COLORADO

Colorado Water Conservation Board

Department of Natural Resources

DIRECTOR'S REPORT

September 2016

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

STATE OF COLORADO

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

TO: Colorado Water Conservation Board Members

FROM: James Eklund
Erik Skeie

DATE: September 21-22, 2016

SUBJECT: **Agenda Item 6d, September 2016 CWCB Board Meeting Director's Report**

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~STATEWIDE~

GROUND WATER COMMISSION MEETING— The Ground Water Commission (GWC) held its quarterly meeting on August 19, 2016 in Colorado Springs, CO. The agenda items included routine reports and the Commission discussed amending the Designated Basin Rules so that the alluvial aquifer and all of the Fan and White River aquifers in the Upper Crow Creek Basin would be considered over appropriated. The Commission also discussed the proposed revision of the Water Quality Control Commission's regulations that would relax the standard for TDS in the Upper Black Squirrel Creek alluvial aquifer. The Commission appointed Steve Kramer as its representative to the Republican River Water Conservation District and elected Commissioner Virgil Valdez from Alamosa as its Interim Chair. The Ground Water Commission will hold its next regular meeting on November 18, 2016, in Castle Rock, CO. For more information visit: http://water.state.co.us/groundwater/CGWC/Pages/default.aspx. (*Carlee Brown*)

~COLORADO RIVER BASIN~

COLORADO RIVER WATER USE— As of August 29, 2016, the Lake Mead water level was at 1075.00 feet with 9.601 million acre-feet (MAF) of storage, or 37% of capacity, while the Lake Powell water level was at 3614.06 feet with 13.143 MAF of storage, or 54% of capacity. Total system active storage as of August 28 was 30.725 MAF, or 52% of capacity, which is slightly less than one year ago, when the total system content was 30.913 MAF, or 52% of capacity. As of August 17, 2016, the forecast unregulated inflow into Lake Powell for Water Year 2016 is 9.781 MAF, which is 90% of average.
2016 Water Use Forecast: As of August 29, the 2016 Reclamation forecast for the Lower Basin states' consumptive use of Colorado River water is 6.961 MAF, which includes Arizona at 2.514 MAF, California at 4.197 MAF, and Nevada at 0.249 MAF. The forecast for 2016 for California's agricultural consumptive use of Colorado River water is 3.286 MAF. The forecast for Metropolitan Water District of Southern California's 2016 use is 0.767 MAF. (*Andy Moore*)

THE UPPER COLORADO RIVER WILD AND SCENIC STAKEHOLDER GROUP— The UCRW&S Group held its quarterly Governance Committee (GC) meeting on August 29, 2016 in Summit County. The GC discussed the need for macro invertebrate monitoring to be performed this fall with a vote on whether to approve the monitoring to follow in mid-September. The GC also discussed next steps for annual budgeting and heard interest group updates, water project updates, federal agency updates and committee updates. The GC approved Deb Freeman as the interim Co-Chair until January. The next GC meeting is scheduled for October 26, 2016 in Summit County. Additional information on the UCRW&S Group can be found at http://www.upcowildandscenic.com. (*Suzanne Sellers*)

~PLATTE RIVER BASIN~

PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM— The Platte River Recovery Implementation Program (PRRIP) Governance Committee (GC) held special meetings on July 26-27, 2016 and August 17, 2016 in Denver, CO.

During the special meetings, the GC voted to put the proposed J2 Regulating Reservoir Project on hold as the Program pursues other Water Action Plan opportunities. At the July 26-27, 2016 meeting, the GC directed the Executive Directors Office (EDO) to 1) work with CNPPID and Nebraska DNR to develop a related addendum to the existing Water Service Agreement, 2) move ahead with geotechnical testing and other components needed on potential slurry wall gravel pit sites with the intent of putting in place at least one project, 3) move ahead with permitting and other components needed on potential

broad scale recharge project sites with the intent of putting in place at least one project, 4) develop a management plan for the Cottonwood Ranch broad scale recharge project that includes an evaluation of potential impacts (positive or negative) on existing whooping crane habitat, 5) move forward with acquisition of Tract W1602 and 6) update the Water Action Plan to incorporate these new projects . At the August 17, 2016, the GC approved the Water Leasing Agreement with CNPPID and directed the EDO to an attempt to purchase Tract 160 at auction. The GC members also spent a considerable about of time negotiating the First Increment Extension Proposal at both meetings.

CWCB staff participated in Land Advisory Committee (LAC), Water Advisory Committee (WAC), and Finance Committee (FC) meetings. The next regular GC meeting will be held on September 13-14, 2016 in Kearney, NE. For more information, please visit:
http://www.platteriverprogram.org/Pages/default.aspx. (*Suzanne Sellers*)

~SAN JUAN/SAN MIGEUL-DOLORES RIVER BASIN~

RIVER PROTECTION WORKGROUP— The River Protection Workgroup (RPW) Steering Committee met on July 15, 2016 in Durango, CO. The discussion centered on the process of resolving the remaining differences between stakeholders. The next meeting of the Steering Committee has not been scheduled; however, the Drafting Committee has been meeting to discuss specific concerns. Meanwhile, work on investigating the iron fens in the Silverton area is proceeding.

The Drafting Committee is currently engaged in negotiations and development of consensus approaches for the protection of the five rivers, and related ORVs in the San Juan River basin, while protecting the ability of water users, within Colorado, to fully use their compact entitlements. The group has been working on resolving the remaining differences between a proposal by Trout Unlimited and an alternate proposal by the Wilderness Society and the San Juan Citizen's Alliance. The RPW Steering Committee has come to a tentative agreement-in-principle that incorporates features from both of the proposals. The Steering Committee has now shifted to the "drafting phase" of a regional legislative package with the understanding that there are still some details to be worked through. The agreement-in-principle includes pursuing instream flow (ISF) water rights, the removal of suitability, Wild and Scenic designation, and the maintenance of suitability within the five watersheds of the San Juan Basin. Additional information on the RPW can be found at: http://ocs.fortlewis.edu/riverprotection. (*Suzanne Sellers*)

~ WATER CONSERVATION AND DROUGHT PLANNING UPDATES ~

CWCB WATER EFFICIENCY GRANT FUND PROGRAM (WEGP) UPDATE—
Six grant applications have been received since the July 2016 Director's Report

- Town of Firestone – City Parks Irrigation Controller Replacement & Clock Giveaway
- South Metro Water Supply Authority – Regional Landscape Certification Program
- Pikes Peak Regional Water Authority – Regional Water Efficiency Report
- Ruedi Water & Power Authority – Rain Sensor Retrofit Program
- Western Resource Advocates – BP Guidelines for
- Town of Severance – Water Efficiency Plan

One grant has been approved since the July 2016 Director's Report

- Town of Firestone – City Parks Irrigation Controller Replacement & Clock Giveaway ($32,722.55)

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

- Ft Collins-Loveland Water District – Water Efficiency Plan Update –Final Plan
- High Country Conservation Center – Summit Saves Program – 50% Progress Report
- City of Ouray – Water Measurement Plan – Final Report
- City of Brighton – Water Efficiency Plan Update – 50% Progress Report

(*Ben Wade*)

WATER EFFICIENCY & DROUGHT PLANS UPDATE—

The Office of Water Conservation & Drought Planning (OWCDP) continues to work with the following providers to approve their Water Efficiency and Drought Management Plans:

DROUGHT MANAGEMENT PLANS—

Approved Plans
No new plans approved since the last Board Meeting

WATER EFFICIENCY PLANS—

Approved Plans
No new plans approved since the last Board Meeting

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

- City of Boulder
- Skyland Metro District
- Mount Crested Butte
- Southeastern Colorado Water Conservancy District Supplemental Regional Plan

Water Efficiency Plans in review

- Parker Water & Sanitation District
- Fort Collins-Loveland Water District
- Centennial Water and Sanitation District
- North Table Mountain Water and Sanitation District

(*Kevin Reidy & Ben Wade*)

GOVERNOR'S WATER AVAILABILITY TASK FORCE— The next Water Availability Task Force meeting will be held on September 16, 2016 from 9:00am-11:00pm 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— 22 percent of the state is currently classified as abnormally dry and one percent is experiencing moderate drought conditions, a slight improvement over August conditions. June and July were warm and dry across much of the state but August was cooler statewide with more precipitation in the mountains and throughout the Southwestern corner of the state. Water-year-to-date the state is near normal for precipitation, and reservoir storage remains high. ENSO neutral conditions exist with a

moderate to weak La Nina forecast to begin this fall and persist into winter. Should La Nina conditions emerge it would not necessarily foretell drought conditions for the state. The long term Climate Prediction Center forecast indicates a warm fall with no clear indication of wet or dry conditions. (*Taryn Finnessey*)

COLORADO CLIMATE PLAN IMPLEMENTATION— Taryn Finnessey is working with state agencies to hold stakeholder public engagement sessions pursuant with Colorado's Climate Plan implementation efforts. Additionally, in light of the stay of the Clean Power Plan by the U.S. Supreme Court, CWCB is also working with relevant state agencies to develop a Colorado specific path forward to ensure clean air in Colorado for generations to come. (*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 is still running numbers through their model but should be done soon. The project is moving into the exploratory scenario planning phase. With the help of the Sonoran Institute, the group will run various scenarios and see how climate, economy and social trends affect the model runs. (*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. A successful training took place at the Rocky Mountain Land Use Institute's spring conference in early March. At present, Kevin and DOLA staff have reviewed the first 3 modules and will be creating webinars in September and October. A train the trainer event will take place at the Colorado American Planning Association's annual conference on October 24, 2016. (*Kevin Reidy*)

URBAN WATER INNOVATION NETWORK— Staff is serving on the Front Range Advisory Committee for the Urban Water Innovation Network. UWIN is a sustainability research network, funded through the National Science Foundation (NSF), consisting of 16 academic institutions and key partners across the nation. UWIN will address challenges that threaten urban water systems and create a research network for integrated water systems, training/promoting champions of innovation for water-sensitive urban design and resilient cities. The UWIN engagement activities aim to foster learning about urban water challenges and solutions from diverse stakeholder perspectives in regions across the U.S. (*Kevin Reidy*)

NIDIS INTERMOUNTAIN WEST DROUGHT EARLY WARNING SYSTEM— Staff will participate in the expansion of NOAA's NIDIS drought early warning system from the Rocky Mountains region (CO, UT, WY) to include Arizona and New Mexico. This expansion also enables Colorado to utilize additional expertise and research that exists outside the Rocky Mountain region, namely the Climate Assessment for the Southwest based at the University of Arizona, and to learn from the experiences of more arid environments and their approach to drought management, which may inform our upcoming drought plan revision. (*Taryn Finnessey*)

~WATERSHED AND FLOOD UPDATES~

MAPPING UPDATE—

FY16 Activities: The CWCB was recently awarded several FEMA grants this fiscal year to fund Risk Map activities including: continuation of the Upper White Watershed Risk Map and St. Vrain Risk Map Projects and a $3.4 million grant to acquire LiDAR for a portion of southwest and eastern Colorado. The FEMA grants will be obligated in October 2016 and work will begin after the task orders have been finalized.

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. The final scopes of work have been approved and awaiting final task orders to begin work.

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 in 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*)

COLORADO HAZARD MAPPING UPDATE— The CWCB staff and their consultant team from AECOM meet quarterly with local and county officials within the project boundaries to give updates on the status of the program, discuss concerns, and ensure collaboration and transparency. Past quarterly meeting were held in November 2015, February 2016, and May 2016. The next Hazard Mapping quarterly meeting will take place on September 9, 2016 at the Colorado Department of Transportation Region 4 Headquarters in Greeley, CO. To date the Hazard Mapping Field Reconnaissance & Survey, Topographic Data Development, and Hydrology tasks are complete, while Hydraulic Analysis is underway. Floodplain mapping for Phase I streams is anticipated to be complete this fall, while Phase II began Reconnaissance & Survey tasks in late August 2016.
All project information can be found at http://coloradohazardmapping.com/.

(*Stephanie DiBettito*)

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

Reminders for Coalition Coordinators: Phase II Project Checklist: The project checklist details items that must be completed for each EWP project in order for a Technical Assistance Agreement and for a Financial Assistance Agreement to be signed with the Colorado Water Conservation Board The checklist includes roles and responsibilities, timeline, and deliverables.

New Resources at coloradoewp.com: The website dedicated to the EWP program has been updated to include the following resrouces:

- Maps of Projects by Watershed - Downloadable PDF maps of EWP projects by watershed, as well as a map of all projects, are compiled on this page and also linked on the Meetings Resources and Watershed Coalitions pages.

- Program Information for Contractors - A new web page and handout provide information to contractors on upcoming EWP project construction work.

New- Living Streambanks: A Manual of Bioengineering Treatments for Colorado Streams: This manual, recently made available at www.coloradoewp.com , provides practitioners with bank stabilization design guidelines to be used during a more comprehensive river restoration strategy, and to better incorporate specific design elements that determine a bioengineering project's stability. The manual also includes recommendations on design decisions that minimize project risk during the period of greatest susceptibility to failure.

New Damage Survey Reports Webpage: The EWP Damage Survey Report (DSR) provides guidance to design teams on how to interpret DSRs for EWP projects and may be found at www.coloradoewp.com/project-sponsors . It is a foundational document for design teams as they scope and kickoff each EWP project design. DSRs determine the funding eligibility of projects for EWP Phase II. Each DSR documents damage, treatment methods, approximate construction costs, value of property at risk, environmental concerns, and the benefit-cost ratio of the proposed treatment. DSRs also serve to define project boundaries, describe the general scope of work, provide an initial cost estimate, and identify the assets that must be protected by the project(s).

New Project Sponsor Webpage: This new webpage lists all project sponsors and their project to date, and serves to recognize the essential role they play in the process. Each EWP project has a local sponsor essential for its successful implementation. The local sponsor provides the legal authority to do the recovery work, as well as applies for the assistance, contributes at least 12.5% of the project cost, obtains necessary permits, and takes responsibility for three years of operations and maintenance. Project sponsors are also critical due to their local knowledge and relationships and they help to coordinate among state and federal agencies and local landowners and stakeholders. The local sponsors currently identified for EWP-funded projects are listed here.

Upcoming Projects

Watershed: Big Thompson River

North Fork Big Thompson River Restoration at Glen Haven on West Creek – Bank erosion, sedimentation, and unstable streambanks have 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.

Watershed: Fountain Creek

Pawnee Channel - Channel Stabilization to protect homes and city storm water infrastructure.

Ruxton Ave – Flood wall repair to protect residences, utilities and street (see right photo).
(*Jeff Conboy*)

WATERSHED AND STREAM RESTORATION— Staff continues to manage watershed and stream restoration projects through the Colorado Watershed Restoration Program, the Fish and Wildlife Resource Fund, and the Water Supply Reserve Fund. One project of note is the Swan River Stream Restoration Project. The Swan River is tributary to the Blue River above Dillon Reservoir. The CWCB holds several instream flow rights on various reaches in the Swan River watershed. The restoration reach was approved for $975,000 of WSRF funds from both the Basin and Statewide Accounts in March 2015. Summit County is the grantee. The total project cost is nearly $2 million.

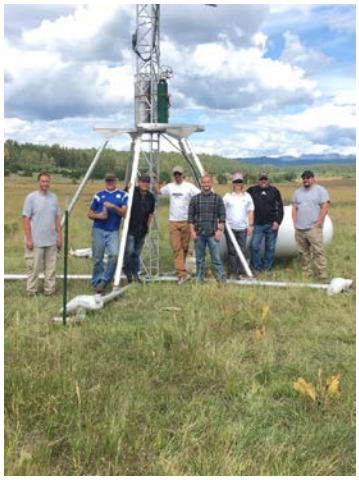
Summit County hired Ecological Resource Consultants, Inc. (ERC) for the restoration work through competitive bid process. ERC completed 60% design plans and then started construction. This reach of the Swan River was little more than a tailings pile as a result of gold mining and subsequent gravel mining. The water flowed sub-surface, i.e. below grade in the tailings. ERC removed up to eight feet of tailings to create the new channel. The design relies heavily on appropriate channel geometry (planimetric design) and slope. The average slope is 1%, with steeper slopes in the riffles and lower slopes in the pools and glides. There are no hard structures, e.g. grade control cross vanes. Staff observed trout utilizing newly formed habitat.

This is the first phase of the project. The water literally daylights out of the tailings, and this August it was flowing approximately 10-20 cfs. Summit County will monitor the restoration and riparian area re-vegetation efforts. They are optimistic that there will be a phase 2 restoration project that will remove more tailings to resurrect the remaining reaches of the Swan River. Staff believes this to be a successful example of beneficial restoration in a heavily impaired system. Once complete, the restoration effort will connect highly functioning upstream and downstream reaches of the river. (*Chris Sturm*)

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 14 out of 250 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. Stephanie DiBetitto, has taken over this responsibility as the Community Assistance Program Coordinator, and will continue to provide outreach and technical assistance to communities.
(*Stephanie DiBetitto*)

COMMUNITY RATING SYSTEM UPDATE— The CWCB is looking to increase participation of Colorado communities in the National Flood Insurance Program's (NFIP) Community Rating System (CRS) as one of its resiliency goals for 2016. CRS is a voluntary program that rewards communities that are implementing proactive floodplain management programs that exceed the NFIP minimum requirements. CRS also provides incentives for communities to further improve their programs. Currently, only 46 Colorado communities out of the 243 communities participating in the Regular Phase of the NFIP are also participating in CRS. To reach more communities and to provide them resources about the CRS, CWCB tasked AECOM with developing a Colorado specific CRS website. The CRS website is a "one-stop shop" for Colorado communities to access information and resources about the CRS – geared towards two user groups: New Users and Participating Communities. New Users are able to quickly learn about CRS; use tools to determine if CRS might be a good fit for their community; and consider the next steps towards participation. Participating Communities have access to Colorado specific resources for CRS activities. The website can be found at:
www.coloradohazardmapping.com/crs (*Stephanie DiBettito*)

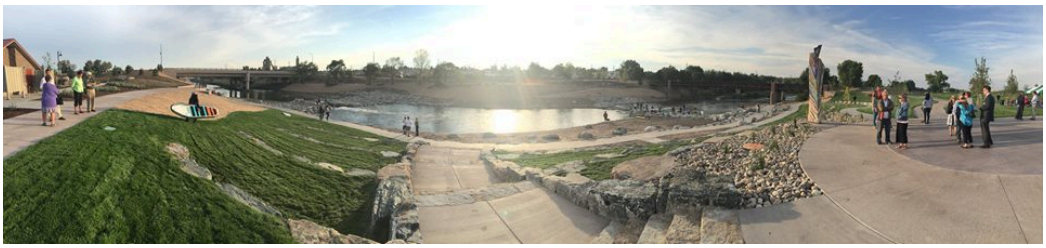
CLOUD SEEDING UPDATE— The Upper Gunnison River Water Conservancy District's Frank Kugel is standing next to City of Grand Junction personnel as the Idaho Power Company installs a new cloud seeding machine at Irwin Lodge about seven miles west of Crested Butte. Staff believes that this new remote operated generator at 10,700 feet elevation is the highest generator site in North America and well-suited to help effectively cloud seed and benefit the upper East River basin, which includes Crested Butte Mountain Resort. Numerous local stakeholders contribute to the Gunnison cloud seeding program and acknowledge its benefit to the basin. This is part of the technology transfer and modernization work of the CWCB and Colorado River seven Basin States. WSRA funding was also used to help purchase this seeder that is now owned by the Upper Gunnison Water Conservancy District. Staff would like to thank Frank Kugel and John McClow for their leadership and coordination to bring this project to fruition.



The Dolores Water Conservancy District, Idaho Power Company and CWCB purchased and deployed a remote operated ice nucleus generator near the town of Stoner, Colorado at 8,000 feet elevation to seed the upper parts of the Dolores River Basin. Idaho Power has agreed to sell the units they manufacture with help from ten vendors to Colorado and our local programs. Interesting features are satellite communications, and a software database to operate this seeder, which is state of the art and allows multiple entities to operate the unit and monitor its use. Staff would like to thank Mike Preston and Ken Curtis of the Dolores WCD for their leadership and coordination to bring this project to fruition. http://www.the-journal.com/article/20160831/NEWS01/160839974/ (*Joe Busto*)

RIVER RUN GRAND OPENING— River Run Grand Opening: August 25th was the grand opening of a historic project in the Denver Metro area. Known as River Run, the facility highlights include a public river surfing wave and river amphitheater park. It also has a pavilion, running water bathrooms, playground, and artwork. This project was $5M in this first phase and featured a partnership between Sheridan, Englewood, Littleton, Arapahoe County, Army Corps of Engineers, Urban Drainage and Flood Control District, and the CWCB.

The park has an interesting feature in that the surfing feature was designed for a range from 200-500 cfs and can be "tuned" where the main drop structure can be moved up and down to create a four foot standing wave. It will be a popular draw in Colorado during summer months. This project started in 2011 when a large coalition of local leaders went to the CWCB board meeting and asked to give staff authority to seek federally approved projects that balance flood control and recreational and environmental objectives and better utilize this CWCB owned flood control reach to create amenities to the communities. http://www.denverpost.com/2016/08/26/south-platte-river-run-park-surfing-denver/ (*Joe Busto*)



ESTES PARK HYDROLOGIC RE-EVALUATION— As a component of the larger floodplain remapping program legislatively authorized by SB15-245, the Town of Estes Park is currently re-evaluating the flood hydrology through the Town for Fall River, the Upper Big Thompson River, Black Canyon Creek, and Dry Creek. This study is being funded through the Community Development Block Grant – Disaster Recovery (CDBG-DR) Watershed Program, a HUD-funded program administered on behalf of the State by the Department of Local Affairs. CWCB Flood staff is serving as a technical resource to the process, and is funding a peer review of the study. The draft report has been issued internally, and is currently being peer reviewed by two independent reviewers, one being FEMA. Preliminary results indicate a substantial increase in regulatory flowrates through three of the four stream reaches, most notably including Fall River, which covers most of the downtown area. Following the peer reviews, the final results will be presented to the Town Board on October 25th, followed by a public meeting the next morning on October 26th.

It is worth noting that this is expected to be an extremely controversial study, due to the magnitude of increase and the impacts to the downtown area. The study will likely come before the CWCB Board for floodplain designation at the November 2016 meeting. It will depart from normal procedure and will be presented as an agenda item (rather than consent agenda) due to the controversial nature of the results. (*Kevin Houck*)

NE COLORADO FLOOD AND STORMWATER MANAGEMENT PLAN— Four northeastern Colorado counties will begin preparing a comprehensive stormwater and flood management plan, the first of its kind in that area of the state. Morgan, Washington, Logan, and Sedgwick Counties were awarded a Community Development Block Grant – Disaster Recovery (CDBG-DR) Program grant to undertake the effort. This grant program, funded by HUD and administered for the State by the Department of Local Affairs (DOLA), uses recovery funds tied to the 2013 flood disaster.

CWCB staff will serve as technical project manager and general technical assistance at the request of the four counties. The project will be managed administratively by DOLA. Morgan County will serve as the fiscal agent, local administrative lead, and overall point of contact for the grant recipients. However, an MOU is being prepared between the four counties to outline roles and responsibilities of the four counties.

A scoping meeting was held between DOLA, CWCB staff, and the recipient counties on June28, 2016. The project is expected to commence late summer or early fall and continue through 2017. The goals of the project are to identify flood and stormwater risks and develop a conceptual plan to mitigate them. The study reaches will include the South Platte River from Morgan County to the Nebraska State Line as well as Beaver Creek and Pawnee Creek. The project will use newly developed flowrates by CDOT and CWCB as part of its effort. (*Kevin Houck*)

~AGENCY UPDATES~

FLOOD SECTION EMPLOYEE TAKES ON A NEW ROLE— The FEMA Community Assistance Program manager position was vacated by Jamie Prochno in June in order for her to take a new position with the Corps of Engineers Omaha District. Stephanie DiBettito was "hired" to replace her in this position. Prior to taking on this role, Stephanie served as both an intern in the agency and as the SB15-245 Hazard Mapping Program Coordinator, a three-year term limited position. Stephanie began working in this new role in August, and now serves as the State Coordinator for the National Flood Insurance Program. In this position, Stephanie works with both FEMA and local communities to administer floodplain regulations and to solve problems encountered at the local level. A hiring process is currently underway to hire a new Hazard Mapping Program Coordinator, and it is anticipated that this will conclude in September. (*Kevin Houck*)

REQUESTS FOR ADMINISTRATION OF ISF WATER RIGHTS— From March through August 2016, staff, on behalf of the Board, placed calls for administration of the following ISF water rights. Staff was alerted to low flow conditions via the flow alert system. The Division Engineers have worked diligently to enforce the calls through the curtailment of junior rights and/or through the implementation of various augmentation plans.

STREAM NAME	CASE NUMBER	DATE OF FORMAL WRITTEN CALL
Crystal River	5-75W2720	August 31, 2016
Elk River	6-77W1279 6-77W1331	August 17, 2016
Roaring Fork River	5-76W2948	March 25, 2016

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

RECENTLY DECREED ISF WATER RIGHTS— On August 9, 2016, the Division 1 Water Court decreed an instream flow water right to the CWCB on Graves Creek in Case No. 15CW3157 for 0.17 cfs (1/1-12/31), with an appropriation date of January 26, 2015. The upstream terminus is the Colorado/Wyoming border and the lower terminus is the confluence with an unnamed tributary. This ISF reach is approximately 2.76 miles long and flows in a southeasterly direction through parts of Larimer County.

On August 24, 2016, the Division 1 Water Court decreed instream flow water rights to the CWCB on Spottlewood Creek in Case No. 15CW3167 for 0.1 cfs (1/1-12/31), with an appropriation date of January 26, 2015. The upstream terminus is a point located at 4537937.85 UTM North, 495521.89 UTM East and the lower terminus a point located at 4534887.62 UTM North, 498663.70 UTM East. This ISF reach is approximately 3.53 miles long and flows in a southeasterly direction through parts of Larimer Counties.

On August 24, 2016, the Division 1 Water Court decreed natural lake level water rights to the CWCB in Case No. 15CW3172: 0.19 AF for Spottlewood Lake #1, 0.12 AF for Spottlewood Lake # 2, 0.17 for Spottlewood Lake #3, and 0.16 AF for Spottlewood Lake #4, all with an appropriation date of January 26, 2015. These lakes are located in Larimer County about ten miles north of the Town of Wellington. These are the first natural lake level water rights decreed to the Board in over 15 years. (*Rob Viehl*)

~GENERAL ATTACHMENTS~

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

~LOAN PROGRAM ATTACHMENTS~

- 01 Water Project Loan Program Interest Rates
- 02 Prequalified Project List and Loan Prospect Summary
- 03 Design and Construction Status Report
- 04 Emergency Loans Status Report
- 05 Fiscal Year 2015-2016 Non-Reimbursable Investments Status Report

Director's Report Attachment – September 20-22, 2016 CWCB Meeting
Stream and Lake Protection Section De Minimis Cases

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

Case No.	Applicant	Stream/Case No.	ISF Amount	Percent Injury (%)	Cumulative % Injury	Count
16CW3087	Community Foundation Trust	Cache la Poudre River 1-85CW425	55 (1/1 - 12/31)	0.12150 0.12150	0.13940 0.12160	3

September 20-21, 2016 Board Meeting
Instream Flow and Natural Lake Level Program
Summary of Resolved Opposition Cases

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

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

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

(1) Case No. 07CW0311 (Water Division 1) - Application of Lazy Bull Ranch, LLC (previously Flying Horse, LLC)

The Board ratified this statement of opposition at its March 2008 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 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 rights 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.

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

CWCB Case Number	Stream/Lake	Amount (cfs)	Approp. Date	Watershed	County
76W8230	Michigan Creek	7	01/14/1976	South Platte Headwaters	Park
76W8234	Jefferson Creek	6	01/14/1976	South Platte Headwaters	Park
77W8729	Tarryall Creek	14	11/15/1977	South Platte Headwaters	Park
77W8730	Tarryall Creek	20	11/15/1977	South Platte Headwaters, Upper South Platte	Park

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

- Recreational and piscatorial uses are limited to in-reservoir use.

- Diversions by Applicant under this water storage right will be made only in priority. Out-of-priority water shall be measured at the outlet flume and delivered via a new lateral that will be constructed to convey water to the down-gradient edge of the Baker Ditch historically irrigated area as shown in Exhibit B. Out-of-priority inflows will not be used to irrigate land.
- Return flows will be replaced by diverting through a lateral a portion of the Baker Ditch, Beaver Creek Ditch and North Beaver Ditch water to the return flow discharge location, which is at the down-gradient edge of the land that was historically irrigated by the Baker Ditch, Beaver Ditch and North Beaver Ditch.
- The groundwater return flow structure (infiltration trench), and surface water return flow method will be installed in a manner acceptable to the Division 1 Engineer. Upon request, Applicant will make plans for such structures available to Opposers, and Opposers will be provided the opportunity to provide comments to the Division 1 Engineer.

(2) Case No. 13CW3070 (Water Division 2) - Application of Bar NI Corporation

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 plan for augmentation and exchange does not injure the Board's instream flow water right on Purgatoire River 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.

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

CWCB Case Number	Stream/Lake	Amount (cfs)	Approp. Date	Watershed	County
09CW0090	Purgatoire River	7 - 21	01/27/2009	Purgatoire	Las Animas

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

- Section 37-92-102(3)(b) claims decreed in this case: The Lawton Pond, Rainbow Pond, Whispering Pines Pond, and Entrance Pond decreed in this case are located upstream of the reaches of the CWCB's instream flow water right on the Purgatoire River decreed in Case No. 09CW90, with an appropriation date of January 27, 2009. The diversion and use of water at such ponds for use for piscatorial, recreation, stock watering, wildlife habitat, fire suppression and incidental aesthetic uses, in the amounts described for each pond [in the decree], were initiated in the year 1954, occurring prior to the CWCB's appropriation of a water right for instream flow purposes on the Purgatoire River decreed in Case No. 09CW90. Pursuant to section 37-92-102(3)(b), C.R.S. (2014), the Applicant is not required to augment for the benefit of the CWCB's instream flow water right any out-of-priority diversions of water for the Lawton Pond, Rainbow Pond, Whispering Pines Pond, or Entrance Pond, when such diversions are used for piscatorial, recreation, stock watering, wildlife habitat, fire

suppression and incidental aesthetic uses in the amounts described for each pond [in the decree]. Diversions of water for use by such ponds for augmentation and exchange uses, or for refill of such ponds, do not qualify as "present uses or exchanges of water" made by Bar NI prior to the CWCB's appropriation of its instream flow water right on the Purgatoire River decreed in Case No. 09CW90. If the CWCB's instream flow water right decreed in Case No. 09CW90 is being administered by the Division 2 Engineer, and the instream flow within the decreed reach is less than its decreed amount, then Bar Ni will either (1) provide replacement water at or above the upstream terminus of the instream flow right for those uses that are not subject to protection under the terms of this paragraph and section 37-92-102(3)(b), C.R.S., (2) will not operate any exchange within the decreed instream flow reach for filling the Bar Ni Ponds that is not subject to protection under the terms of this paragraph and section 37-92-102(3)(b), C.R.S., (3) will not operate any exchange of out-of-priority surface diversions for augmentation of diversions within the decreed instream flow reach to refill the ponds in the amount of evaporative depletions of the Bar Ni Ponds, or (4) will curtail any filling of the ponds under their 2009 priority for augmentation and exchange uses.

- During any period of a priority call by the CWCB's instream flow rights on the Purgatoire River, the Applicant may not replace evaporation at the ponds by annually aggregated replacements made by exchange.
- The ponds described in paragraphs 4-8 may only be used for augmentation of out-of-priority depletions caused by the four Bar Ni Ponds described in paragraphs 4-7 identified in the decree.

(3) Case No. 14CW3176 (Water Division 5) - Applications of WCCP1, LLC and WCCP2, LLC

The Board ratified this statement of opposition at its March 2015 meeting. The Board's main objective in filing the statement of opposition in this case was to ensure that the Applicants' proposed change of water rights does not injure the Board's instream flow water right on the Roaring Fork River and Woody 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 rights 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.

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

CWCB Case Number	Stream/Lake	Amount (cfs)	Approp. Date	Watershed	County
10CW0184	Roaring Fork River	0.15 - 0.89	06/30/1904	Roaring Fork	Pitkin
10CW0184	Roaring Fork River	3.54	06/30/1904	Roaring Fork	Pitkin
76W2938	Woody Creek	6	01/14/1976	Roaring Fork	Pitkin
76W2948	Roaring Fork River	32	01/14/1976	Roaring Fork	Pitkin
85CW0639	Roaring Fork River	75 - 145	11/08/1985	Roaring Fork	Eagle,

					Garfield, Pitkin
85CW0646	Roaring Fork River	30 - 55	11/08/1985	Roaring Fork	Eagle, Pitkin

In addition to standard terms regarding measuring devices, accounting and retained jurisdiction, the Applicants have agreed to the following additional protective terms and condition:

- No flow-through right is claimed or adjudicated herein, but Applicant may have return flows from the changed water rights in this case and Applicant's senior Salvation Ditch water rights flow through the pond.
- To prevent an expansion of use, Applicants agree that their senior Salvation Ditch direct flow water rights will be used only on the historically irrigated lands on their property below the Salvation Ditch, or in changed locations confirmed by a future decree. Because the call scenarios used in this augmentation plan are estimates and may be different from the actual future call scenarios, all consumptive use credits changed herein are dedicated to this augmentation plan.
- Augmentation use of Applicants' changed senior Salvation Ditch water rights and historical consumptive use credits will not involve introducing water to the stream system, but rather the senior water will be stored in the ponds and/or infiltrated to the groundwater to offset evaporation and mimic historic return flows.
- When a call from a water right on the Roaring Fork River located above the confluence of the Roaring Fork and Frying Pan Rivers ("Local Call") would otherwise prevent Applicants from refilling and topping off the Upper Irrigation Pond, Middle Irrigation Pond, and Parcel 2 Irrigation Pond, Applicants will curtail all junior pond priorities. The ponds' capture of local runoff on Woody Creek is not augmented and will also be curtailed during such a call. At such time however, Applicants may continue to fill these ponds with the Salvation Ditch consumptive use credits decreed in this case under the senior Salvation Ditch priority. Applicants may continue to take delivery of the historical "farm delivery" amounts associated with the dried up acreage as shown [in the decree]. Applicants shall maintain return flows associated with the dried up acreage in the amount shown [in the decree].
- Applicants will limit their total diversion from the Salvation Ditch at their properties to within the amounts that Applicants historically diverted and the Salvation Ditch Company shares they own to ensure there is no expansion of use. Applicants do not seek nor does this ruling confirm a right to divert more water than Applicants could otherwise divert through the Salvation Ditch and from the Salvation Ditch under Applicants' Salvation Ditch Company shares. Applicants will reduce the irrigation use of their senior Salvation Ditch direct flow water rights by the amount of water they divert under the junior storage water rights confirmed in this case. Applicants will account for this reduction.

(4) Case No. 15CW3052 (Water Division 5) - Application of AVR AH LLC

The Board ratified this statement of opposition at its September 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 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 rights 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.

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

CWCB Case Number	Stream/Lake	Amount (cfs)	Approp. Date	Watershed	County
10CW0184	Roaring Fork River	0.15 - 0.89	06/30/1904	Roaring Fork	Pitkin
10CW0184	Roaring Fork River	3.54	06/30/1904	Roaring Fork	Pitkin
76W2938	Woody Creek	6	01/14/1976	Roaring Fork	Pitkin
76W2948	Roaring Fork River	32	01/14/1976	Roaring Fork	Pitkin
85CW0646	Roaring Fork River	30 - 55	11/08/1985	Roaring Fork	Eagle, Pitkin

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

- For purposes of clarification in this decree, the term "operational storage" or operational storage for irrigation" wherever used herein, shall mean the temporary storage of Applicant's senior direct flow irrigation water rights in the Salvation and/or Waco Ditches and subsequent pumping or delivery of such temporarily stored water for irrigation purposes.
- The aesthetic use is limited to incidental use that does not constitute a calling water right.
- Storage under the AVR Pond 11-14 water rights is limited to a single fill totaling 5.3 acre-feet with the right to replace evaporative losses.
- Evaporative losses from the Lot 1 Pond, Lot 2 Pond, Lot 3 Pond and the West Ranch Pond No. 2 are not augmented by any decreed plan for augmentation. These water rights are transferred in their entirety to the AVR Lower ICS. Therefore, the balance of the surface area of AVR Lower ICS not augmented by AVR Pond 11, 12, 13, and 14 water rights equals 0.602 acres or 43%.
- In the event the State Engineer requests an accounting, Applicant shall be responsible for developing and providing the accounting to the State.

(5) Case No. 15CW3091 (Water Division 5) - Application of Town of Basalt

The Board ratified this statement of opposition at its January 2016 meeting. The Board's main objective in filing the statement of opposition in this case was to ensure that the Applicant's proposed plan for augmentation does not injure the Board's instream flow water rights on Capitol Creek, Snowmass Creek and the Roaring Fork River by not replacing out-of-priority depletions in the proper time, place and amount. In addition, the Board sought to ensure the

administrative exchange under Applicant's proposed augmentation plan is defined clearly with a reference to intervening instream flow water rights so that the CWCB's instream flow water rights are not injured. Applicant chose to amend its application to appropriate a right of exchange which clarified the reach and priority date. Staff, in cooperation with the Attorney General's Office, has negotiated a settlement to ensure that the CWCB's instream flow water rights will not be injured.

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

CWCB Case Number	Stream/Lake	Amount (cfs)	Approp. Date	Watershed	County
76W2941	Capitol Creek	10	01/14/1976	Roaring Fork	Pitkin
76W2943	Snowmass Creek	4 - 9	01/14/1976	Roaring Fork	Pitkin
85CW0639	Roaring Fork River	75 - 145	11/08/1985	Roaring Fork	Eagle, Garfield, Pitkin
85CW0646	Roaring Fork River	30 - 55	11/08/1985	Roaring Fork	Eagle, Pitkin
92CW0281	Snowmass Creek	10.5	09/15/1992	Roaring Fork	Pitkin

One of the main issues of concern for the ISF was a de facto exchange using only downstream water to replace upstream diversions. After discussion with Applicant, Applicant chose to amend its Application to add an appropriative right of exchange which clarified the reach and priority date.

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

- The plan for augmentation relies upon the RMI Exchange to replace out-of-priority diversions for a call originating between the confluence of the Fryingpan and Roaring Fork Rivers upstream to the point of diversion of the RMI Pump on Capitol Creek. When a valid call originating in this reach is being administered and the RMI Exchange is out of priority, Applicant shall curtail diversions under its interest in the RMI Pump to the extent necessary to avoid injury to the calling right.

(6) Case No. 15CW3057 (Water Division 6) - Application of Cross Mountain Ranch Limited Partnership, Ted Meyers

The Board ratified this statement of opposition at its March 2016 meeting. The Board filed a statement of opposition in this case because the Board's instream flow water rights are subject to portions of the water rights under C.R.S. 37-92-102(3)(b), so Staff sought to ensure that the new water rights were sufficiently documented. Staff, in cooperation with the Attorney General's Office, has negotiated a settlement to ensure that the CWCB's instream flow water rights will not be injured.

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

CWCB Case Number	Stream/Lake	Amount (cfs)	Approp. Date	Watershed	County
92CW0076	Williams Fork	14 - 30	09/16/1992	Upper Yampa	Moffat, Routt
92CW0080	East Fork Williams Fork	10 - 20	09/16/1992	Upper Yampa	Rio Blanco

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

- Pursuant to C.R.S. § 37-92-102(3)(b), the Colorado Water Conservation Board's instream flow rights described [in the decree] are subject to the first filling of the Old Gill Reservoir, described [in the decree], because the diversion and storage of that right, whether previously confirmed by decree or not, was in existence and use prior to September 16, 1992. The foregoing shall not and does not result in a general subordination of the CWCB's decreed instream flow rights to any other water rights junior to the instream flow water rights.

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

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

DATE: September 21-22, 2016 Board Meeting

DIRECTORS REPORT: Water Project Loan Program
Interest Rates

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

The current rates for a 30-year term are as follows:
1.50% - Agricultural
2.10% - Low-income Municipal
2.40% - Middle-income Municipal
2.75% - High-income Municipal
6.00% - Commercial
2.00% - Hydroelectric

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

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John Hickenlooper, Governor

Robert Randall, DNR Executive Director

James Eklund, CWCB Director

TO: Colorado Water Conservation Board Members

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

DATE: September 21-22, 2016 Board Meeting

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

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

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

Prequalified Project List

BORROWER	PROJECT NAME	APPLICATION DATE	BASIN	PROJECT DESCRIPTION	PROJECT COST	LOAN AMOUNT
Previously Approved Applications						
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	$2,520,000
Orchard Mesa Irrigation District	Grand Valley Power Plant Rehabilitation	July 1, 2016	Colorado	The Orchard Mesa Irrigation District and Grand Valley Water Users Association are planning to rebuild the Grand Valley Power Plant .	$5,200,000	$4,680,000
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	$762,500
Totals					$10,500,000	$7,962,500

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
St Vrain and Left Hand WCD	Reservoir Rehabilitation	$1,000,000
Town of Firestone	Water Rights/Storage	$3,000,000
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
Chatfield Reallocation Members	Chatfield Reallocation Project	$40,000,000
Subtotal		**$153,600,000**

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**

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**

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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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: September 21-22, 2016

DIRECTORS REPORT: Water Project Loan Program
Design & Construction Status Report

The CWCB Loan Program has Substantially Completed nineteen (19) projects in Calendar Year 2016 as shown in Table 1. There are currently fifty-three (53) projects authorized to receive loan funding totaling $244 million. There are fifty (50) projects currently under contract and in the Design and Construction phase totaling $165 million. There are an additional nineteen (19) Emergency Loans approved totaling $23 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	6/1/16
13	Left Hand Ditch Company	Allen Lake and Lake Isabelle Repair	Boulder	$1,332,562	6/1/16 (d)
14	Colorado Parks & Wildlife	Beaver Park Reservoir Rehabilitation	Rio Grande	$10,000,000	6/1/16 (e)
15	Greeley and Loveland Irrigation Co.	Irrigation System Improvements	Larimer	$3,745,080	7/1/2016 (f)
16	Boxelder Basin Regional Stormwater Authority	East Side Detention Facility	Larimer/ Weld	$7,171,000	7/1/2016
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	Boxelder Basin Regional Stormwater Authority	Larimer & Weld Canal Crossing Structure	Larimer/ Weld	$1,010,000	8/1/2016
			Total:	$36,544,288	

Calendar Year 2016 has added or preserved 17,380 AF of reservoir storage [(a) 90, (b) 109, (c) 726, (d) 1,254 (e) 2,201 (f) 12,925, (g) 75]

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

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

COLORADO
Colorado Water Conservation Board
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.

