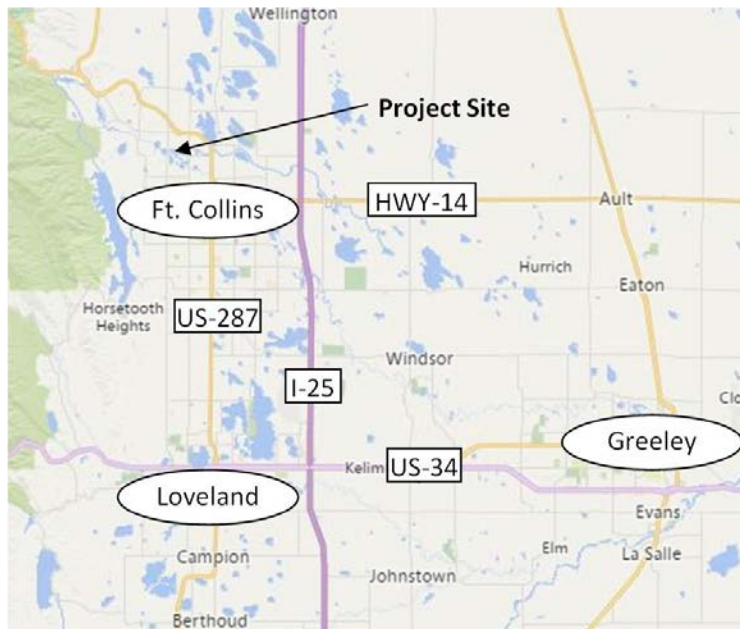
L O A N   D E T A I L S	
Project Cost:	\$750,000
CWCB Loan (with Service Fee):	\$681,750
Loan Term and Interest Rate:	30 Years @ 1.5%
Funding Source:	Construction Fund
B O R R O W E R   T Y P E	
Agriculture	Municipal      Commercial
96%	0% Low - 4% Mid - <1% High      0%
P R O J E C T   D E T A I L S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



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

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

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



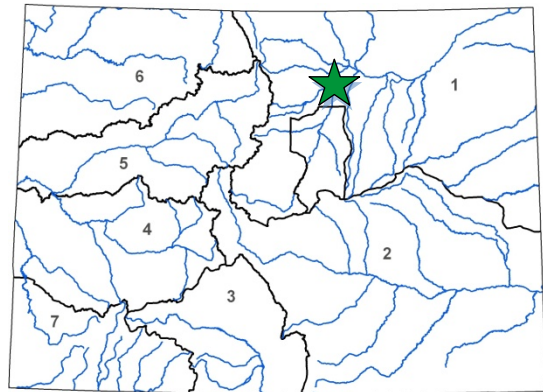


## Storage Development and Water Rights Purchase

Town of Firestone

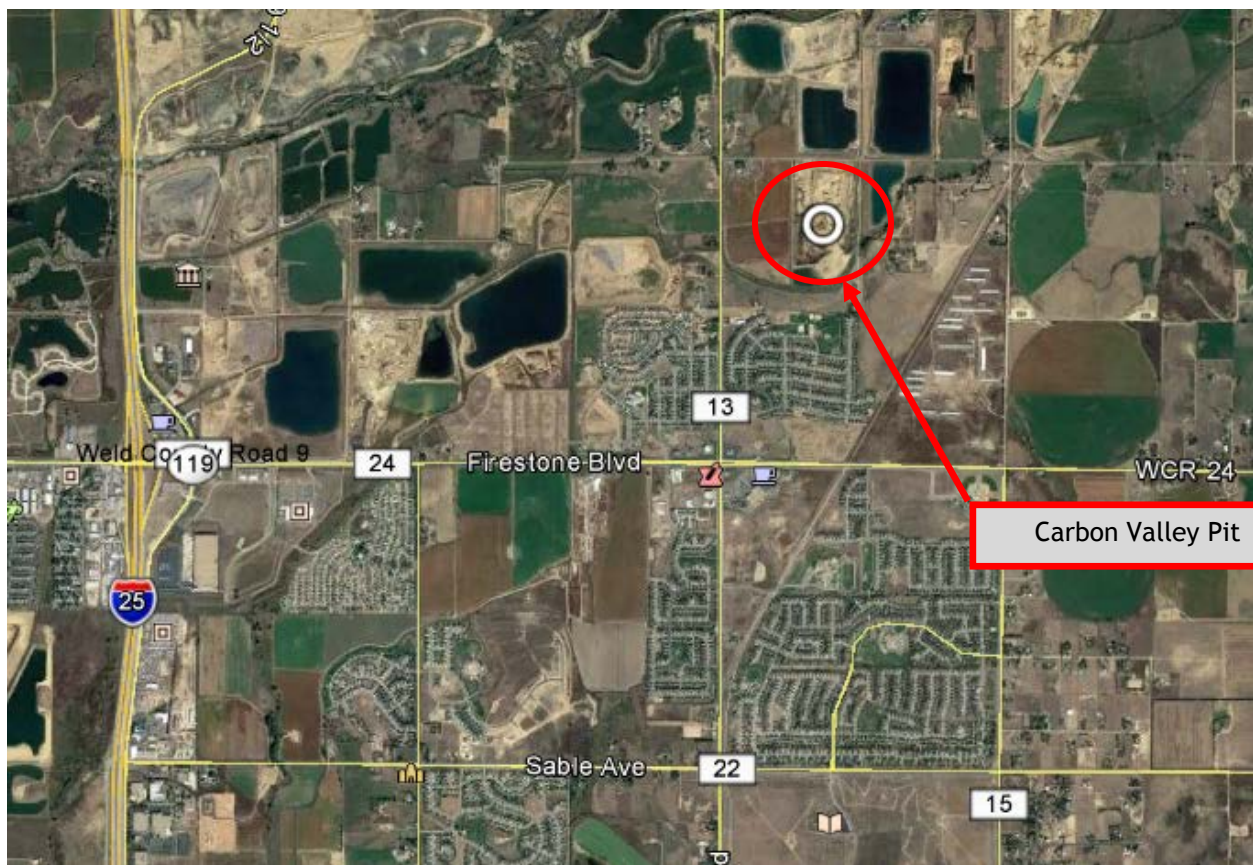
November 2016 Board Meeting

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



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

The Town of Firestone's boundary encompasses approximately 9,089 acres and is generally located east of Interstate 25 between Highway 66 and Highway 52. The Town of Firestone provides water and wastewater services to approximately 12,110 residents and operates a water distribution network of approximately 58.5 miles of pipeline and associated facilities. The purpose of this project is to provide a water storage project to help meet the Town's current and future non-potable water needs. For planning purposes, the Town is pursuing a little over two times the demand, or 2,000 acre-feet of non-potable storage for the Town. As a short-term water supply goal, the Town is requesting funds to Purchase the Carbon Valley Resource Pit and acquire 1,092 acre-feet as part of this project.