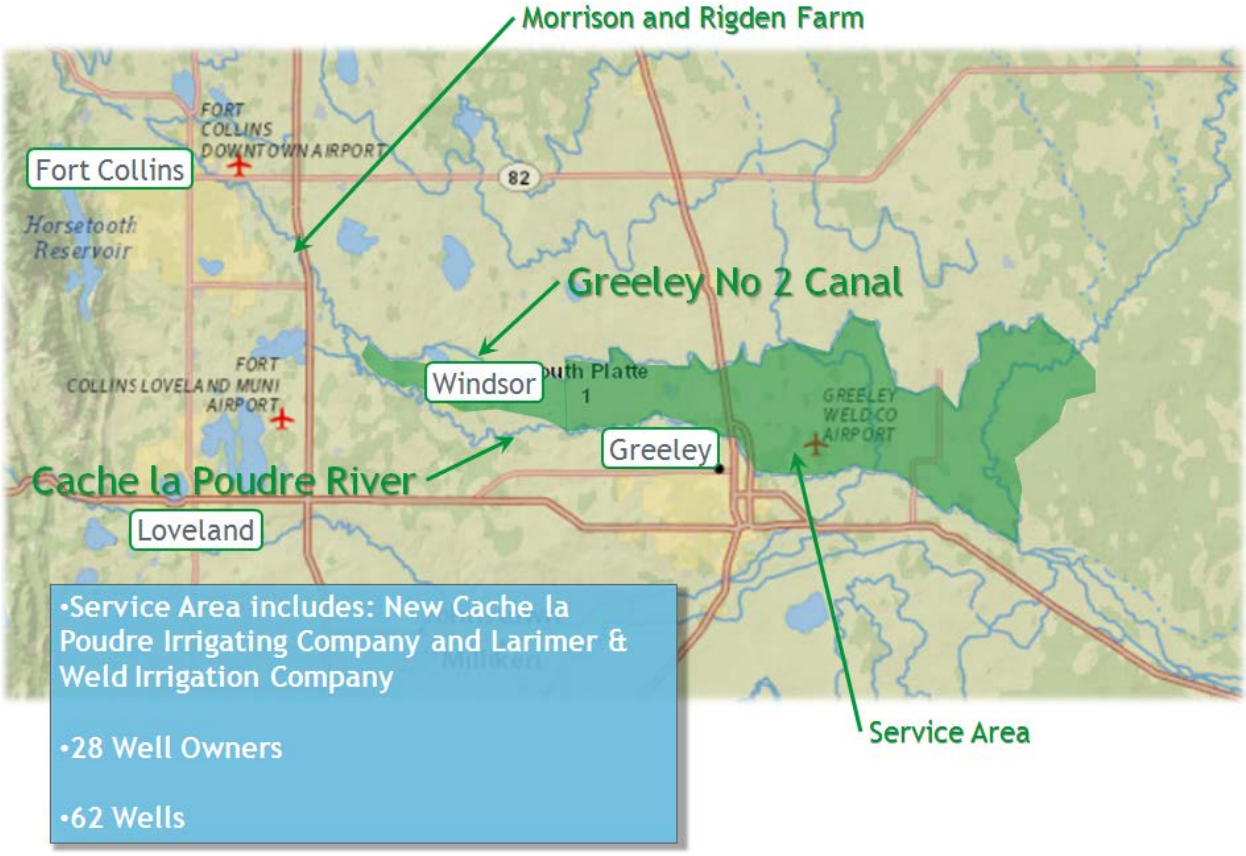
P R O J E C T D A T A		
Sponsor: Town of Ridgway	*County:* Ouray	*Water Source:* Ridgway Ditch
Type of Project: Reservoir Enlargement	*Board Approval Date:* September 2012	
Loan Terms: (Original) $606,000 @ 3.0% for 30 years *(Final)* $606,000		
Design Engineer: Joanne Fagan, PE, City Engineer		
Contractor: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

COLORADO
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)		

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Water Rights Purchase Project

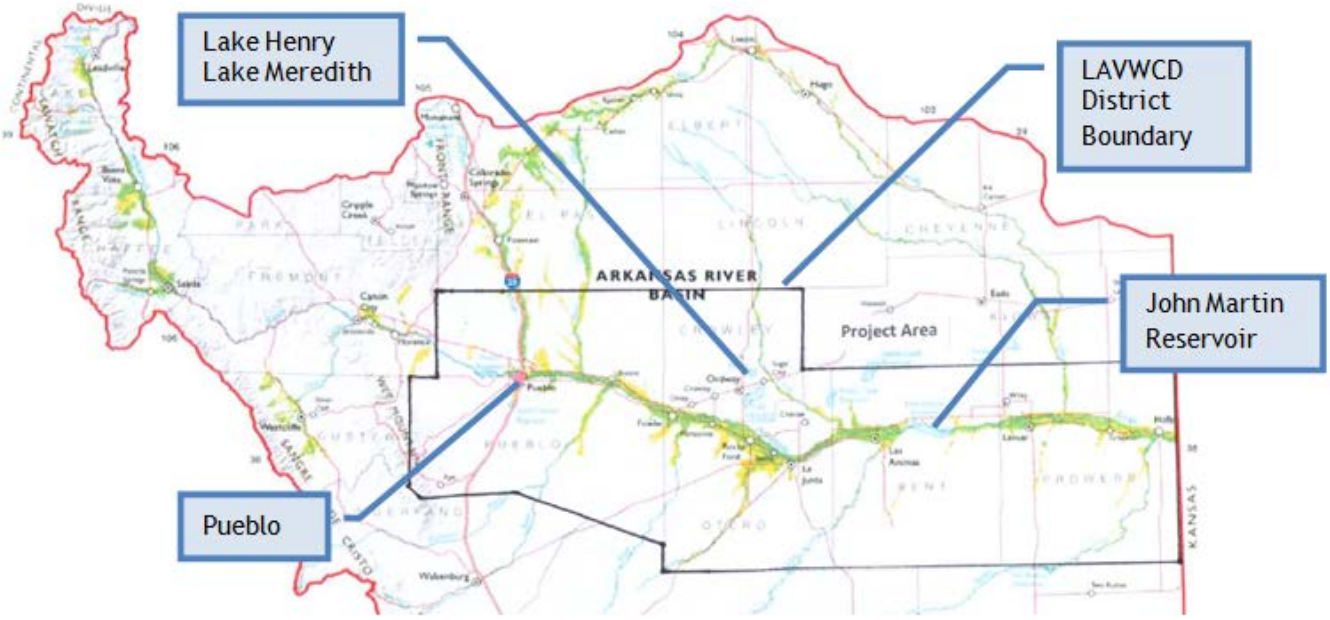
Lower Arkansas Valley Water Conservancy District

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 Fallowing-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.



PROJECT DATA		
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		

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

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

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Diversion Structure Rehabilitation

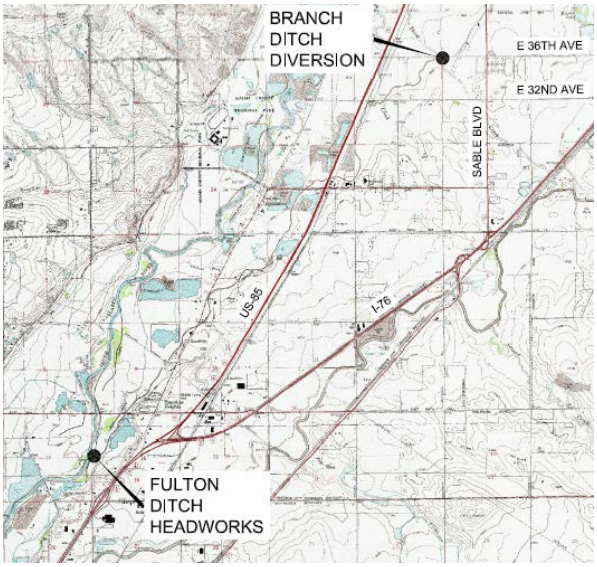
Fulton Irrigating Ditch Company

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 sytem 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		
Sponsor: Fulton Irrigating Ditch Co.	*County:* Adams	*Water Source:* South Platte River
Type of Project: Diversion Rehabilitation	*Board Approval Date:* May 2014	
Loan Terms: 2.45% for 30 years *(Original)* $2,027,070 *(Final)* $1,947,139		
Design Engineer: Deere and Ault Consultants, Inc.		
Contractor: Lillard & Clark Construction Company; Rodney Hunt – Fontaine (gates and hardware)		
Project Elements: 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		
Sponsor: Bergen Ditch & Reservoir Company	*County:* Jefferson	*Water Source:* Turkey Creek
Type of Loan: Dam Rehabilitation	*Board Approval Date:* November 2012	
Loan Terms: (Original) $2,111,102 @ 3.15% for 30 years *(Final)* $2,110,764.54 @ 3.15% for 30 years		
Design Engineer: W.W. Wheeler & Associates		
Contractor: American West Construction		
Project Elements: 272 LF concrete encased 24" HDPE outlet pipe, concrete inlet and outlet structures, toe drain system, riprap upstream slope		

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

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		
Sponsor: Upper Platte & Beaver Canal Co.	*County:* Morgan	*Water Source:* South Platte River
Type of Project: Augmentation	*Board Approval Date:* July 2014	
Loan Terms: 1.75% for 10 years *(Original)* $190,890 *(Final)* $119,685.76		
Design Engineer: TZA Water Engineers		
Contractor: Castle Rock Construction Company		
Project Elements: Excavation of an augmentation pond		

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

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		
Sponsor: Owl Creek Reservoir Company	*County:* Weld	*Water Source:* Owl Creek
Type of Project: Reservoir Rehabilitation	*Board Approval Date:* May 2001	
Loan Terms: 3.25% for 30 years *(Original)* $1,125,000.00 *(Final)* $485,000.00		
Design Engineer: Applegate Group		
Contractor: Did not construct the project		
Project Elements: Design plans complete		

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

River Breach Repair Project

Brighton Ditch Company

Substantially Complete May 1, 2016

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		
Sponsor: Brighton Ditch Company	*County:* Adams	*Water Source:* South Platte River
Type of Project: Ditch Rehabilitation	*Board Approval Date:* September 2015	
Loan Terms: (Original) $225,000 for 30 years @ 2.55% *(Final)* $225,000 for 30 years @ 2.55%		
Design Engineer: Deere & Ault Consultants, Inc.		
Contractor: Claystone Construction, LLC		
Project Elements: 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.

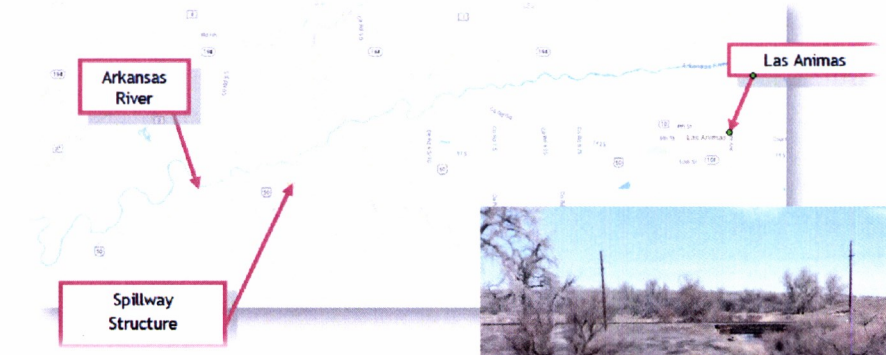
P R O J E C T D A T A		
Sponsor: McDonald Ditch Company	*County:* Rio Grande	*Water Source:* Rio Grande River
Type of Loan: Ditch Rehabilitation	*Board Approval Date:* September 2013	
Terms of Loan: $101,000 for 20 years @ 2.50%		
Design Engineer: Natural Resources Conservation Service (NRCS)		
Contractor: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

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

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.

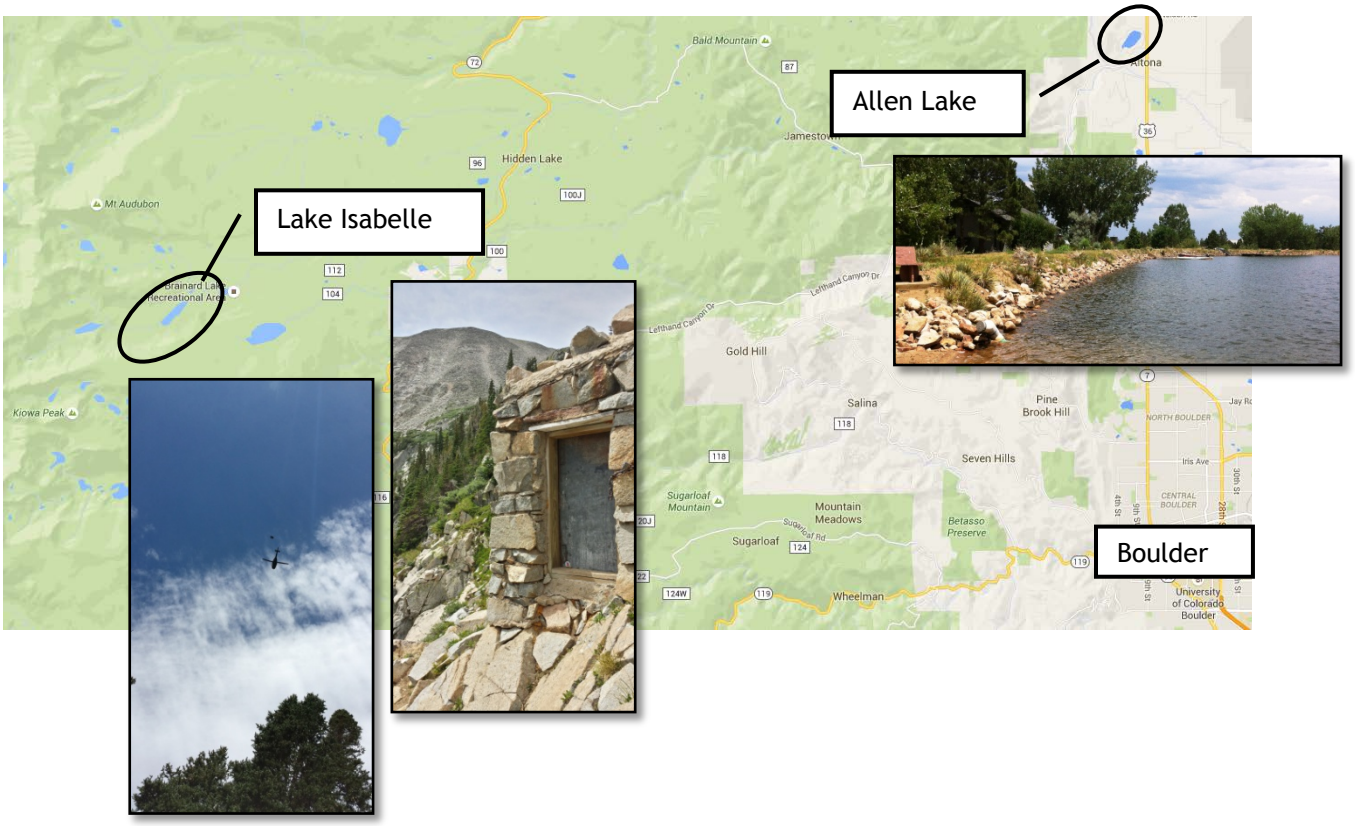
PROJECT DATA		
Sponsor: Las Animas Consolidated Canal Company	*County:* Bent	*Water Source:* Arkansas River
Type of Project: Ditch Rehabilitation	*Board Approval Date:* November, 2014	
Terms of Loan: *(Original)* $363,782, 5.05% for 30 years *(Final)* $95,054, 2.00% for 30 years		
Design Engineer: Wayne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

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Allen Lake and Lake Isabelle Repair Project

Left Hand Ditch Company

Substantially Complete June 1, 2016



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		
Sponsor: Left Hand Ditch Company	*County:* Boulder	*Water Source:* Left Hand and St. Vrain Creek
Type of Loan: Dam Rehabilitation	*Board Approval Date:* July 2012	
Loan Terms: 2.45% for 30 years *(Original)* $1,475,307.00 *(Final)* $1,332,562.39		
Design Engineer: Smith Geotechnical		
Contractor: Left Hand Excavating		
Project Elements: 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.		

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Beaver Park Reservoir

Colorado Parks and Wildlife

Substantially Complete June 2016

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.

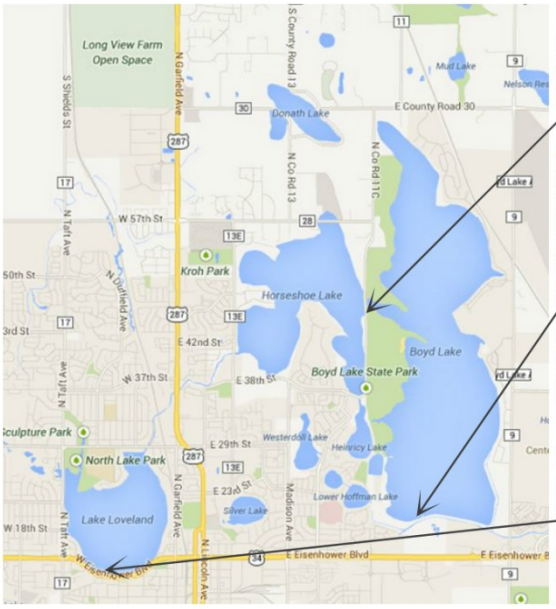
P R O J E C T D A T A		
Sponsor: Colorado Parks and Wildlife	*County:* Rio Grande	*Water Source:* Beaver Creek
Type of Loan: Reservoir Rehabilitation	*Board Approval Date:* September 2012	
Loan Terms: 0% for 30 years *(Original)* $10,000,000.00 *(Final)* $10,000,000.00		
Design Engineer: AECOM, URS		
Contractor: Phase 1 - Aslan Construction, Berthoud, CO; Phase 2 - ASI Constructors Inc, Pueblo CO		
Project Elements: 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		

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Irrigation System Improvements

Greeley and Loveland Irrigation Company

Substantially Complete July 1, 2016




Completed Horseshoe Lake High-Level Outlet


Completed Boyd Lake High-Level Outlet


Lake Loveland Sand Removal Project

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

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

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.

PROJECT DATA		
Sponsor: Boxelder Basin Regional Stormwater Authority	*County:* Larimer	*Water Source:* Boxelder Creek
Type of Loan: Flood Control	*Board Approval Date:* May 2013	
Terms of Loan: $7,171,000 at 3.0% for 15 years		
Design Engineer: Ayres Associates		
Contractor: Dietzler Construction Corporation		
Project Elements: ~9,000 LF Flood Control Dam (1,800 AF Capacity), 425 LF of a 17'5"x6' Box Culvert		

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

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		
Sponsor: Boxelder Basin Regional Stormwater Authority	*County:* Larimer	*Water Source:* Boxelder Creek
Type of Loan: Flood Control	*Board Approval Date:* January 2014	
Terms of Loan: $818,100 at 2.50% for 15 years		
Design Engineer: Ayers Associates		
Contractor: Dietzler Construction Corporation		
Project Elements: (4) 20'x4' Box Culverts, utility line relocations		

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

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.

PROJECT DATA		
Sponsor: Lake Canal Reservoir Company	*County:* Larimer & Weld	*Water Source:* Box Elder Creek
Type of Loan: Reservoir Rehabilitation	*Board Approval Date:* September 2011	
Terms of Loan: $204,298 at 2.10% for 30 years		
Design Engineer: Smith Geotechnical Engineering Consultants		
Contractor: Dietzler Construction Corporation		
Project Elements: 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

Larimer & Weld Canal Crossing Structure Project

Boxelder Basin Regional Stormwater Authority

Substantially Complete August 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 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		
Sponsor: Boxelder Basin Regional Stormwater Authority	*County:* Larimer	*Water Source:* Boxelder Creek
Type of Loan: Flood Control	*Board Approval Date:* May 2013	
Terms of Loan: (Original $1,010,000 at 2.75% for 15 years *(Final)* $835,104.53 @ 2.75% for 15 years		
Design Engineer: Ayres Associates		
Contractor: Crossfire, LLC		
Project Elements: Spillway construction, erosion control consisting of: gabion mattress, turf reinforcement mat (TRM), riprap, and articulated concrete block (ACB) mat		

Design and Construction - Summary

	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 remainig 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	$145,400	100%	May 2015 - Nov 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	Bow Mar Water & Sanitation District >Rehabilitation and Replacement of Water Meters CT2016-2516	Arapahoe & Jefferson	$332,795	100%	July 2016 - Sept 2016	99%	DRJ	Water meter replacement project nearly completed.
4	Central CO WCD - WAS > Augmentation Water Supply Project C150337 (CT2015-060)	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 being identified.
5 - 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	

Design and Construction - Summary

	Contract Borrower	County	Loan Amount	Design Status	Const. Start/End	Const. Status	PM	Status Description/Update
6 - CHATFIELD Reallocation Project - Phase 1 Mitigation								$31,486,120
	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. The Chatfield Reservoir Mitigation Company has been formed and CDM Smith/Leonard Rice has been selected at the Project Program Manager. Engineering work to develop a final design and more specific construction cost estimate can now start.
	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	
	Central Colorado Water Conservancy District >(C150407B) CT2016- 2058	Arapahoe Douglas Park Weld	$18,263,830	0%	2016 - 2022	0%	JMH	
7 - CHATFIELD Reallocation Project - Phase 2 Mitigation								$1,558,810
	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	$700,310	0%	2022 - 2028	0%	JMH	
8	Cortez, City of > Water Meter Replacement Project CT2015-152	Montezuma	$858,500	100%	June 2015 - Sept 2016	95%	ACM	Notice to proceed was issued in June 2015. All of the meters that required relocation have been moved. New AMR meters have replaced the City's meters. Software upgrades are underway. Substantial completion is expected by Oct 1, 2016.
9	Dixon Canon Ditch & Reservoir Company >Dixon Reservioir Dam Improvements CT2017-914	Larimer	$278,100	95%	Fall 2016 - Winter 2017	0%	JMH	SEO submittal and bidding to occur late August 2016

Design and Construction - Summary

	Contract Borrower	County	Loan Amount	Design Status	Const. Start/End	Const. Status	PM	Status Description/Update
10	Duke Ditch Company >Piping the Duke Ditch CT2017-915	Delta	$90,000	30%	Fall 2016 - Spring 2017	0%	ACM	Loan and grant contracts were executed in August 2016.
11	Ephraim Ditch Company > Ephraim Diversion and Headgate Rehabilitation C150402 (CT2015-090)	Rio Grande	$101,000	100%	Aug 2015 - Sept 2016	95%	JMH	Fabrication of steel structures began August 2015. Diversion structure concrete work began Jan 2016.Structure is operational and automation has been installed. Work continues on getting automation fully operational
12	Farmers Pawnee Canal Company > Diversion Structure Replacement Project C150394 (CT2015-132)	Logan	$2,067,470	100%	Mar 2014 - Nov 2015	99%	DRJ	Substantial completion expected September. Final reimbursement request expected end of August. Diversion structure is fully operational.
13	Fowler, Town of > Augmentation Pipeline Project C150359 (CT2015-054)	Otero	$277,245	100%	Fall 2016 - Winter 2016	20%	DRJ	Bid process imminent. Contract extension process completed..
14	Georgetown, Town of > Outlet Works Modification Project C150321 (CT2015-055)	Clear Creek	$2,976,975	100%	Aug 2014 - Nov 2016	99%	ACM	Construction began in August 2014. Gate testing occured on 4/28/15. The gate has operational issues. The gate manufacturer is fabricating replacement parts to be installed in the fall of 2016.
15	Grand Junction, City of >Hallenbeck Reservoir No. 1 Dam Rehabilitation CT2016-3070	Mesa	$1,010,000	100%	Aug 2016 - Nov 2016	0%	ACM	The City bid the project in July 2017 and construction began in August 2017.
16	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.
17	Gypsum, Town of > LEDE Ditch and Reservoir Rehabilitation C150296 (CT2015-058)	Eagle	$2,690,000	100%	Jul 2013 - Sep 2016	85%	DRJ	2016 construction season commenced. Riprap installation on face of dam continues. Final SEO inspection may not occur until 2017 construction season due to late fall weather.
18	Huerfano County Water Conservancy District > Regional Augmentation Project C150364 (CT2015-047)	Huerfano	$2,222,000	75%	Mar 2014 - Mar 2017	60%	ACM	Land and water rights purchase to 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.
19	Julesburg Irrigation District >Reconstruction of the Harmony No. 1 Dam Structur CT2016-3462	Sedgwick	$203,616		Fall 2016 - Mid 2017		DRJ	

Design and Construction - Summary

	Contract Borrower	County	Loan Amount	Design Status	Const. Start/End	Const. Status	PM	Status Description/Update
20	Lake Durango Water Authority > Source Water Supply Project C150317 (CT2015-013)	LaPlatta	$2,525,000	100%	Mid 2016 - Mid 2017	0%	KGR	Project bid was higher than expected. Sponsors are looking into ways to reduce project costs.
21	Lake McIntosh Reservoir Company >Lake McIntosh Outlet Works Repair CT2016-2794	Boulder	$1,727,100	90%	Fall 2016 - Spring 2017	0%	JMH	Final Design is near complete, at SEO for review. Construction planned for after the 2016 irrigation season.
22	Lamar, City of >Repurposing of Wells 12 and 13 CT2016-2003	Prowers	$101,000	10%	Jan 2017 - June 2017		DRJ	Design to continue thruough 2016. Bidding and construction planned for early 2017.
23	Lookout Mountain Water District > Upper Beaver Brook Dam Spillway CT2016-2515	Clear Creek	$3,099,690	100%	June 2016 - August 2017	20%	DRJ	Road relocation completed. Blasting, excavation, and grouting activities are ongoing.
24	Louden Irrigating Canal & Reservoir Company > Emergency Diversion Structure and Ditch Repair C150398 (CT2015-151)	Larimer	$ 161,600	100%	Summer 201 - Aug 2016	90%	JMH	Initial repair phase of project is complete. Improvements to the diversion and heatgate system occured in Fall of 2015. Handrails to be installed in summer 2016
25	Monte Vista, City of > Augmentation Water Rights Acquisition C150309 (CT2015-011)	Rio Grande	$1,693,770	N/A	Oct 2010 - Jul 2017	50%	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.
26	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.
27	Northern Colorado WCD- Hydropower Enterprise > Granby Hydropower Project C150396 (CT2015-140)	Grand	$5,135,183	100%	May 2015 - May 2016	99%	JMH	Project has been complete and powerplant has been comissioned. Substantial Completion to occur on October 1, 2016 (after final pay request has been processed in September).
28	Oligarchy Irrigation Company > Dam Outlet Works Rehabilitation CT2016-1597	Boulder	$860,000	100%	May 2016 - Sept 2016	60%	JMH	SEO approved plans and specification on 3/1/16. Project was put out to bid in March 2016 and construction began in May 2015. Outlet pipe is complete and backfill is starting to occur.
29	Orchard Ranch Ditch Company >Orchard Ranch Ditch Pipe Project CT2016-2795	Delta	$151,500		Fall 2016 - Mid 2017	5%	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.

Design and Construction - Summary

	Contract Borrower	County	Loan Amount	Design Status	Const. Start/End	Const. Status	PM	Status Description/Update
30	Overland Ditch and Reservoir Company > Overland Reservoir Rehabilitation C150206 (CT2015-034)	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
31	Parkville Water District >Evans Reservoir Bypass Flume Project CT2016-2004	Lake	$181,800	100%	Aug 2016 - Oct 2016	40%	DRJ	Inlet structure completed. Demolition of existing flume completed. Fusing and placement of pipe in progress.
32	Pisgah Reservoir and Ditch Company > Mount Pisgah Dam/Wrights Res Rehabilitation C150341 (CT2015-027)	Teller	$1,172,261	100%	June 2015 - Sep 2016	95%	JMH	Approved for additional loan funds at November 2014 and July 2015 Board Meeting. Phase 1 complete. Phase 2 began September 2015. Phase 3 began November 2015. All construction was done by July 2016. There remains a possibility of additional monitoring/work on seepage through old abandoned outlet pipes.
33	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 will occur after construction is finished. WSRF grant is paying for a portion of the construction.
34	Prairie Ditch Company > Plaza Phase 3: Prarie Ditch Imp. Project C150400 (CT2015-134)	Rio Grande	$131,300	100%	Oct 2015 - Nov 2016	85%	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 Fall 2016 when the river is low (to be funded by grant dollars)
35	Riverside Ditch and Allen Extension Company > Ditch System Rehabilitation C150301 (CT2015-050)	Chaffee	$186,345	85%	Jul 2010 - June 2016	80%	ACM	Ditch lining phase of the project was completed in December 2010. NRCS La Junta Fld office has completed design plans for replacment of the river diversion structure. Const. expected in summer of 2017.
36	Riverside Reservoir and Land Company > Riverside Reservoir Spillway Enlargement C150291 (CT2015-026)	Weld	$2,838,100	90%	Fall 2016+	0%	DRJ	Plans under review by SEO. Construction timing indeterminate.
37	San Luis Valley Water Conservancy District > Anaconda Ditch Water Right Acquisition C150348 (CT2015-166)	Alamosa	$839,000	N/A	2016	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 2016.
38	Sanchez Ditch and Reservoir Company > Sanchez Reservoir Outlet Rehabilitation Project C150342 (CT2015-012)	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.
39	Sanford Canal Company > Sanford Diversion and Headgate Rehabilitation C150401(CT2015-091)	Rio Grande	$101,000	100%	Aug 2015 - Sept 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

Design and Construction - Summary

	Contract Borrower	County	Loan Amount	Design Status	Const. Start/End	Const. Status	PM	Status Description/Update
40	Thunderbird W&S Dist > Lambert Ranch Water Rights Purchase C150320 (CT2015-049)	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 aquisition process is still underway pending final pipeline alignment.
41	Tunnel Water Company >Laramie-Poudre Tunnel Rehabilitation CT2016-2001	Larimer	$1,111,000	100%	Sep 2015 - Fall 2016	60%	JMH	Phase 1 (Inlet) construction started September 2015. Box culverts installed and functional. Currently working on final grading and revegitation, to be completed by July 31. Phase 2 (outlet) construction not a part of current construction contract. Phase 2 to occur in Fall 2016.
42	Uncompahgre Valley Water Users Association >Drop 5 Hydroelectric Project CT2015-174	Montrose/ Delta	$6,999,300	100%	Dec 2015 - Aug 2016	80%	KGR	Water Users Association is prouducing power. Loan Closeout pending
43	Union Well Augmentation Group >Union Reservoir Water Rights Purchase CT2016-3463	Weld	$248,157	N/A	N/A	N/A	JMH	Water right purcahse pending loan disbursement.
44	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 enlargment is underway and expected to be complete by Dec 2018.
45	West Reservoir and Ditch Company >Repair of West Reservoir No. 1 Outlet Works CT2015-169	Delta	$248,378	100%	May 2015 - Sept 2016	75%	DRJ	Outlet pipe installed, backfill complete, riprap armouring in progress..
46	Windsor, Town of > Kyger Reservoir Project C150366 (CT2015-057)	Larimer/ Weld	$4,545,000	100%	July 2016 - Jan 2017	10%	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 2017
47 - WISE Project - ECCV Pipeline Purchase								$2,227,050
	Cottonwood W&S Dist - C150408A (CT2015-102)	Douglas/ Arapahoe	$381,780	N/A	Fall 2014 - Spring 2015	N/A	DRJ	80% funds disbursed.
	Inverness W&S Dist - C150409A (CT2015-117)	Douglas/ Arapahoe	$1,845,270	N/A	Fall 2014 - Spring 2015	N/A	DRJ	No Inverness Request for Reimb received.
48 - WISE Project - Phase 1 Infructure								$18,484,600

Design and Construction - Summary

	Contract Borrower	County	Loan Amount	Design Status	Const. Start/End	Const. Status	PM	Status Description/Update
	Cottonwood W&S Dist - C150408B (CT2015-106)	Douglas/ Arapahoe	$2,900,000	7%	Spring 2015 - Jan 2017	7%	DRJ	Notice to proceed given to contractor in May 2015. Construction under way at Smoky Hill Tank site.Design and permitting under way for additional project elements.
	Inverness W&S Dist - C150409B (CT2015-118)	Douglas/ Arapahoe	$1,300,000	18%	Spring 2015 - Jan 2017	18%	DRJ	
	Parker W&S Dist - C150410B (CT2015-108)	Douglas/ Arapahoe	$7,464,600	9%	Spring 2015 - Jan 2017	9%	DRJ	
	Pinery (Denver SE Sub W&S Dist) C150411B (CT2015-085)	Douglas/ Arapahoe	$6,820,000	4%	Spring 2015 - Jan 2017	4%	DRJ	
49 - 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	
50 - WISE Project - DIA Connection								
	Cottonwood W&S Dist - C150408D (CT2015-104)	Douglas/ Arapahoe	$363,600	N/A	Spring 2015 - Spring 2021	NA	DRJ	11% funds disbursed.

Design and Construction - Summary

	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	N/A	Spring 2015 - Spring 2021	NA	DRJ	No Inverness Request for Reimb received.
	Parker W&S Dist - C150410D (CT2015-110)	Douglas/ Arapahoe	$1,099,890	N/A	Spring 2015 - Spring 2021	NA	DRJ	20% funds disbursed.
	Denver SE Sub. W&S Dist (Pinery) - C150411D (CT2015-087)	Douglas/ Arapahoe	$454,500	N/A	Spring 2015 - Spring 2021	NA	DRJ	21% funds disbursed.
	Projects Under Contract SubTotal =		$165,234,024					
	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	North Poudre Irrigation Co > Rehabilitation of the Livermore Irrigation Tunnel CT2017-1402	Larimer	$1,451,673	In Contracting			DRJ	
	Not Under Contract SubTotal =		$78,777,273					
	Grand Total =		$244,011,297					

CWCB Water Project Loan Program
Project Data Sheet

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

Project Name: Well Replacement Project **Project Type:** Well Drilling

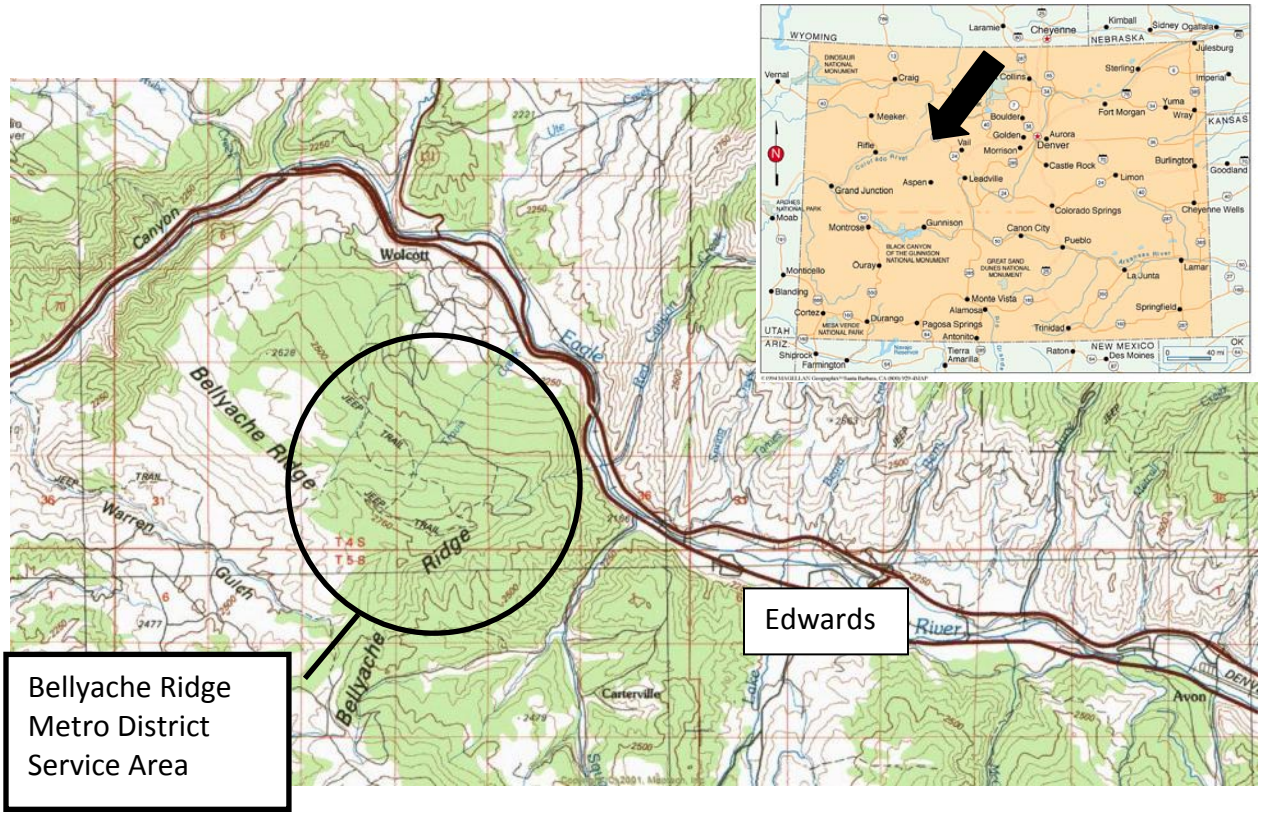
Drainage Basin/ District: Colorado / 37 **Water Source:** Groundwater

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.



COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Wells #3 and #6 Replacement Project

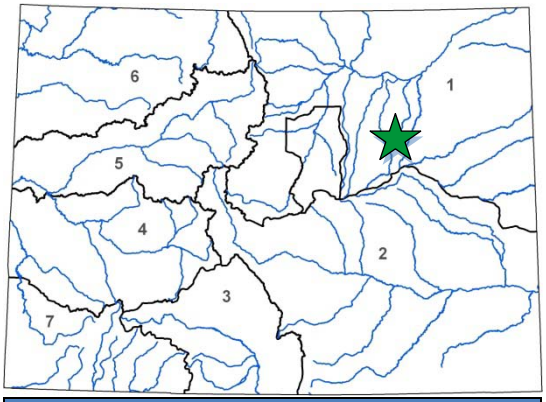
Town of Bennett

November 2014 Board Meeting

LOAN DETAILS	
Project Cost:	$1,600,000
CWCB Loan (with Service Fee):	$1,454,400
Loan Term and Interest Rate:	30 Years @ 3.25%
Funding Source:	Construction Fund

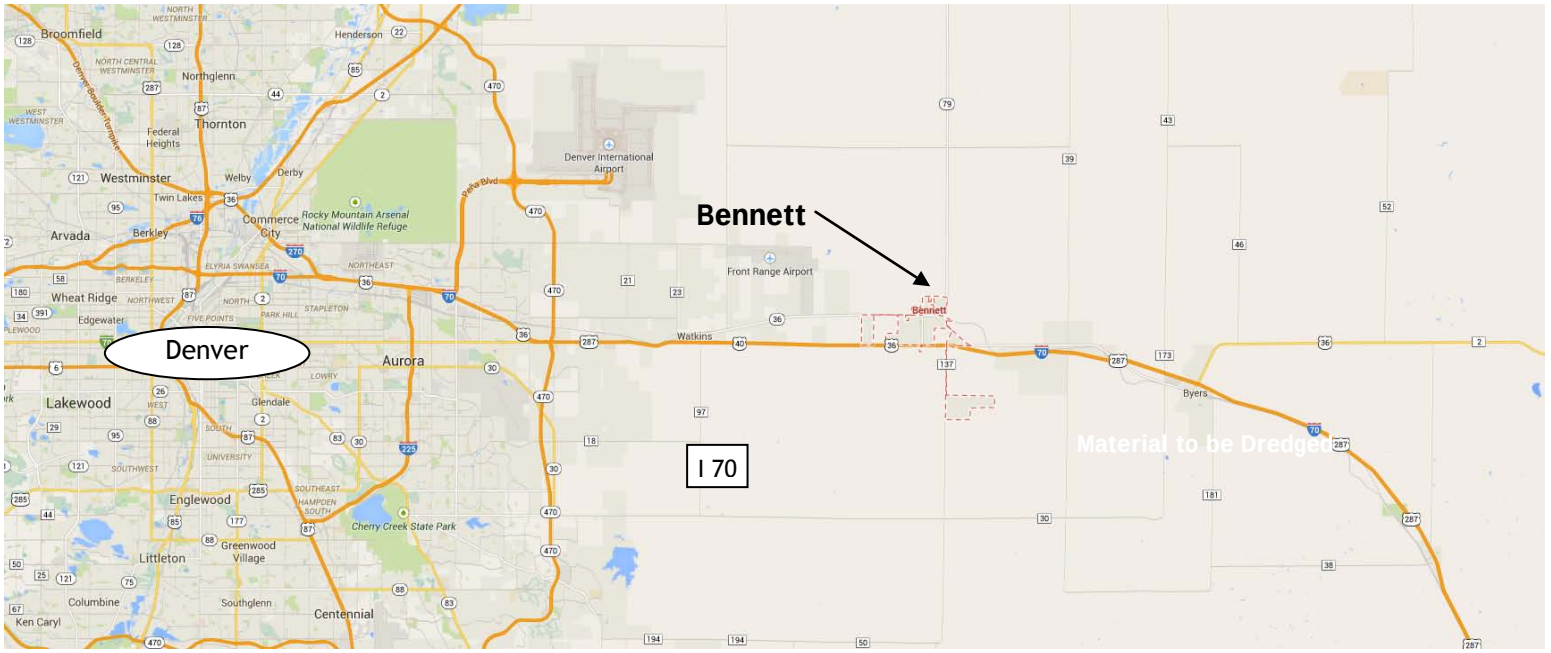
BORROWER TYPE		
Agriculture	*Municipal*	*Commercial*
0%	0% Low - 100% Mid - 0% High	0%

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



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

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



COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Water Project Loan Program
Project Data Sheet

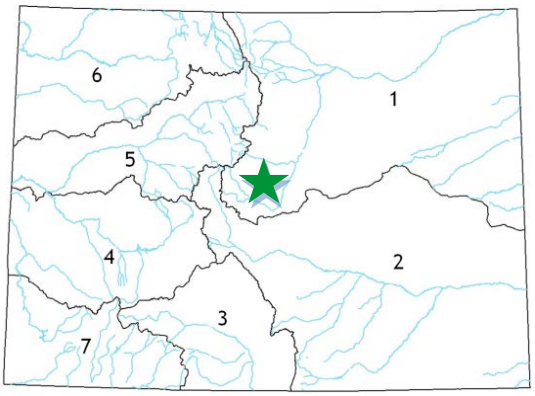
Rehabilitation and Replacement of Water Meters

Bow Mar Water & Sanitation District

March 2015 Board Meeting

LOAN DETAILS				
Project Cost:				$366,102
CWCB Loan (with Service Fee):				$332,795
Loan Term and Interest Rate:				10 Years @ 2.65%
Funding Source:				Construction Fund
Agriculture		*Municipal*		*Commercial*
0%	0% Low	0% Mid	100% High	0%

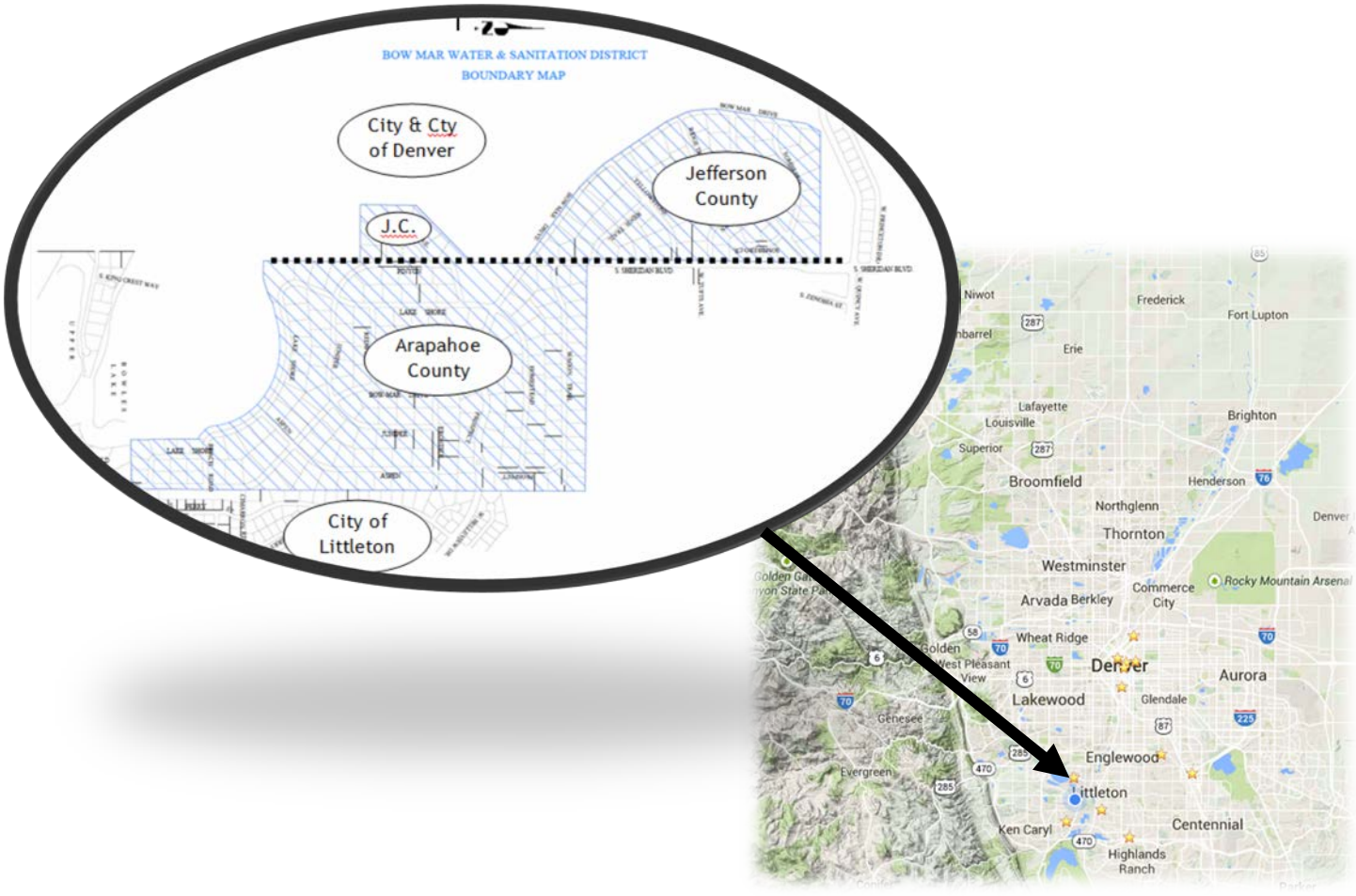
PROJECT SUMMARY	
Project Type:	Municipal Water
Residential Customers	293
Annual Water Use	338 Acre-Feet



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

LOCATION			
County:	*Arapahoe & Jefferson*		
Water Source:	*Denver Water (Master Meter)*		
Drainage Basin:			Metro
Division:	1	*District:*	9

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

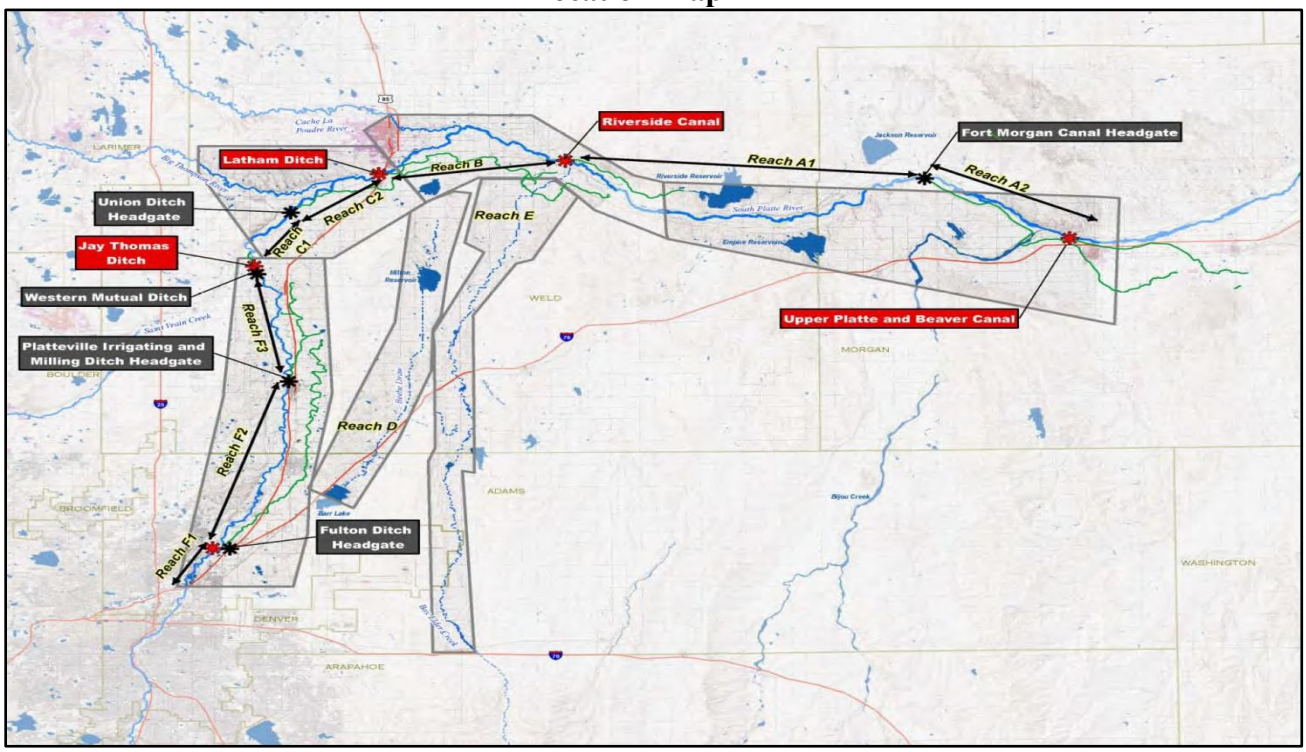


Water Project Loan Program – Project Data Sheet

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

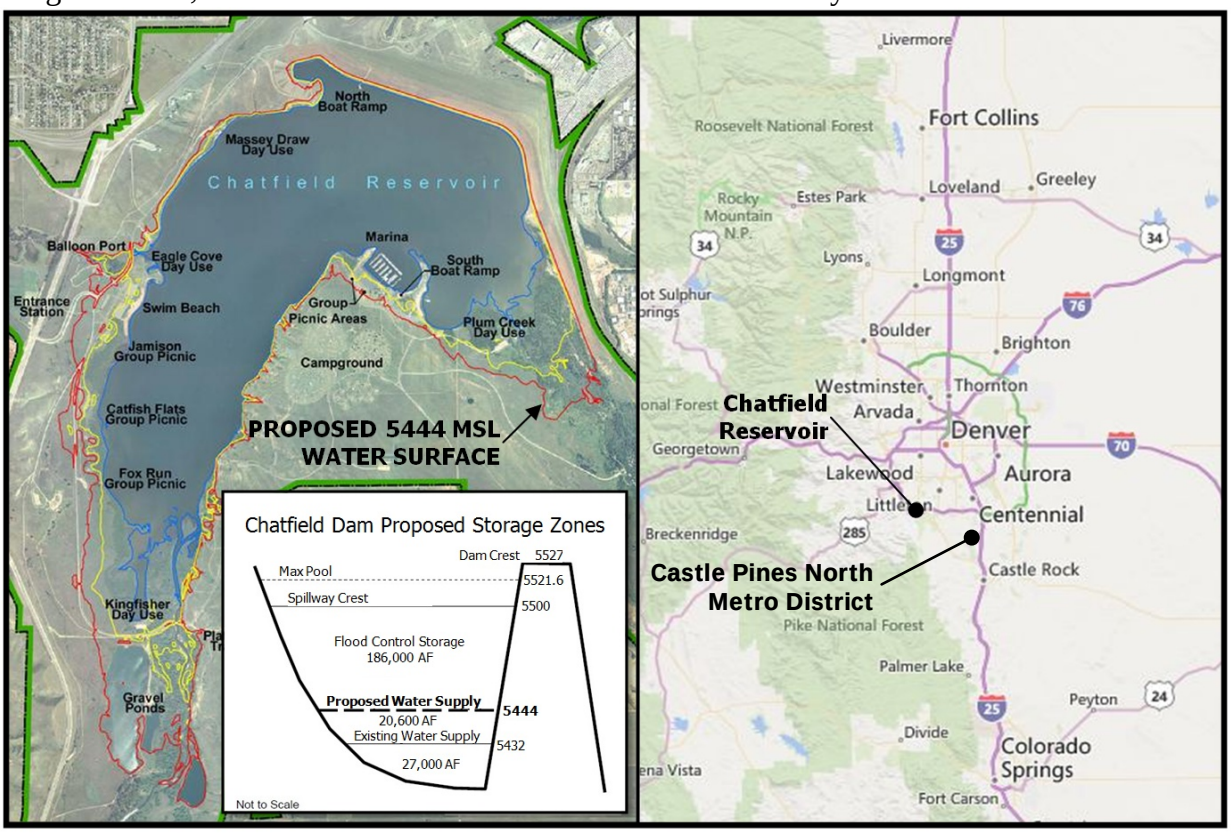
Total Project Cost: $7,100,000
Funding Source: Severance Tax Perpetual Base Fund

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

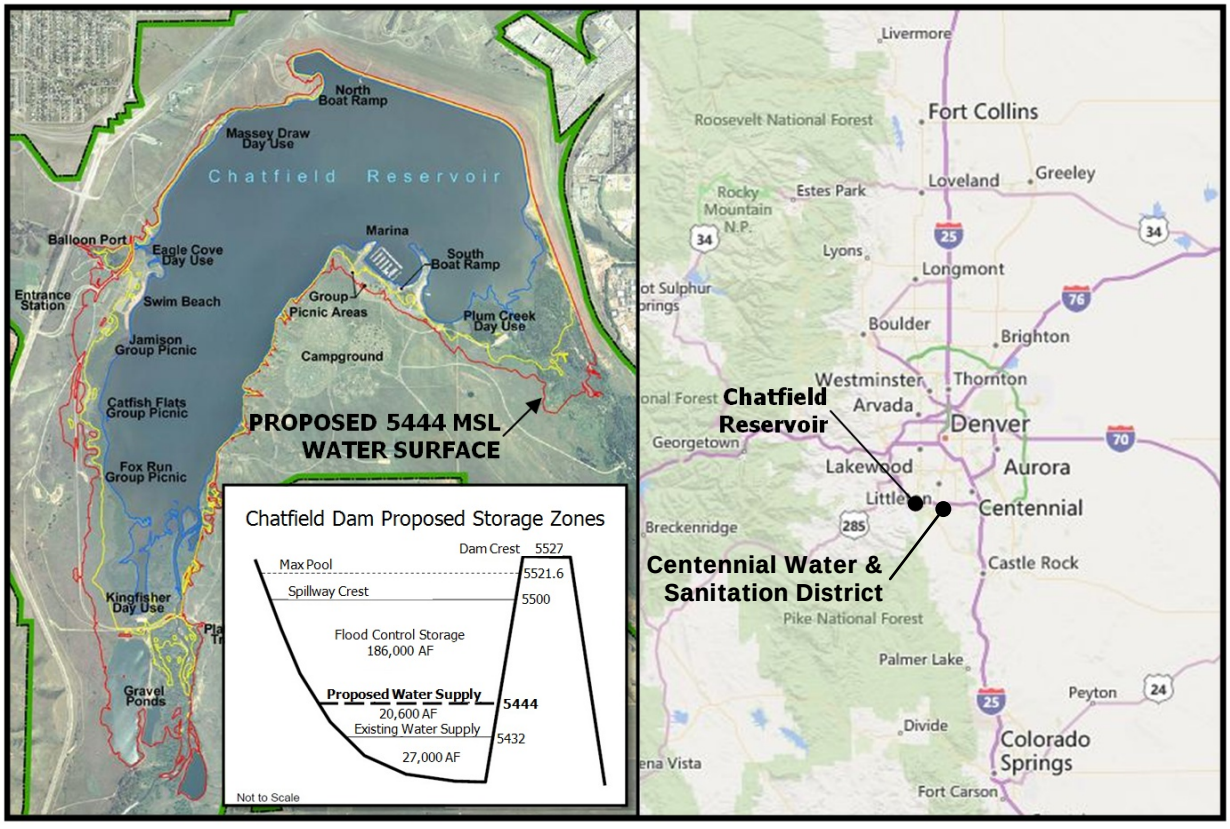
Average Annual Delivery: 17,500 AF

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.



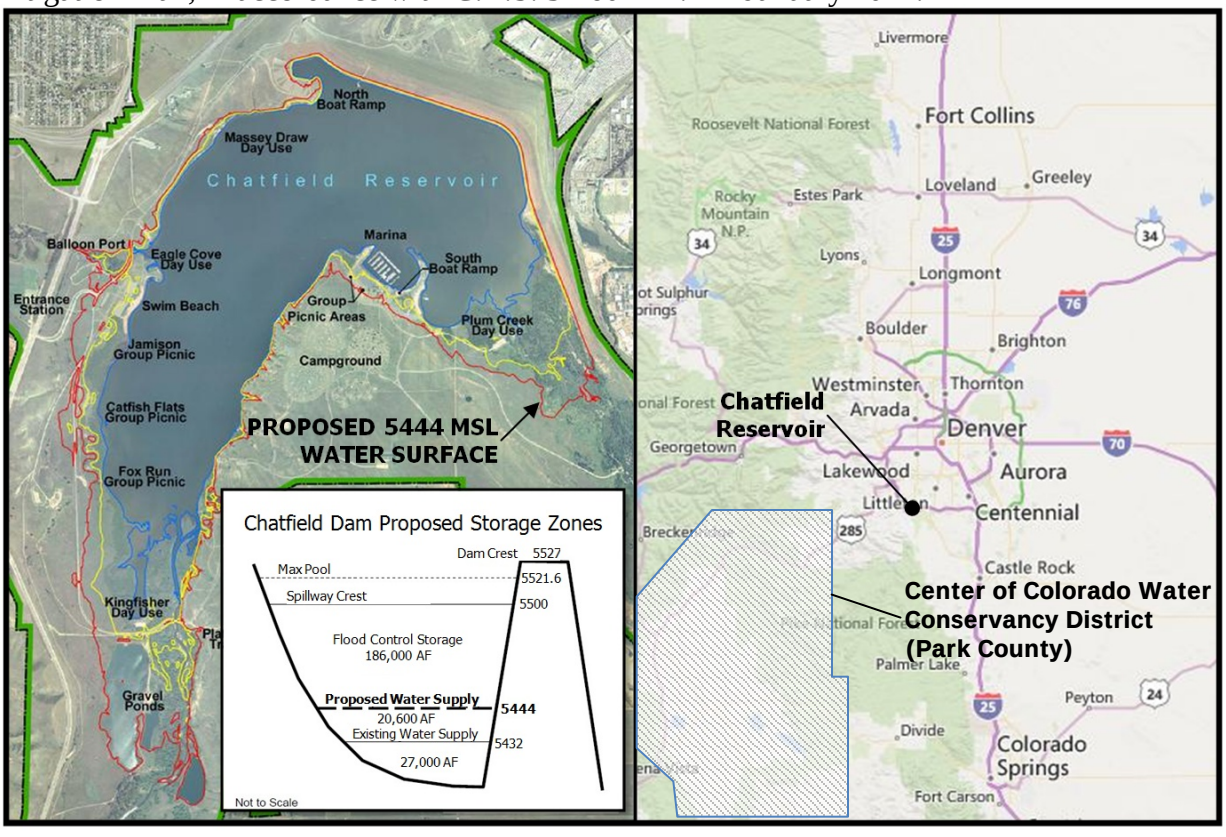
CWCB Water Project Loan Program
Project Data Sheet

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

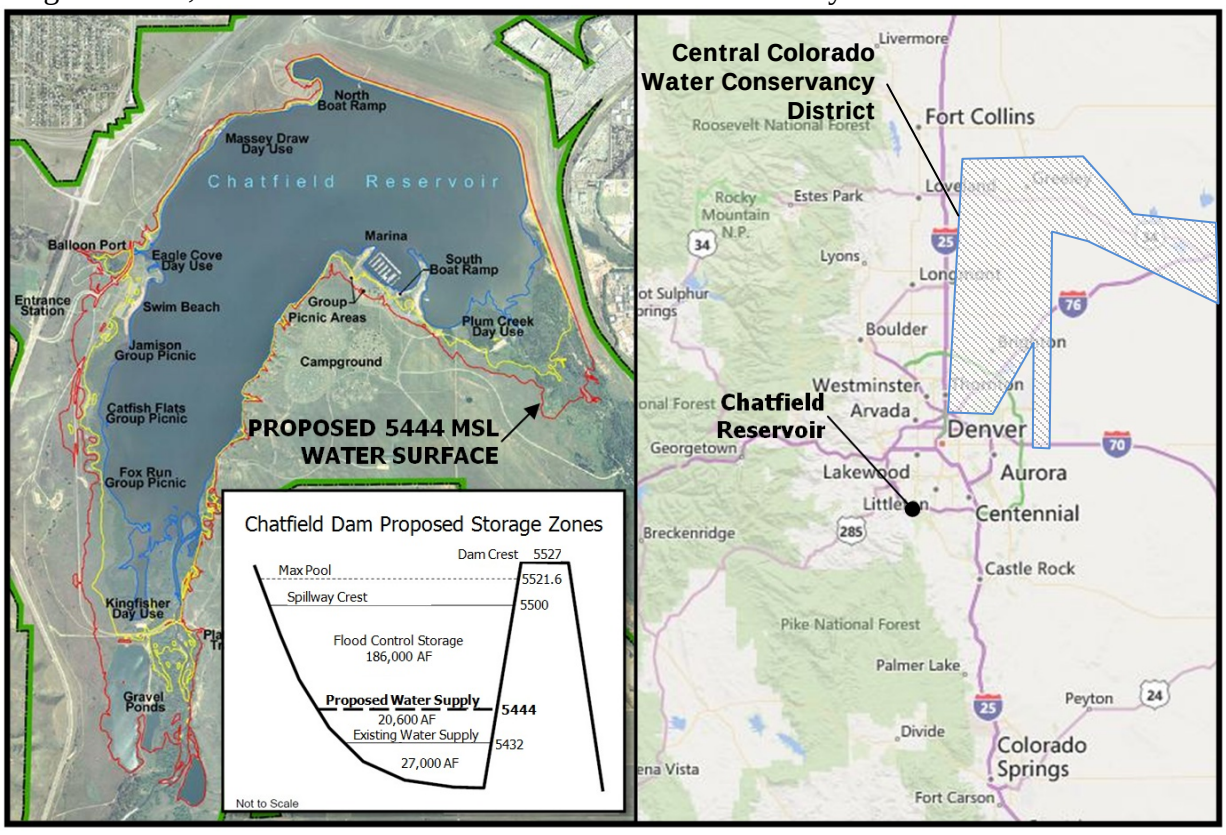
Total Project Cost: $28,170,000
Funding Source: Severance Tax Perpetual Base Fund

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.



COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Water Meter Replacement Project

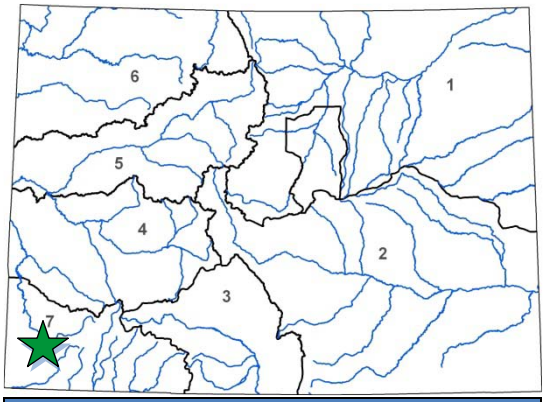
City of Cortez

January 2015 Board Meeting

LOAN DETAILS	
Project Cost:	$1,200,000
CWCB Loan (with Service Fee):	$858,500
Loan Term and Interest Rate:	10 Years @ 2.1%
Funding Source:	Construction Fund

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

PROJECT DETAILS	
Project Type:	Meter replacement
Average Annual Delivery:	2,600 AF



LOCATION			
County:			Montezuma
Water Source:			Dolores River
Drainage Basin:			San Juan / Dolores
Division:	7	*District:*	71

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 3,400 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 intends to replace the meters with smart meters that will provide data storage and the ability to better manage water within the distribution system. The City is also applying for a $50,000 Water Efficiency Grant from the CWCB and a $200,000 grant from DOLA. All work is expected to occur in 2015.

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Dixon Reservoir Dam Improvement

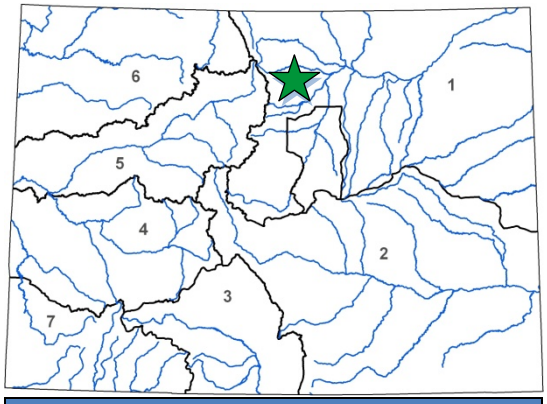
Dixon Canon Ditch and Reservoir Company

May 2016 Board Meeting

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

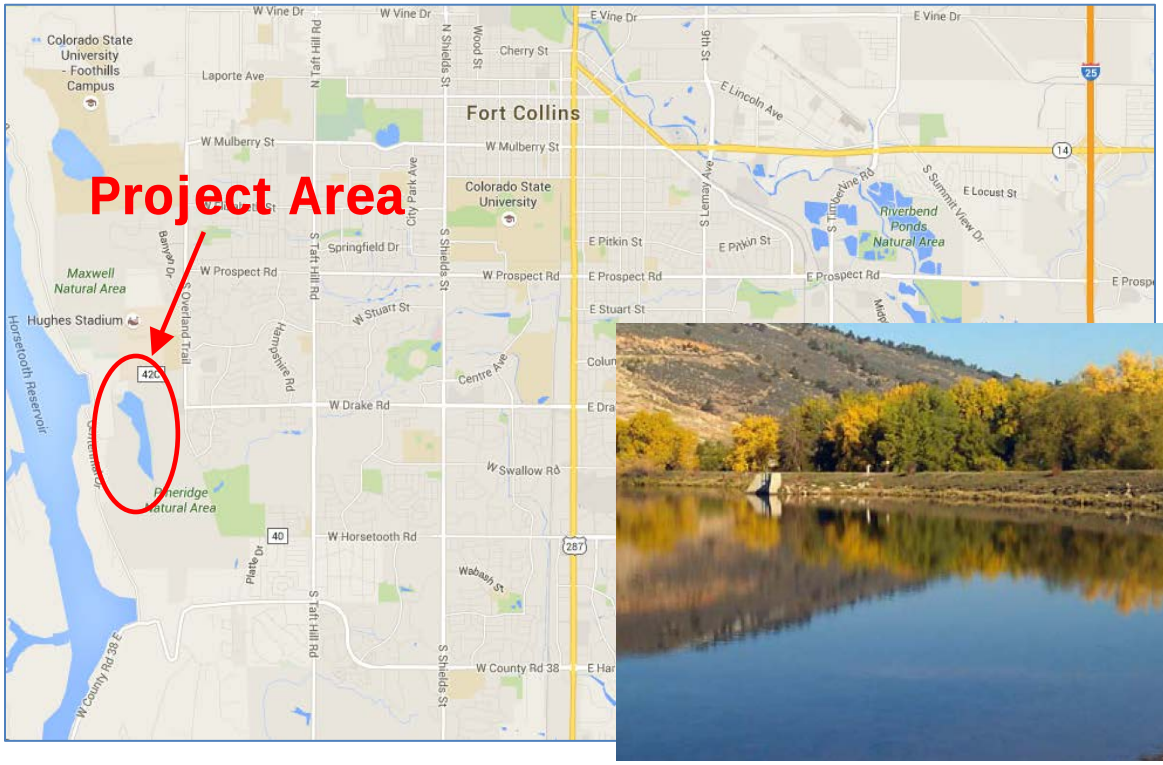
BORROWER TYPE		
Agriculture	*Municipal*	*Commercial*
17%	0% Low - 83% Mid - 0% High	0%

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



LOCATION			
County:			Larimer
Water Source:			Dixon Creek
Drainage Basin:			South Platte River
Division:	1	*District:*	3

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



COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Piping the Duke Ditch

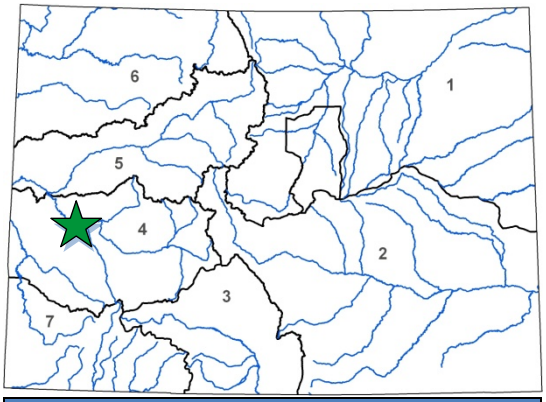
Duke Ditch Company

March 2016 Board Meeting

LOAN DETAILS	
Project Cost:	$749,374
CWCB Loan (with Service Fee):	$90,900
Loan Term and Interest Rate:	30 years @ 2.0%
Funding Source:	Construction Fund, WSRA, Salinity Control

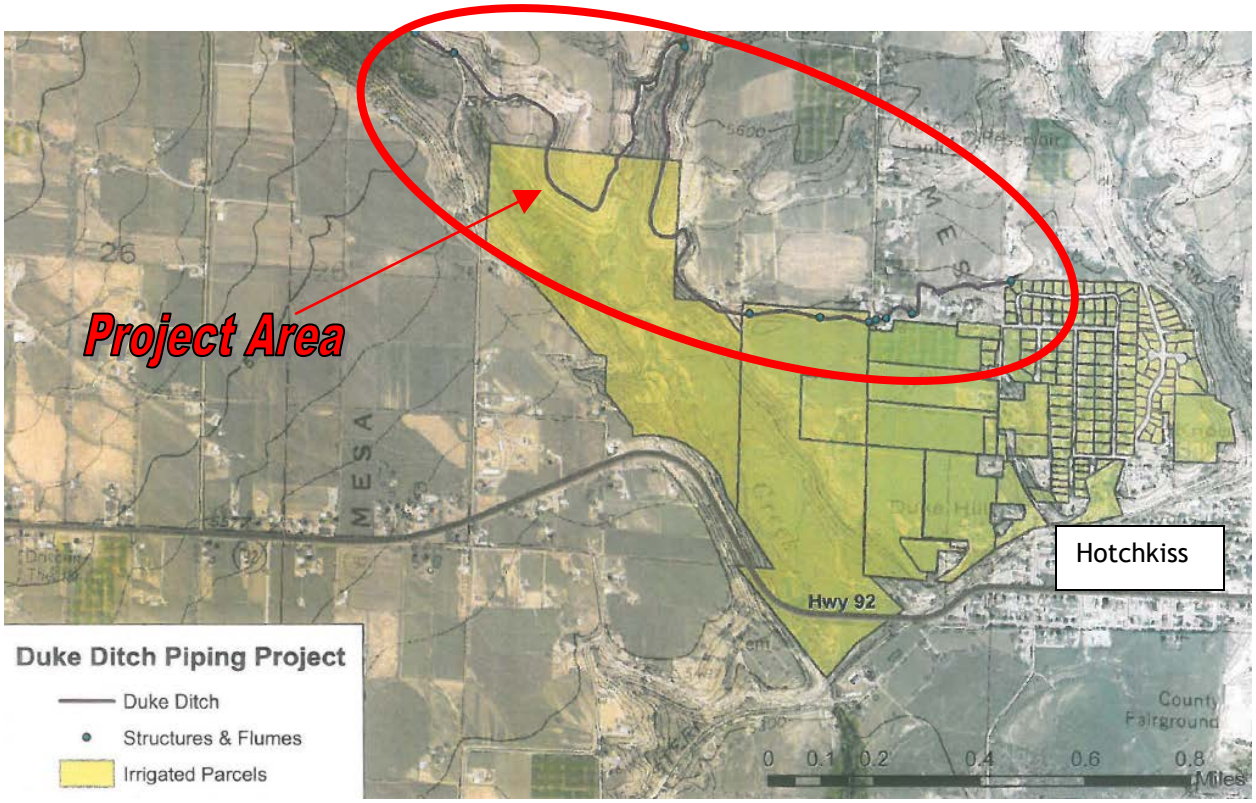
BORROWER TYPE		
Agriculture	*Municipal*	*Commercial*
68%	32% Low - 0% Mid - 0% High	0%

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



LOCATION			
County:			Delta
Water Source:			Leroux Creek
Drainage Basin:			Gunnison
Division:	4	*District:*	42

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



CWCB Water Project Loan Program
Project Data Sheet

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

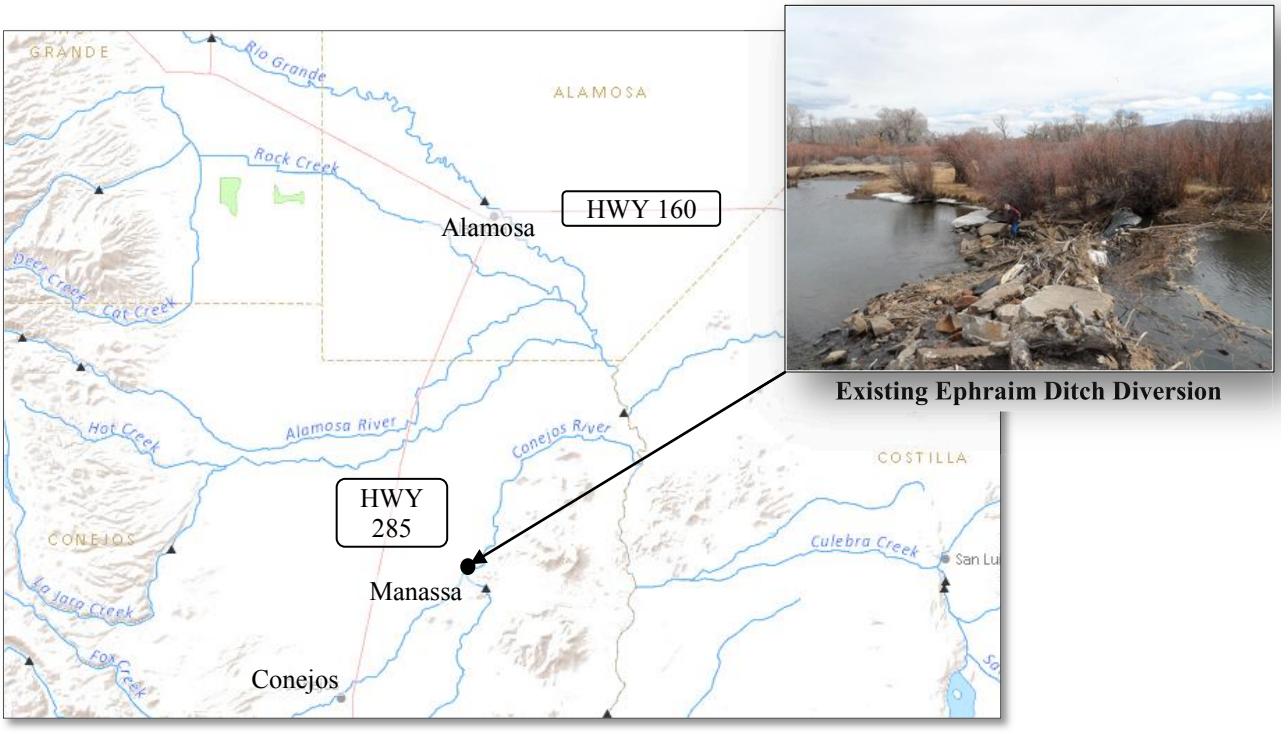
Average Annual Diversion: 4,100 AF

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.



Existing Ephraim Ditch Diversion

CWCB Water Project Loan Program
Project Data Sheet

C150394

Borrower: Farmers Pawnee Canal Company

County: Logan

Project Name: Diversion Structure Replacement Project

Project Type: Diversion Structure

Drainage Basin/ District: South Platte / 64

Water Source: South Platte River

Total Project Cost: $2,047,000

Funding Source: Construction Fund

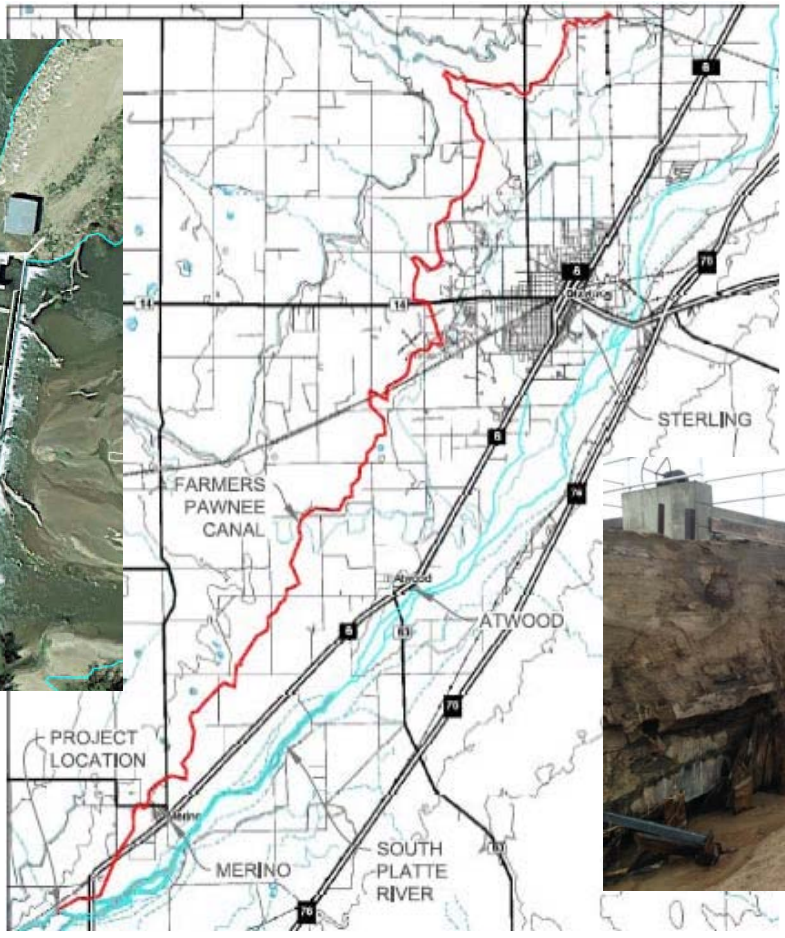
Type of Borrower: Agricultural

Average Annual Diversion: 27,956 AF

CWCB Loan: $2,067,470
(with 1% service fee)

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

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 intends to rebuild the diversion dam and canal headgate. Replacement of the diversion dam provides the Company with an opportunity to utilize an improved design and alleviate an ongoing maintenance issue of sand accumulation within the canal. Construction is expected to occur in the fall/winter of 2014/2015.



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

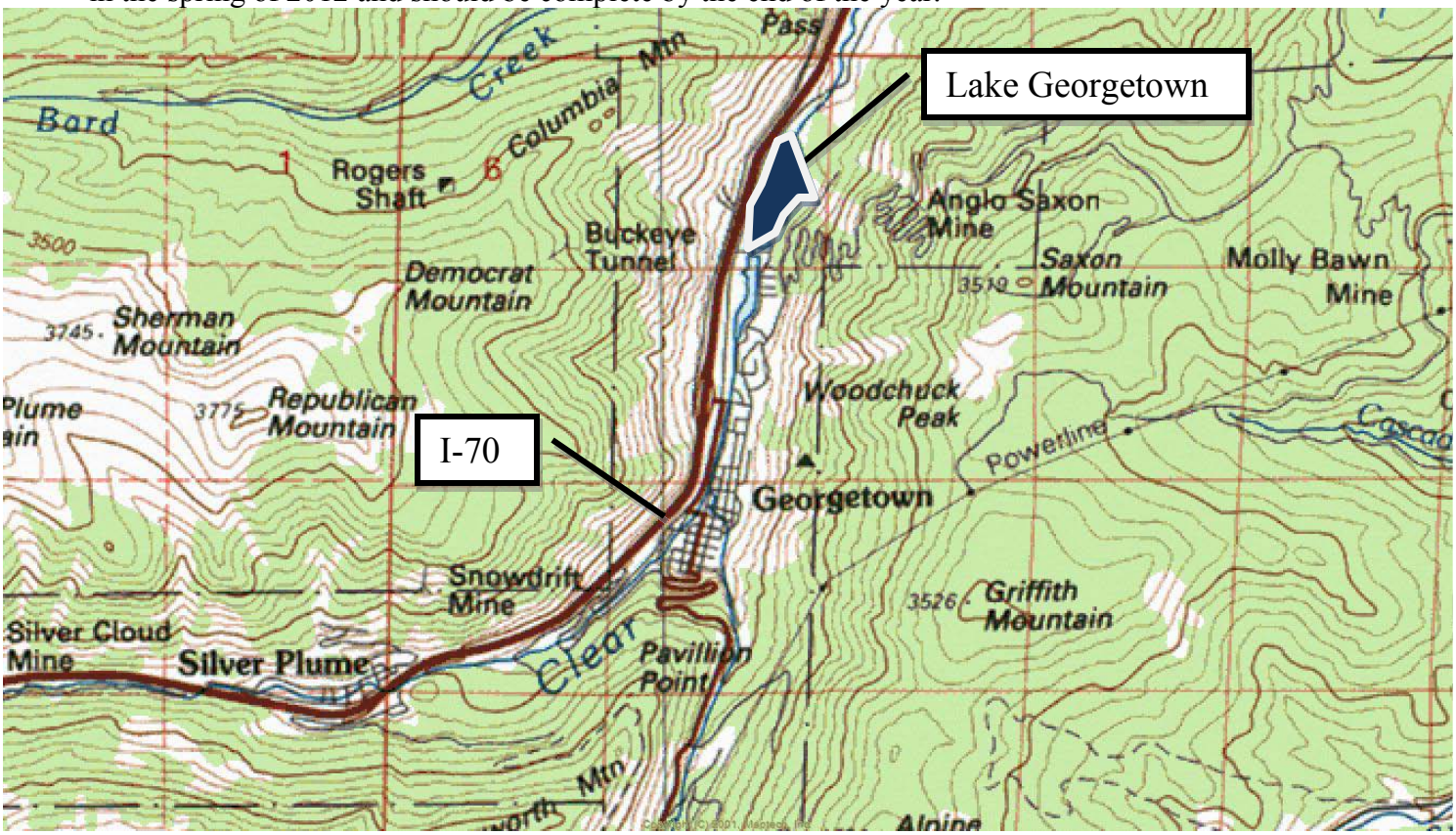
Average Diversion: 208 AF

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.



COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Hallenbeck Reservoir No. 1 Dam Rehabilitation

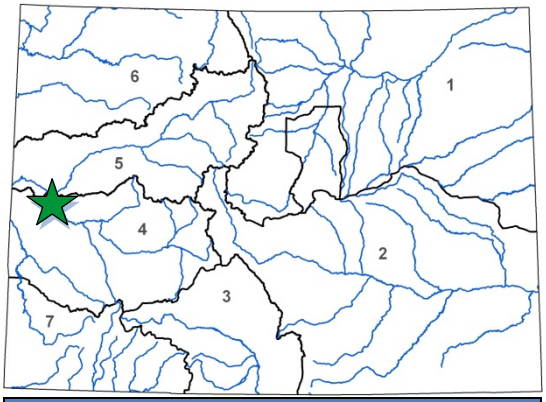
City of Grand Junction

March 2016 Board Meeting

LOAN DETAILS	
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

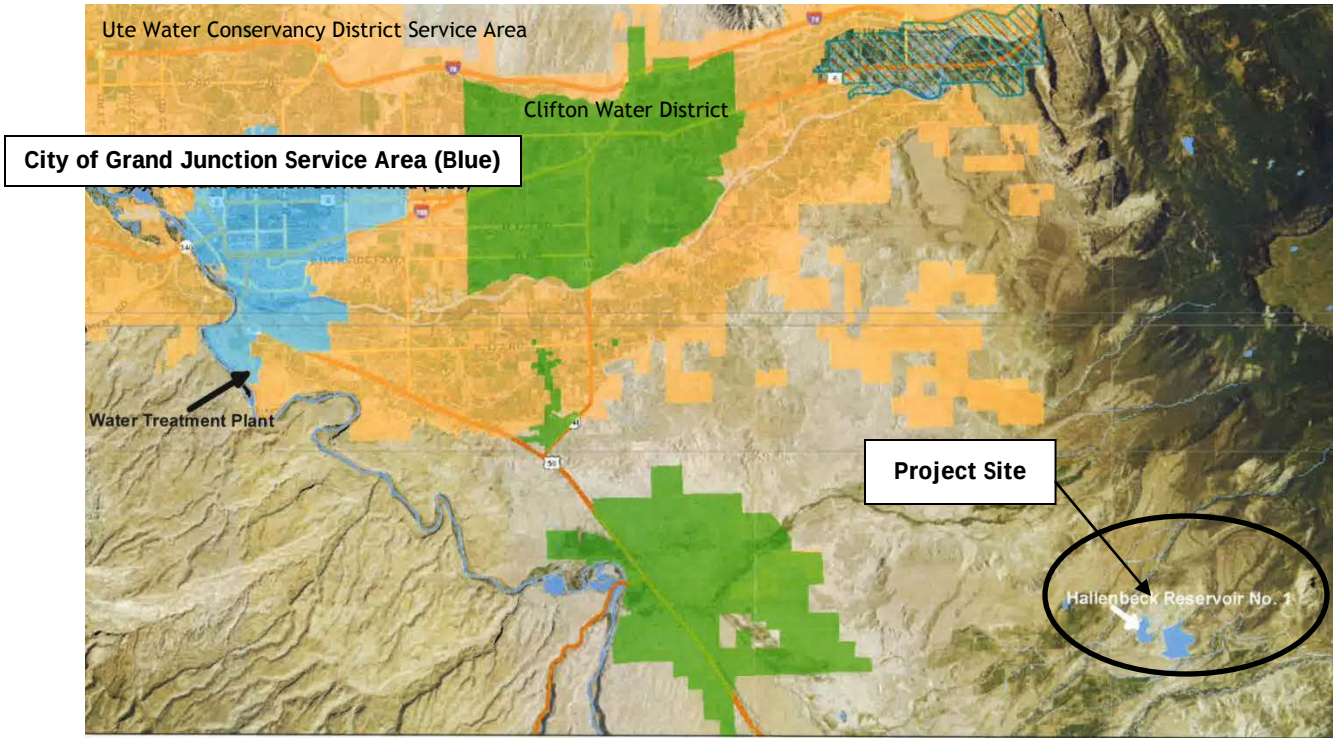
BORROWER TYPE		
Agriculture	*Municipal*	*Commercial*
0%	0% Low - 100% Mid - 0% High	0%

PROJECT DETAILS	
Project Type:	Dam Rehabilitation
Average Annual Delivery:	5,218 AF
Recovered Storage:	699 AF



LOCATION			
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.