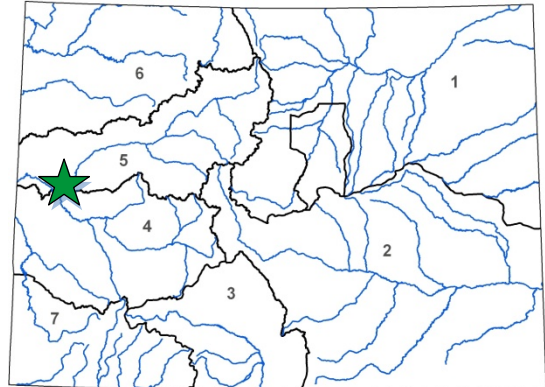


## Grand Valley Power Plant Rehabilitation

Grand Valley Water Users Association

November 2016 Board Meeting

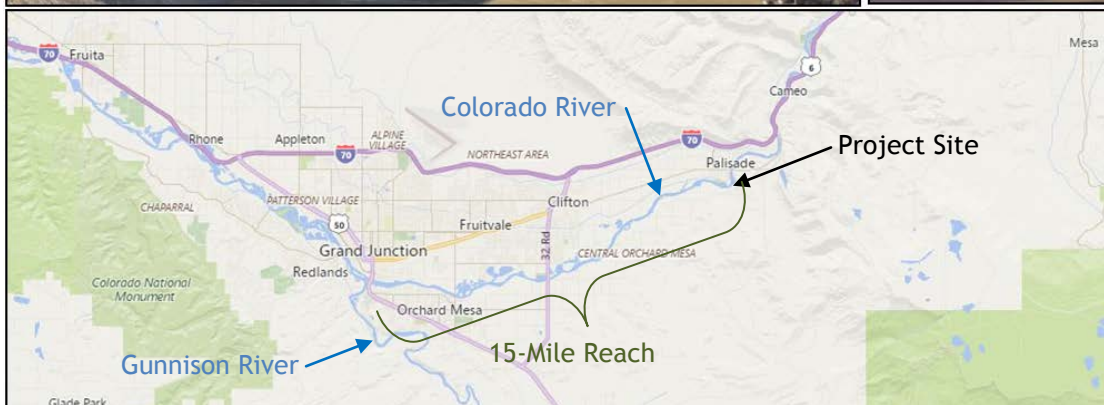
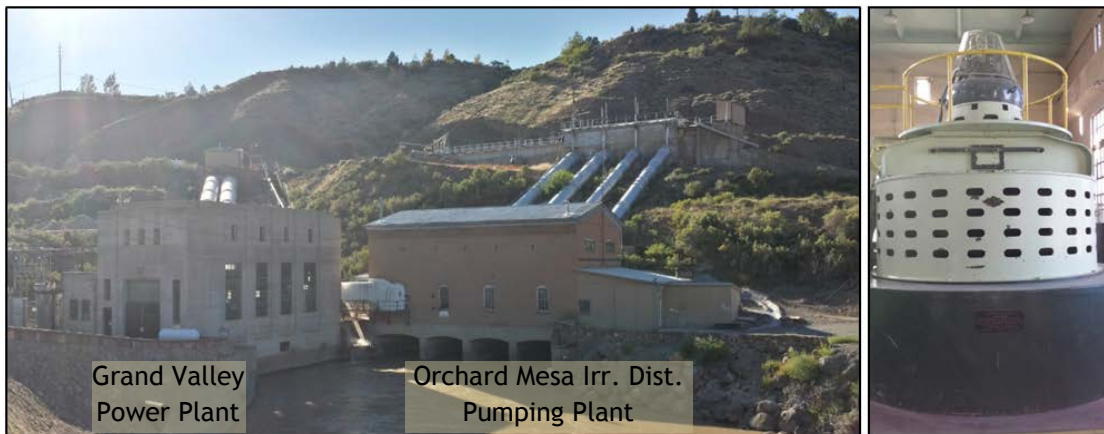
L O A N   D E T A I L S	
Project Cost:	\$5,200,000
CWCB Loan (with Service Fee):	\$1,717,000
Loan Term and Interest Rate:	30 Years @ 2.0%
Funding Source:	Construction Fund
B O R R O W E R   T Y P E	
Hydropower	
P R O J E C T   D E T A I L S	
Project Type:	Hydroelectric
Average Annual Power Production: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



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

The Grand Valley Water Users Association (Association) and Orchard Mesa Irrigation District (District) are each seeking a loan to cover its cost share for the Grand Valley Power Plant (GVPP) Rehabilitation Project. The GVPP is owned by the Bureau of Reclamation and originally operated by Public Service Company of Colorado (Xcel Energy) in conjunction with the Cameo coal fired power plant. The Association and District took operational control of the plant when Xcel decided to cease its operations. The Association and District equally split costs and revenues from the GVPP under a Lease of Power Privilege with Reclamation and a Power Purchase Agreement with Xcel. In addition to being a revenue source, the GVPP serves an important role in providing water to the “15-Mile Reach” which has been designated by the Upper Colorado River Endangered Fish Recovery Program as critical habitat. The non-consumptive hydropower water right ensures continued flows for this important stretch of river.

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



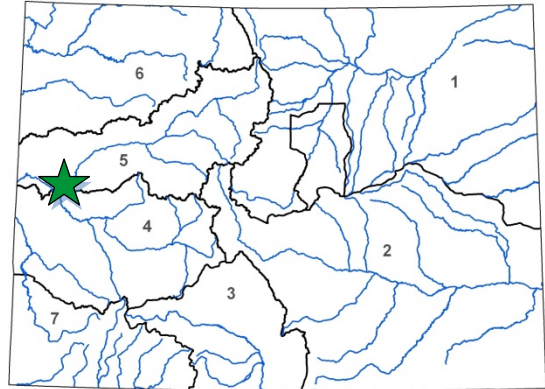


## Grand Valley Power Plant Rehabilitation

Orchard Mesa Irrigation District

November 2016 Board Meeting

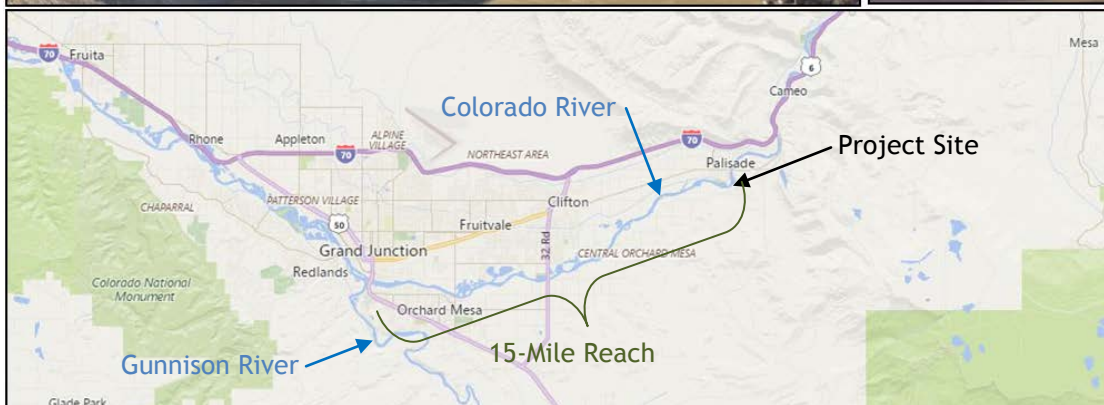
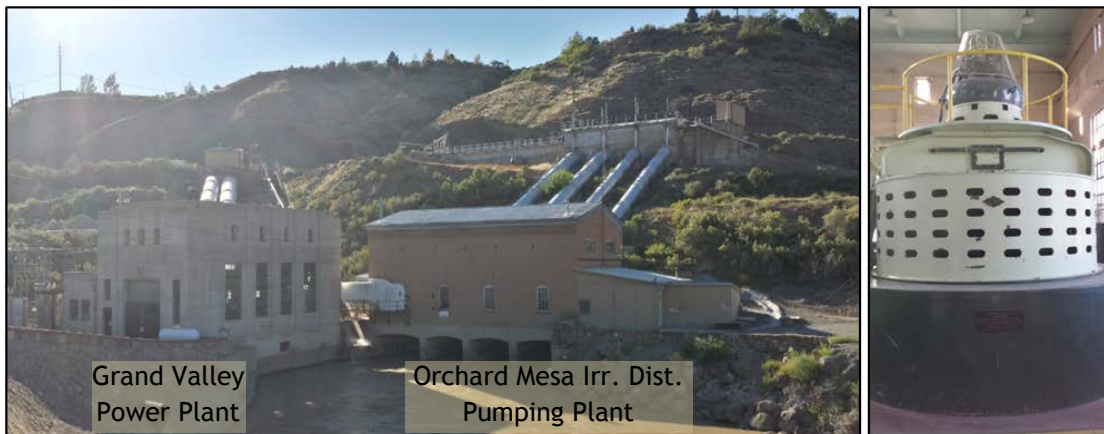
L O A N   D E T A I L S	
Project Cost:	\$5,200,000
CWCB Loan (with Service Fee):	\$1,717,000
Loan Term and Interest Rate:	30 Years @ 2.0%
Funding Source:	Construction Fund
B O R R O W E R   T Y P E	
Hydropower	
P R O J E C T   D E T A I L S	
Project Type:	Hydroelectric
Average Annual Power Production: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



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

The Orchard Mesa Irrigation District (District) and Grand Valley Water Users Association (Association) are each seeking a loan to cover its cost share for the Grand Valley Power Plant (GVPP) Rehabilitation Project. The GVPP is owned by the Bureau of Reclamation and originally operated by Public Service Company of Colorado (Xcel Energy) in conjunction with the Cameo coal fired power plant. The District and Association took operational control of the plant when Xcel decided to cease its operations. The District and Association equally split costs and revenues from the GVPP under a Lease of Power Privilege with Reclamation and a Power Purchase Agreement with Xcel. In addition to being a revenue source, the GVPP serves an important role in providing water to the "15-Mile Reach" which has been designated by the Upper Colorado River Endangered Fish Recovery Program as critical habitat. The non-consumptive hydropower water right ensures continued flows for this important stretch of river.

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



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

Department of Natural Resources

1313 Sherman Street  
Denver, CO 80203P (303) 866-3441  
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John Hickenlooper, Governor

Robert Randall, DNR Executive Director

James Eklund, CWCB Director

**TO:** Colorado Water Conservation Board Members**FROM:** Jodie Tavares, Program Assistant  
Kirk Russell, P.E., Finance Section Chief**DATE:** January 23-24, 2017 Board Meeting**DIRECTORS REPORT:** Water Project Loan Program  
Emergency Loan Status Report

As a result of the unprecedented floods of September 2013, the CWCB awarded zero-interest and no-payment 3-year bridge loans to water suppliers. Typically the loans are utilized by borrowers to replace diversion structures and reconstruct the ditch delivery system.

To date, the CWCB has nineteen (19) projects authorized totaling \$17 million. The CWCB Emergency Loan Program has completed construction on ten (10) projects as shown in Table 1.

The attached spreadsheet summarizes the status of the projects. A detailed description can be found on the subsequent Data Sheets.

**TABLE 1**

	Borrower	Project	County	Loan	Completed
1	Boulder & Larimer Co Irr.	Diversion Structure Repair	Boulder/Larimer	\$202,000	04/2014
2	Culver Ditch Company	Culver Mahoney Ditch Repair	Boulder/Larimer	\$151,500	05/2014
3	Ish Reservoir Company	Inlet Ditch & Div. Repair	Boulder	\$207,050	04/2014
4	Sylvan Dale Ranch, LLLP	Emergency Pond Excavation	Larimer	\$105,171	05/2014
5	Big Thompson & Platte River	Diversion Structure Repair	Larimer	\$189,861	12/2016
6	Church Ditch Water Authority	Leyden Creek Crossing Repair	Jefferson	\$591,179	12/2016
7	Highland Ditch Company	Ditch System Repairs	Boulder	\$1,477,756	12/2016
8	Left Hand Ditch Company	Ditch System Repairs	Boulder	\$1,203,086	12/2016
9	Oligarchy Irrigation Company	Diversion Structure Repair	Boulder	\$326,036	12/2016
10	Rough & Ready Irr. Ditch Co.	Diversion Structure Repair	Boulder	\$246,851	12/2016
			<b>Total:</b>	<b>\$4,700,490</b>	



Boulder and Larimer County Irrigating and Manufacturing Ditch Company  
Emergency Boulder & Larimer Diversion Structure Repair

C150374



**Project Description**

During the unprecedented flood of September 2013 in the tributaries to the South Platte River, a significant number of diversion structures and dams along the river corridor were damaged. The purpose of this Project is to repair the Little Thompson River diversion structure and the Ish Reservoir inlet ditch structure to allow the Company to deliver water to shareholders.

**Project Data**

Sponsor: Boulder & Larimer  
County Irrigating & Manufacturing  
Ditch Co.

County: Boulder & Larimer

Water Source: Little Thompson River

Terms of Loan: \$202,000 for 30 years @ 1.90%

Construction Completed: April 2014

Expended Amount: \$202,000

Anticipates FEMA Funding: NO

Design Engineer: Tessara Water, LLC - Hudson, Colorado and SM&RC Structural Engineers, Inc. - Lakewood, Colorado

Contractors: Concrete Structures, Inc. - Longmont, CO. & Zac Dirt, Inc. - Longmont, CO.

**Project Elements:** The Project included the repair of the Little Thompson River diversion structure and the Ish Reservoir Inlet Ditch: The scope of work for the diversion structure repairs involved removing debris from the dam and diversion structure, forming and pouring a new wing wall on the north side of the diversion dam, and then rechanneling the Little Thompson River to flow back over the diversion dam. The scope of work for the inlet ditch washout repairs involved creating a new path for the Company's ditch through the area. This involved creating a foundation secured to bedrock and building a new water conveyance system on top of the foundation.

Culver Lateral Ditch Company  
Emergency Culver Mahoney Ditch Repair

150390



**Project Description**

During the unprecedented flood of September 2013 in the tributaries to the South Platte River, a significant number of diversion structures and dams along the river corridor were damaged including the Culver Lateral Ditch Company ditch and diversion structure. The flood damaged the diversion dam, headgate structure, sand gates, measurement flume, and recording structure. Additionally, the first 1,500 feet of ditch was destroyed as it effectively became a part of the Little Thompson River. The next 1,800 feet of ditch was filled with sediment. The purpose of the Project is to repair the diversion structure and ditch to allow the Company to divert its decreed water rights.

**Project Data**

Sponsor: Culver Lateral Ditch Company      County: Boulder/Larimer      Water Source: Little Thompson River  
Terms of Loan: \$151,000 for 30 years @ 2.30%      Construction Completed: May 2014  
Expended Amount: \$151,000  
Anticipates FEMA Funding: YES  
Design Engineer: TZA Water Engineers, Inc. - Lakewood, Colorado  
Contractor: Chaparral Construction, LLC - LaVeta, Colorado

**Project Elements:** The project included removal of debris and silt from the ditch and diversion dam, reshaping the ditch sideslopes and flowline, and rehabilitation of the headgate structure, sand gates, measurement flume, and recording structure.

## Ish Reservoir Company Emergency Inlet Ditch and Diversion Structure Repair

C150376



### Project Description

During the unprecedented flood of September 2013 in the tributaries to the South Platte River, a significant number of diversion structures and dams along the river corridor were damaged. The purpose of this Project is to repair the Little Thompson River diversion structure and the Ish Reservoir inlet ditch structure to allow the Company to deliver water to shareholders.

### Project Data

Sponsor: Ish Reservoir Company

County: Boulder &  
          Larimer

Water Source: Little Thompson River

Terms of Loan: \$207,050 for 30 years @ 1.75%

Construction Completed: April 2014

Expended Amount: \$207,050

Anticipates FEMA Funding: NO

Design Engineer: Tessara Water, LLC - Hudson, Colorado and SM&RC Structural Engineers, Inc. - Lakewood, Colorado

Contractors: Concrete Structures, Inc. - Longmont, CO. & Zac Dirt, Inc. - Longmont, CO.

**Project Elements:** The Project included the repair of the Little Thompson River diversion structure and the Ish Reservoir Inlet Ditch. The scope of work for the diversion structure repairs involved removing debris from the dam and diversion structure, forming and pouring a new wing wall on the north side of the diversion dam, and then rechanneling the Little Thompson River to flow back over the diversion dam. The scope of work for the inlet ditch washout repairs involved creating a new path for the Company's ditch through the area. This involved creating a foundation secured to bedrock and building a new water conveyance system on top of the foundation.