CWCB Water Project Loan Program
Project Data Sheet

Borrower: Grand Mesa Water Conservancy District

County: Delta

Project Name: Peak Reservoir and Blanche Park Reservoir Rehabilitation

Project Type: Reservoir Rehabilitation

Drainage Basin/ District: Gunnison / 40

Water Source: Surface Creek

Total Project Cost: $640,000

Funding Source: Construction Fund/ WSRA Gunnison Basin Funds

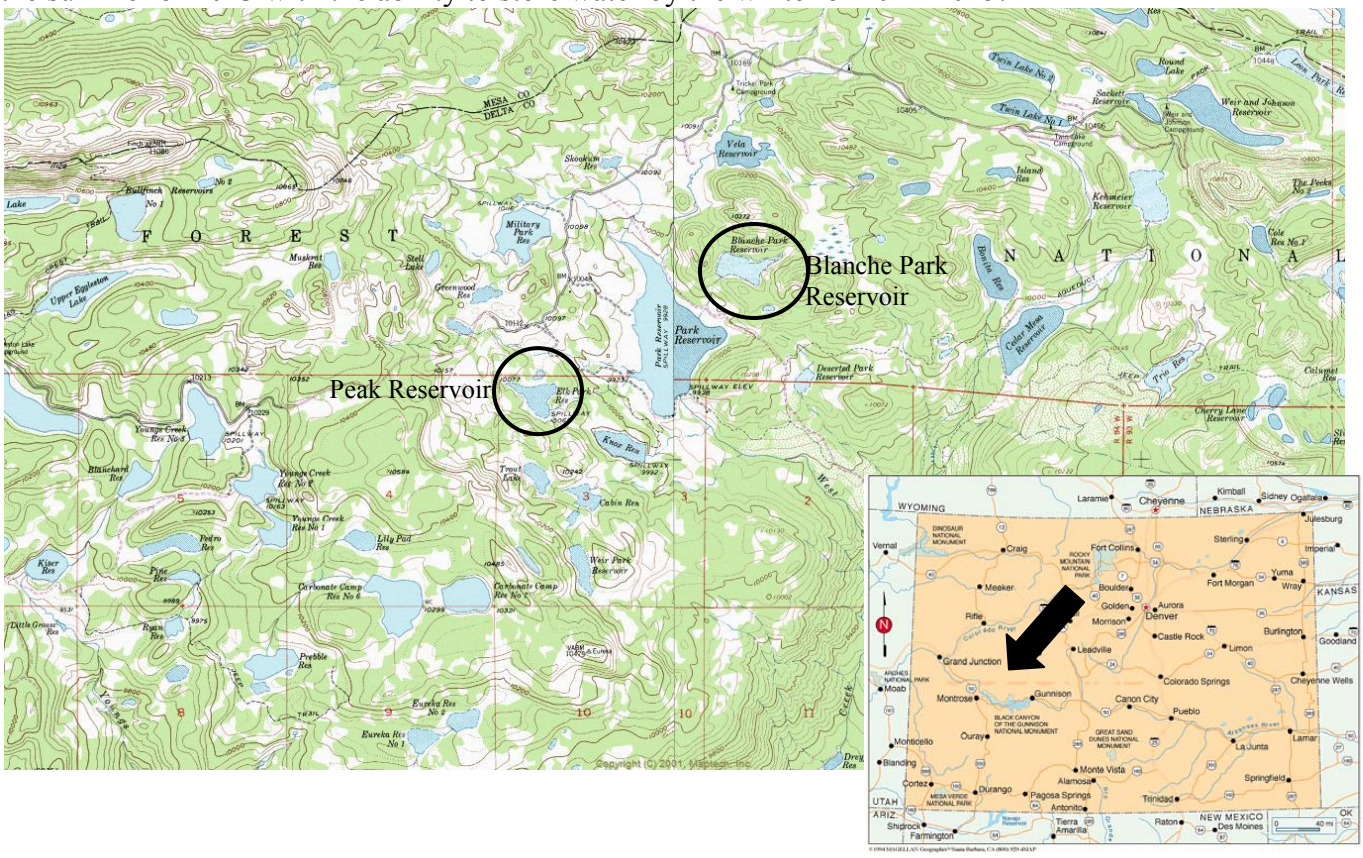
Type of Borrower: Municipal/Agricultural

Average Annual Diversion: 400 AF
Storage Added: 155 AF

CWCB Loan: $227,250
(with 1% Service Fee)

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

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



CWCB Construction Loan Program
Project Data Sheet

Borrower: Town of Gypsum

County: Eagle

Project Name: LEDE Ditch & Reservoir Upgrade Project

Project Type: Reservoir Rehabilitation

Drainage Basin: Colorado River

Water Source: Gypsum Creek

Total Project Cost: $3,162,000

Funding Sources: Construction Fund

Type of Borrower: High Income Municipal

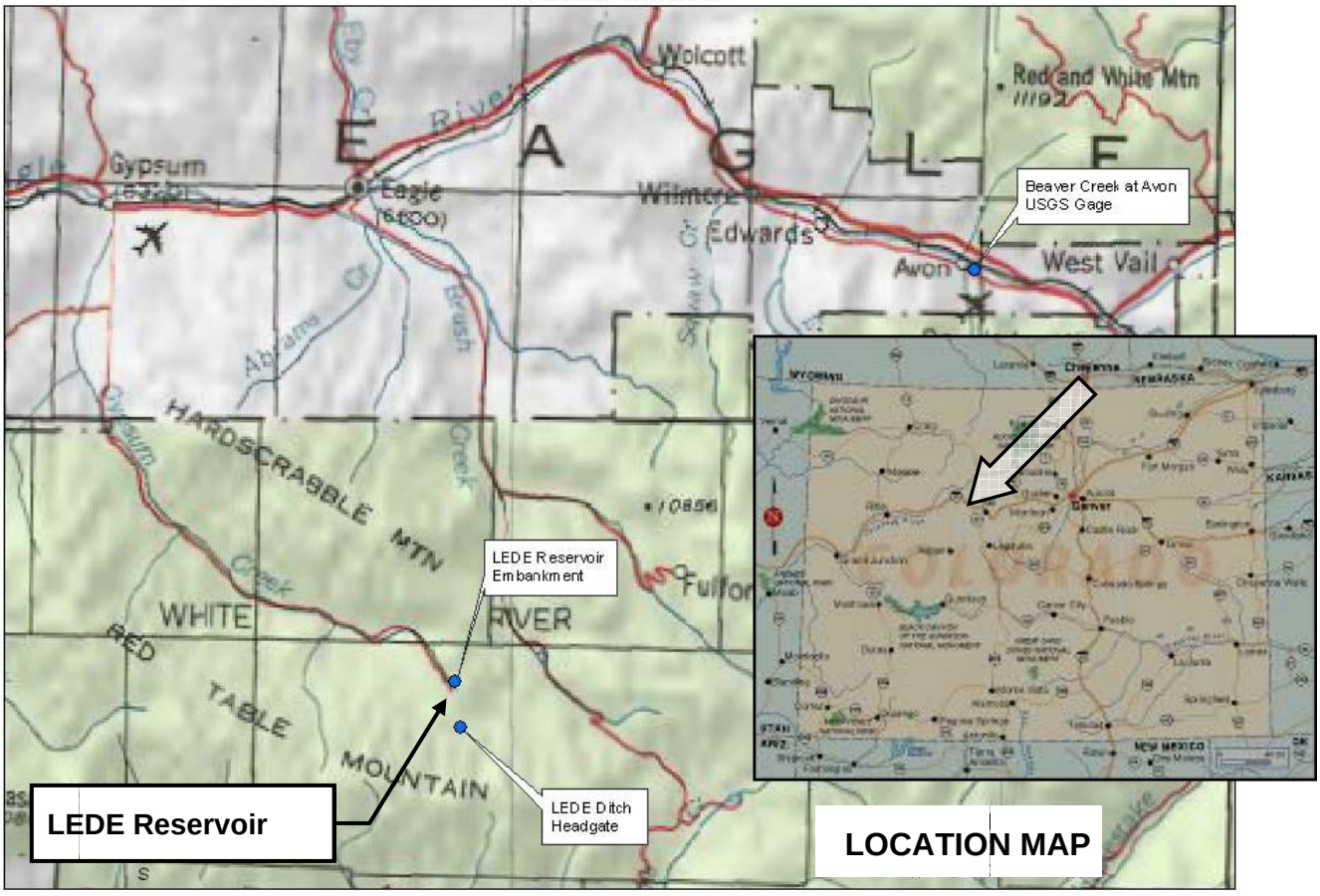
Average Delivery: 1,200 AF
New Storage: 254 AF

Loan Amount: $2,689,731 (Including 1% fee)

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

The Town of Gypsum purchased the LEDE Ditch and LEDE Reservoir water rights in 2006. The original water rights are decreed for irrigation uses, and provide storage for up to 947 AF in the reservoir. The Reservoir was built to a capacity of 431 AF. The Town seeks to increase capacity to 685 AF in order to accommodate continued agricultural irrigation, and for future water supplies to the Town. This upstream storage is required to assist in managing Gypsum Creek water rights calls and dry year operations. The reservoir storage will become even more important as the Town's population continues to increase. The Town wishes to repair and improve the reservoir to utilize its potential, and to protect valuable senior storage rights in the reservoir. The reservoir is located in the headwaters of Gypsum Creek, south of Gypsum within the White River National Forest. Design and permitting is expected to occur in 2009/2010 with pipeline construction starting in late 2009 and dam construction starting in 2011.

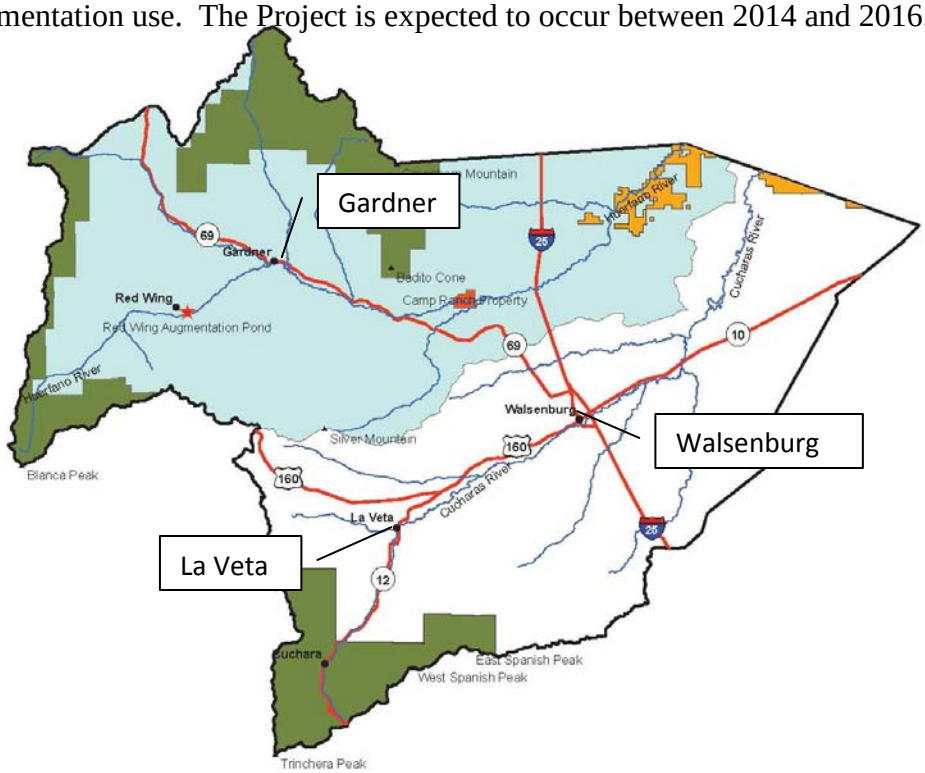
General Locations



Water Project Loan Program
Project Data Sheet

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

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



COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Reconstruction of the Harmony No.1 Measurement Structure

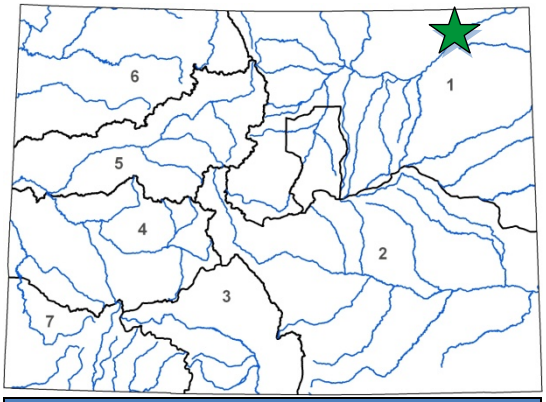
Julesburg Irrigation District

May 2016 Board Meeting

LOAN DETAILS	
Project Cost:	$224,000
CWCB Loan (with Service Fee):	$203,616
Loan Term and Interest Rate:	30 years @ 1.70%
Funding Source:	Construction Fund

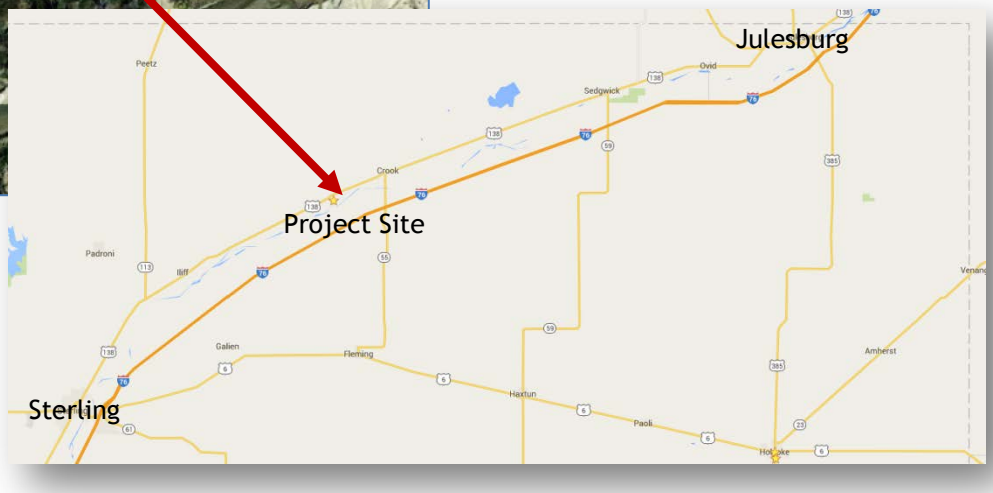
BORROWER TYPE		
Agriculture	*Municipal*	*Commercial*
100%	0% Low - 0% Mid - 0% High	0%

PROJECT DETAILS	
Project Type:	Ditch Rehabilitation
Average Annual Delivery:	54,423 AF



LOCATION			
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).

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Lake McIntosh Outlet Works Repair

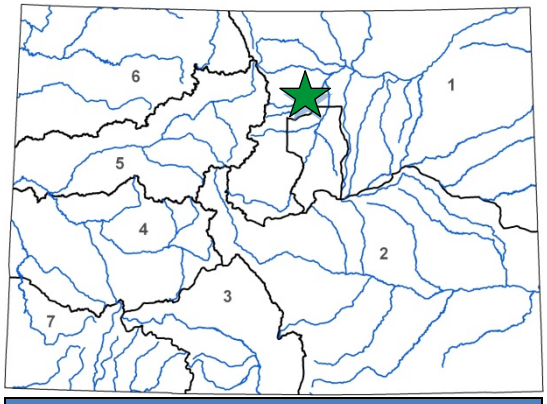
Lake McIntosh Reservoir Company

January 2016 Board Meeting

LOAN DETAILS	
Project Cost:	$1,900,000
CWCB Loan (with Service Fee):	$1,727,100
Loan Term and Interest Rate:	30 Years @ 2.70%
Funding Source:	Construction Fund

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

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

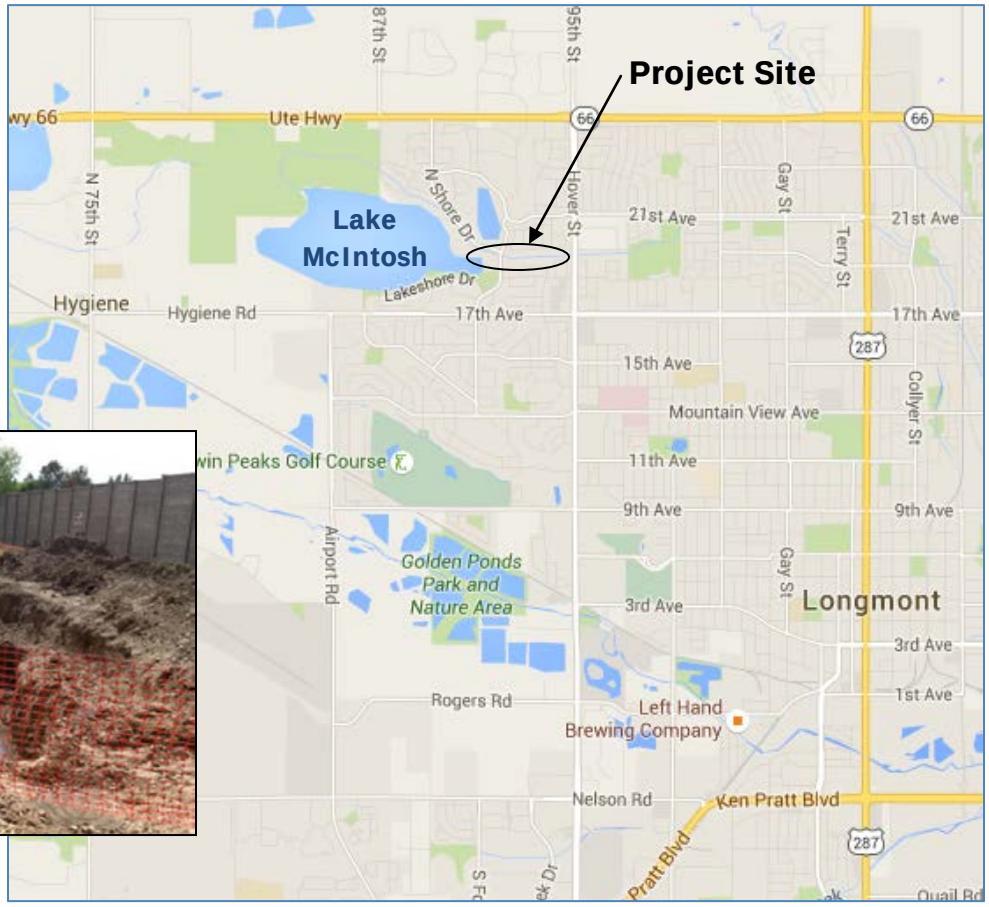


LOCATION			
County:			Boulder
Water Source:			St. Vrain Creek
Drainage Basin:			South Platte River
Division:	1	*District:*	5

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

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

May 2015 Sinkhole



COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Repurposing of Wells 12 and 13

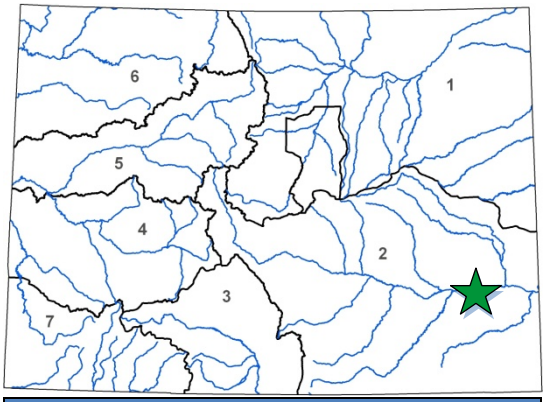
City of Lamar

September 2015 Board Meeting

LOAN DETAILS	
Project Cost:	$400,000
CWCB Loan (with Service Fee):	$101,000
Loan Term and Interest Rate:	10 Years @ 1.95%
Funding Source:	WSRA & Sev. Tax Perpetual Base Fund

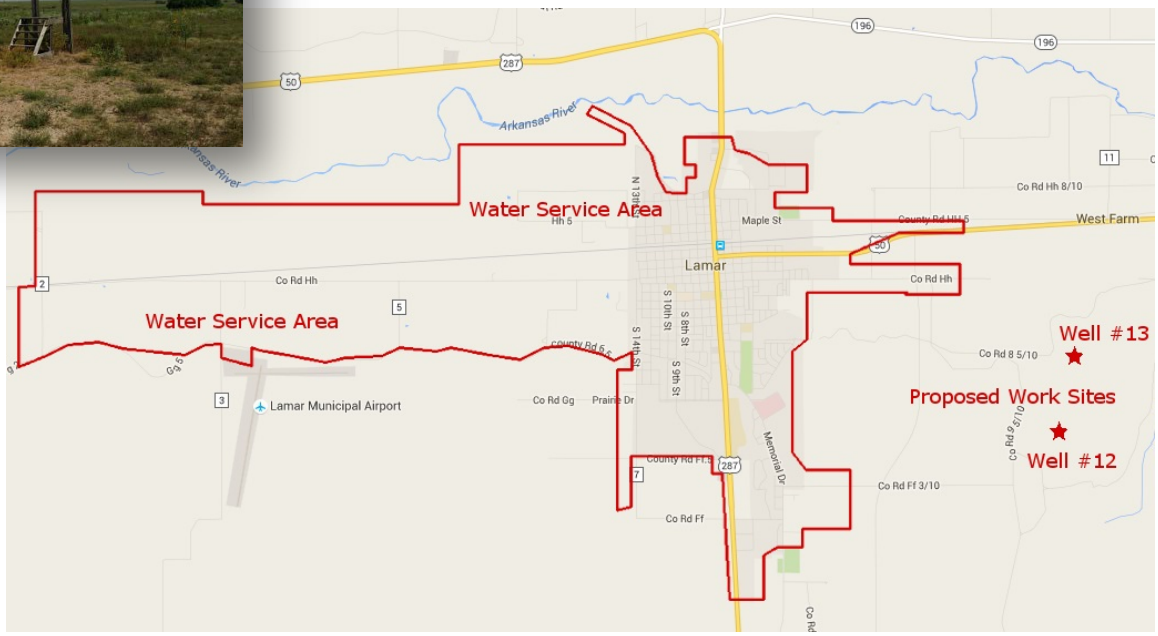
BORROWER TYPE		
Agriculture	*Municipal*	*Commercial*
0%	100% Low - 0% Mid - 0% High	0%

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



LOCATION			
County:			Prowers
Water Source:			Arkansas River
Drainage Basin:			Arkansas River
Division:	2	*District:*	67

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



COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Upper Beaver Brook Dam Spillway

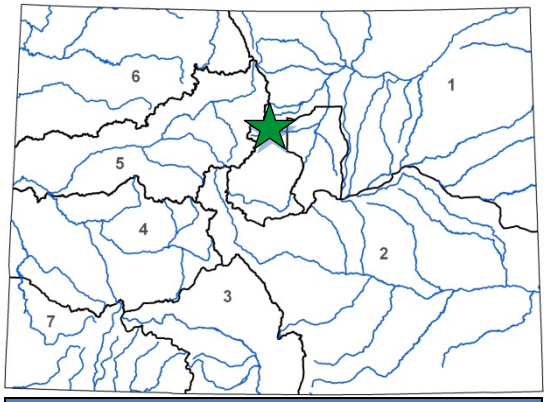
Lookout Mountain Water District

November 2015 Board Meeting

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

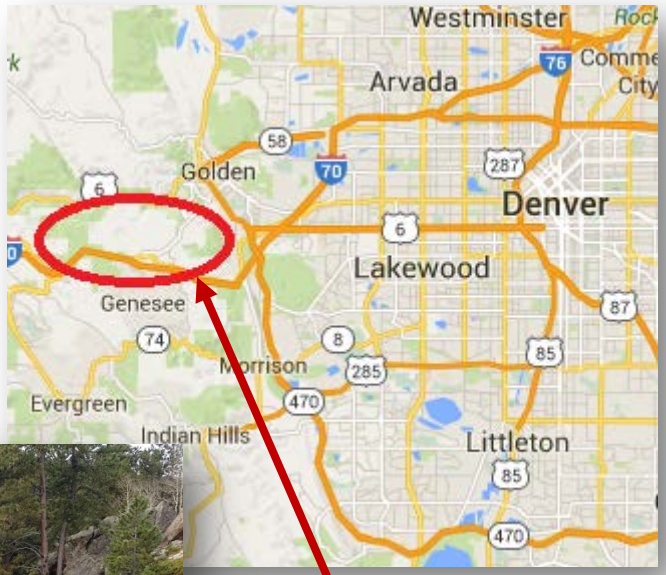
BORROWER TYPE		
Agriculture	*Municipal*	*Commercial*
0%	High-income 100%	0%

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



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

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



CWCB Water Project Loan Program
Project Data Sheet

C150398

Borrower: Louden Irrigating Canal and Reservoir Company
County: Larimer

Project Name: Emergency Diversion Structure and Ditch Repair
Project Type: Ditch Rehabilitation

Drainage Basin/ District: South Platte / 4
Water Source: Big Thompson River

Total Project Cost: $215,000
Funding Source: Severance Tax PBF

Type of Borrower: Blended
Average Annual Diversion: 8,000 AF

CWCB Loan: $161,600 (with 1% service fee)
Interest Rate: 2.70% **Term:** 30-years
(25% Ag, <1% Low, 61% Mid, 8% High, 6% 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 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. Phase 1 will clean and rebuild the ditch and service road, and salvage the existing headgates to ensure general operation for the 2014 irrigation season. Phase 2 will replace the existing headgates with gates that are safer, more accurate, and capable of remote operation.

Water Project Loan Program - Project Data

Borrower: City of Monte Vista (Water Activity Enterprise)

County: Rio Grande

Project Name: Augmentation Water Rights Acquisition

Project Type: Water Rights Purchase

Drainage Basin: Rio Grande

Water Source: Rio Grande River

Total Project Cost: $1,863,500

Funding Source: Construction Fund

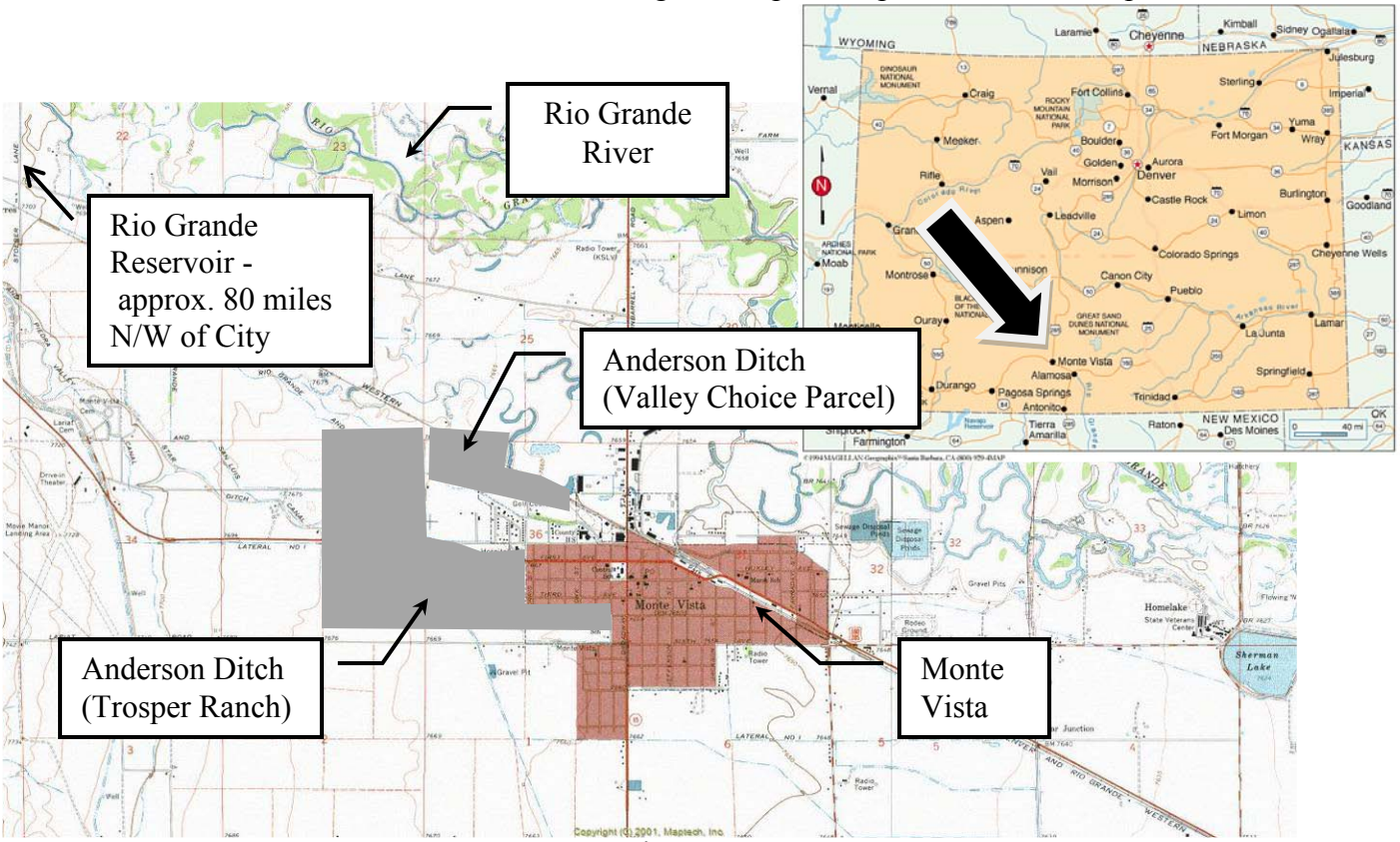
Type of Borrower: Low-Income Municipal

Aver. Demand: 1,212 AF/year

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

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

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



Location Map

CWCB Water Project Loan Program
Project Data Sheet

C150378

Borrower: North Poudre Irrigation Company

County: Larimer

Project Name: Reservoir No. 4 Rehabilitation

Project Type: Reservoir Rehabilitation

Drainage Basin/ District: South Platte / 3

Water Source: Cache la Poudre

Total Project Cost: $1,800,000

Funding Source: Construction Fund

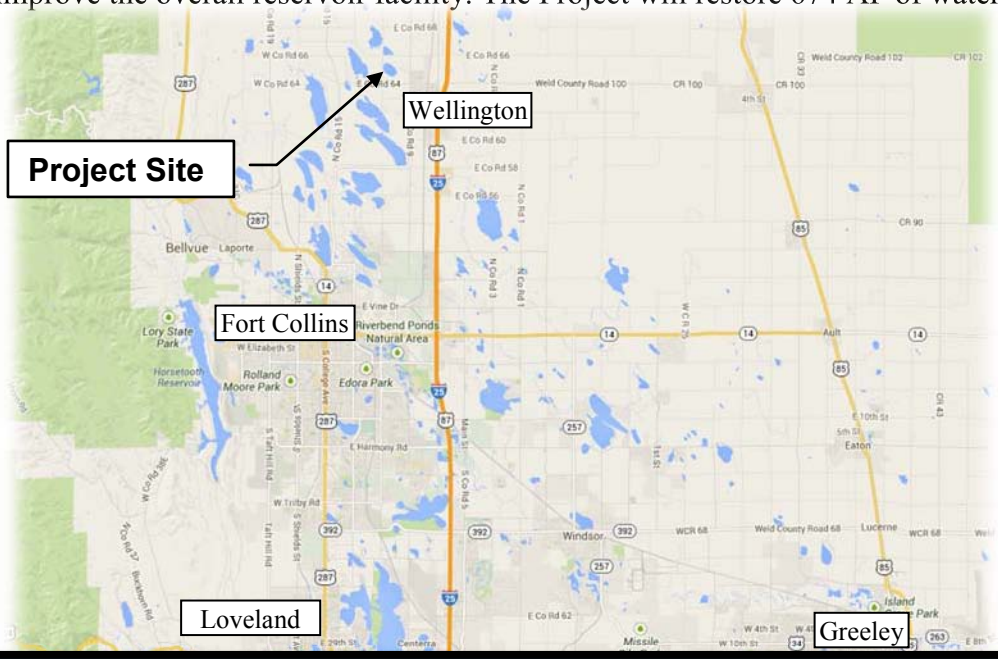
Type of Borrower: Blended

Average Annual Diversion: 44,400 AF

CWCB Loan: $1,636,200
(with 1% service fee)

Interest Rate: 2.35% **Term:** 30-years
(37% Ag, 1% Low, 57% Mid, 4% High, <1% Com)

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. The Project will restore 674 AF of water storage.



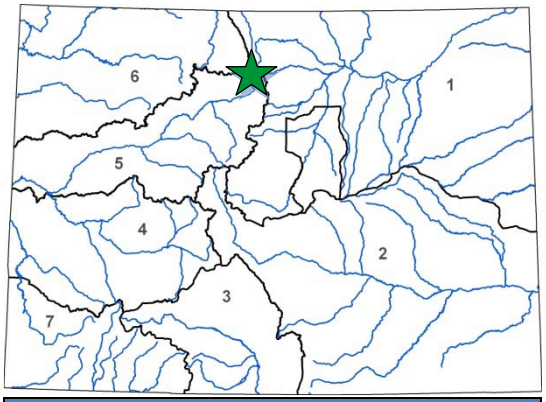
COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Granby Hydropower Project

Northern Colorado Water Conservancy District

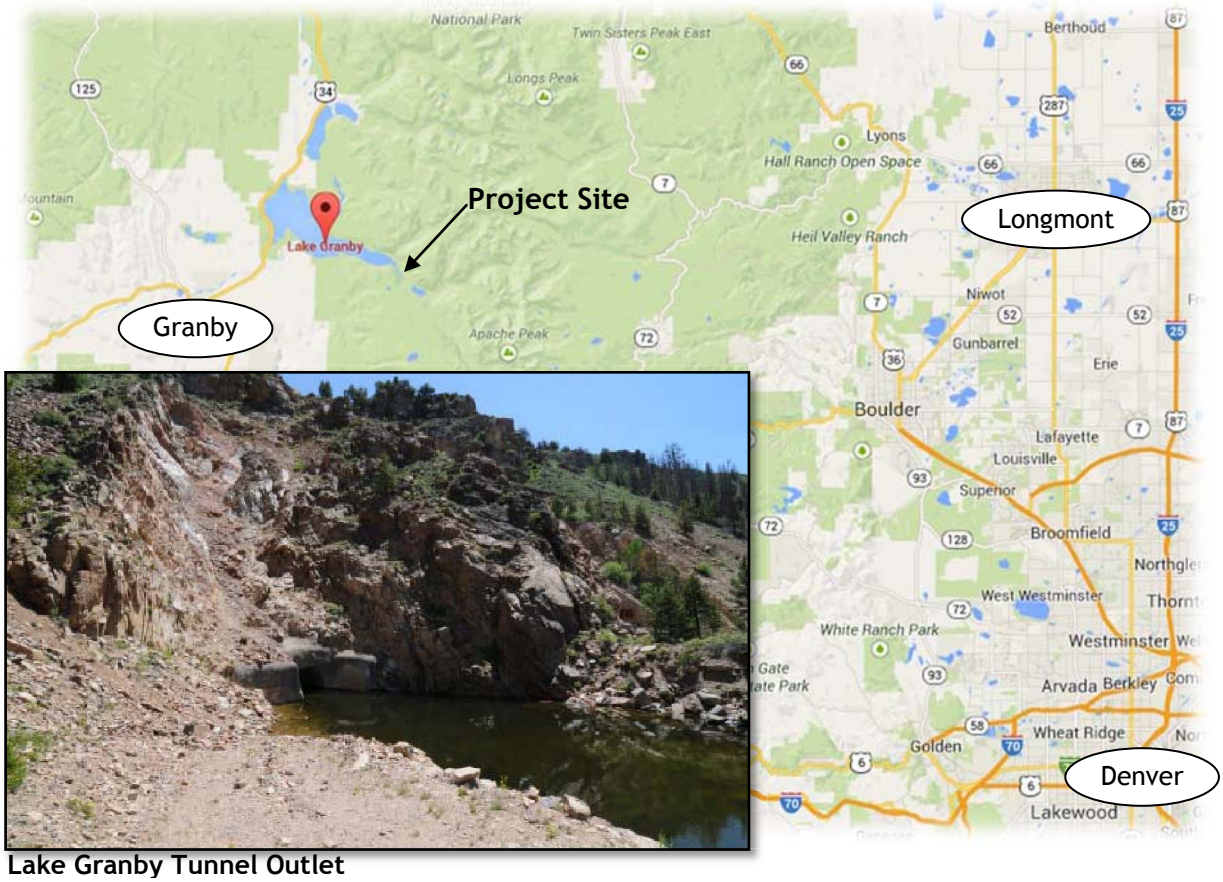
November 2014 Board Meeting

LOAN DETAILS	
Project Cost:	$5,669,340
CWCB Loan (with Service Fee):	$5,135,183
Loan Term and Interest Rate:	30 Years @ 2.0 %
Funding Source:	*Severance Tax Perpetual Base Fund*
BORROWER TYPE	
Hydropower	
PROJECT DETAILS	
Project Type:	Hydroelectric
Average Annual Power Production:	4.9M KWh



LOCATION			
County:			Grand
Water Source:			Colorado River
Drainage Basin:			Colorado
Division:	5	*District:*	51

Northern Water Hydropower Water Activity Enterprise a government –business owned by the Northern Colorado Water Conservancy District is applying for a loan for the construction of the Granby Hydropower Project. The Project is located at the existing Colorado – Big Thompson Project Granby Dam and will utilize 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 performed under the U.S. Bureau of Reclamation's Lease of Power Privilege (LOPP) process. Power generated will be purchased by Mountain Parks Electric, Inc. per a 30-year Power Purchase Agreement (PPA). The anticipated Project schedule is to finalize the LOPP and PPA by end of 2014. Construction will occur in the summer/fall of 2015 and is expected to be operational by the summer of 2016.