Sylvan Dale Ranch, LLLP  
Emergency Irrigation Pond Excavation

C150392



Project Description

The Ranch has been owned and operated by the Jessup family since 1946 as both a guest ranch and a working ranch encompassing 3,200 acres in the foothills at the mouth of the Big Thompson Canyon, seven miles west of Loveland. There are 160 the year, the pastures are grazed by the Ranch's grass-fed cattle herd. The Ranch owns two adjoining ponds next to Big Thompson River. The ponds, which were silted in during the September 2013 flood, are fed by springs and drain into the river just above the George Rist Ditch diversion. The Ranch pumps water out of the ponds to irrigate pastures located immediately south of the ponds. Between 142 and 190 acre-feet are used per season, using two center pivots. Without these ponds, there is no means to irrigate the pastures. The purpose of this project is to excavate the silt from the ponds.

Project Data

Sponsor: Sylvan Dale Ranch, LLP      County: Larimer  
Terms of Loan: \$105,171 for 30 years @ 1.75%  
Expended Amount:\$105,171  
Anticipates FEMA Funding: NO  
Design Engineer: None

Water Source: Big Thompson River  
Construction Completed: May 2014

Contractor: Custom Design Fabricators - Livermore, Colorado

Project Elements: The ponds were excavated and the silt was distributed to various locations on the Ranch.



# Emergency Big Thompson and Platte River Diversion Structure Repair

Big Thompson and Platte River Ditch Company  
Project Closeout December 1, 2016



## Project Description

During the unprecedented flood of September 2013 in the tributaries to the South Platte River, a significant number of diversion structures and dams along the river corridor were damaged. The purpose of this Project was to repair the diversion structure and crossing structures to allow the Company to deliver water to shareholders. The Company's diversion structure and by-pass structure were repaired and its crossing over the Little Thompson River was replaced with a siphon to provide for greater flood resiliency. The old crossing structure was a bottleneck at times of free river, so the structure has been improved to allow for additional flows. Final loan costs were lower than originally anticipated because many project components were able to be repaired as opposed to being replaced.

P R O J E C T   D A T A		
<i>Sponsor:</i> Big Thompson and Platte River Ditch Company	<i>County:</i> Larimer	<i>Water Source:</i> Big Thompson River
<i>Type of Project:</i> Diversion Rehabilitation		<i>Board Approval Date:</i> October 2013
<i>Loan Terms: (Original)</i> \$808,000 at 1.85% for 30 years <i>(Disbursed)</i> \$189,861.39		
<i>Design Engineer:</i> NOCO Engineering Inc. & Weeks & Associates, Inc.		
<i>Contractor:</i> Kielian Construction		
<i>Project Elements:</i> Headgate rehabilitation, siphon construction, flood clean up.		



## Emergency Leyden Creek Crossing Repair

Church Ditch Water Authority  
Project Closeout December 1, 2016



### Project Description

During the unprecedented flood of September 2013 in the tributaries to the South Platte River, a significant number of diversion structures and dams along the river corridor were damaged including the Authority's Church Ditch. Church Ditch flood repairs include restoring the Church Ditch to pre-flood conditions. The Leyden Creek Crossing Structure was rebuilt with this section of the ditch piped to prevent the uncontrolled diversion of flood waters in potential future events. For all areas of the ditch, sediment that was deposited by the flood was removed and the ditch banks were reshaped where sloughing occurred. Riprap was added to portions of the reconstructed ditch banks to prevent erosion and increase protection to the ditch. This project qualified for FEMA public assistance.

P R O J E C T D A T A		
<i>Sponsor:</i> Church Ditch Water Authority	<i>County:</i> Jefferson	<i>Water Source:</i> Clear Creek
<i>Type of Project:</i> Diversion Rehabilitation		<i>Board Approval Date:</i> October 2013
<i>Loan Terms: (Original)</i> \$606,000 at 2.85% for 30 years <i>(Disbursed)</i> \$591,178.65		
<i>Design Engineer:</i> Ecological Resource Consultants, Inc.& SM&RC Structural Engineers, Inc.		
<i>Contractor:</i> J.L. Melton Construction, Inc.; Kemp and Hoffman, Inc.; & Diamond Excavating, Inc.		
<i>Project Elements:</i> Piping a ditch crossing a creek. Bank stabilization.		



## Emergency Highland Ditch System Repairs

Highland Ditch Company

Project Closeout December 1, 2016



### Project Description

During the unprecedented flood of September 2013 in the tributaries to the South Platte River, a significant number of diversion structures and dams along the river corridor were damaged. The purpose of this Project was to repair the Company's system to allow the delivery of water to shareholders. This project included the reconstruction of the Highland Ditch diversion structure and headgate that were completely washed away in Lyons along the St. Vrain River. The inlet and outlet ditches of Foothills Reservoir were also rehabilitated as part of the project. The work included: repairing of the main diversion structure, headgate, SCADA system, and inlet and outlet ditches of Foothills Reservoir. This project qualified for FEMA public assistance, and coordination remains on-going.

P R O J E C T D A T A		
<i>Sponsor:</i> Highland Ditch Company	<i>County:</i> Boulder	<i>Water Source:</i> St. Vrain Creek
<i>Type of Project:</i> Diversion Rehabilitation		<i>Board Approval Date:</i> October 2013
<i>Loan Terms: (Original)</i> \$1,999,800 at 1.95% for 30 years <i>(Disbursed)</i> \$1,477,756.28		
<i>Design Engineer:</i> Tessara Water, LLC. & Providence Infrastructure Consultants, Inc.		
<i>Contractor:</i> Zac Dirt, Inc.		
<i>Project Elements:</i> Diversion dam and trash rack construction. Flood clean up.		



## Emergency Left Hand Ditch System Repairs

Left Hand Ditch Company  
Project Closout December 1, 2016



### Project Description

During the unprecedented flood of September 2013 in the tributaries to the South Platte River, a significant number of diversion structures and dams along the river corridor were damaged including the Company's system. The Company restored its system to pre-flood condition which included: Replacement of the Left Hand Creek parshall flume and recorder station, repair of several Left Hand Valley ditch diversions (Crocker, Table Mountain, Bader, Hunman, Star, Holland, Williamson, and Gold Lake Filler Ditch), and replacement of the diversion dam and headgate structure at the Allens Lake Filler Canal.

P R O J E C T D A T A		
<i>Sponsor:</i> Left Hand Ditch Company	<i>County:</i> Boulder	<i>Water Source:</i> Left Hand Creek
<i>Type of Project:</i> Diversion Rehabilitation		<i>Board Approval Date:</i> October 2013
<i>Loan Terms: (Original)</i> \$3,276,056 at 2.30% for 30 years <i>(Disbursed)</i> \$1,203,086.40		
<i>Design Engineer:</i> Smith Geotechnical Engineering Consultants, Inc.		
<i>Contractor:</i> Left Hand Excavating, Inc.		
<i>Project Elements:</i> Repair of multiple diversions and headgate structures along the St. Vrain Creek corridor. Replacement of measuring flume.		



**Emergency Oligarchy Ditch River  
Diversion Structure Repair**  
Oligarchy Irrigation Company  
Project Closeout December 1, 2016



### Project Description

During the unprecedented flood of September 2013 in the tributaries to the South Platte River, a significant number of diversion structures and dams along the river corridor were damaged including the Oligarchy Ditch Company's diversion structure on the St. Vrain Creek. The original structure was completely lost in the flood. The diversion structure was completely reconstructed to the same size and location as the original with slightly modified sand gates and flumegate. For better operation and river administration, the rebuilt diversion separates the sand gate and the flumegate into their own passages through the diversion dam. A fish ladder was also constructed as part of the project.

P R O J E C T D A T A		
<i>Sponsor:</i> Oligarchy Irrigating Company	<i>County:</i> Boulder	<i>Water Source:</i> St. Vrain Creek
<i>Type of Project:</i> Ditch Rehabilitation		<i>Board Approval Date:</i> September 2015
<i>Loan Terms: (Original)</i> \$1,262,500 @ 2.50% for 30 years <i>(Disbursed)</i> \$1,073,069.12		
<i>Design Engineer:</i> Deere and Ault Consultants, Inc.		
<i>Contractor:</i> Fischer Construction, Inc.		
<i>Project Elements:</i> Diversion Structure, sluice and flume gates, headgates, & fish ladder.		



# Emergency Oligarchy Ditch River Diversion Structure Repair

Rough & Ready Irrigating Ditch Company  
Project Closeout December 1, 2016



## Project Description

During the unprecedented flood of September 2013 in the tributaries to the South Platte River, a significant number of diversion structures and dams along the river corridor were damaged including the Rough and Ready Irrigating Company's river diversion on the St. Vrain Creek. This structure also serves as the diversion dam for the Palmerton Ditch. The diversion dam and sand gates were completely lost to the flood and the headgates sustained major damage. The purpose of this Project was to completely reconstruct the diversion dam, sand gates, headgates, ditches, and measuring flumes. The structure was completely reconstructed to the same size and location but included a combined conveyance ditch off the diversion and the addition of a bypass to the river to better regulate diversions. Additionally, a fish ladder was incorporated into the new diversion dam

P R O J E C T D A T A		
<i>Sponsor:</i> Rough & Ready Irrigating Ditch Company	<i>County:</i> Boulder	<i>Water Source:</i> St. Vrain Creek
<i>Type of Project:</i> Ditch Rehabilitation		<i>Board Approval Date:</i> September 2015
<i>Loan Terms: (Original)</i> \$1,843,250 @ 2.70% for 30 years <i>(Disbursed)</i> \$1,210,116.19		
<i>Design Engineer:</i> Deere and Ault Consultants, Inc.		
<i>Contractor:</i> Lawrence Construction Company, Inc. -		
<i>Project Elements:</i> Diversion dam with fish ladder, headgates, conveyance ditch, river turnout structure.		

**Current Projects in Design or under Construction**

	Borrower/Project	County	Loan Amount	Design Status	Construction Start/End	Status	PM	Status Description/Update
1	Big Elk Meadows Association > Emergency Raw Water Storage Repair C150391	Boulder/ Larimer	\$ 1,515,000	75%	7/2014-4/2017	30%	JMH	Project includes the reconstruction of 5 dams in series. Mirror Dam complete as of April 2015. Rainbow Dam's outlet constructed in fall 2015. Site shut down for winter. Rainbow's embankment and last 3 dams still pending construction.
2	Butte Irrigation & Milling Company > Emergency Berm Repair C150382	Boulder	\$ 277,750	100%	4/2014-5/2014	100%	JMH	Construction complete, loan funds remaining. No additional disbursements are anticipated.
3	Green Ditch Company > Emergency Green Ditch Channel Repair C150383	Boulder	\$ 530,250	100%	5/2014-6/2014	100%	JMH	The project schedule and description has been revised to include only the river breach construction, which has been completed. The diversion structure will be completed using other funds. No additional loan disbursements are expected.
4	North Poudre Irrigation Company > Fossil Creek Res. Diversion Structure Repair C150368	Larimer	\$ 876,680	100%	11/2015 - 3/2016	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.
5	St. Vrain and Left Hand Water Conservancy District > Emergency Rock'n WP Ranch Lake No. 4 Repair	Boulder	\$ 4,545,000	50%	Spring 2016 - Fall 2016	0%	JMH	Approved July 2014 Board Meeting. Contract has been signed and final design is underway.
6	Supply Irrigating Ditch Company >Emergency Supply Irrigating Ditch Repair Project CT15-142	Boulder	\$324,210	100%	3/2015-5/2015	100%	JMH	Construction complete, loan funds remaining. No additional disbursements are anticipated. FEMA reimbursements pending.

Projects Under Contract SubTotal = \$ 8,068,890

**Projects Substantially Completed in Calendar Year 2016**

1	Boulder and Larimer County Irrigation > Boulder & Larimer Diversion Structure Repair C150374	Boulder & Larimer	\$ 202,000	100%	1/2014-4/2014	100% Ltr	JMH	4/1/2014
2	Culver Ditch Company > Culver Mahoney Ditch Repair C150390	Boulder & Larimer	\$ 151,500	100%	2/2014-4/2014	100% Ltr	JMH	5/1/2014
3	Ish Reservoir Company > Inlet Ditch & Diversion Structure Repair C150376	Boulder	\$ 207,050	100%	1/2014-4/2014	100% Ltr	JMH	4/1/2014

4	Sylvan Dale Ranch,LLP > Emergency Irrigation Pond Excavation C150392	Larimer	\$ 105,171	100%	6/2014-4/2014	100% Ltr	JMH	5/1/2014
5	Big Thompson and Platte River > Big Thompson & Platte River Div. Structure Repair C150373	Larimer	\$ 189,861	100%	5/2014-6/2014	95%	JMH	12/1/16
6	Church Ditch Water Authority > Leyden Creek Crossing Repair C150377	Jefferson	\$ 591,179	100%	1/2014-5/2014	95%	JMH	12/1/16
7	Highland Ditch Company > Highland Ditch System Repairs C150369	Boulder	\$ 1,477,756	100%	10/2013-4/2014	100%	JMH	12/1/16
8	Left Hand Ditch Company > Left Hand Ditch System Repairs C150370	Boulder	\$ 1,203,086	100%	10/2013-2/2015	99%	JMH	12/1/16
9	Oligarchy Irrigation Company > Oligarchy Irr. Ditch River Diversion Struct. Repair C150372	Boulder	\$ 326,036	100%	1/2014-5/2014	100%	JMH	12/1/16
10	Rough & Ready Irrigation Ditch Company > Rough & Ready River Diversion Struct.Repair C150371	Boulder	\$ 246,851	100%	1/2014-5/2014	100%	JMH	12/1/16
11	Beeman Irrigation > Emergency Beeman Diversion Dam Repair C150385	Weld	\$ 2,020,000	100%	1/2014-5/2014	100%	JMH	1/1/17
12	Consolidated Home Supply Ditch & Reservoir Co > George Rist Ditch Repair C150380	Larimer	\$ 434,412	100%	2/2014-5/2014	99%	JMH	1/1/17
13	Consolidated Home Supply Ditch & Reservoir Co > Big Dam Diversion Structure Repair C150375	Larimer	\$ 1,745,603	100%	1/2014-9/2015	100%	JMH	1/1/17