Lake Granby Tunnel Outlet

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Dam Outlet Works Rehabilitation

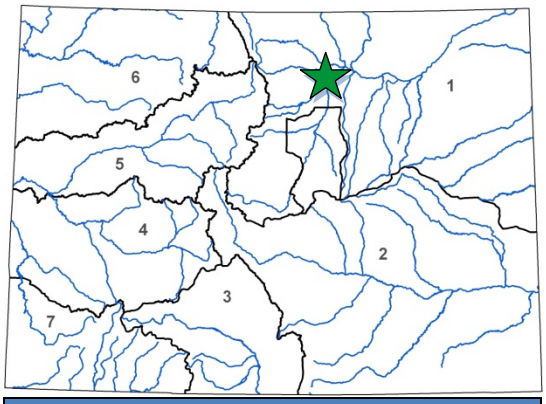
Oligarchy Irrigation Company

July 2015 Board Meeting

LOAN DETAILS	
Project Cost:	$860,000
CWCB Loan (with Service Fee):	$781,740
Loan Term and Interest Rate:	30 Years @ 2.40%
Funding Source:	Construction Fund

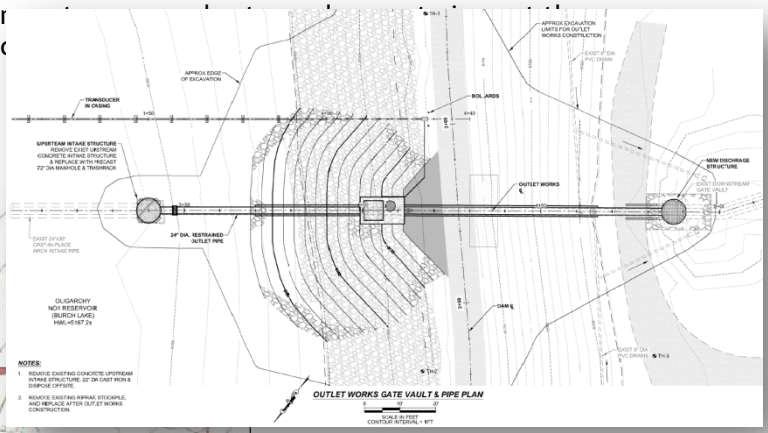
BORROWER TYPE		
Agriculture	*Municipal (TBD)*	*Commercial*
25.4%	0% Low - 74.6% Mid - 0% High	0%

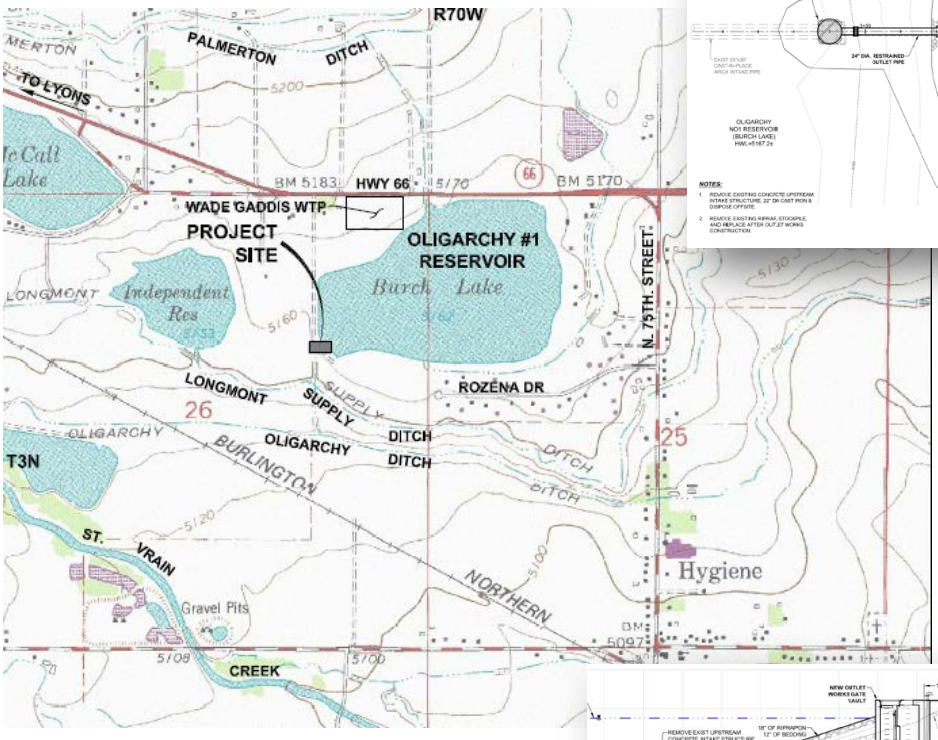
PROJECT DETAILS	
Project Type:	Dam Rehabilitation
Average Annual Delivery:	7,966 AF
Water Supply Storage Preserved:	1,737 AF

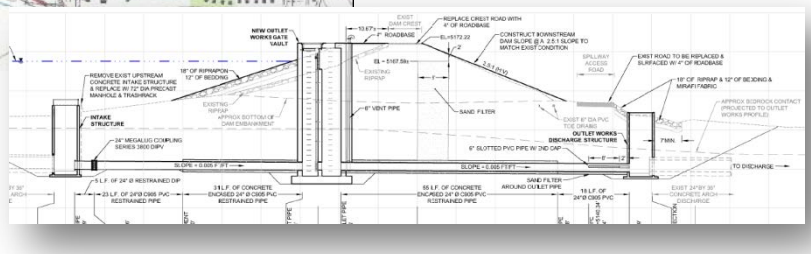


LOCATION			
County:			Boulder
Water Source:			St Vrain Creek
Drainage Basin:			South Platte
Division:	1	*District:*	5

The Oligarchy Irrigation Company owns and operates the Oligarchy #1 Dam and Reservoir, also known as Burch Lake. The reservoir stores 1,737 acre-feet of water and is classified as a significant hazard dam by the Office of the State Engineer (SEO). The purpose of the project is to rehabilitate the Oligarchy Reservoir No.1 dam outlet works to include a new unpressurized outlet pipe, ar outlet works system. Construction is expected to occ







COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Orchard Ranch Ditch Pipe Project

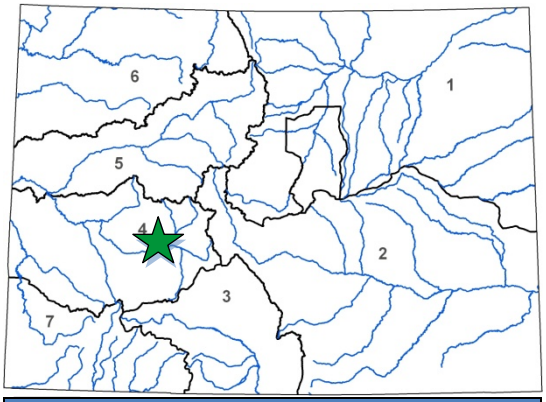
Orchard Ranch Ditch Company

January 2016 Board Meeting

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

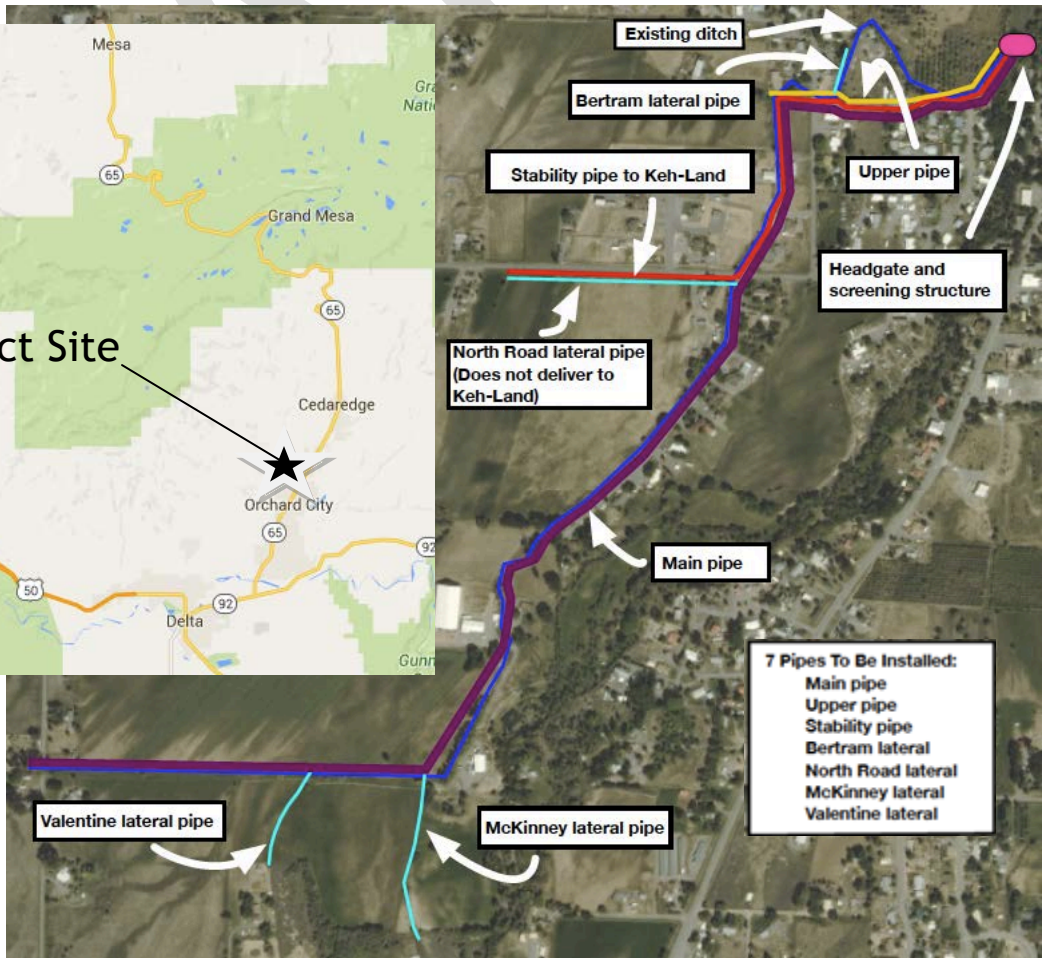
BORROWER TYPE		
Agriculture	*Municipal*	*Commercial*
86%	14% Low - 0% Mid - 0% High	0%

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



LOCATION			
County:			Delta
Water Source:			Surface Creek
Drainage Basin:			Gunnison River
Division:	4	*District:*	40

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



CWCB Construction Loan Program
Project Data Sheet

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

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

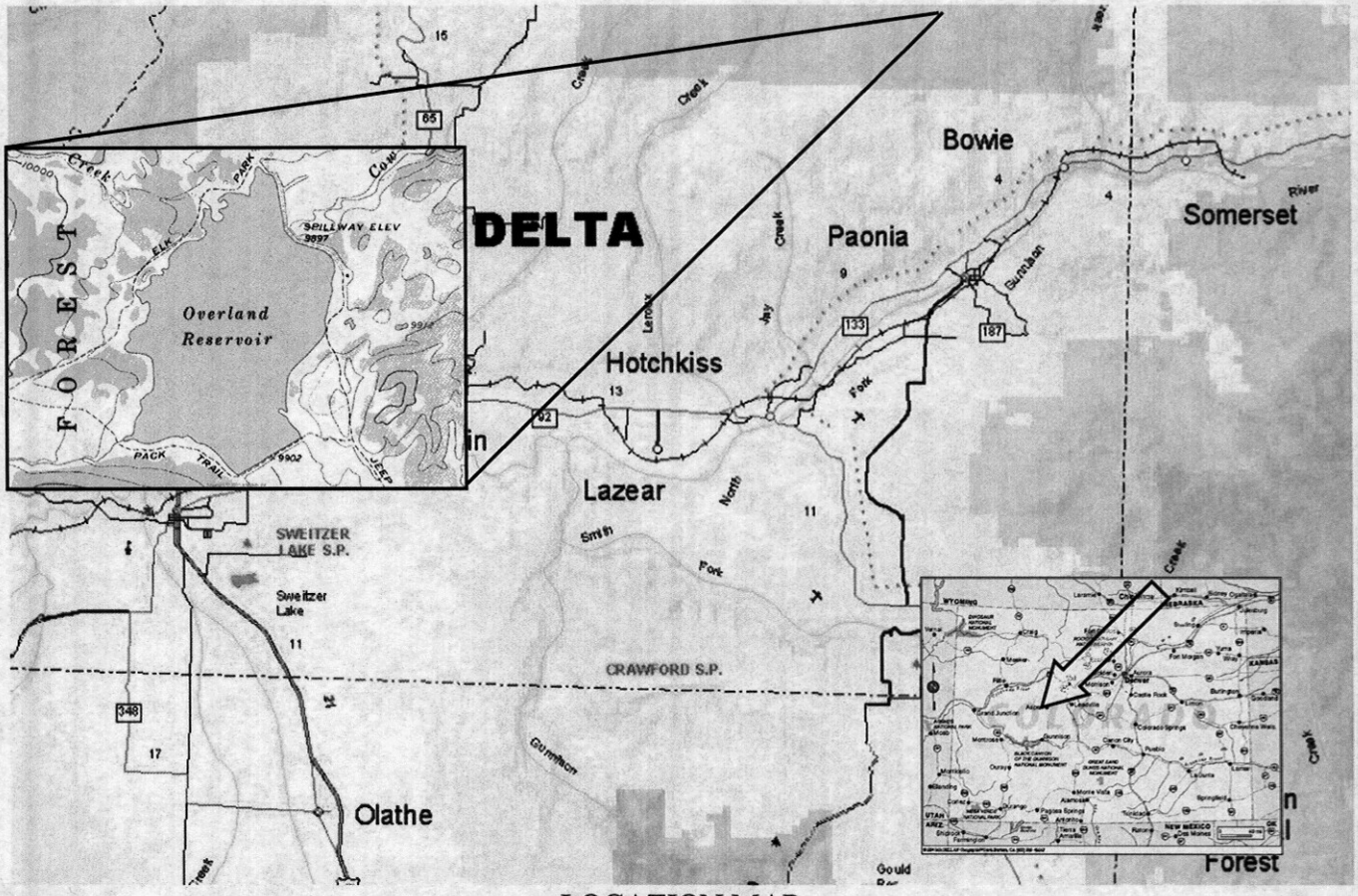
Drainage Basin: Gunnison River Basin **Water Source**: Cow Creek

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

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

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

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



LOCATION MAP

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Evans Reservoir Bypass Flume Replacement

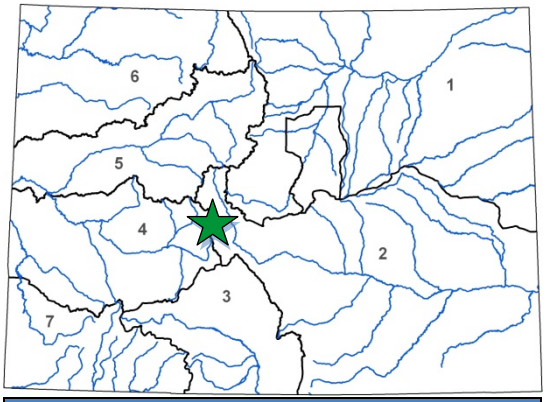
Parkville Water District

September 2015 Board Meeting

LOAN DETAILS	
Project Cost:	$533,430
CWCB Loan (with Service Fee):	$181,800
Loan Term and Interest Rate:	10 Years @ 1.95%
Funding Source:	WSRA & Sev. Tax Perpetual Base Fund

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

PROJECT DETAILS	
Project Type:	Municipal & Industrial
Average Annual Delivery:	1,500 AF



LOCATION			
County:			Lake
Water Source:			Evans Gulch
Drainage Basin:			Arkansas River
Division:	2	*District:*	11

The Evans Reservoir Bypass Flume, constructed around 1904, is a wooden trough measuring 6' x 5' x 450', including inlet and outlet structures. The flume carries Evans Creek contaminated water around Evans Reservoir and through the dam.

Annual maintenance of the wooden structure has required increasingly heavy efforts and expense. Heavy runoff events in the last several years have caused the condition of the flume to become an extremely urgent situation. 8,000 acres of deep snow must be channeled through the flume during spring runoff each year. In the spring of 2014, sudden runoff combined with spring rains resulting in an unusually high snow melt. The flume was nearly overwhelmed and the portion that passes over the abutment of the dam failed. Fairly serious 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. The State Engineer's Office has strongly recommended that the flume be replaced. This project proposes a buried pipeline to replace the flume. Concrete inlet and outlet structures will be constructed, and a trash rack will be installed at the inlet.

The two primary objectives of the project are to protect water quality for the City of Leadville, and to prevent failure of the Evans Reservoir dam.

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Mt. Pisgah Dam/Wrights Reservoir Outlet Works Rehabilitation

Pisgah Reservoir and Ditch Company

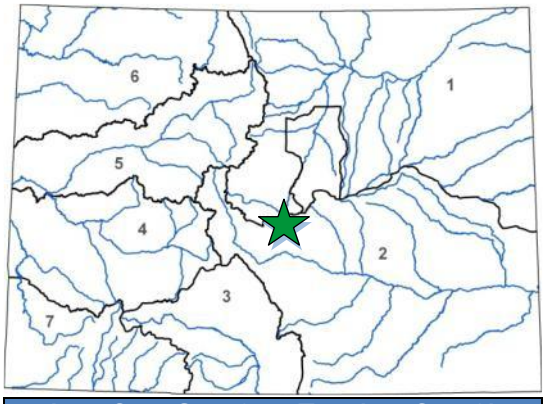
November 2014 Board Meeting

(Loan Increase)

LOAN DETAILS	
Project Cost:	$745,000
CWCB Loan (with Service Fee):	$549,091
Loan Term and Interest Rate:	30 Years @ 1.75%
Funding Source:	*Construction Fund*

BORROWER TYPE		
Agriculture	*Municipal*	*Commercial*
93%	7% Low - 0% Mid - 0% High	0%

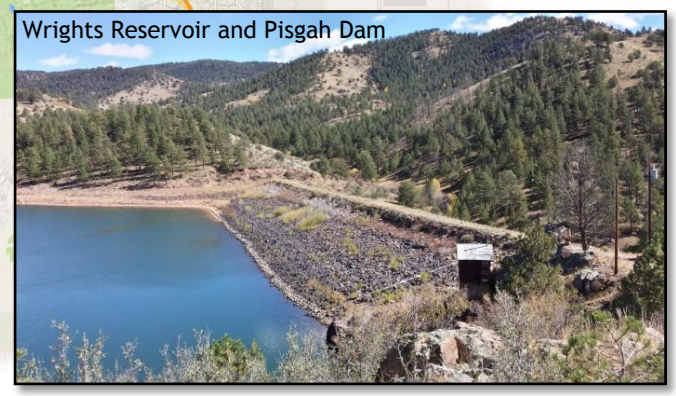
PROJECT DETAILS	
Project Type:	Reservoir Rehabilitation
Average Annual Diversion:	86,000 AF
Water Supply Storage Preserved:	2,192 AF



LOCATION			
County:			Teller
Water Source:			Fourmile Creek
Drainage Basin:			Arkansas
Division:	2	*District:*	12

The Pisgah Reservoir and Ditch Company provides raw water for the irrigation of approximately 20,000 acres of agricultural land across an 18 mile stretch from Manzanola to La Junta. Primary shareholders include Catlin Canal Company, Canon Heights Irrigation and Reservoir Company, Park Center Water District, City of Rocky Ford, Colorado Parks and Wildlife, and individual agricultural users.

The Company was approved for a $161,345 loan and a $161,345 WSRA grant at the September 2012 CWCB Board Meeting to modify the operational inlet and outlet works and replace existing control valves on Pisgah Dam, in compliance with an SEO conditional order. During final engineering, construction costs were found to have increased and additional remedial abandonment work on the outlet originally abandoned in 1929 was added to the Project's Scope of Work. With these changes, the cost estimate has risen from $362,875 to $745,000. The Company is seeking to cover this cost increase with an increase to its approved loan. Construction is scheduled for 2015.



COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Raw Water Supply Project

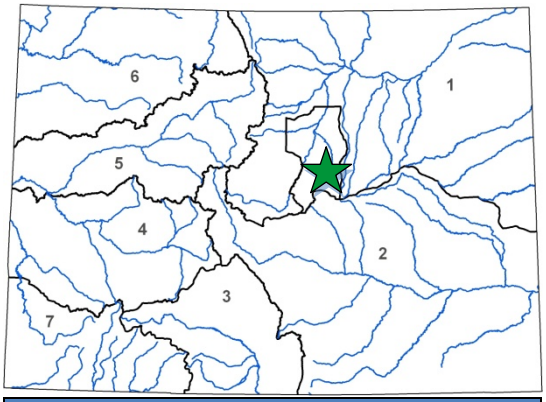
Plum Valley Heights Subdistrict of the Roxborough Water and Sanitation District

May 2015 Board Meeting

LOAN DETAILS	
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

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

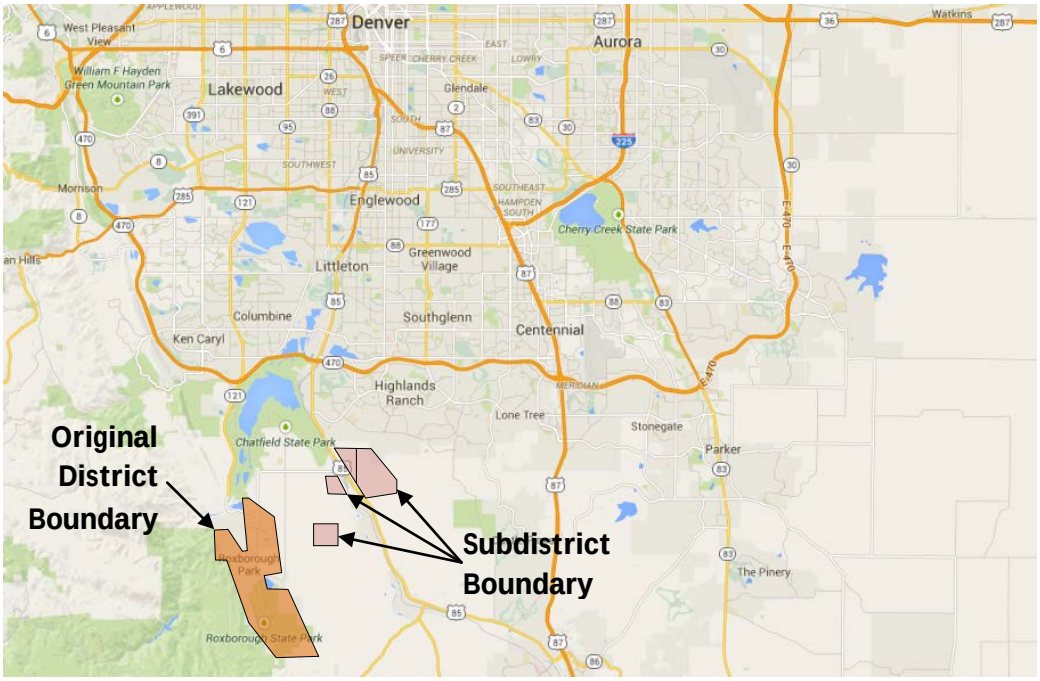
PROJECT DETAILS	
Project Type:	Water Rights Purchase
Average Annual Delivery:	150 AF



LOCATION			
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 WSRA 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

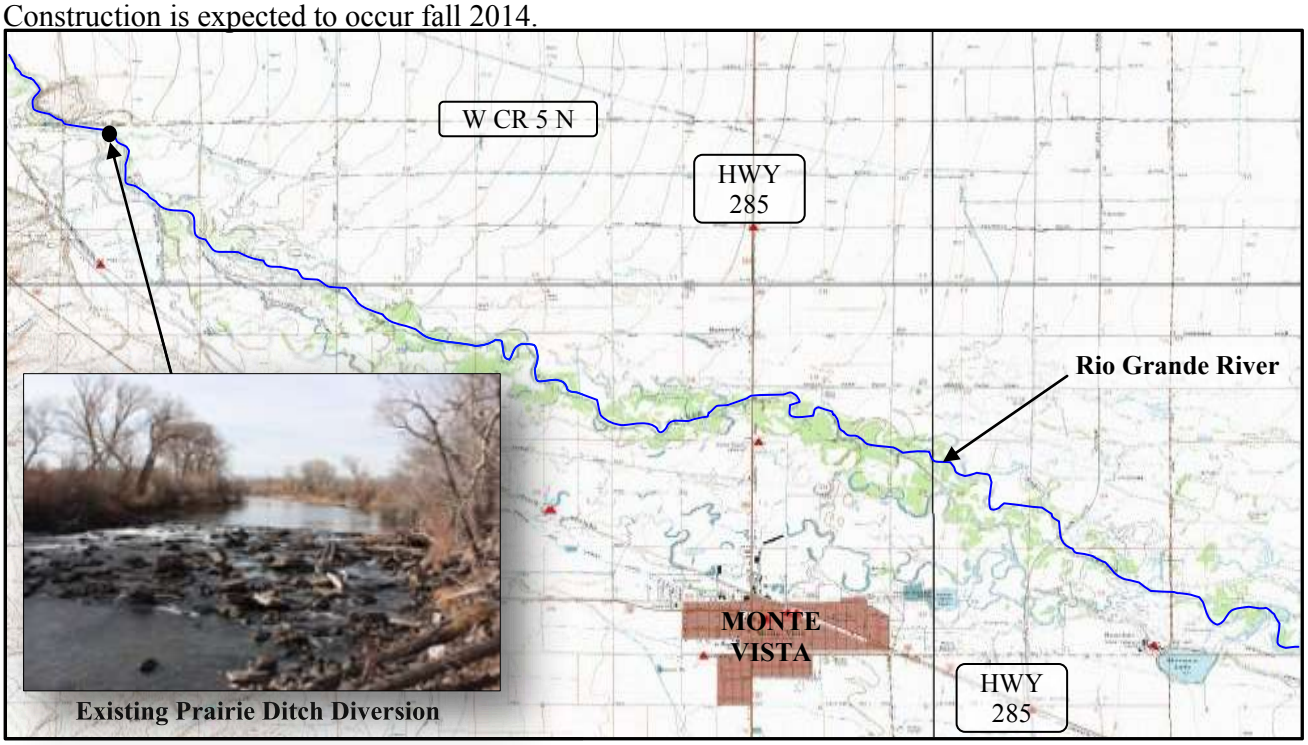
Average Annual Diversion: 16,000 AF

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

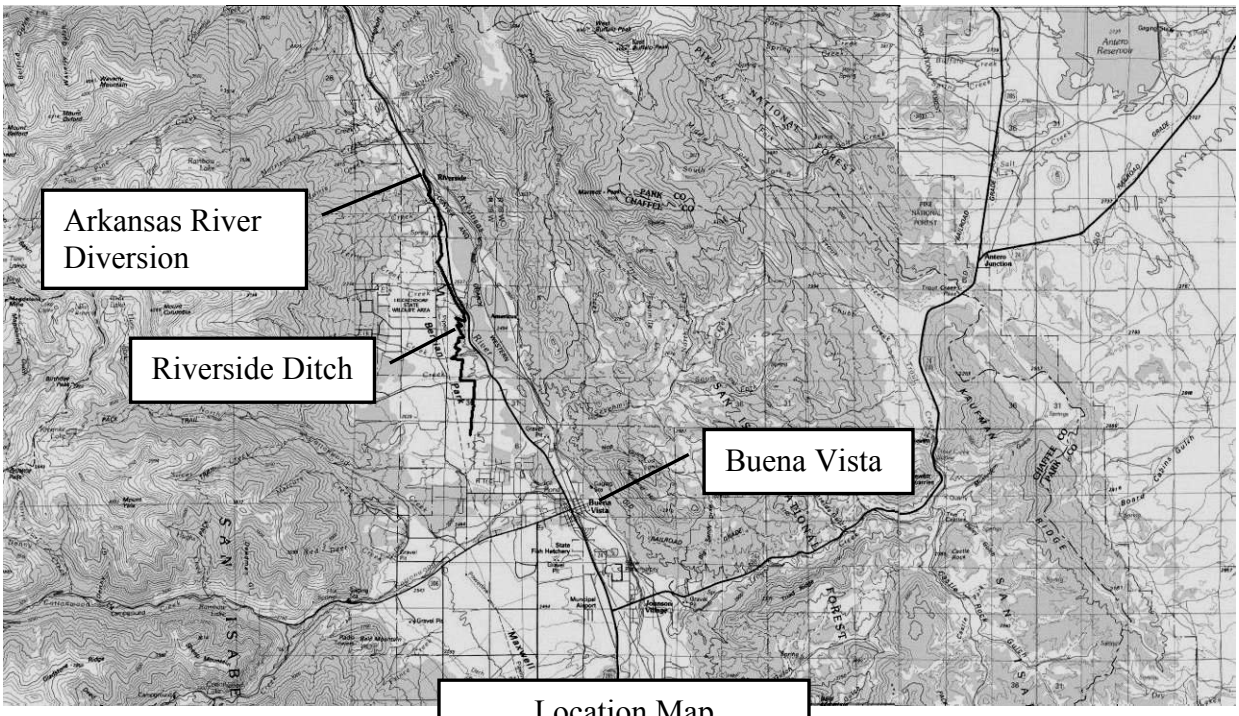
Type of Borrower: Agricultural

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.



Location Map

CWCB Construction Loan Program
Project Data Sheet

Borrower: Riverside Reservoir and Land Co.

County: Weld

Project Name: Emergency Spillway Project

Project Type: Reservoir Rehabilitation

Drainage Basin: South Platte

Water Source: South Platte River

Total Project Cost: $3,120,000

Funding Sources: Severance Tax Trust Fund Perpetual Base Account

Type of Borrower: Agricultural

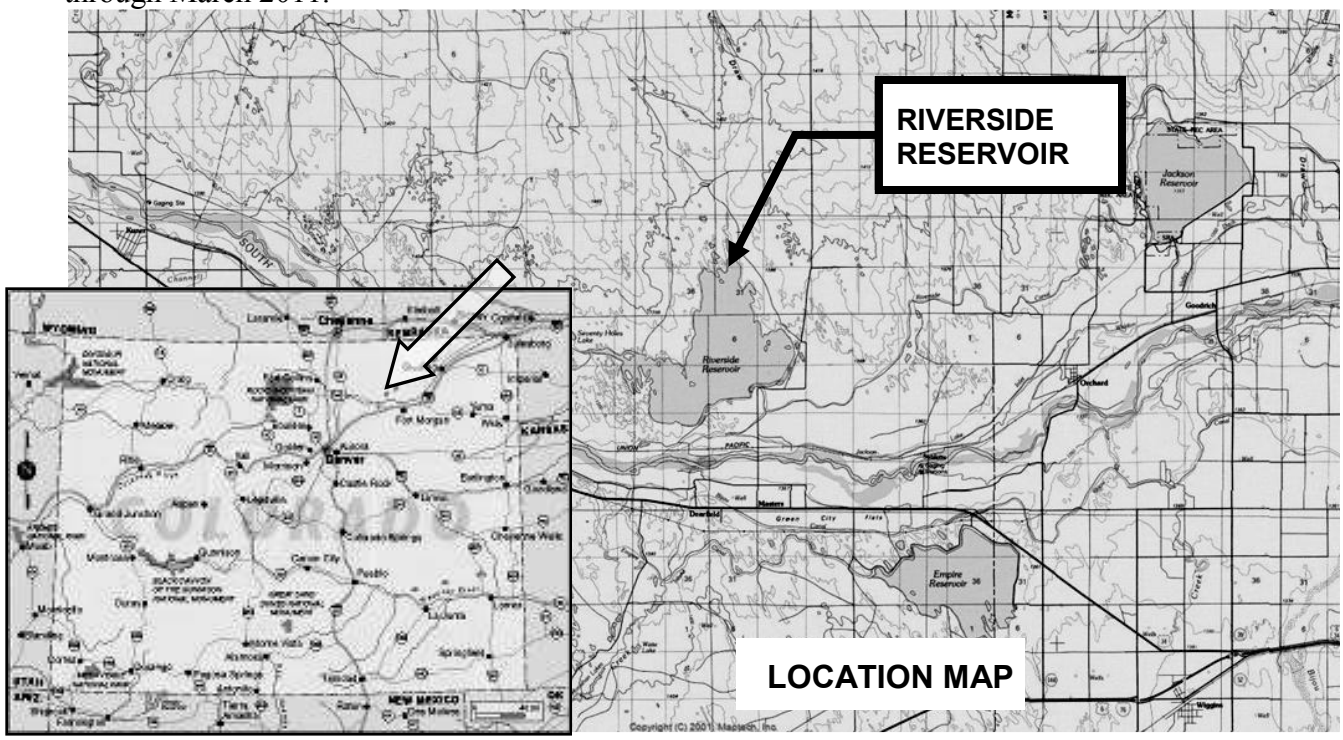
Average Delivery: 39,000 AF (from Reservoir storage) (105,000 Total AF for Company)

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

Interest Rate: 2.5%

Term: 30 years

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



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

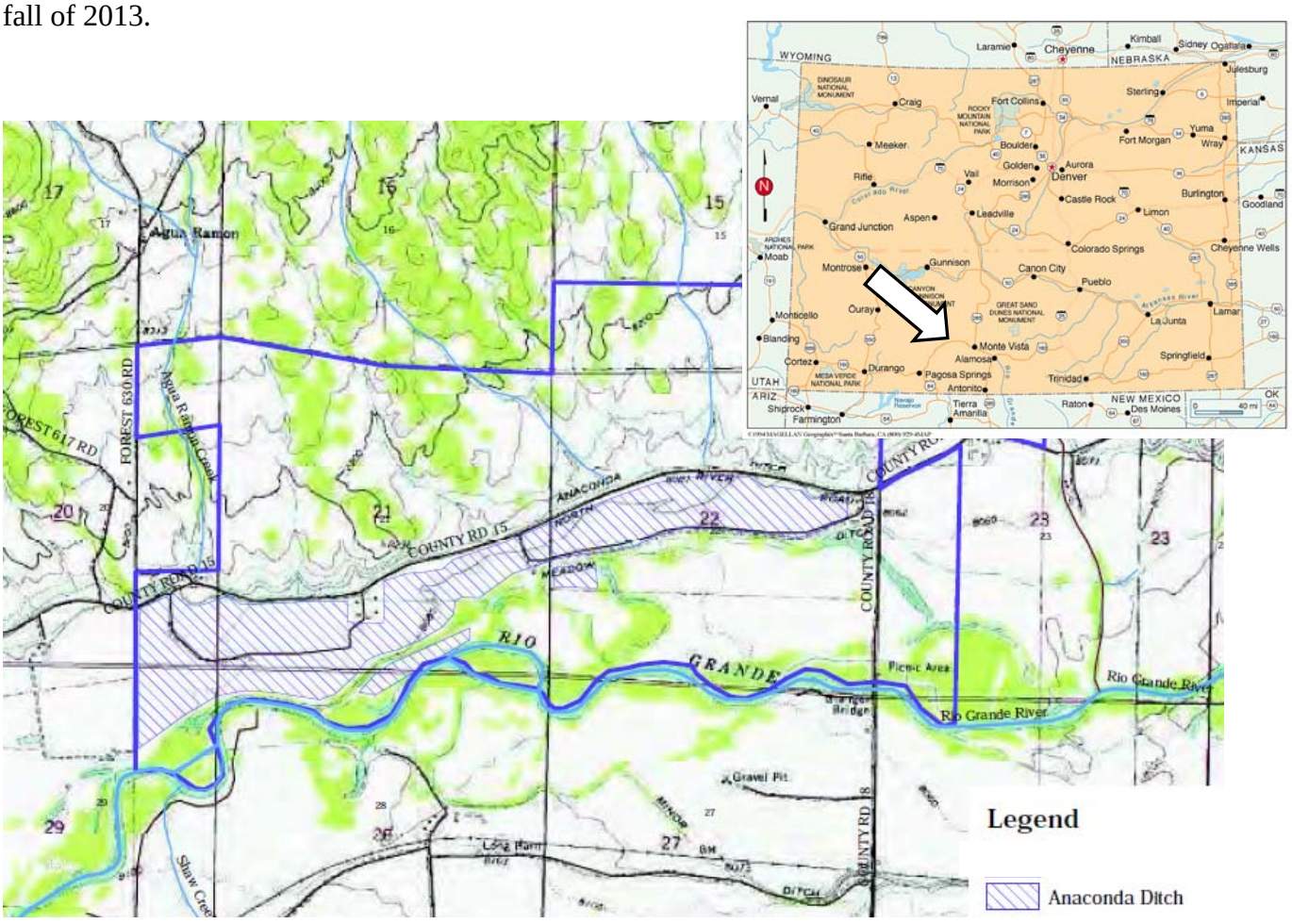
Type of Borrower: Municipal Low Income

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

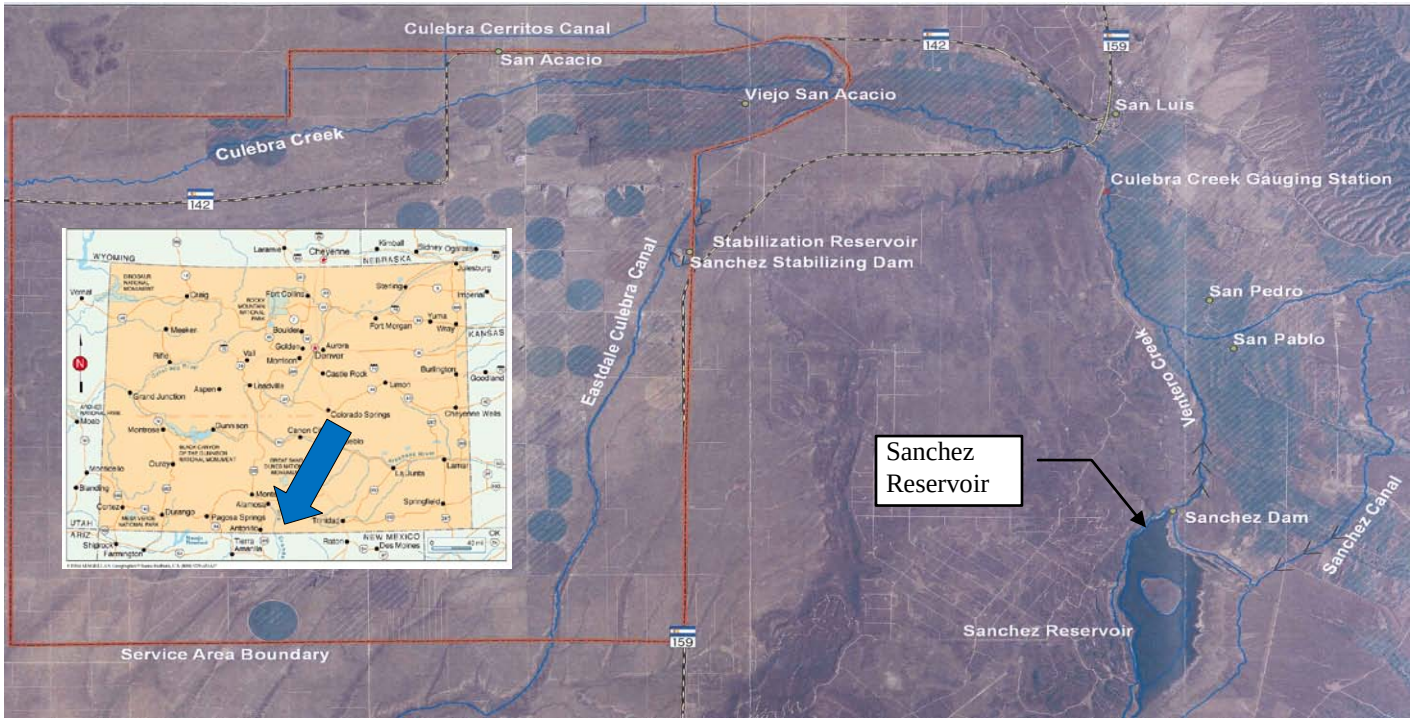
Funding Sources: Construction Fund & WSRA (Basin & Statewide funds)

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.



CWCB 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

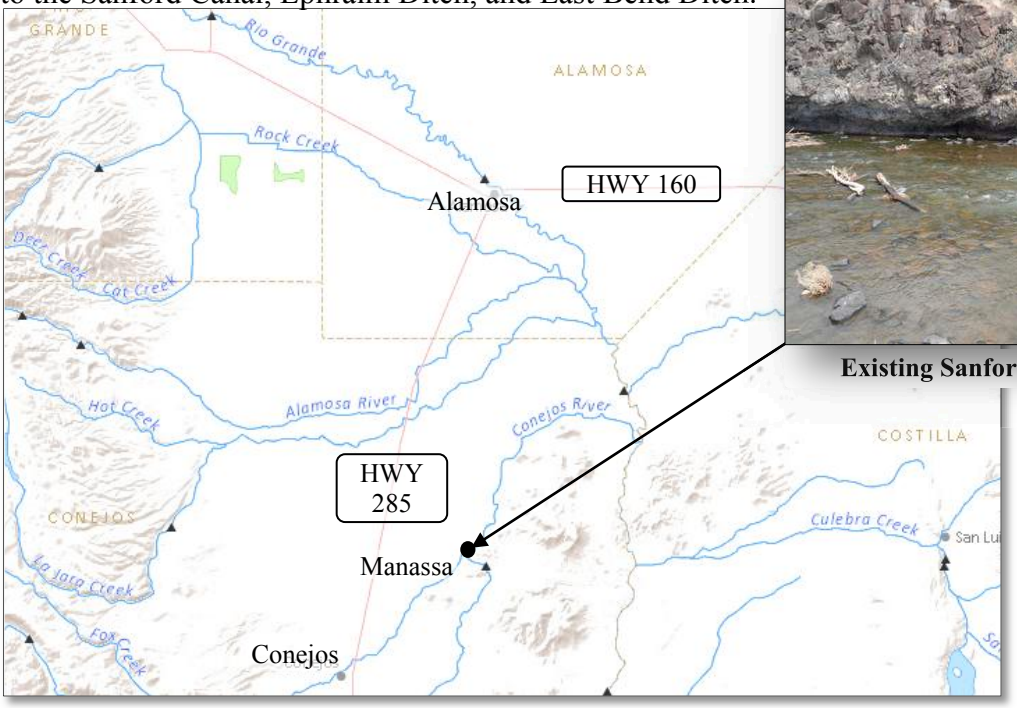
Average Annual Diversion: 4,000 AF

CWCB 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

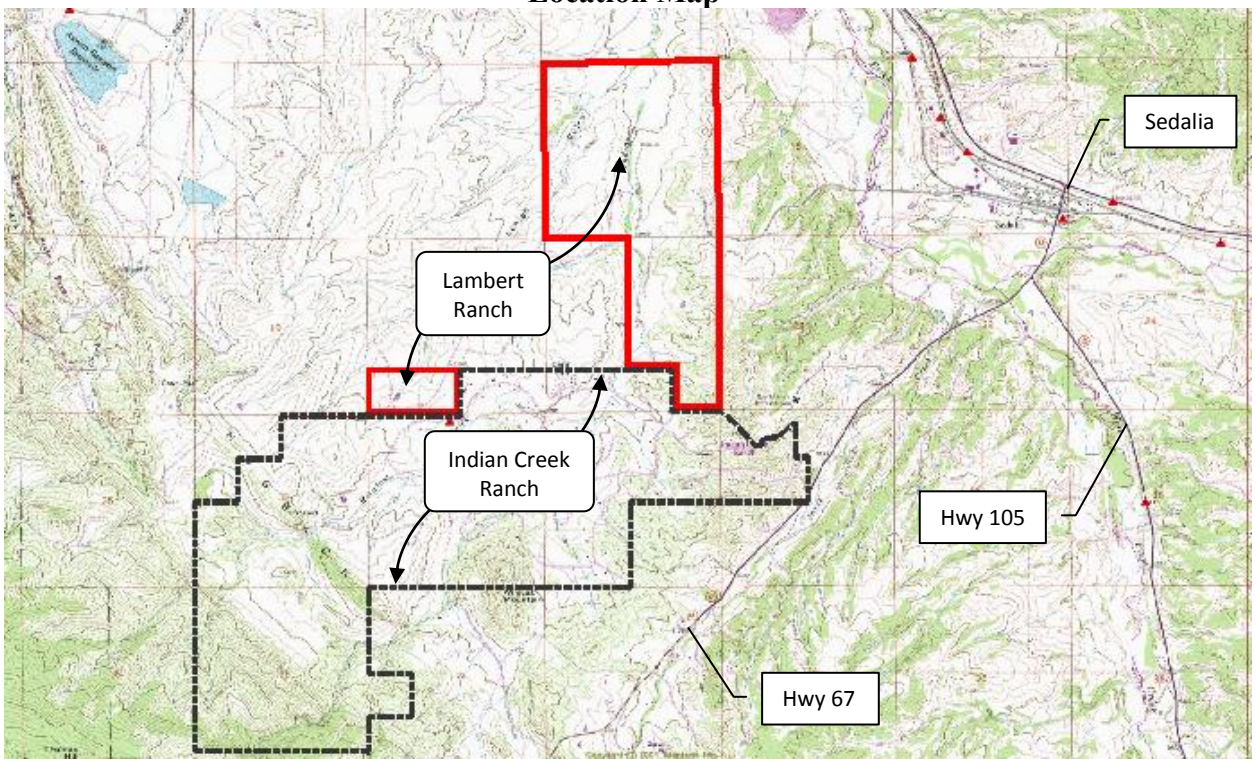
Avg. Annual Delivery: 55 AF

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



COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Laramie-Poudre Tunnel Rehabilitation

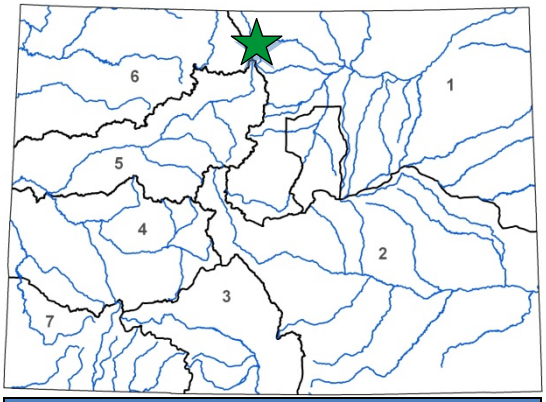
The Tunnel Water Company

September 2015 Board Meeting

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

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

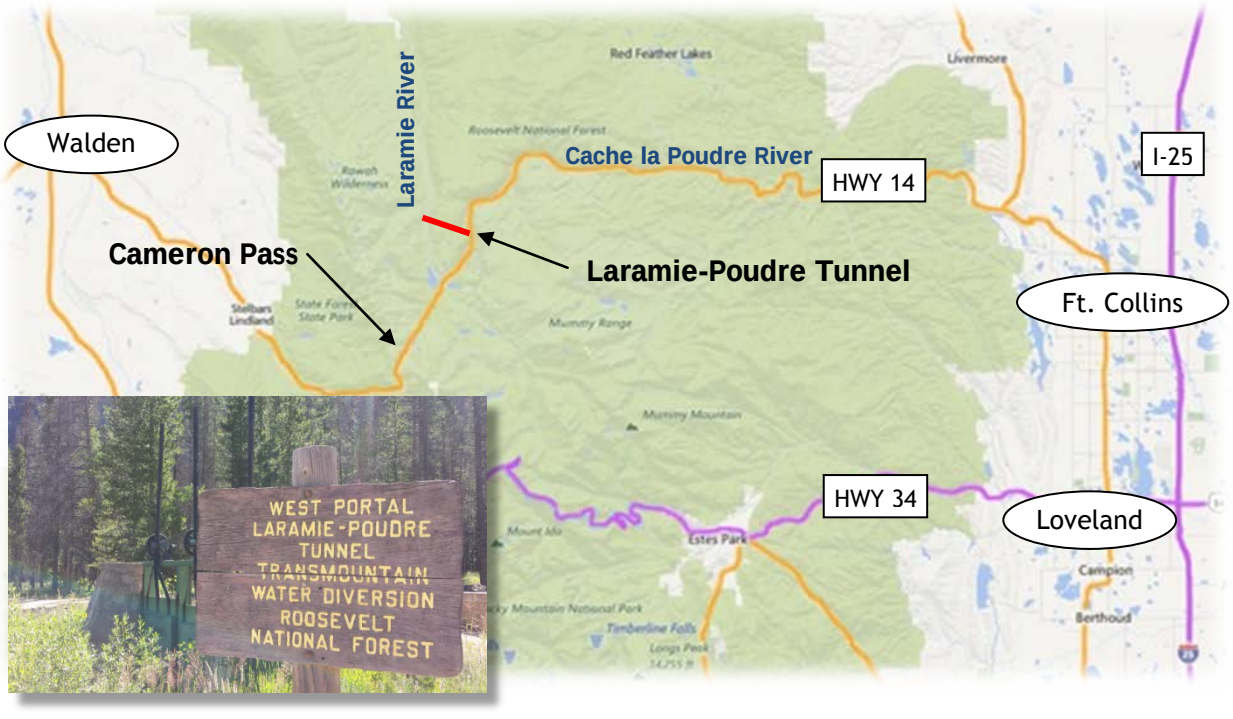
PROJECT DETAILS	
Project Type:	Ditch Rehabilitation
Average Annual Diversion:	6,875 AF



LOCATION			
County:			Larimer
Water Source:			Laramie River
Drainage Basin:	North Platte/South Platte		
Division:	1	*District:*	48/3

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

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



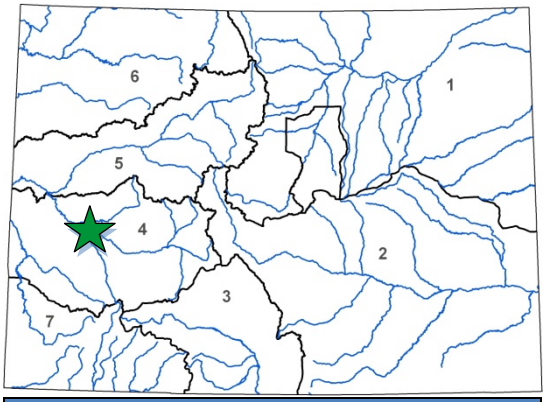
COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Drop 5 Hydroelectric Project

Uncompahgre Valley Water Users Association

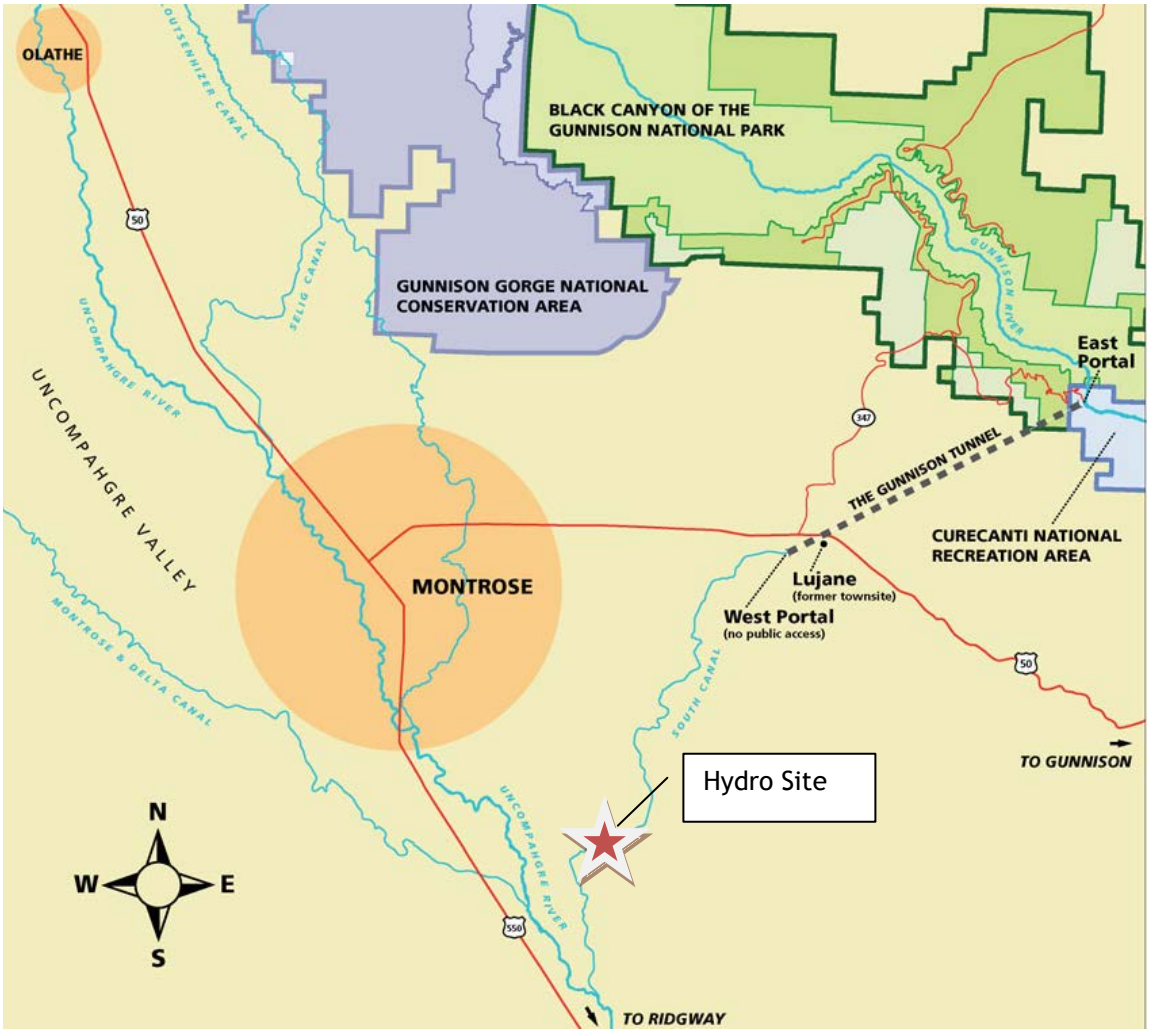
May 2015 Board Meeting

LOAN DETAILS	
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
BORROWER TYPE	
Agricultural	
PROJECT DETAILS	
Project Type:	Hydroelectric
Average Annual Power Production	2.2 MW



LOCATION			
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.



COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Union Reservoir Water Rights Purchase

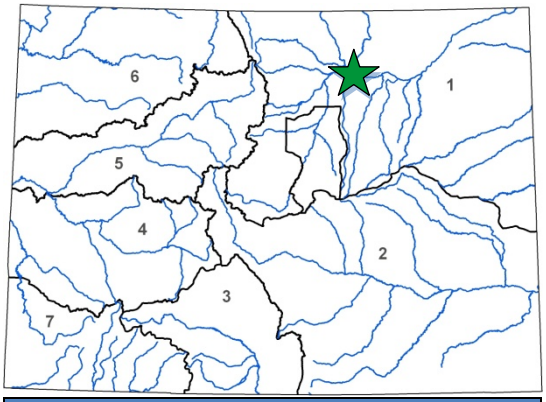
Union Well Augmentation Group

May 2016 Board Meeting

LOAN DETAILS	
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

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

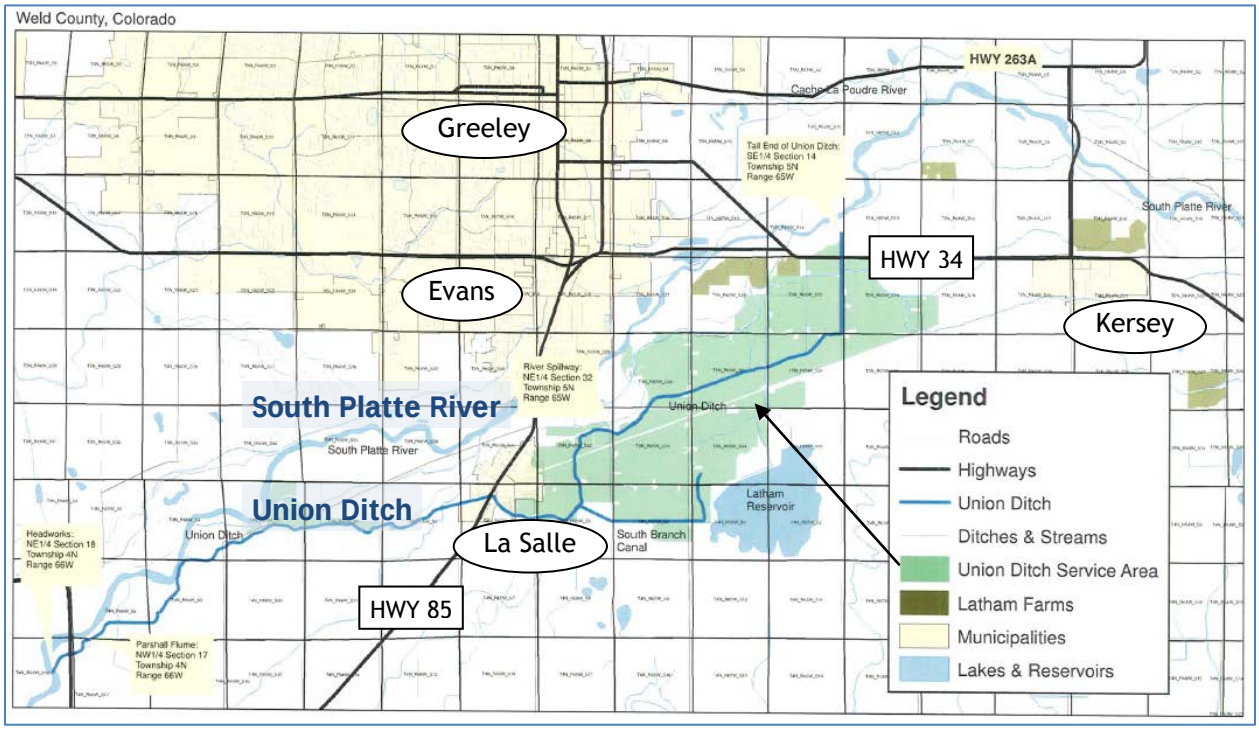
PROJECT DETAILS	
Project Type:	Water Rights Purchase
Average Annual Delivery:	116 AF



LOCATION			
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.



CWCB Construction Loan Program
PROJECT DATA SHEET

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

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

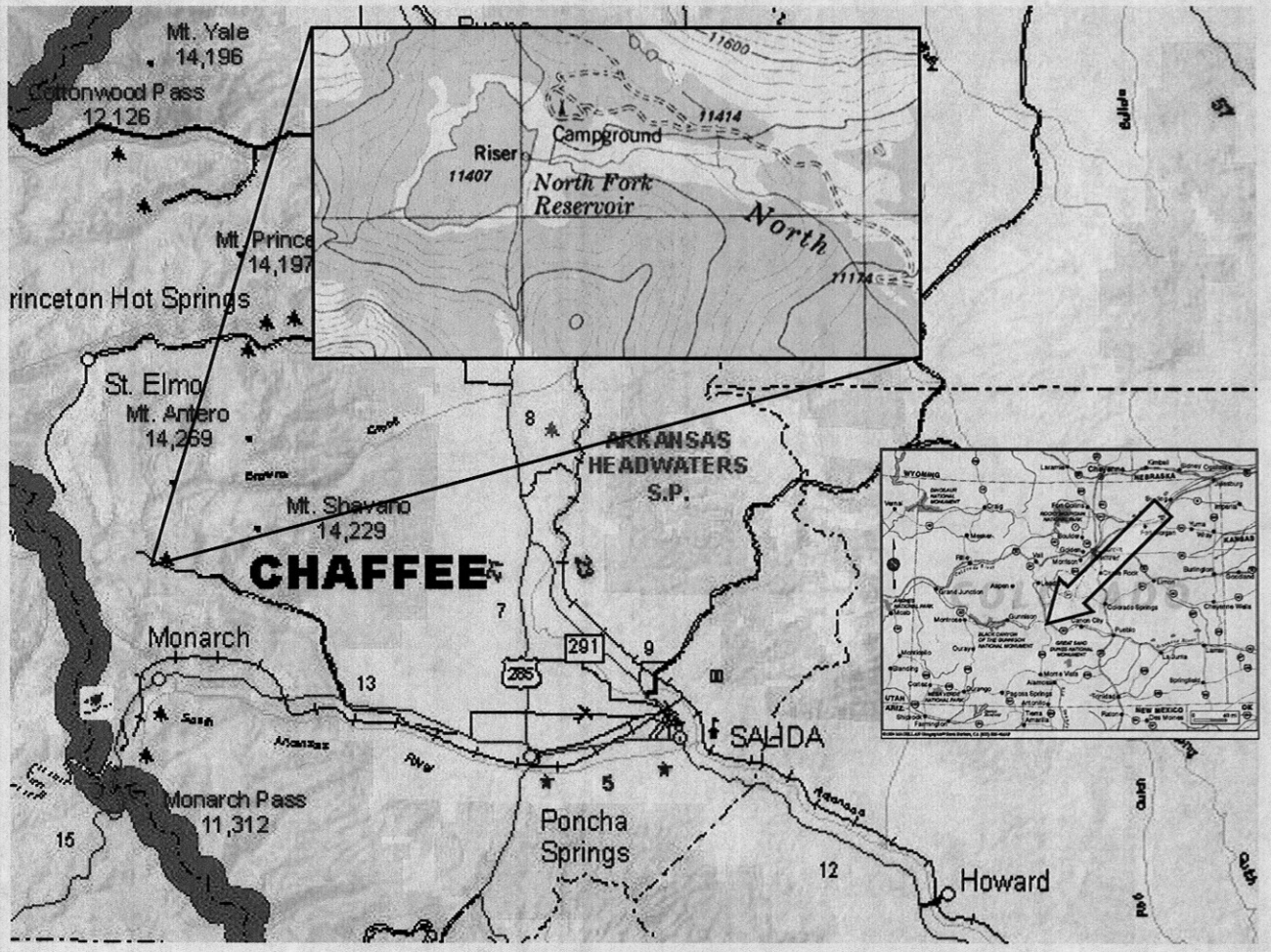
Project Type: Dam and Spillway Modifications **Water Source:** N. Fork of S. Arkansas

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

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

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

The Upper Arkansas Water Conservancy District is located in Salida, Colorado, and serves to protect and develop water supplies in Chaffee, Western Fremont and Custer Counties. The District has operated the North Fork Reservoir since 1979 for domestic, municipal, industrial, recreational and augmentation purposes. The reservoir is at elevation 11,400 feet and is located 10 miles from Maysville on the North Fork of the South Arkansas River. The District plans to repair the outlet gate, improve the access for construction, increase the spillway capacity, mitigate seepage along the right abutment, and raise the dam height by 15 feet. This will increase the capacity of the reservoir from 595 AF to 1095 AF. The enlargement will also require the relocation of portions of a campground. The reservoir is located on Forest Service property and currently has a Special Use Permit authorizing the repair work. The enlargement work will require a NEPA study prior to Forest Service permitting.



LOCATION MAP

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

West Reservoir And Ditch Outlet Repair Project

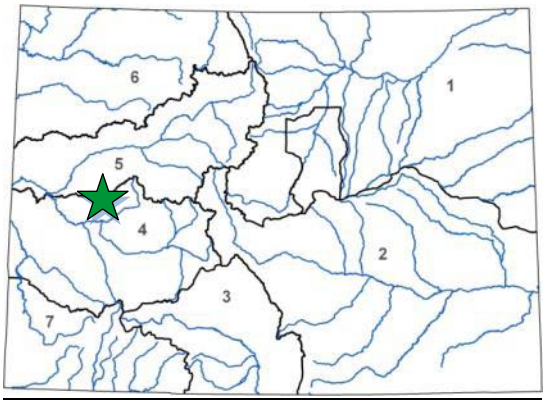
West Reservoir and Ditch Company

November **2014 Board Meeting**

LOAN DETAILS	
Project Cost:	$ 471,577
CWCB Loan (with Service Fee):	$248,378
Loan Term and Interest Rate:	30 Years @ 2%
Funding Source:	

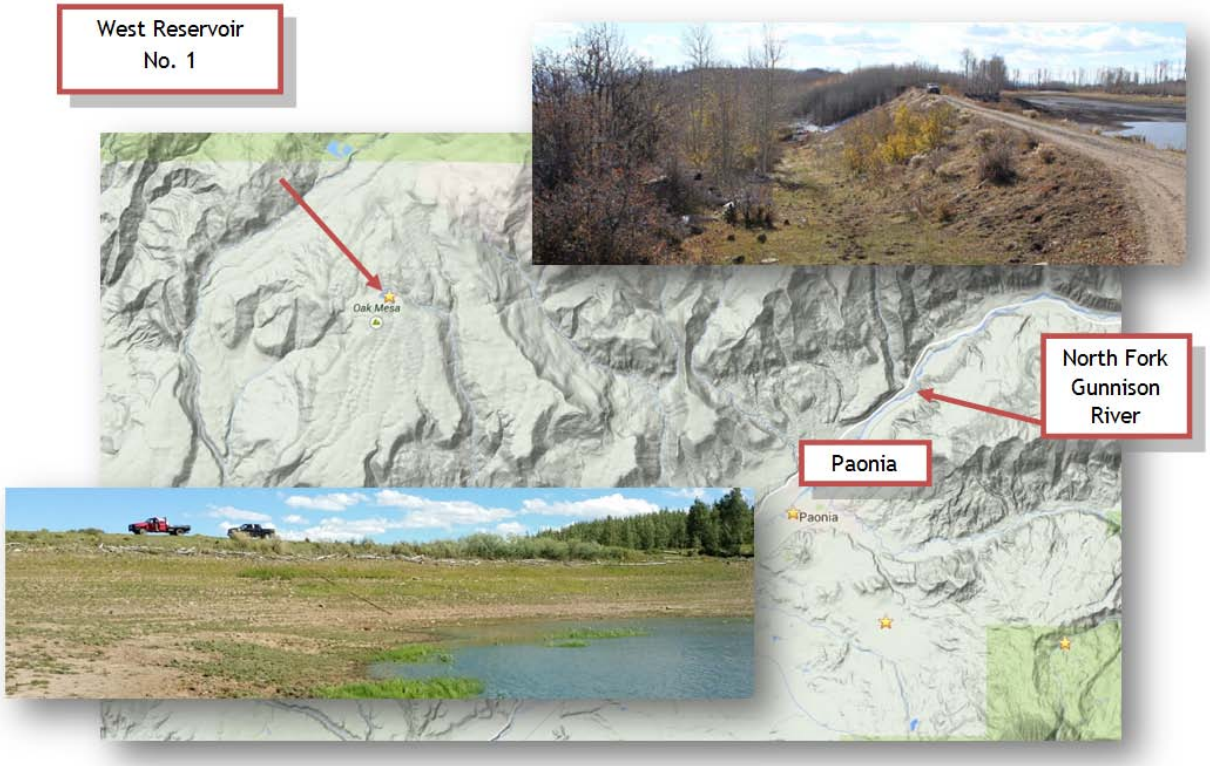
BORROWER TYPE		
Agriculture	*Municipal*	*Commercial*
100%	0%	0%

PROJECT DETAILS	
Project Type:	Outlet Rehabilitation
Average Annual Diversion:	604 AF



LOCATION			
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.



CWCB Water Project Loan Program
Project Data Sheet

C150366

Borrower: Town of Windsor Water Enterprise

County: Larimer/Weld

Project Name: Kyger Reservoir Project

Project Type: Reservoir Construction

Drainage Basin/ District: South Platte / 3

Water Source: Cache la Poudre River

Total Project Cost: $6,300,000

Funding Source: Construction Fund

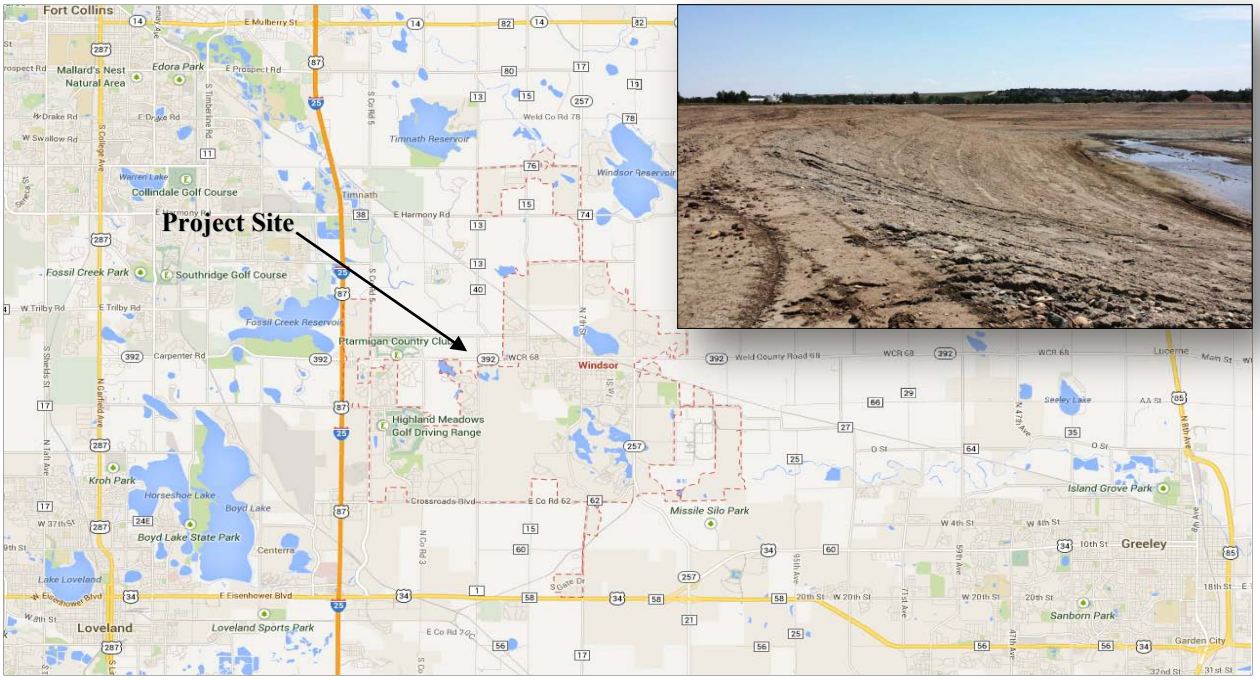
Type of Borrower: Municipal (High)

Average Annual Delivery: 2035 AF

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

Interest Rate: 2.75% **Term:** 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

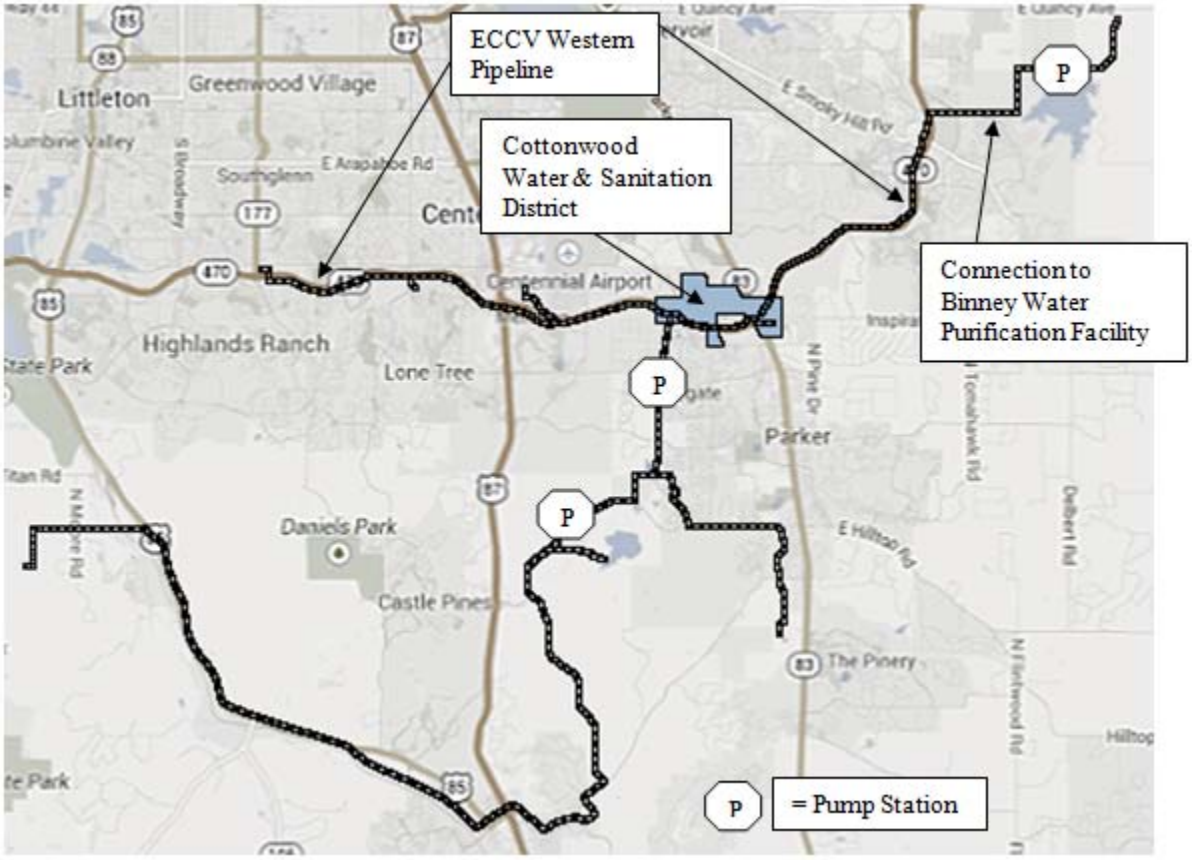
CWCB Loan: $4,508,640 (with 1% service fee)

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

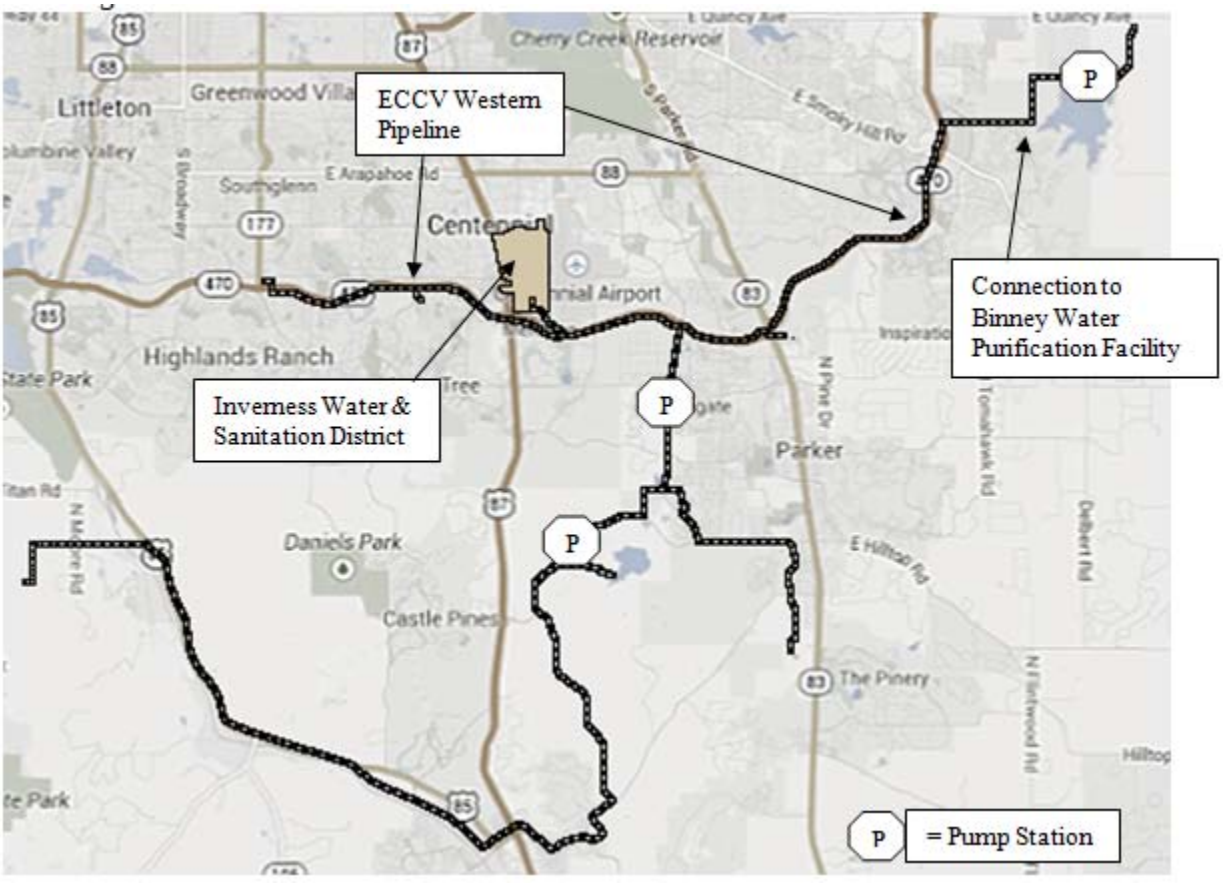
CWCB Loan: $4,908,600 (with 1% service fee)

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

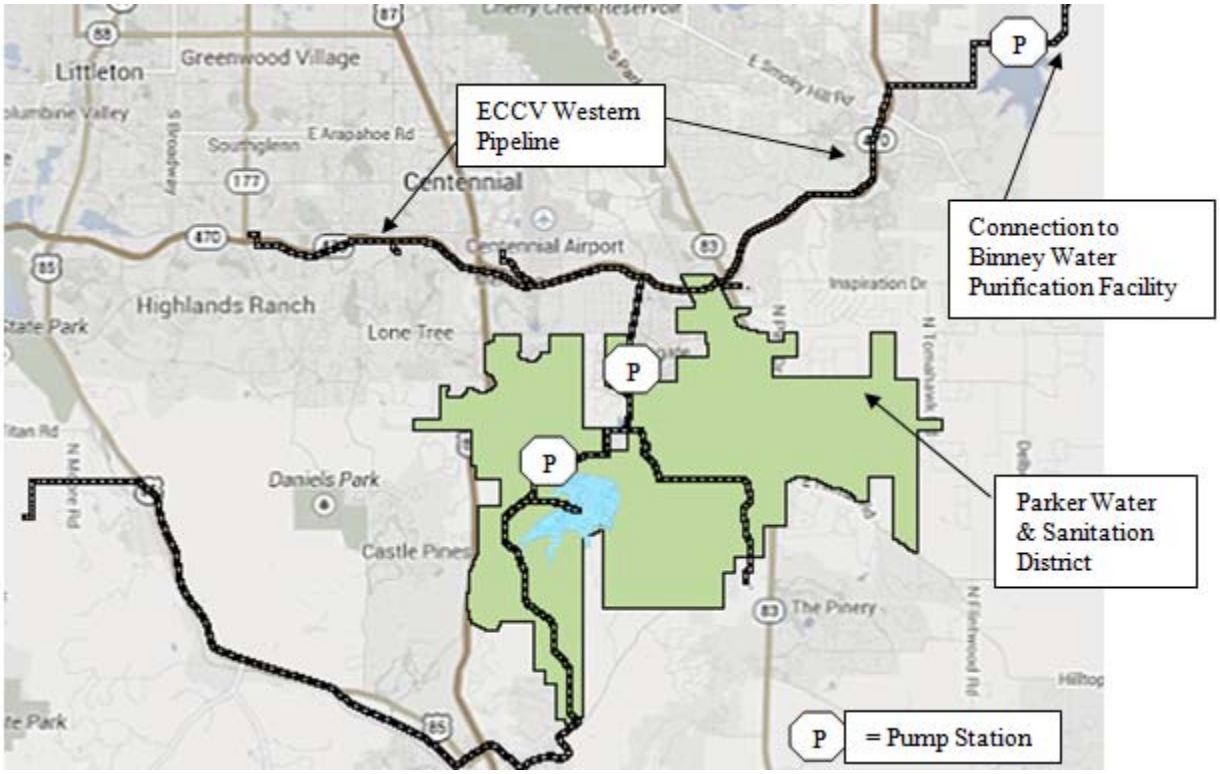
CWCB Loan: $15,734,790 (with 1% service fee)

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

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

County: Douglas

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

Project Type: New Water Supply

Drainage Basin/ District: South Platte / 8

Water Source: South Platte

Total Project Cost: $10,920,000

Funding Source: Construction Fund

Type of Borrower: High-income Municipal

Average Annual Delivery: 2,837 AF

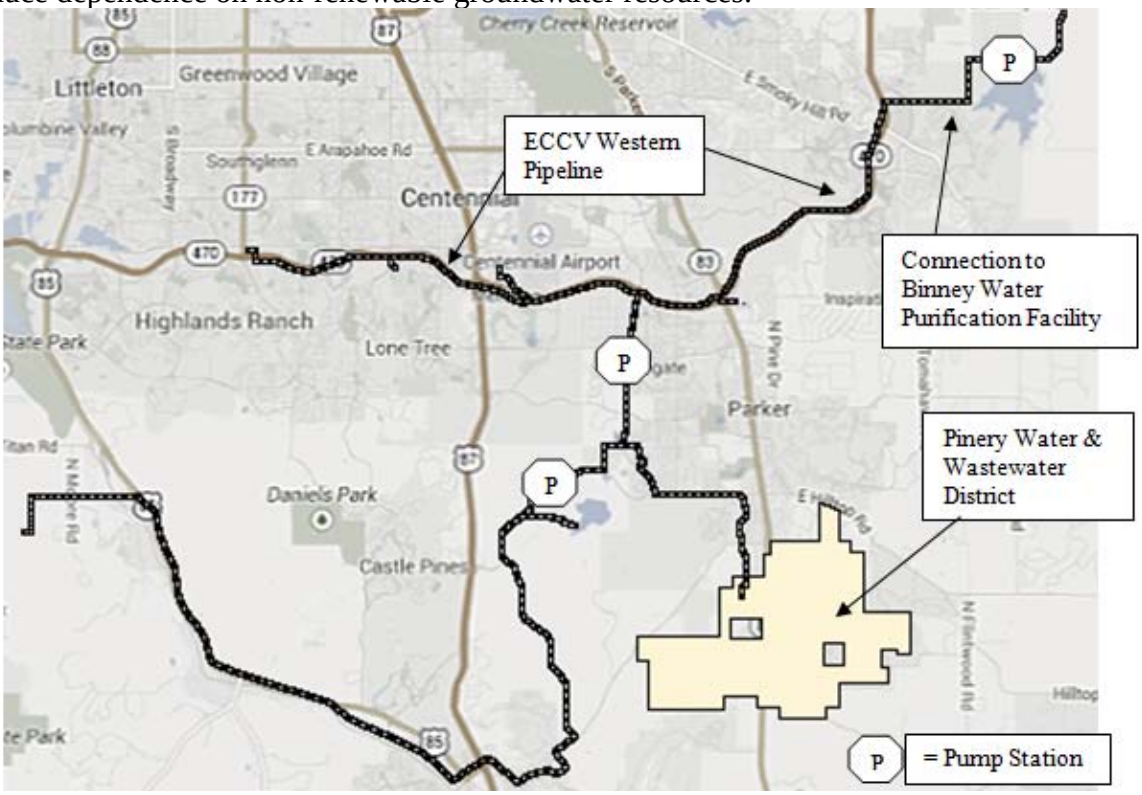
CWCB Loan: $9,926,280 (with 1% service fee)

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

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

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

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



Projects Not Under Contract

Water Project Construction Loan Program - Project Data

Borrower: SECWCD - Enterprise

County: Pueblo, Crowley, Otero, Bent, Prowers

Project Name: Arkansas Valley Conduit

Project Type: Water Supply Pipeline

Drainage Basin: Arkansas

Water Source: Arkansas – Fry-Ark Project

Total Project Cost: $300,000,000

Funding Sources: CWCB, Federal

Type of Borrower: Municipal/Low

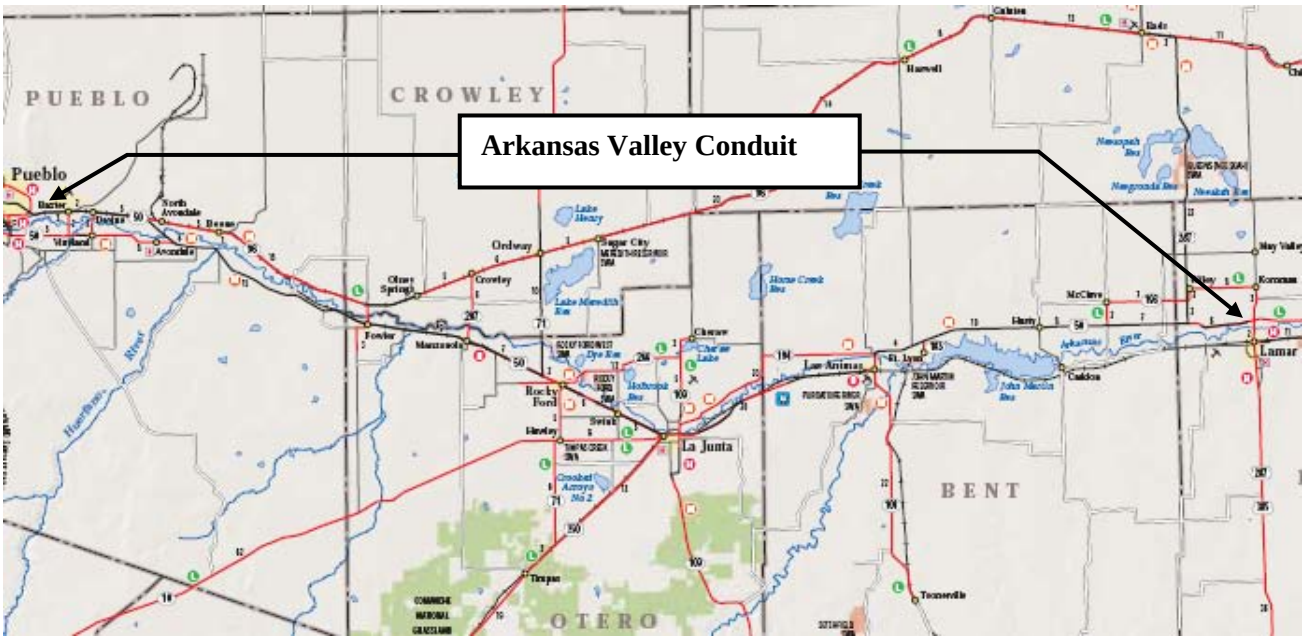
Aver. Delivery: 6,555 AF (2005 demand)

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

Interest Rate: 3.25%

Term: 30 years

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



Location Map

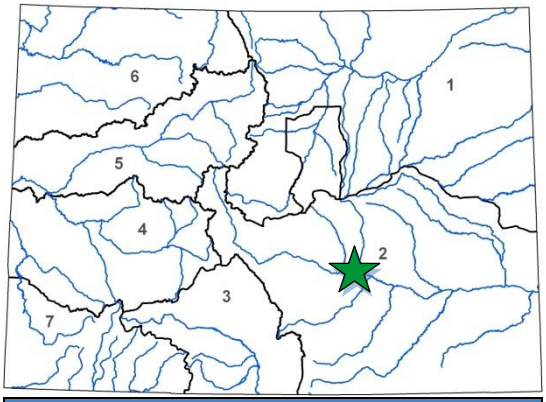
COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Arkansas Valley Conduit Phase One
Pueblo Dam Hydroelectric Project

Southeastern Colorado Water Conservancy District

July 2016 Board Meeting

LOAN DETAILS	
Project Cost:	$19,060,000
CWCB Loan (with Service Fee):	$17,392,200
Loan Term and Interest Rate:	30 Years @ 2.0%
Funding Source:	Severance Tax PBF
BORROWER TYPE	
Hydropower	
PROJECT DETAILS	
Project Type:	Hydroelectric
Average Annual Power Production:	28M KWh



LOCATION			
County:			Pueblo
Water Source:			Arkansas River
Drainage Basin:			Arkansas River
Division:	2	*District:*	10

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

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


Powerhouse Rendering

SOUTHEASTERN COLORADO
Water Conservancy District
"Your investment in water"

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

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Rehabilitation of the Livermore Irrigation Tunnel

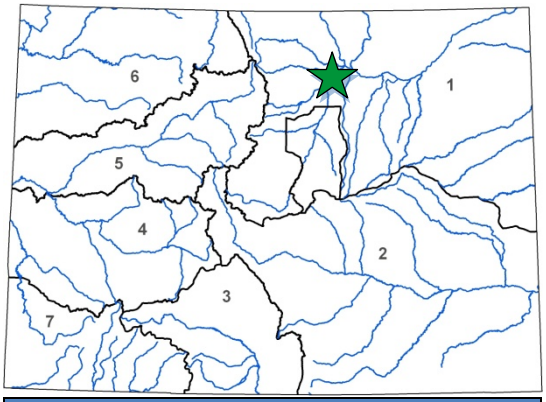
North Poudre Irrigation Company

July 2016 Board Meeting

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

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

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



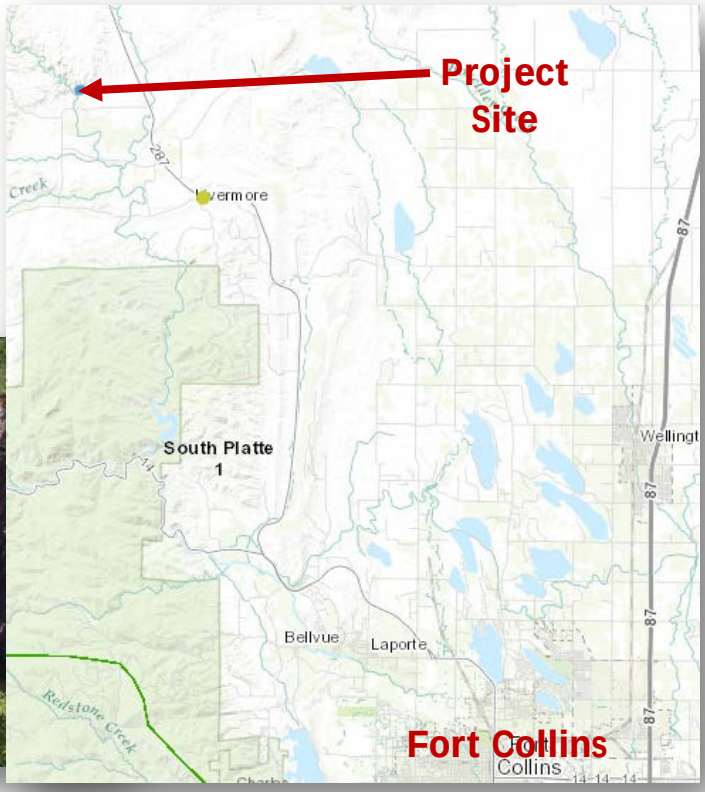
LOCATION			
County:			Larimer
Water Source:			Cache la Poudre River
Drainage Basin:			South Platte River
Division:	1	*District:*	3

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

The Livermore Tunnel carries water diverted from the North Poudre Canal headgate, located on the north side of the North Fork Cache la Poudre River, for approximately 4,900 feet before it is discharges into an earth-lined open canal and flows on toward the Buckeye Lateral, Park Creek Reservoir, and the Company's downstream delivery infrastructure.

The Livermore Tunnel consists of two tunnels connected by a short section of open channel. The tunnels are approximately 8.5 feet high and 8 feet wide with a concrete invert along the entire tunnel length. The tunnels are considered generally stable with the exception of six collapse zones where large piles of rock and debris have accumulated in the base of the tunnel, ponding up to three feet of water and restricting the overall flow capacity. The geometry of the collapse zones varies; however, the disrupted zones were estimated visually to be up to 45 feet high and 35 feet wide. An ongoing concern is of roof or partial collapse in the tunnel, which could result in severe disruption of water service for 14 communities and over 200 farms. The project will also include proactive repairs to an additional ten shear/void areas.