Projects Completed Sub Total: \$8,900,504.92

# 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

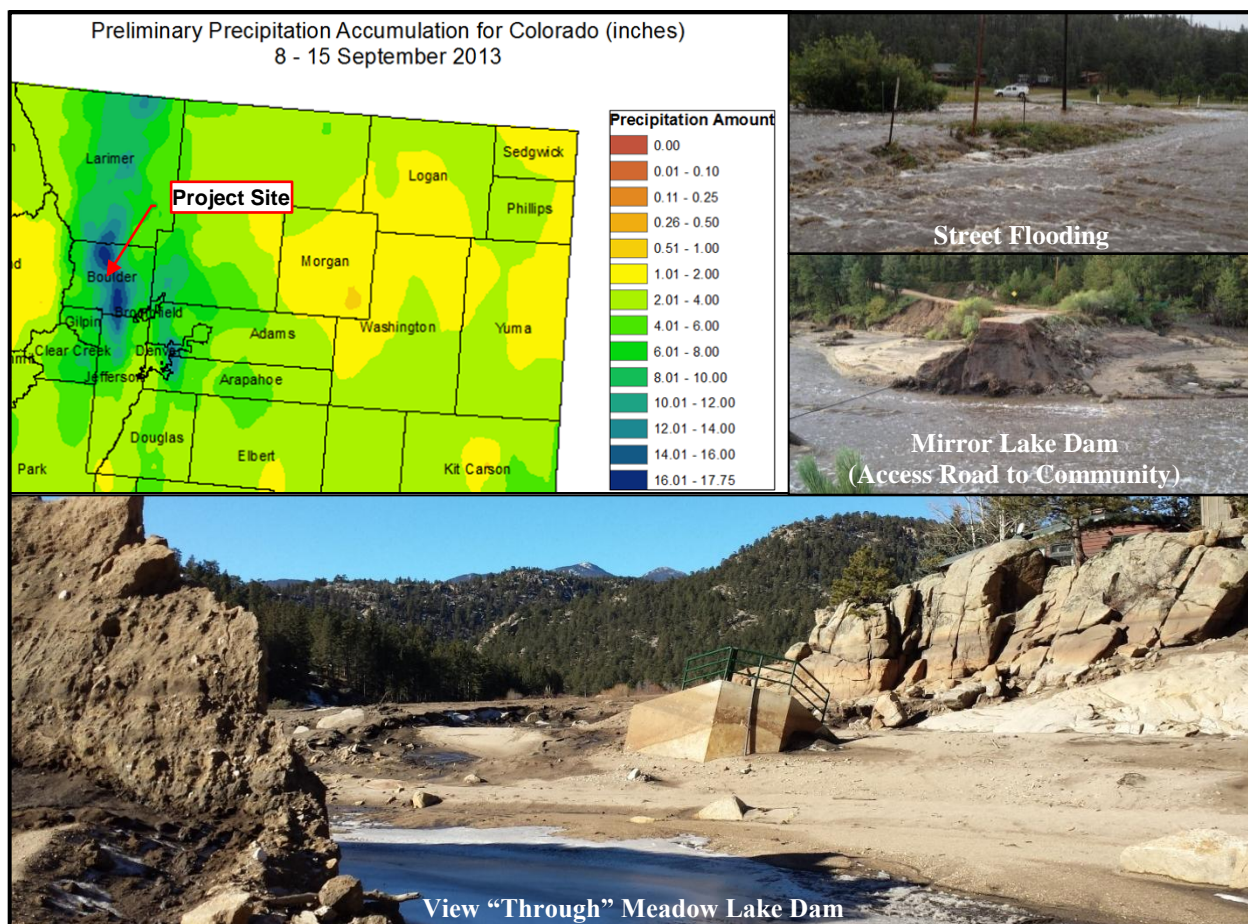
**Type of Borrower:** Middle-Income Municipal

**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**

**C150382**

**Borrower:** Butte Irrigating & Milling Company    **County:** Boulder

**Project Name:** Emergency Berm Repair

**Project Type:** Ditch Rehabilitation

**Drainage Basin/ District:** South Platte / 6

**Water Source:** Boulder Creek

**Total Project Cost:** \$275,000

**Funding Source:** Severance Tax PBF

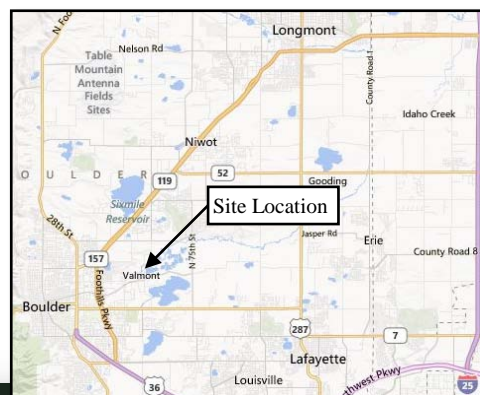
**Type of Borrower:** Blended

**Average Annual Diversion:** 1,177 AF

**CWCB Loan:** \$277,750  
(with 1% service fee)

**Interest Rate:** 2.30% **Term:** 30-years  
(48% Ag, 51% Mid-Muni, 1% 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 Company's Butte Mill Ditch. Portions of the ditch were silted in and the flood eventually breached a berm upstream of the Company's diversion point, causing the post-flood river to bypass the diversion structure. The purpose of the Project is to repair this berm and clean out the ditch channel to allow the Company to divert its decreed water rights.