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



COLORADO
Colorado Water Conservation Board
Department of Natural Resources

1313 Sherman Street
Denver, CO 80203

P (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: September 21-22, 2016

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 $24.6 million. The CWCB Emergency Loan Program has Completed Construction on four (4) 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
			Total:	$665,721	

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 **Water Source:** Big Thompson River
Terms of Loan: $105,171 for 30 years @ 1.75% **Construction Completed:** May 2014
Expended Amount:$105,171
Anticipates FEMA Funding: NO
Design Engineer: None

Contractor: Custom Design Fabricators – Livermore, Colorado

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

Emergency Loan - Summary

	Current Projects in Design or under Construction Borrower/Project	County	Loan Amount	Design Status	Construction Start/End	Construction Status	PM	Status Description/Update
1	Beeman Irrigation > Emergency Beeman Diversion Dam Repair C150385	Weld	$ 2,020,000	100%	1/2014-5/2014	100%	JMH	Construction complete, loan funds remaining. No additional dibursements are anticipated.
2	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.
3	Big Thompson and Platte River > Big Thompson & Platte River Div. Structure Repair C150373	Larimer	$ 808,000	100%	5/2014-6/2014	95%	JMH	Design change complete. Project is now a siphon crossing the Little Thompson River, rather than an elevated pipe. Construction nearly completed.
4	Boulder and Larimer County Irrigation > Boulder & Larimer Diversion Structure Repair C150374	Boulder & Larimer	$ 202,000	100%	1/2014-4/2014	100% Ltr	JMH	Construction complete, used all loan funds. No grant reimbursements are expected.
5	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 dibursements are anticipated.
6	Church Ditch Water Authority > Leyden Creek Crossing Repair C150377	Jefferson	$ 606,000	100%	1/2014-5/2014	95%	JMH	Repair construction complete, small amount of loan funds remaining. Additional dibursements are anticipated for mitigation portion of project. Company has applied $360k of FEMA money to loan balance.
7	Consolidated Home Supply Ditch & Reservoir Co > Big Dam Diversion Structure Repair C150375	Larimer	$ 3,506,720	100%	1/2014-9/2015	100%	JMH	Loan increase approved at Sept 2014 for flood mitigation work. Flood repairs to the dam have been completed. New headgates, sandgates, control gate, and the new spillway gate are all near complete. Company to request FEMA closeout meeting soon.
8	Consolidated Home Supply Ditch & Reservoir Co > George Rist Ditch Repair C150380	Larimer	$ 519,140	100%	2/2014-5/2014	99%	JMH	Loan Increase request approved during July 2014 Board Meeting. Project is complete but there remains some miscellaneous items to be closed out.
9	Culver Ditch Company > Culver Mahoney Ditch Repair C150390	Boulder & Larimer	$ 151,500	100%	2/2014-4/2014	100% Ltr	JMH	Construction complete, used all loan funds. FEMA grant reimbursement is still pending.

Emergency Loan - Summary

10	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.
11	Highland Ditch Company > Highland Ditch System Repairs C150369	Boulder	$ 1,999,800	100%	10/2013-4/2014	100%	JMH	Construction complete, loan funds remaining. No additional dibursements are anticipated.
12	Ish Reservoir Company > Inlet Ditch & Diversion Structure Repair C150376	Boulder	$ 207,050	100%	1/2014-4/2014	100% Ltr	JMH	Construction complete, used all loan funds.
13	Left Hand Ditch Company > Left Hand Ditch System Repairs C150370	Boulder	$ 3,276,056	100%	10/2013-2/2015	99%	JMH	Several projects are included in this loan. All are complete or very near completion. Significant savings in Project cost because anticipated Left Hand Valley work did not have to be done. Company has applied $592k of FEMA money to loan balance.
14	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.
15	Oligarchy Irrigation Company > Oligarchy Irr. Ditch River Diversion Struct. Repair C150372	Boulder	$ 1,262,500	100%	1/2014-5/2014	100%	JMH	Construction complete, loan funds remaining. No additional dibursements are anticipated. Company has applied $584k of FEMA money to loan balance.
16	Rough & Ready Irrigation Ditch Company > Rough & Ready River Diversion Struct.Repair C150371	Boulder	$ 1,843,250	100%	1/2014-5/2014	100%	JMH	Construction complete, loan funds remaining. No additional dibursements are anticipated. Company has applied $963k of FEMA money to loan balance.
17	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.
18	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.
19	Sylvan Dale Ranch,LLP > Emergency Irrigation Pond Excavation C150392	Larimer	$ 105,171	100%	6/2014-4/2014	100% Ltr	JMH	Construction complete, used all loan funds. Company has applied $84k of grant funds to loan balance.

Projects Under Contract SubTotal = $ 24,576,077

CWCB Water Project Loan Program
Project Data Sheet

C150385

Borrower: Beeman Irrigating Ditch and Milling Company
Project Name: Emergency Beeman Diversion Dam Repair
Drainage Basin/ District: South Platte / 2

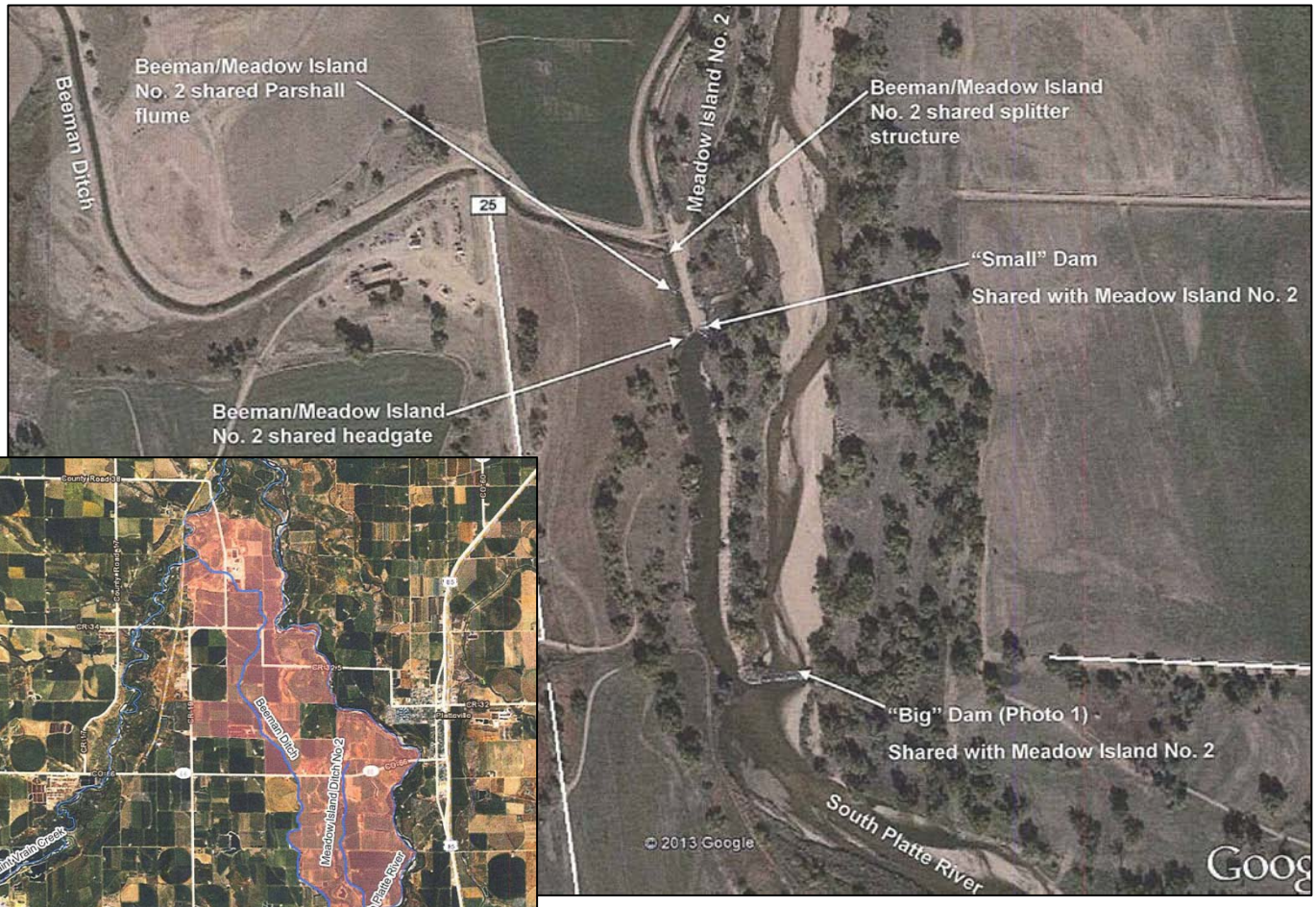
County: Weld
Project Type: Diversion Rehabilitation
Water Source: South Platte River

Total Project Cost: $2,000,000
Funding Source: Severance Tax PBF

Type of Borrower: Agricultural
Average Annual Diversion: 10,586 AF

CWCB Loan: $2,020,000 (with 1% service fee)
Interest Rate: 1.75% **Term:** 30-years

The Company and Meadow Island No. 2, jointly operate a diversion dam, measurement flume, and bifurcation structure. (Beeman is allocated 75% of costs, Meadow Island is allocated 25% of costs). The diversion headworks was constructed in the early 1900s to irrigate approximately 5,000 acres under both canal systems. The September 2013 flood deposited silt covered the diversion dam and cut a new channel through the historic island, cutting off flow to the joint headworks area. The project includes four phases: 1) Demolition of existing structures and reconstruction of the headworks (headwall, headgates, flow measurement, and bifurcation structure), 2) Install an adjustable check dam in place of the current stop log dam, 3) Demolition of a portion of the existing "big dam" structure at the river, 4) Channel bank stabilization will be coordinated with adjoining landowners.



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

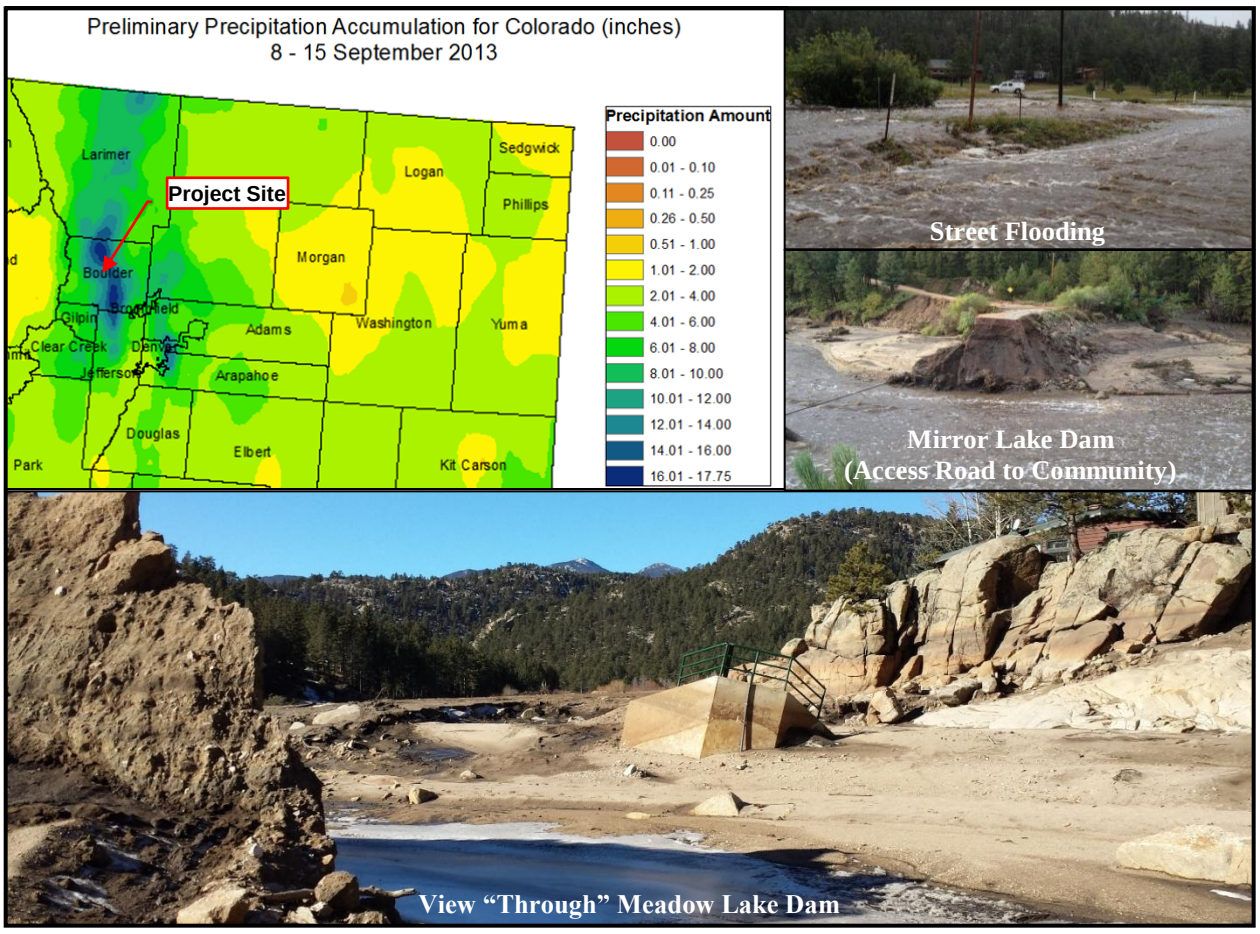
Type of Borrower: Middle-Income Municipal

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

C150373

Borrower: Big Thompson & Platte River Ditch Company

County: Larimer

Project Name: Big Thompson & Platte River Diversion Structure Repair

Project Type: Diversion Rehabilitation

Drainage Basin/ District: South Platte / 4

Water Source: Big Thompson River

Total Project Cost: $800,000

Funding Source: Severance Tax PBF

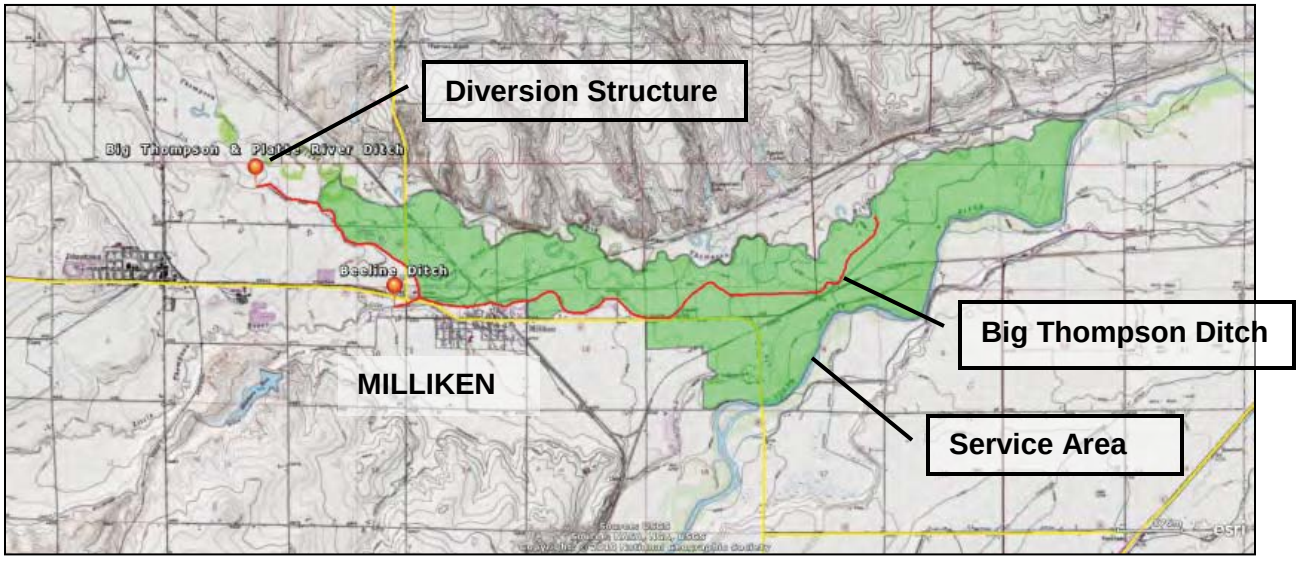
Type of Borrower: Blended

Average Annual Diversion: 9,736 AF

CWCB Loan: $808,000 (with 1% service fee)

Interest Rate: 1.85% **Term:** 30-years (97% Ag, 3% Comm)

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 diversion structure and crossing structures to allow the Company to deliver water to shareholders. The Company's diversion structure and by-pass structure will be repaired and its crossing over the Little Thompson River will be replaced. The crossing structure was a bottleneck at times of free river, so the structure will be improved to allow for additional flows.



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

C150377

Borrower: Church Ditch Water Authority

County: Jefferson

Project Name: Leyden Creek Crossing Repair

Project Type: Ditch Rehabilitation

Drainage Basin/ District: South Platte / 7

Water Source: Clear Creek

Total Project Cost: $600,000

Funding Source: Severance Tax PBF

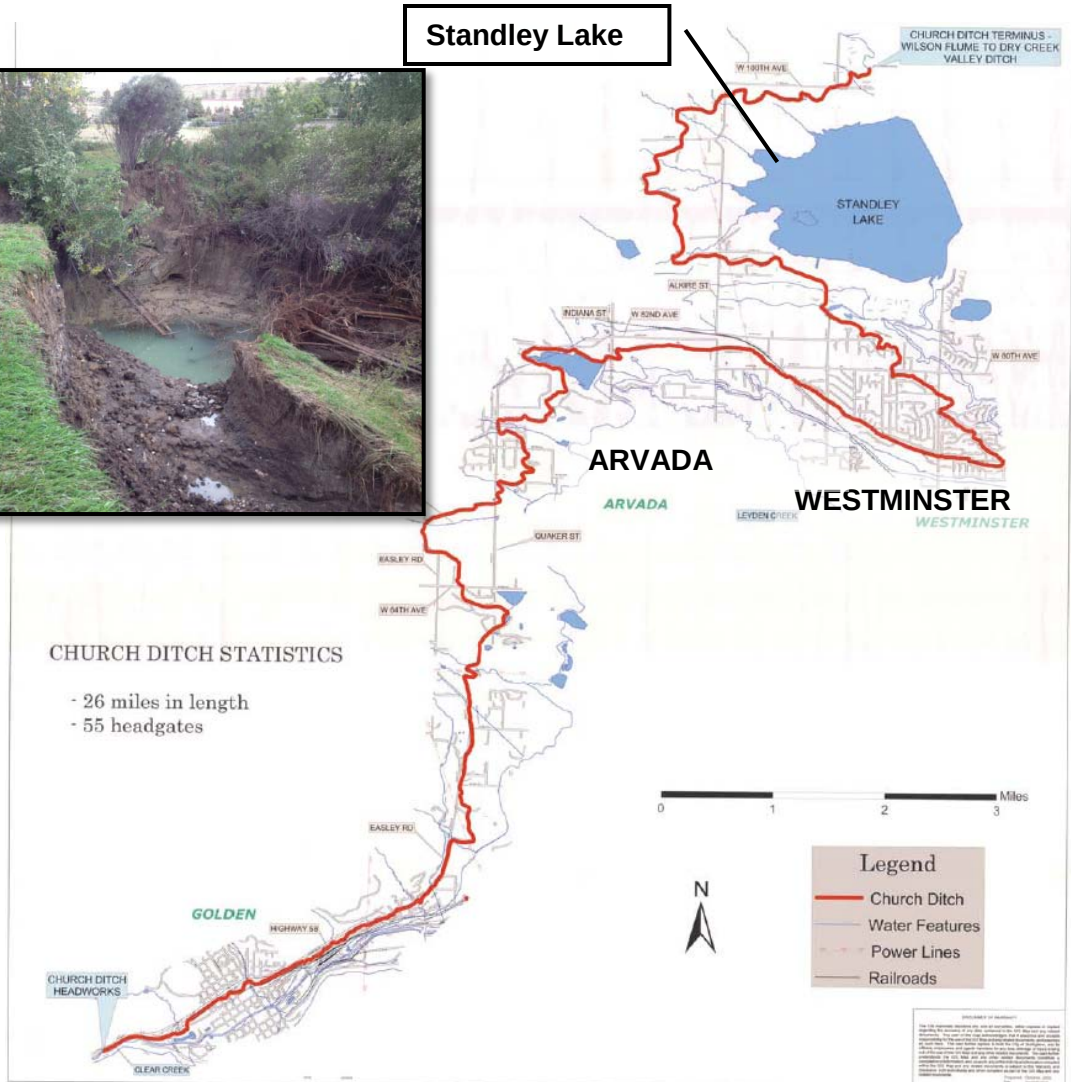
Type of Borrower: Blended

Average Annual Diversion: 8,355 AF

CWCB Loan: $606,000
(with 1% service fee)

Interest Rate: 2.85% **Term:** 30-years
(6% Ag, 26% Mid, 67% 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 Authority's Church Ditch. Church Ditch flood repairs include restoring the Church Ditch to pre-flood conditions. The Leyden Creek Crossing Structure will be 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 will be removed and the ditch banks will be reshaped where sloughing occurred. Riprap will be added to portions of the reconstructed ditch banks to prevent erosion and increase protection to the ditch.



COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Emergency Big Dam Diversion Structure Repair

Consolidated Home Supply Ditch & Reservoir Company

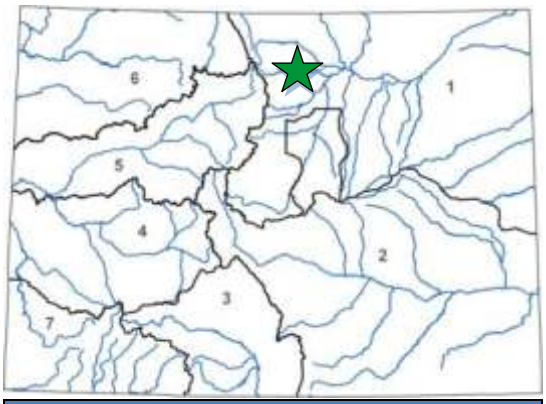
September 2014 Board Meeting

(Loan Increase)

LOAN DETAILS	
Project Cost:	$2,775,000
CWCB Loan (with Service Fee):	$1,840,000 *(15% increase)*
Loan Term and Interest Rate:	30 Years @ 1.95%
Funding Source:	*Severance Tax Perpetual Base Fund*

BORROWER TYPE		
Agriculture	*Municipal*	*Commercial*
76%	0% Low - 23% Mid - <1% High	<1%

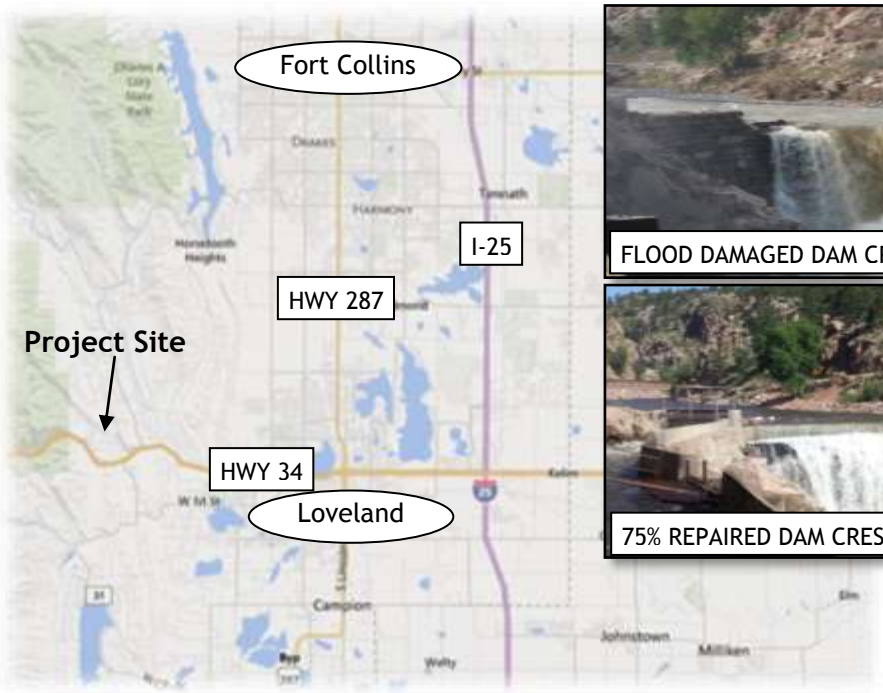
PROJECT DETAILS	
Project Type:	Diversion Rehabilitation
Average Annual Diversion:	22,000 AF

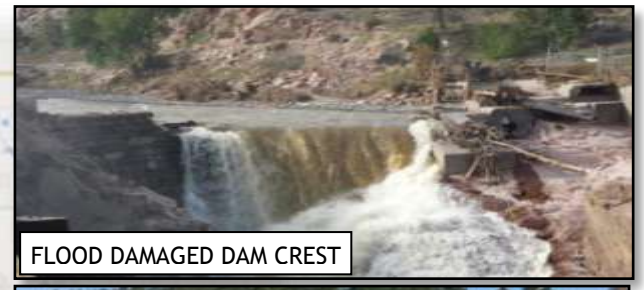


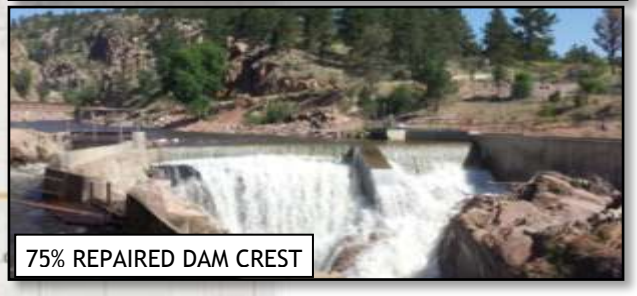
LOCATION			
County:			Larimer
Water Source:			Big Thompson River
Drainage Basin:			South Platte
Division:	1	*District:*	4

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 "Big Dam" diversion structure. During the flood, the top five feet of the masonry dam structure was washed out and the mortar between masonry blocks on the north abutment was partially lost. Field observations show that the river was overtopping the structure by approximately 10 feet. The purpose of this project is to restore the "Big Dam" diversion structure to its pre-flood crest elevation while improving the structural integrity of the structure.

As part of the design and evaluation process, the Company worked with FEMA, the Engineer, and the Construction Manager to identify any appropriate flood mitigation measures. As a result, improvements will be made to the Big Dam's spillway capacity by reconstructing the abandoned spillway and modifying the Company's headgates. Incorporating these improvements will increase the total Project cost from $1.6 million to $2.8 million. The Company has agreements with FEMA and the City of Loveland to provide funding assistance. The cost-share agreement with the City allows this increase request to only be $240,000. Construction is on-going and is expected to finish in winter of 2014/15.




FLOOD DAMAGED DAM CREST

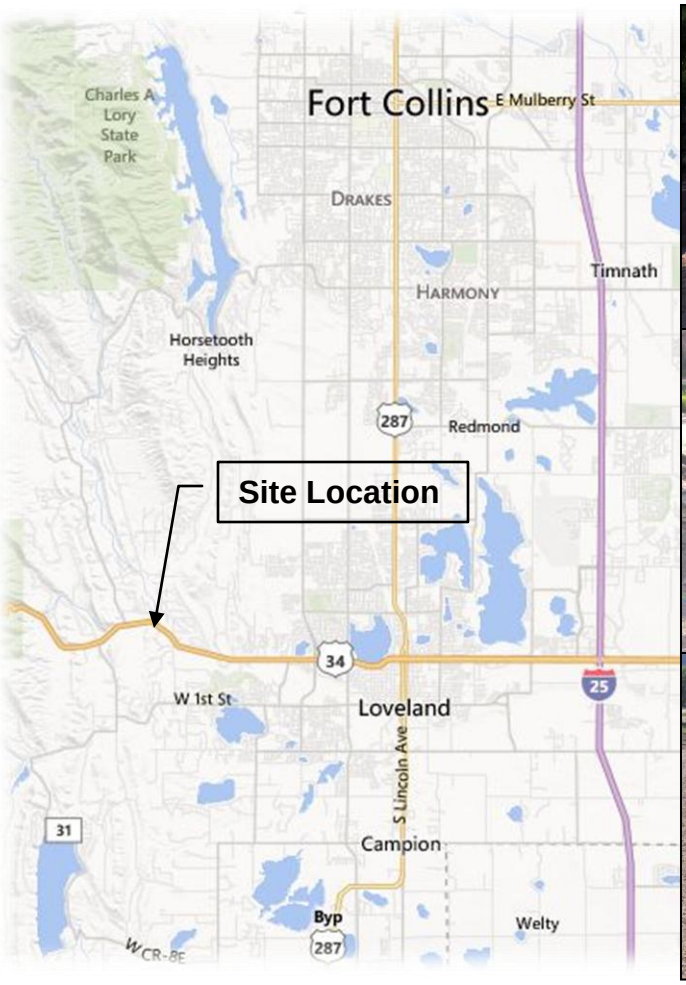

75% REPAIRED DAM CREST

CWCB Water Project Loan Program
Project Data Sheet
(Increase)

C150380

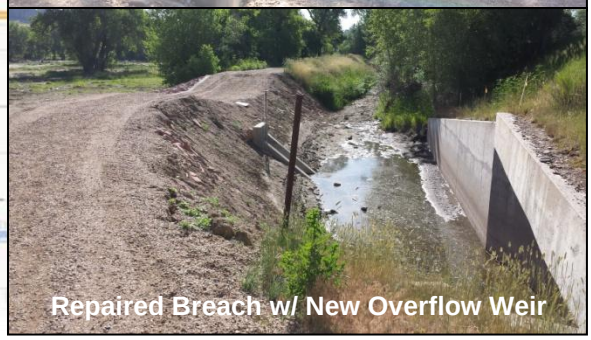
Borrower: Consolidated Home Supply Ditch & Reservoir Company
County: Larimer
Project Name: Emergency George Rist Ditch Repair
Project Type: Ditch Rehabilitation
Drainage Basin/ District: South Platte / 4
Water Source: Big Thompson River
Total Project Cost: $514,000
Funding Source: Severance Tax PBF
Type of Borrower: Blended
Average Annual Diversion: 22,000 AF
CWCB Loan: $519,140 (with 1% service fee)
Interest Rate: 1.95% **Term:** 30-years
(76% Ag, 23% Mid, <1% 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 George Rist ditch and diversion structure. During the flood, the diversion dam, headgate, measuring flume, stilling well and house, and access road were heavily damaged. Additionally, two sections of the ditch's embankment and bottom were completely washed out. The purpose of this Project is to restore the George Rist Ditch to its pre-flood condition. During repairs, approximately $70,000 worth of additional needs were identified prompting a request for additional funds.




Repaired Diversion Structure


New Flume and Recorder


Repaired Breach w/ New Overflow Weir

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

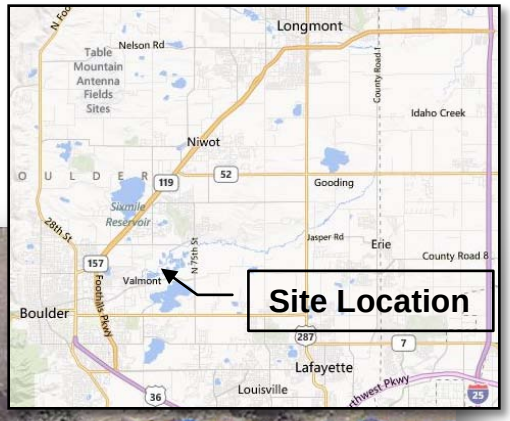
Type of Borrower: Blended

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

C150369

Borrower: Highland Ditch Company

County: Boulder

Project Name: Highland Ditch System Repairs

Project Type: Ditch Rehabilitation

Drainage Basin/ District: South Platte / 5

Water Source: St. Vrain Creek

Total Project Cost: $1,980,000

Funding Source: Severance Tax PBF

Type of Borrower: Blended

Average Annual Diversion: 38,000 AF

CWCB Loan: $1,999,800 (with 1% service fee)

Interest Rate: 1.95% **Term:** 30-years (86% Ag, 6% Mid, 6% High, 2% 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. The purpose of this Project is to repair the Company's system to allow the delivery of water to shareholders. The scope of work includes: repairing of the main diversion structure, headgate, SCADA system, and inlet and outlet of Foothills Reservoir.

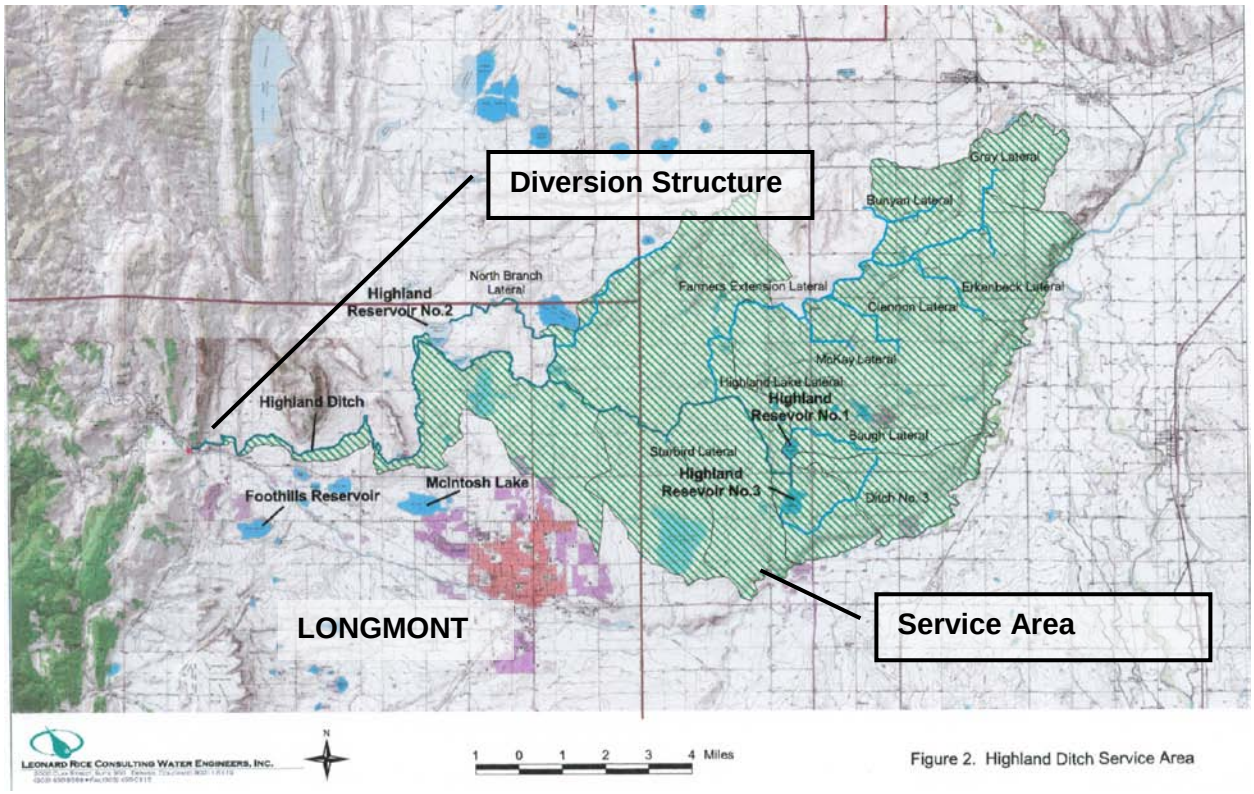


Figure 2. Highland Ditch Service Area

CWCB Water Project Loan Program
Project Data Sheet

C150370

Borrower: Left Hand Ditch Company

County: Boulder

Project Name: Left Hand Ditch System Repairs

Project Type: Ditch Rehabilitation

Drainage Basin/ District: South Platte / 5

Water Source: Left Hand & St. Vrain Creeks

Total Project Cost: $3,243,620

Funding Source: Severance Tax PBF

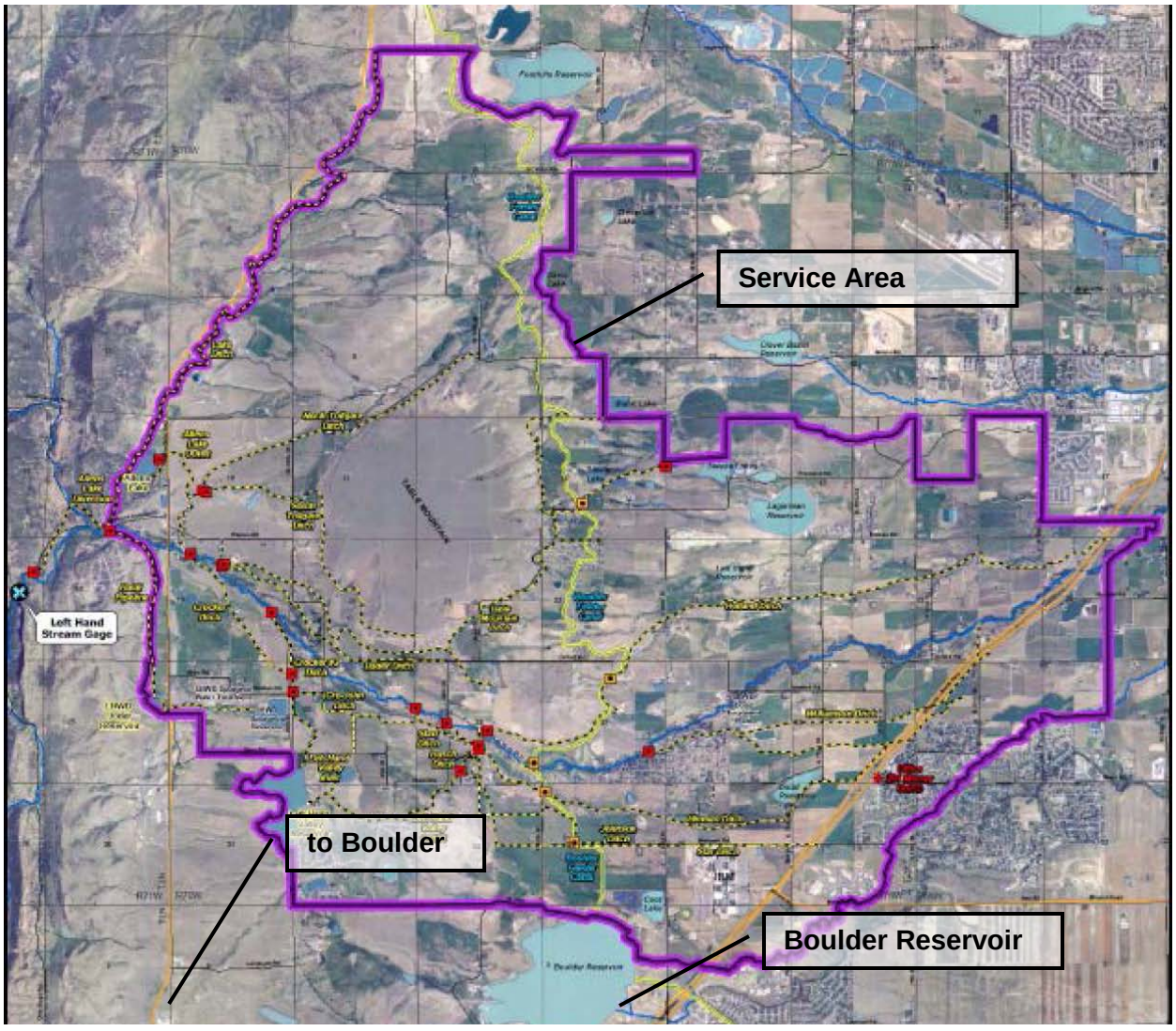
Type of Borrower: Blended

Average Annual Diversion: 22,700 AF

CWCB Loan: $3,276,056 (with 1% service fee)

Interest Rate: 2.30% **Term:** 30-years (46% Ag, 38% Mid, 16% High)

The Company plans to restore its system to pre-flood condition which includes: Replacement of Left Hand Creek Parshall Flume and Recorder Station, repair of Left hand Valley Diversion repair of several ditchs: Crocker, Table mountain, Bader, Hunman, Star, Holland, Williamson, and Gold Lake Filler Ditch, replace the diversion dam and headgate structure at Allen's Lake Filler Canal Head Gate



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

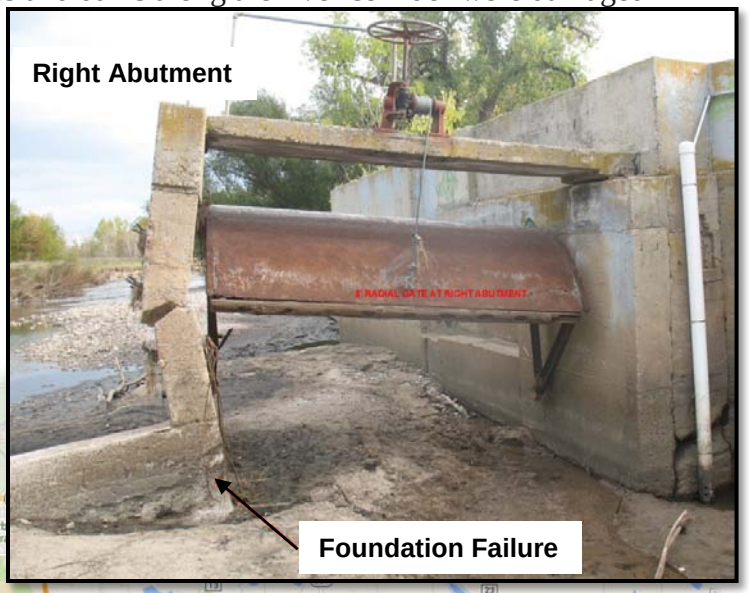
Type of Borrower: Blended

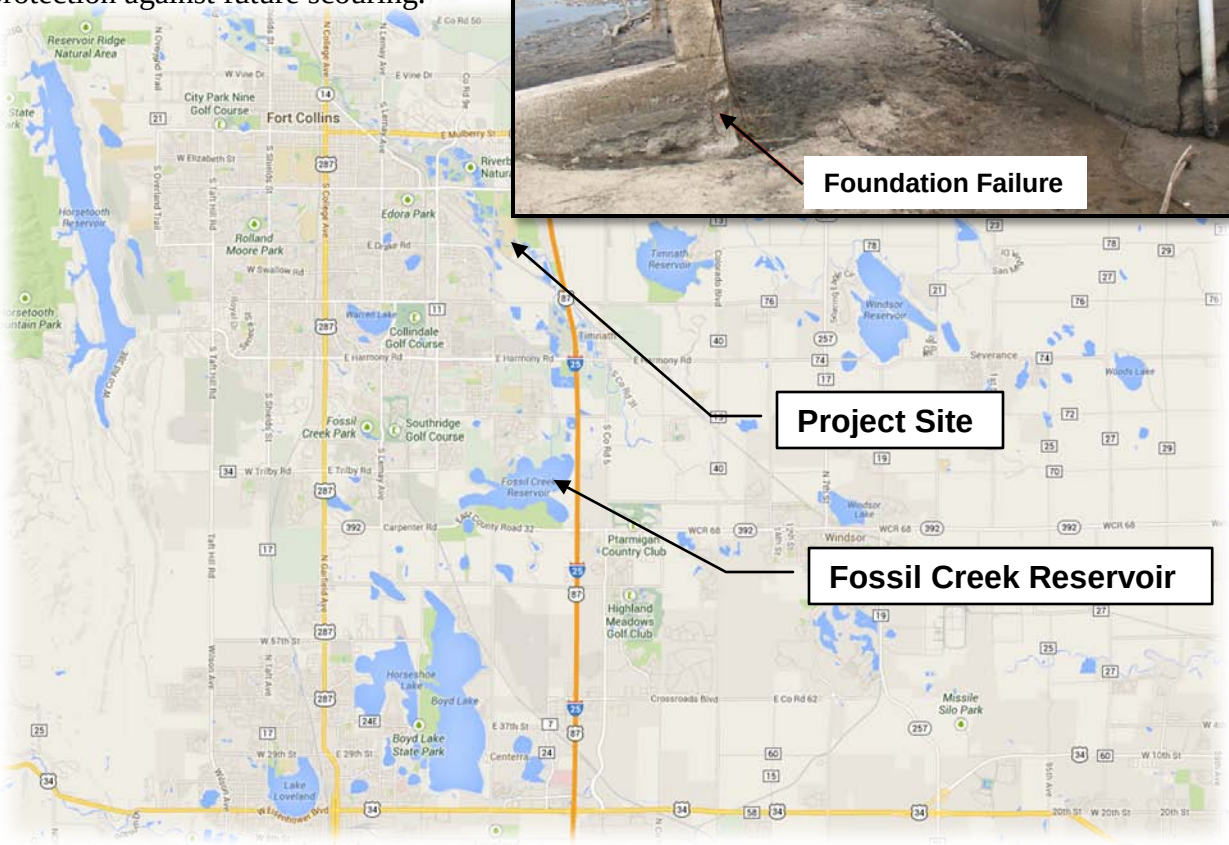
Average Annual Diversion: 31,700 AF

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

C150372

Borrower: Oligarchy Irrigation Company

County: Boulder

Project Name: Oligarchy Irrigation Ditch River Diversion Structure Repair

Project Type: Diversion Rehabilitation

Drainage Basin/ District: South Platte / 5

Water Source: St. Vrain Creek

Total Project Cost: $1,250,000

Funding Source: Severance Tax PBF

Type of Borrower: Blended

Average Annual Diversion: 7,966 AF

CWCB Loan: $1,262,500 (with 1% service fee)

Interest Rate: 2.50% **Term:** 30-years (26% Ag, 72% Mid, 2% High)

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 diversion off the St. Vrain Creek. Of the original structure, only a small portion of the diversion dam and right abutment remain. The purpose of this Project is to rebuild the diversion dam, sand gates, Rubicon flumegate, and bypass gate. The structure will be the same size and location as the original but will modify the sand gates and flumegate. The original structure had one sand gate into which the Rubicon flumegate was installed. For better operation and river administration, the rebuilt diversion will separate the sand gate and the flumegate into their own passages through the diversion dam.