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

**C150383**

**Borrower:** Green Ditch Company

**County:** Boulder

**Project Name:** Emergency Green  
Ditch Channel Repair

**Project Type:** Ditch Rehabilitation

**Drainage Basin/ District:** South Platte / 6

**Water Source:** Boulder Creek

**Total Project Cost:** \$525,000

**Funding Source:** Severance Tax PBF

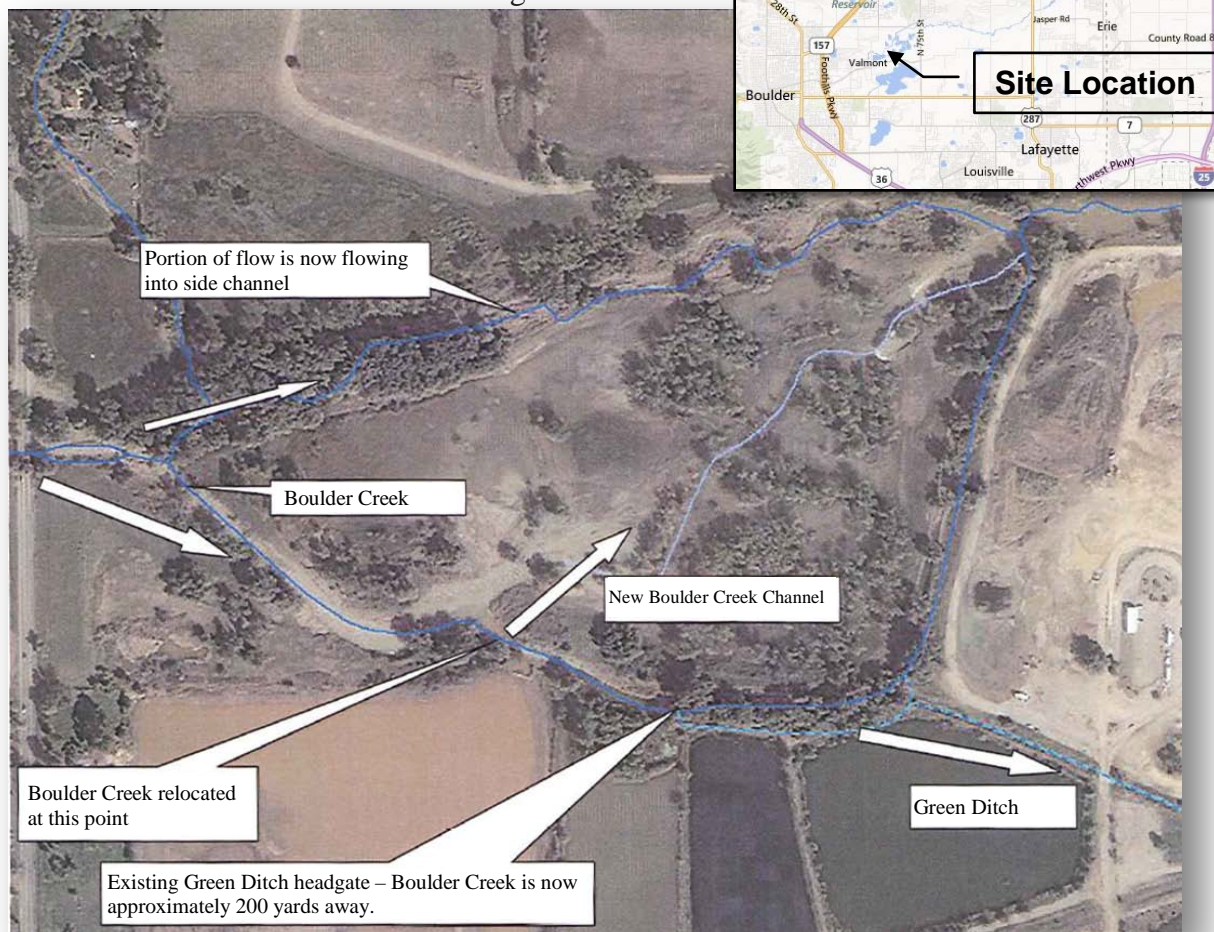
**Type of Borrower:** Blended

**Average Annual Diversion:** 1,847 AF

**CWCB Loan:** \$530,250  
(with 1% service fee)

**Interest Rate:** 2.50% **Term:** 30-years  
(21% Ag, 58% Mid, 5% 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 Green Ditch. Additionally the flood relocated Boulder Creek at this location and water no longer flows to the Green Ditch headgate. Various stakeholders have indicated the creek's new alignment is more environmentally friendly alignment. In an effort of collaboration the Company plans to relocate their point of diversion upstream of the breach and build a fish friendly diversion structure. A new pipeline will connect the new diversion structure with the existing ditch.



**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

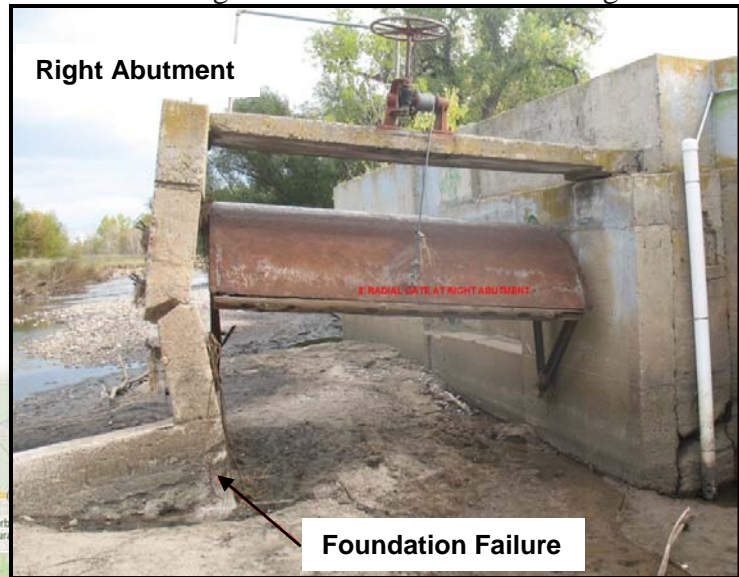
**Type of Borrower:** Blended

**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.



CWCB Water Project Loan Program  
Project Data Sheet

Borrower: St. Vrain and Left Hand Water  
Conservancy District  
Project Name: Emergency Rock'n WP Ranch  
Lake No. 4 Repair Project  
Drainage Basin: South Platte

County: Boulder

Project Type: Reservoir Rehabilitation

Water Source: St. Vrain Creek

Total Project Cost: \$9,000,000

Funding Source: Severance Tax Perpetual  
Base Fund

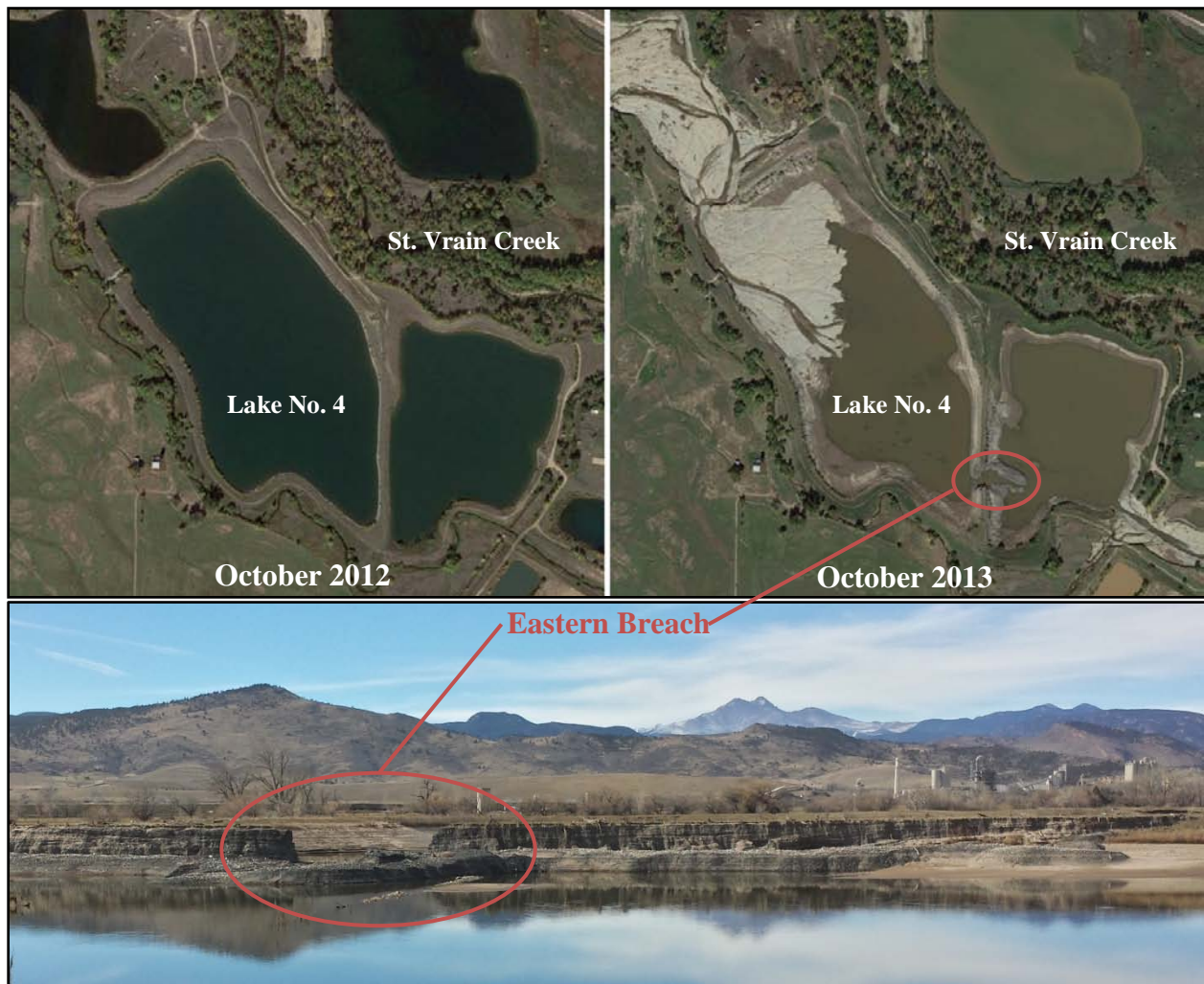
Type of Borrower: Blended

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

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

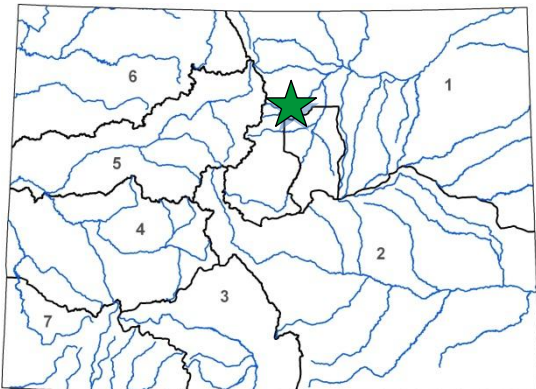
Interest Rate: 3.2% Term: 30-years  
(Ownership: 93% High Municipal, 7% Commercial)

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





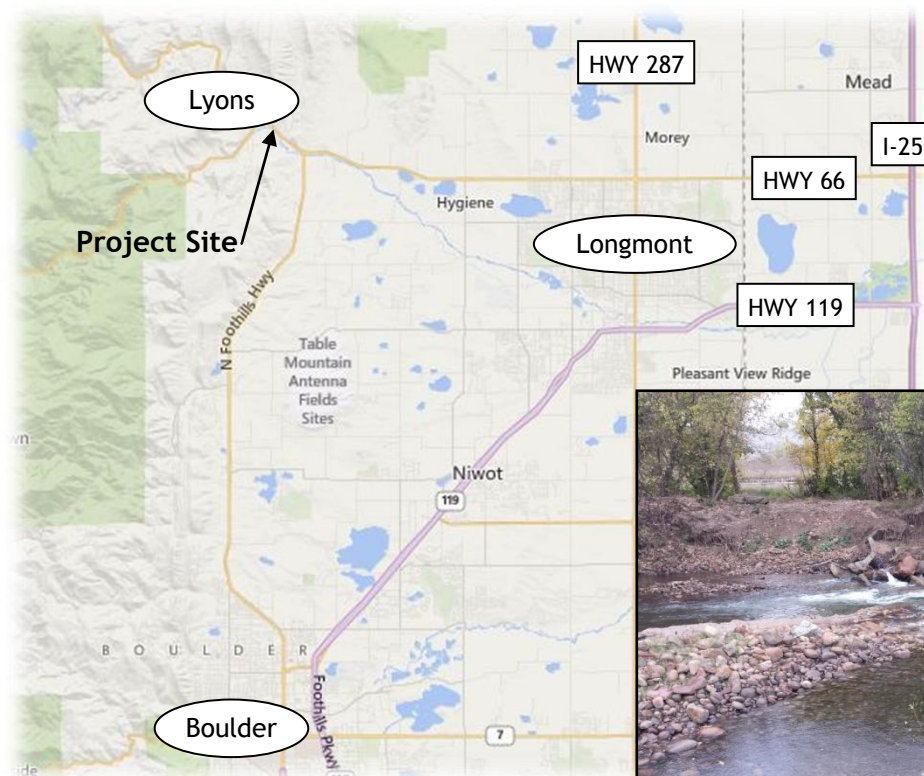
L O A N   D E T A I L S	
Project Cost:	\$321,000
CWCB Loan (with Service Fee):	\$324,210
Loan Term and Interest Rate:	27 Years @ 2.25%
Funding Source:	Severance Tax Perpetual Base Fund
B O R R O W E R   T Y P E	
Agriculture	Municipal      Commercial
86%	0% Low - 5% Mid - 7% High      2%
P R O J E C T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



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

During the unprecedented flood of September 2013 in the tributaries to the South Platte River, a significant number of diversion structures and dams along the river corridor were damaged including the Company's ditch system. Floodwaters destroyed the diversion dam, caused heavy sedimentation in the ditch, and damaged 750 LF of ditch.

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



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

**LOAN REPAYMENT DELINQUENCY**

Loan Repayments received relative to the Water Project Construction Loan Program have been reviewed for the period covering July 2016 through December 2016. The effective due date of the payment is inclusive of the Board's current 30 day late policy. Hence, the date the payment was received was compared to the last day allowable prior to the payment being considered late.

Repayments due for the first six months of Fiscal Year 2017 totaled 144. There were two loan payments not received on time during this period. The loan payment from the Sanchez Ditch and Reservoir Company was less than 30 days late. The loan payment from Fuchs Ranches, Inc. was less than 60 days late. Thus, the on-time performance for the total repayments due was 99% in compliance or 1% not in compliance.

**LOAN FINANCIAL ACTIVITY**

Loan Financial Activity relative to the Water Project Construction Loan Program for Fiscal Year 2017 is summarized as follows: Funds received relative to loans in repayment totaled \$89.2 M for this year. Funds disbursed relative to new project loans totaled \$13.8 M for this year. Net activity resulted in \$75.4 M received by the CWCB Construction Fund and the Severance Tax Perpetual Base Fund (STPBF) over the total disbursed.

Further breakdown is summarized as follows: The Construction Fund portion consists of \$77.3 M in receivables and \$12.8 M in disbursements for a total net activity of \$64.5 M received over disbursed. The STPBF consists of \$11.9 M in receivables and \$1.0 M in disbursements for a total net activity of \$10.9 M received over disbursed.

# COLORADO WATER CONSERVATION BOARD

## FINANCIAL ACTIVITY REPORT FOR FISCAL YEAR 2017

### CONSTRUCTION FUND

Period	Principal	Interest	Total Received	Disbursements	Net Activity
July 2016	\$ 175,219	\$ 177,772	\$ 352,990	\$ -	\$ 352,990
August 2016	\$ 69,829,119	\$ 1,139,802	\$ 70,968,921	\$ 1,422,775	\$ 69,546,146
September 2016	\$ 940,753	\$ 1,351,946	\$ 2,292,699	\$ 702,809	\$ 1,589,890
October 2016	\$ 429,779	\$ 339,275	\$ 769,053	\$ 716,499	\$ 52,555
November 2016	\$ 462,945	\$ 378,305	\$ 841,250	\$ 2,462,536	\$ (1,621,286)
December 2016	\$ 1,064,866	\$ 1,034,724	\$ 2,099,590	\$ 7,485,252	\$ (5,385,662)
January 2017	\$ -	\$ -	\$ -	\$ -	\$ -
February 2017	\$ -	\$ -	\$ -	\$ -	\$ -
March 2017	\$ -	\$ -	\$ -	\$ -	\$ -
April 2017	\$ -	\$ -	\$ -	\$ -	\$ -
May 2017	\$ -	\$ -	\$ -	\$ -	\$ -
June 2017	\$ -	\$ -	\$ -	\$ -	\$ -
<b>FY 2017 Totals</b>	<b>\$ 72,902,680</b>	<b>\$ 4,421,824</b>	<b>\$ 77,324,504</b>	<b>\$ 12,789,871</b>	<b>\$ 64,534,633</b>

### SEVERANCE TAX PERPETUAL BASE FUND

Period	Principal	Interest	Total Received	Disbursements	Net Activity
July 2016	\$ 60,728	\$ 34,502	\$ 95,230	\$ -	\$ 95,230
August 2016	\$ 423,038	\$ 65,634	\$ 488,672	\$ 494,138	\$ (5,466)
September 2016	\$ 3,542,989	\$ 1,578,552	\$ 5,121,541	\$ 20,285	\$ 5,101,257
October 2016	\$ 201,132	\$ 199,300	\$ 400,432	\$ 130,390	\$ 270,042
November 2016	\$ 4,741,943	\$ 185,184	\$ 4,927,128	\$ 350,346	\$ 4,576,782
December 2016	\$ 641,627	\$ 180,155	\$ 821,782	\$ -	\$ 821,782
January 2017	\$ -	\$ -	\$ -	\$ -	\$ -
February 2017	\$ -	\$ -	\$ -	\$ -	\$ -
March 2017	\$ -	\$ -	\$ -	\$ -	\$ -
April 2017	\$ -	\$ -	\$ -	\$ -	\$ -
May 2017	\$ -	\$ -	\$ -	\$ -	\$ -
June 2017	\$ -	\$ -	\$ -	\$ -	\$ -
<b>FY 2017 Totals</b>	<b>\$ 9,611,458</b>	<b>\$ 2,243,327</b>	<b>\$ 11,854,785</b>	<b>\$ 995,158</b>	<b>\$ 10,859,626</b>
<b>GRAND TOTALS</b>	<b>\$ 82,514,138</b>	<b>\$ 6,665,151</b>	<b>\$ 89,179,289</b>	<b>\$ 13,785,029</b>	<b>\$ 75,394,260</b>