CWCB Water Project Loan Program
Project Data Sheet

C150371

Borrower: Rough & Ready Irrigating Ditch Company

County: Boulder

Project Name: Rough & Ready Ditch River Diversion Structure Repair

Project Type: Diversion Rehabilitation

Drainage Basin/ District: South Platte / 5

Water Source: St. Vrain Creek

Total Project Cost: $1,825,000

Funding Source: Severance Tax PBF

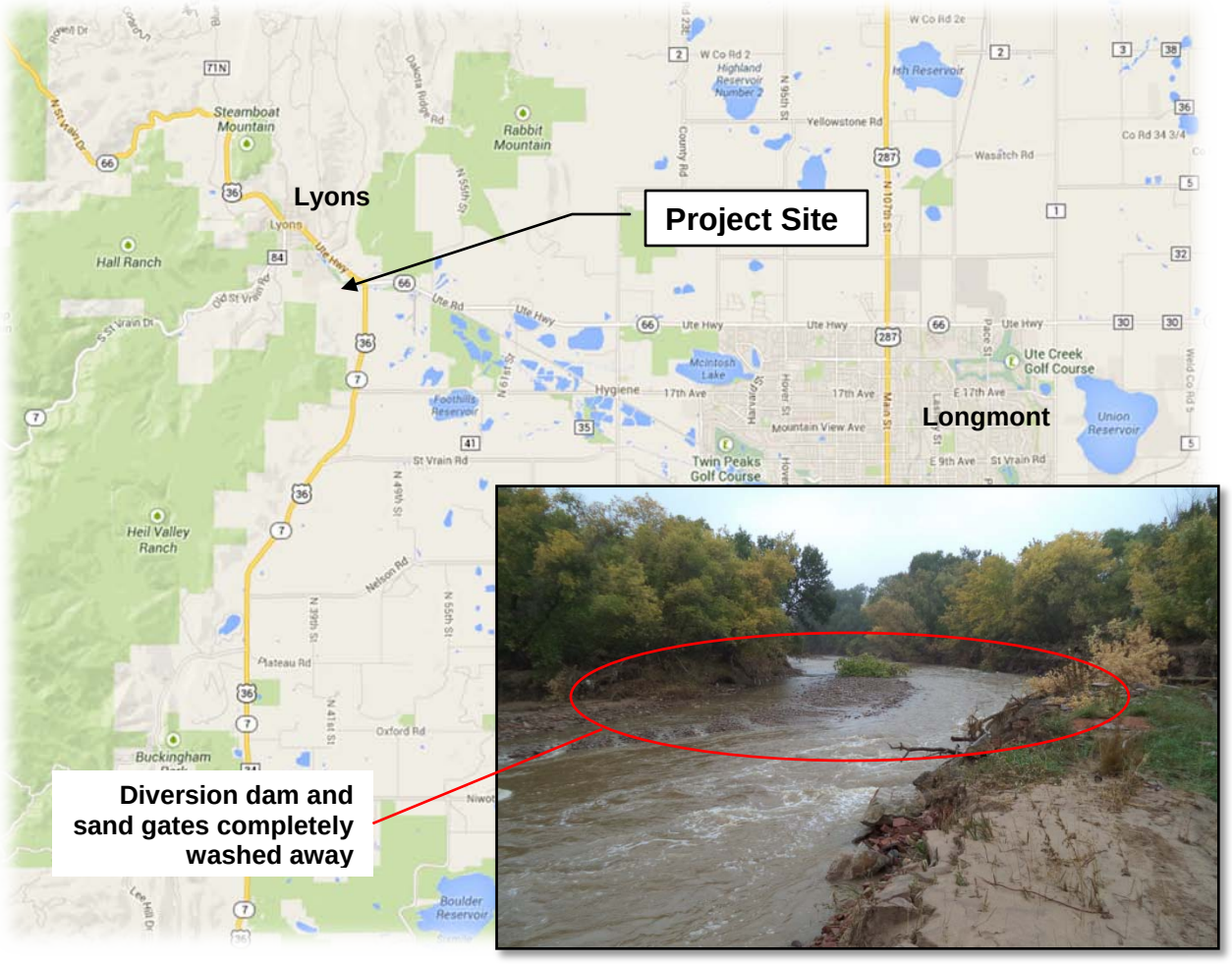
Type of Borrower: Blended

Average Annual Diversion: 7,528 AF

CWCB Loan: $1,843,250 (with 1% service fee)

Interest Rate: 2.7% **Term:** 30-years
(15% Ag, 69% Mid, 13% High, 3% 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 river diversion off the St. Vrain Creek. This structure also serves as the diversion dam for the Palmerton Ditch. The diversion dam and sand gates no longer exist and the headgates sustained major damage. The purpose of this Project is to rebuild the diversion dam, sand gates, Rubicon flumegate, headgates, ditches, and measuring flumes. The structure will be the same size and location but will include a combined conveyance ditch off the diversion and will include the addition of a bypass to the river to better regulate diversions.



CWCB Water Project Loan Program
Project Data Sheet

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

Total Project Cost: $9,000,000

Type of Borrower: Blended

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

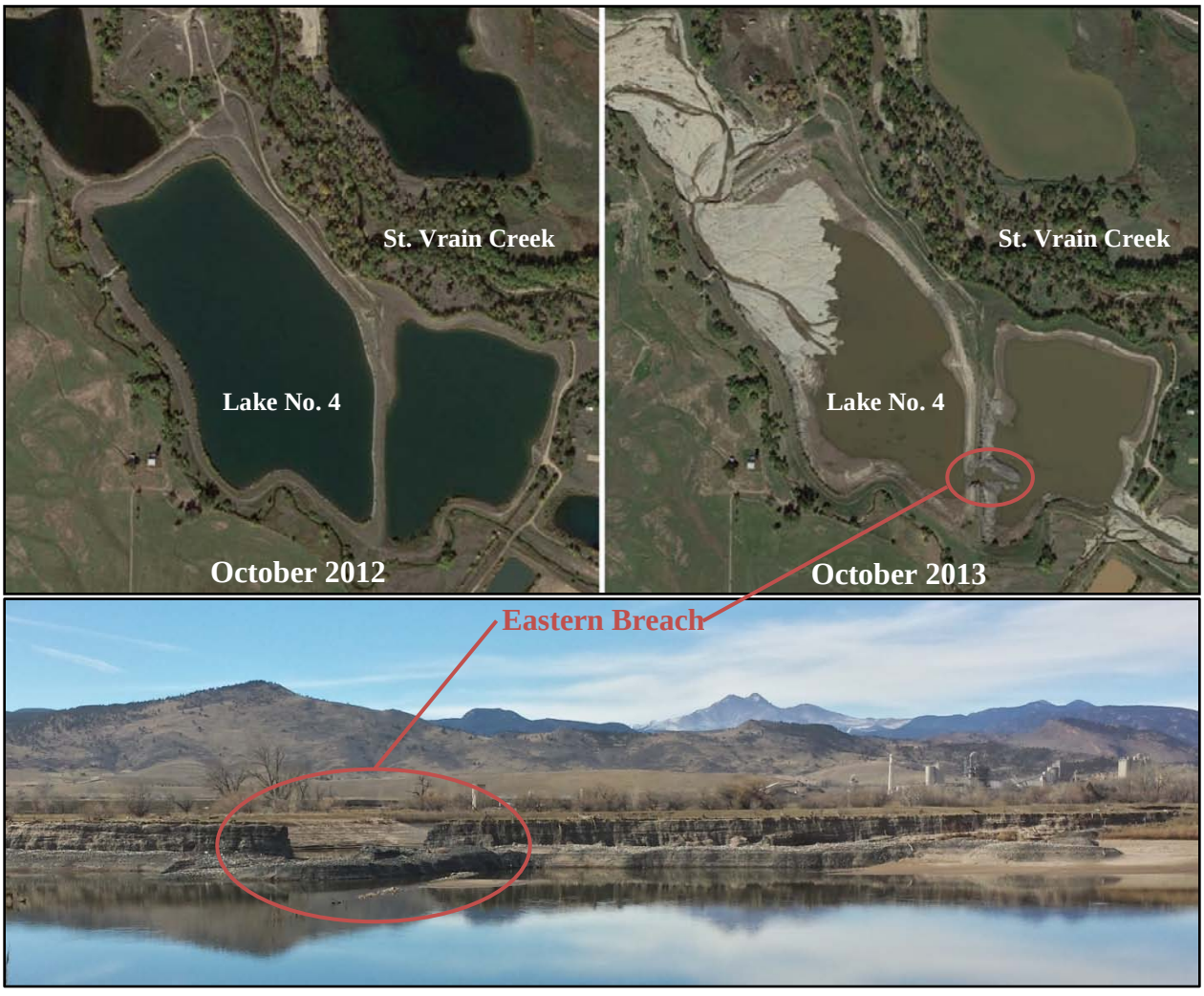
County: Boulder

Project Type: Reservoir Rehabilitation

Water Source: St. Vrain Creek

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

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



COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Emergency Supply Irrigating Ditch Repair Project

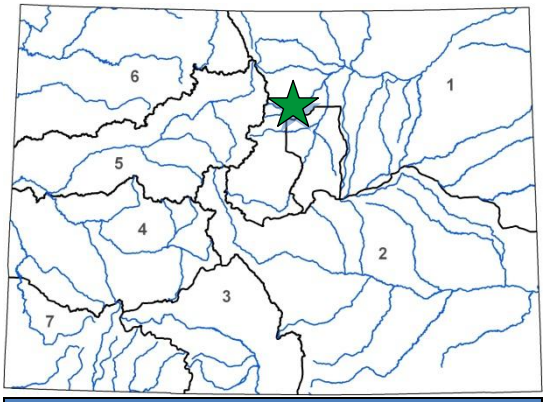
Supply Irrigating Ditch Company

November 2014 Board Meeting

LOAN DETAILS	
Project Cost:	$321,000
CWCB Loan (with Service Fee):	$324,210
Loan Term and Interest Rate:	27 Years @ 2.25%
Funding Source:	*Severance Tax Perpetual Base Fund*

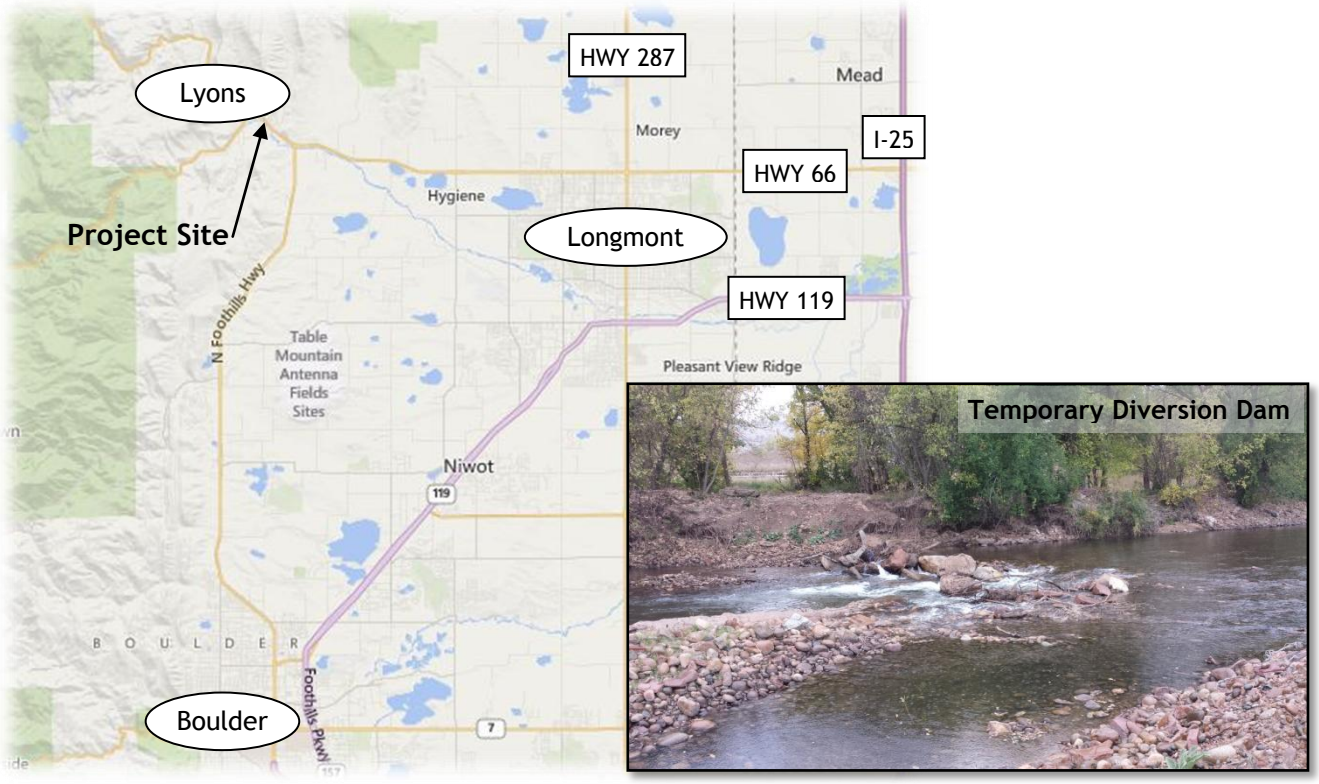
BORROWER TYPE		
Agriculture	*Municipal*	*Commercial*
86%	0% Low - 5% Mid - 7% High	2%

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



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

During the unprecedented flood of September 2013 in the tributaries to the South Platte River, a significant number of diversion structures and dams along the river corridor were damaged including the Company's ditch system. Floodwaters destroyed the diversion dam, caused heavy sedimentation in the ditch, and damaged 750 LF of ditch. Temporary repairs were completed in order to allow the Company to divert a portion of its water rights during the 2014 irrigation season. The Company has received approval of its Project Worksheet from FEMA to fund a portion of the permanent repairs. This loan will cover the remaining cost associated with the repairs and provide upfront funding for the FEMA reimbursement funds. Construction is scheduled to be complete prior to the 2015 irrigation season.



Colorado Water Conservation Board

Construction Fund, Special Funds and Severance Tax Funds
Non-Reimbursable Investments Status Report
Fiscal Year 2015-2016

Construction Fund – Non-Reimbursable Investments

The Colorado Water Conservation Board (CWCB) Non-Reimbursable Investments Status Report has two sections. This section includes the non-reimbursable investment projects from the Construction Fund, Special Funds and Severance Tax Perpetual Base Fund. The following table summarizes the non-reimbursable investment projects in progress from July 2015 thru June 2016. This table provides the beginning and ending balances for funds available for each project during the fiscal year including amounts disbursed. Following this table, are project summaries provided by each project manager that detail the implementation and status of each project. Following this section is the Severance Tax Operational Fund Grant Program status for the same period.

No.	Manager	Project	July 1 Balance	Amount Disbursed	June 30 Balance
1	Bassi	Acquisitions of Water for Instream Flow	$1,000,000	$94,886	$905,115
2	Bassi	CWCB Stream Gaging	$41,836	$5,886	$35,950
3	Bassi	Instream Flow Engineering Support Services	$67,063	$0	$67,063
4	Bassi	Satellite Monitoring – State Eng Office	$334,500	$334,500	$0
5	Bassi	Stream Gauge Fund	$268,000	$51,917	$216,083
6	Brown	Arkansas River Decision Support System	$2,213,527	$0	$2,213,527
7	Brown	Co Decision Support Systems O & M	$300,000	$0	$300,000
8	Brown	Co Flood Decision Support System	$69,239	$0	$69,239
9	Brown	Co River Augmentation Project Development	$75,000	$12,500	$62,500
10	Brown	Co River Delta in Mexico Consultation	$91,173	$50,281	$40,892
11	Brown	Co Water Needs and Alternatives Analysis	$1,159,789	$198,318	$961,471
12	Brown	Emergency Dewatering Grant Program	$165,000	$84,497	$80,503
13	Brown	Gunnison Basin Irrigation System Planning	$250,000	$68,587	$181,413
14	Brown	Instream Flow Decision Support System	$9,575	$0	$9,575
15	Brown	Litigation Fund	$1,845,271	$705,771	$1,139,500
16	Brown	Lower So Platte Water Mgmt & Storage Site	$500,000	$0	$500,000
17	Brown	So Platte Groundwater Level Data Collection	$909,015	$329,012	$580,003
18	Brown	So Platte River Alluvial Aquifer Study	$90,445	$0	$90,445
19	Brown	So Platte River Decision Support System	$630,852	$278,301	$352,550
20	Brown	UDSA Regional Conservation Partnership	$500,000	$4,999	$495,001
21	Brown	Wild and Scenic Rivers Fund	$400,000	$65.008	$334,992
22	Browning	Chatfield Reservoir Reallocation Project	$1,726,920	$437,904	$1,289,016
23	Browning	Chatfield Res Reallocation Implementation	$33,000,000	$138,845	$32,861,155
24	Browning	Chatfield Reservoir Reallocation Study	$17,015	$0	$17,015
25	Browning	Water Conservation Public Awareness Study	$29,062	$0	$29,062
26	Browning	Water Education Foundation	$150,000	$150,000	$0
27	Browning	Water Resource Info Center & Data Harvest	$435,075	$10,931	$424,145
28	Houck	Chatfield Channel Improvement	$160,834	$0	$160,834
29	Houck	Colorado Floodplain Map Modernization	$3,436,010	$2,454,167	$981,843

No.	Manager	Project	July 1 Balance	Amount Disbursed	June 30 Balance
30	Houck	Fish and Wildlife Resources Fund	$1,314,572	$247,359	$1,067,214
31	Houck	Flood and Drought Response Fund	$734,204	$287,652	$446,552
32	Houck	Rio Grande Forecasting Development	$121,831	$83,887	$37,944
33	Houck	Stream Restoration Grant Account	$2,323,313	$380,775	$1,942,538
34	Houck	Tamarisk Control Cost-Sharing Program	$2,560,132	$374,347	$2,185,785
35	Houck	Watershed Restoration	$10,394,648	$629,225	$9,765,423
36	Houck	Weather Modification Program	$625,019	$537,978	$87,041
37	Mitchell	Alt Ag Water Transfer Sustainability Program	$1,678,058	$412,322	$1,265,736
38	Mitchell	Climate Change Effects on Co Wtr Resources	$27,048	$0	$27,048
39	Mitchell	Colorado Mesonet	$150,000	$149,451	$549
40	Mitchell	Drought Mitigation Strategies Implement	$124,091	$0	$124,091
41	Mitchell	Statewide Water Supply Initiative Cont	$83,544	$0	$83,544
42	Mitchell	Water Adaptation Partnership Program	$194,955	$109,899	$85,056
43	Mitchell	Water Conservation Data Tracking Project	$186,093	$5,029	$181,064
44	Mitchell	Water Planning Studies	$107,273	$0	$107,273
45	Russell	Rainfall Spillway Sizing Project	$1,200,000	$58,539	$1,141,461
46	Russell	Rio Grande Cooperative Project	$1,191,266	$146,501	$1,044,765
47	Russell	Rocky Mountain Fen Demonstration Project	$100,000	$0	$100,000
48	Russell	Windy Gap Reservoir Bypass Channel Project	$2,000,000	$0	$2,000,000
	Total Balances for Non-Reimbursable Investments		$74,991,247	$8,899,273	$66,091,974

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

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

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

In Fiscal Year 2014-2015, an amount of $262,566 was disbursed to the CWT pursuant to the Master Task Order contract. The funding was utilized for five separate projects including the McKinley Ditch Acquisition; Coats Brothers Ditch temporary lease; Stream Assessment project on Tomichi creek, Cochetopa Creek and Crystal River; Yampa River feasibility project; and Twin Lakes System feasibility.

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

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

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

In Fiscal Year 2015-2016, the CWCB:

- purchased calibration equipment to increase the life of old pressure sensors;
- had acoustic Doppler flow measurement equipment calibrated;
- In cooperation with Skyland Metropolitan District, operated and maintained the instream flow bypass and diversion structure for administration of the Breem Ditch water right acquisition;
- provided equipment to the BLM and USFS for installation of temporary streamflow gages on Dry Fork Roan Creek and Rio Lado Creek;
- maintained temporary stream gaging equipment on Little Cimarron River;
- in cooperation with DWR contracted to shore up the gage pool control structures on Cottonwood and Pine Creeks, Water District 11; and
- provided funding to USFS for the operation and maintenance of both the Slick Rock gage on the Dolores River and the Cottonwood Creek gage near Buena Vista.

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

Funding is to provide temporary help with technical support for ongoing instream flow (ISF) projects, ISF recommendation investigations and to acquire as-needed engineering services for legal protection of ISF water rights. These funds are currently being utilized for technical support to address various ISF issues. It is anticipated that these funds will be used for additional technical support and engineering services in 2017 to address concerns with controversial new ISF appropriations cases. In addition, a database tool is being explored for implementation in 2017 which would allow staff to determine which ISF water rights are frequently not being met. This would in turn provide information on which stream segments would benefit from the acquisition of rights to augment or improve existing flow conditions.

4. Satellite Monitoring System – State Engineer's Office
Authorization: HB 93-1273 to SB 15-253
Water Source: Statewide Streams
Location: Statewide
Sponsor: State Engineer's Office
Project Type: Stream Gaging
Managers: J. Baessler / M. Hardesty
Beneficiary: Statewide Water Users

The Satellite Monitoring System includes funding for maintenance and refurbishment of the State Engineer's Satellite Monitoring System. The State Engineer is continuing to make

progress in its replacement of out-dated data collection platforms and satellite telemetry transmission components and refurbishment/renovation of gaging stations. The funds support the continued operation of over 520 stream gages throughout the state.

5. Stream Gage Fund

Authorization: SB 07-122
Water Source: Statewide Streams
Location: Statewide
Sponsor: CWCB
Project Type: Stream Gaging
Project Manager: Jeff Baessler
Beneficiary: Statewide Water Users

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

6. Arkansas River Decision Support System (ArkDSS)

Authorization: SB 07-122, HB 11-1274, SB 13-181, HB 14-1333
Water Source: N/A
Location: Arkansas Basin
Sponsor: CWCB
Project Type: Decision Support System
Project Manager: Andy Moore
Beneficiary: Statewide Water Users

With $200,000 authorized in SB 07-122, the feasibility study began in February 2010, and the final report was completed in December 2011. At the July 2011 Board Meeting, the feasibility study results were presented, and the plan for implementation of the ArkDSS was approved by the Board. $500,000 for implementation of Phase 1 of ArkDSS was authorized in HB 11-1274, $250,000 was authorized in SB 13-181, and $500,000 was authorized in HB 14-1333. Work has begun on several aspects of ArkDSS, with coordination with several Roundtable projects and DWR Division 2 work, and a gage was installed on Fountain Creek. A Request for Proposals (RFP) for major components of ArkDSS has been delayed in the DNR procurement process for many months; it is hoped that the RFP will finally be released in late 2016.

7. Colorado's Decision Support Systems (CDSS) O & M

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

The primary use of these funds is to support the movement of the CDSS technical software to an Open Source format. The future support and enhancement of CDSS software tools will be facilitated in this project. A Request for Proposals to initiate this effort was released in September 2015, and a contractor was selected late in October 2015. Due to delays in the DNR and OIT procurement process, the contract wasn't completed until August 2016. Therefore, the project is just beginning.

8. Colorado Flood Decision Support System

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

The work on the FloodDSS was completed in 2011 and the website went public in May 2011. The remaining funds will be used to enhance or support this website if needed.

9. Colorado River Augmentation Project Development

Authorization: HB 08-1346
Water Source: Colorado River
Project Type: Study

Location: Colorado River Basin
Sponsor: CWCB/ Seven Basin States
Project Manager: Michelle Garrison
Beneficiary: Colorado River Compact

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

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

These funds were initially authorized for the CWCB staff and Colorado's Upper Colorado River Compact Commissioner to participate in the investigation of issues pursuant to Minute 306 of the *1944 Treaty between the United States and Mexico Concerning the Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande* to assure that such investigations and any solutions that might be offered to comply with Minute 306 do not interfere with or otherwise jeopardize the terms of the Colorado River and Upper Colorado River Compacts. In addition, these funds were authorized to support the work between the United States and Mexico, who initiated a bi-national conversation about opportunities for bi-national cooperation on water projects that will have bi-national benefits. This effort resulted in the adoption of Minutes 316, 317, 318, and 319 over the last several years. Currently, Colorado is engaged in negotiations on a new Minute (known as Minute 32X) which would continue the work of Minute 319. These funds are being used for assistance associated with this bi-national process, and for travel and other incidental costs associated with implementation of this work.

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

Since the completion of Phase 1 of the study the Board approved the allocation of an additional $2 million for the next phase. Approximately $895,000 has been expended to date on Phase 2 activities including:

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

The project was delayed for six months in Fiscal Year 2015-2016 due to a lengthy DNR contract amendment process. Fiscal Year 2016-2017 work may include CDSS support for SWSI, additional updates and enhancements to models and tools, and development of model scenarios that incorporate future demands and climate change projections.

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

HB15-1178 authorized CWCB to administer an emergency dewatering grant fund for areas of damaging high groundwater around Gilcrest and Sterling. On July 1, 2016, $165,000 was transferred from the General Fund to the Construction Fund for the grant program. An additional $290,000 has been transferred from the General Fund for FY16-17. The Board approved a grant request for $90,000 from the Town of Gilcrest in July 2016. The dewatering plan to be operated by this grant failed due to an uncooperative Farmers Independent Ditch Company, and the funds were returned to the grant fund. A second grant to Gilcrest was approved by the Board in March 2016. This grant for $139,800 is being used to develop a long-term dewatering plan for the Town. That analysis will be completed in the next few months. Another grant request for the Gilcrest area (West Greeley Conservation District: $140,329.50) was approved by the Board in May 2016. This grant will be utilized for a pilot project for alternative water management with the goal of lowering the groundwater table; the grant allows the pilot project to run for this irrigation season, with the potential for additional years if funding is available. For the Sterling area, an application has recently been received from the Pawnee Ridge neighborhood on the west side of the city.

13. Gunnison Basin Irrigation System Planning and Optimization
Authorization: HB 14-1333
Water Source: Gunnison River
Location: Gunnison River Basin
Sponsor: CWCB
Project Type: Salinity Control Planning
Project Manager: Steve Miller
Beneficiary: Local Water Users

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

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

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

15. Litigation Fund
Authorization: HB 95-1155 to HB 14-1333
Water Source: N/A
Location: Statewide
Sponsor: CWCB
Project Type: Legal Services
Managers: Carlee Brown / Steve Miller
Beneficiary: CWCB Staff, and
Statewide Water Users

Each year, CWCB staff reports to the Board and the General Assembly about the status of the fund, including all expenditures from the fund. For more information, please refer to the litigation account agenda item, which the Staff reports on each spring. In addition, the Board has

authorized additional amounts that are not reflected in the ending balance but will be disbursed in the current fiscal year. This fund is typically refreshed each fiscal year to be restored to $2 million on July 1, from the Construction Fund.

16. Lower South Platte Water Management and Storage Sites Investigation and Sustain Study

Authorization: HB 00-1419, SB 01-157
Water Source: South Platte River
Location: N/A
Sponsor: CWCB
Project Type: Multi-Use Water Planning
Project Manager: Carlee Brown
Beneficiary: Potential Statewide

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

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

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

Significant changes to the State Engineers authority to administer ground water diversion (Senate Bill 73) have dramatically changed water management in the South Platte River. While GASP was successful in acquiring land for one of the physical storage sites ("Ovid Reservoir"), they have experienced significant impacts from S.B. 73. As a result, GASP is no longer a viable entity. Former members of GASP and other water management interests have formed the District 64 Reservoir Company, but it is uncertain whether the new company will be able to complete the project. A feasibility study was completed for the Ovid Reservoir site in December of 2011. The results of this study show that the reservoir is technically feasible and that several potential benefits exist for the project that warrants Colorado being a participant in the development of the project. The location of the reservoir site continues to offer potential advantages to address water user and endangered species issues/needs. Additional study for the reservoir will be required, including groundwater modeling, easement and river access analysis, and conveyance options for delivery to the reservoir.

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

17. South Platte Groundwater Data Collection and Analysis

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

This project is a cooperative effort with the Division of Water Resources in response to reported high groundwater levels in the Gilcrest-LaSalle and Sterling areas. It includes the collection of alluvial aquifer water level data at pilot projects at each of the areas. Continuous

water level monitoring equipment has been installed in 20 new observation wells in the Sterling area, and groundwater level data are also being collected in 16 existing wells in the area. In the Gilcrest-LaSalle area, 47 existing wells are being monitored. Data from both areas are available online. This effort included an independent analysis and interpretation of the potential causal relationships of the high groundwater; the report was completed in July 2015. As part of this project, the SPDSS alluvial groundwater model is also being enhanced and extended to include more recent data; this modeling effort will be completed by December 2016.

18. South Platte River Alluvial Aquifer Study
Authorization: HB 12-1278
Water Source: South Platte River
Location: South Platte Basin
Sponsor: General Assembly /CWCB/CWI
Project Type: Study
Project Manager: Andy Moore
Beneficiary: Local Water Users

In 2012, the Colorado Legislature passed HB 12-1278, which commissioned an independent study of the South Platte alluvial aquifer by the Colorado Water Institute at Colorado State University. A report was provided to the legislature on December 31, 2013. Additionally, final costs associated with the project were submitted in FY 2015. This project is now closed and the remaining funds should be returned to the Construction Fund.

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

The development of SPDSS is almost complete; the surface water planning model is the only component remaining to be finalized. Sub-basin models have been developed for the St. Vrain, Big Thompson, Boulder Creek, and the Upper and Lower South Platte main stem. These sub-basin models are now being integrated into one basin-wide model; this should be complete by the end of the year.

20. UDSA Regional Conservation Partnership Program
Authorization: SB15-253
Water Source: Gunnison River
Location: Gunnison Basin
Sponsor: CWCB
Project Type: Technical
Project Manager: Steve Miller
Beneficiary: Local Water Users

The Board has authorized the use of $470,000 of this allocation for use to support the first phase of the Gunnison Basin RCPP project sponsored by the Colorado River Water Conservation District (CRWCD). Funds are being used to provide technical support to water users and ditch companies through local conservation districts and for advanced design work by the CRWCD. Construction on several features of the Phase 1 RCPP should begin later in 2016.

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

Within Colorado, a number of river segments have been classified as eligible or suitable for “wild and scenic” designation by various federal agencies and the federal agencies. In response, a number of stakeholder groups have formed to explore and implement alternatives for resource protection that would include wild and scenic designation as well as many other options. These groups currently exist in the San Juan River Basin, the Dolores River Basin, and the Upper Colorado River Basin. To date, funds have been used within each of these different basins for facilitators, informational studies, and other operating expenses. In 2009, the General Assembly passed legislation establishing a fund for this project that is automatically refreshed every July 1 up to $400,000 for work in this regard. This Wild and Scenic Rivers Fund is needed to fund ongoing work including the implementation of: 1) the Upper Colorado River Wild and Scenic Alternative Management Plan, 2) the San Juan Basin’s basin-wide Regional Discussion, and

3) the Implementation, Monitoring and Evaluation Plan and other work by the Lower Dolores Plan Working Group in the Dolores River Basin.

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

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

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

Related to the item above, this piece of legislation focused on CWCB's role of owning storage shares in the Chatfield project. Roughly 7,000 AF out of the 20,600 AF of total project shares were purchased by CWCB until such time as those share are used for: 1) the environmental pool and 2) sold back to providers within the water community.

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

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

25. Water Conservation Public Awareness Research Study
Authorization: SB 07-122
Water Source: N/A
Location: Statewide
Sponsor: CWCB
Project Type: Research Study
Project Manager: Tom Browning
Beneficiary: Statewide Water Users

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

26. Water Education Foundation
Authorization: HB 02-1152
Water Source: N/A
Location: Denver
Sponsor: Colorado Foundation for Water Education
Project Type: Education
Project Manager: Tom Browning
Beneficiary: Statewide

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

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

In 2009, the General Assembly authorized $550,000 under SB09-125, Section 13, for CWCB to: (1) adopt and implement a standard for sharing/harvesting data among document management systems; (2) integrate the CWCB's and Colorado State University's (CSU) systems using the above standard; (3) join with other interested water entities who want to share their water-related information; and (4) provide funding for furthering CSU's digitization of documents, such as the Delph Carpenter collection.

The accomplishments of the CWCB Water Resource Information Center and Data Harvesting Initiative has concentrated on appropriating money to CSU's digitization efforts, which included scanning, indexing and making available (through the CSU Water Resources Archive) papers, maps and slides from the Groundwater Data Collection, the David McComb Big Thompson Flood Collection, and from Delph E. Carpenter and Family, Rollin Q. Tenney, W.D. Farr, Louis G. Carpenter, Everett V. Richardson, Maurice L. Albertson, James R. Meiman, Robert E. Glover, James L. Ogilvie, Maurice L. Albertson, Edwin W. Mogren, Harvey Johnson, and/or the records of the Plumb and Daily Ditch Company, the Iliff and Platte Valley Ditch Company and Wright Water Engineers.

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

This is from the original authorization from 1979 that helped construct the flood control project to accommodate flood releases out of Chatfield and its owned and operated by the CWCB. Each year the project is inspected by the Omaha Army Corps of Engineers. In FY 2016-17 staff plans to spend $99,000 on planning for River improvement projects and about $40,000 on in channel vegetation removal for flood conveyance. This will help address inspection items listed in the Corps annual report.

29. Colorado Floodplain Map Modernization
Authorization: SB 03-110 to HB 14-1333
Water Source: N/A
Location: Statewide
Sponsor: Statewide
Project Type: Floodplain Delineation
Project Manager: Thuy Patton
Beneficiary: CWCB – Statewide

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

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

The Denver Metropolitan area counties are all managed by the Urban Drainage and Flood Control District with technical and financial assistance from CWCB. All other studies are being

managed by CWCB staff with consulting assistance from two engineering teams that were selected and contracted for this work.

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

30. Fish and Wildlife Resources Fund
Authorization: SB 01-157, HB 02-1152
Water Source: Various
Location: Statewide
Sponsor: CWCB
Project Type: Grant Program
Managers: Carlee Brown / Chris Sturm
Beneficiary: Statewide

In 1987, HB 87-1158 created the Fish and Wildlife Resources Account, also known as the "Mitigation" Account, in the Construction Fund. Procedures for obtaining mitigation grant approvals are found under section 37-60-122.2, CRS. SB 01-157 transferred the account into a special fund. Expenditures from the fund in Fiscal Year 2015 were to the Platte River Recovery Implementation Program.

31. Flood and Drought Response Fund
Authorization: SB 01-157 to HB 14-1333
Water Source: All Colorado Streams
Location: Statewide
Sponsor: CWCB
Project Type: Response to Flood
Managers: Kevin Houck/Taryn Finnessey
Beneficiary: CWCB - Statewide

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

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

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

Specific tasks accomplished using funds from this account during FY 2016 included the daily Flood Threat Bulletin during the flood season from May through September, and seasonal climate forecasts from the University of Colorado for the purpose of flood and drought forecasting. In addition, numerous projects associated with general flood prediction, mitigation and recovery were funded. These included floodplain hazard mapping for the North Fork of the Big Thompson River (which will be incorporated into the new flood maps being created for the areas affected by the 2013 flood), a cost share with the U.S. Army Corps of Engineers for post-flood topography that will be used to support the flood remapping effort in the flood affected area, a partnership with the Nebraska Community Foundation that analyzes hydroclimatic indices for the purposes of seasonal water supply and flood predictions in the South Platte watershed, and snowpack modeling improvements in the Conejos River basin for the purpose of water supply and flood predictions.

32. Rio Grande Forecasting Development Project Implementation
Authorization: SB 13-181
Water Source: Rio Grande & Conejos Rivers
Project Type: Demonstration Project

Location: Rio Grande
Sponsor: CWCB, USBR, Rio Grande BRT

Project Manager: Joe Busto
Beneficiary: Rio Grande Water Users, West Gulf River Forecast Center, DWR

This project funding was used to hire a NOAA mobile radar to run through the new national water model also called WRF-Hydro to make an experimental forecast. In the first year using radar data and WRF-Hydro the total seasonal volumetric water supply forecast was four times more accurate than the official federal water supply forecast. This is very helpful for water administration in the Rio Grande Basin, which is very tightly administered. This is part of a new and ongoing effort to help the feds transition to newer, more robust data and modeling techniques for more accurate seasonal water supply forecasts.

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

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

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

Twenty projects were awarded funds totaling $2,443,655 through a competitive grant program designed to restore streams and remove debris from channels affected by flooding in September 2013. Three projects are complete ($49,030). Seventeen projects remain active.

34. Tamarisk Control Cost-Sharing Program

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

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

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

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

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

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

In Fiscal Year 2015-2016, HB 15-1006 authorized $2 Million for Fiscal Year 2015-2016 and Fiscal Year 2016-2017 (totaling $4 Million) for the grant program. Due to its Tier 2 nature, only $1.8 Million was provided for FY 2015-2016, and it is anticipated there will be no additional funds for FY 2016-2017. Currently, 19 projects across the State have been awarded funding

through this program, 7 of which are under contract and have begun work. All projects are anticipated to be complete in June of 2018.

35. Watershed Restoration
Authorization: HB 06-1313 to HB 14-1333
Water Source: Various
Location: Statewide
Sponsor: CWCB
Project Type: Watershed Restoration
Project Manager: Chris Sturm
Beneficiary: Watershed Interests

The grant funding has been allocated to projects through the CWCB Colorado Watershed Restoration Program January 2011 - 2015 competitive grant cycles. Active projects from the 2011 grant cycle include ditch diversion reconstruction (Relief Ditch) on the Gunnison River (upstream of Delta). Active projects from the January 2012 grant cycle include forest road restoration/erosion control in the Coal Creek Basin (Redstone). Active projects from the September 2013 grant cycle include post fire watershed restoration for the High Park fire. Complete projects from the September 2014 grant cycle include restoration of gullies in Campbell Valley NE of Fort Collins and river restoration design on the Lake Fork of the Gunnison near Lake City. Active projects from the September 2014 grant cycle include restoration prioritization in Park County. Active projects from the October 2015 grant cycle include wetland restoration in the upper Animas watershed, river restoration on Tomichi Creek in the Gunnison basin, riparian re-vegetation in gullies formed by the Waldo Canyon fire in the Fountain Creek watershed, mine/gully restoration in the Dolores River watershed, riparian re-vegetation and protection along the Florida River, post fire restoration design in the Poudre River watershed, a Watershed Assessment of River Stability and Sediment Supply (WARSSS) along Fountain Creek, and riparian re-vegetation on James Creek in Jamestown. The October 2015 grant cycle approved stream management planning grants for the San Miguel River, North Fork Gunnison River, Yampa River in Steamboat. The Colorado River Roundtable received a grant to work on a stream management plan framework, and the Colorado Water Trust was awarded funding to develop stream management plan workshops. Several 2013 flood affected watershed coalitions were awarded grants to support capacity. They include the Big Thompson, Little Thompson, Estes Valley, Coal Creek, Left Hand, and St. Vrain Creek coalitions. These grants are leveraging large federal capacity grants.

36. Weather Modification Program
Authorization: HB 04-1221 to HB 14-1333
Water Source: N/A
Location: Denver
Sponsor: CWCB
Project Type: Cost Share Grants
Project Manager: Joe Busto
Beneficiary: Statewide

In this water year $243,000 in donations was received from the Lower Colorado River Basin States that was matched with $175,000 CWCB and some funding from WSRA so that the State of Colorado would have $243,000 matching funding. The total program budget was $486,000. A highlight of the completed activities is: two remote operated seeders were purchased and deployed on the north and south side of Grand Mesa, a radiometer was leased and left in Gunnison to guide operations, Wilson Water completed an Inventory and Assessment report of all programs, Desert Research Institute completed a plume dispersion modeling study of the Central Mountains program, a ceilometer was purchased that measures cloud base for the Winter Park ski Area. There were also grants to six operational programs for their contractors to support manually operated generators. DRI remote operated ice nucleus generators were operated by the local contractor Western Weather Consultants near Mancos and Telluride. And finally, two DRI remotes, one DRI built propane dispenser and a DRI built weather station were purchased from DRI and are now locally owned and operated after several years of technical assistance and annual leases with support from DRI. The Grand Mesa story is impressive as no external support is now needed and a state of the art low cost locally sponsored cloud seeding program is operated by the Water Enhancement Authority. The WEA is essentially a coalition of the City of Grand Junction and several small conservancy districts.

37. South Platte River and Arkansas River Basins Alternative Agriculture Water Transfer Sustainability Grant Program
Authorization: SB 07-122 to HB 14-1333
Water Source: Statewide
Location: Statewide
Project Type: Alternative Methodologies
Project Manager: Craig Godbout

Sponsor: CWCB
Beneficiary: All State River Basin Water Users

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

Through FY 2015-2016, the Board approved twenty-six grant applications that totaled approximately $4,600,000. The most recent amount awarded in August 2016 was $200,000 for a Water Bank Pilot Project on Colorado's west slope with the Grand Valley Water Users Association as fiscal agent.

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

38. Climate Change Effects on Colorado Water Resources Study
Authorization: HB 08-1346
Water Source: N/A
Project Type: Study
Location: Statewide
Project Manager: Taryn Finnessey
Sponsor: CWCB
Beneficiary: Statewide

Climate change has the potential to greatly impact Colorado's natural resources, especially water resources. Building on past efforts, CWCB completed the development of the Colorado Climate Plan, released by the Governor's Office in September 2015. In January CWCB held a public engagement session on Climate Change and Water and received beneficial and constructive feedback on how the state could better address the concerns. The state is currently working on how to shape a statewide approach to addressing both climate mitigation and adaptation, which will include Colorado's strategy on addressing climate change impacts to water resources.

39. Colorado Mesonet
Water Source: N/A
Project Type: Weather Monitoring
Location: Statewide
Project Manager: Taryn Finnessey
Sponsor: CWCB/CSU
Beneficiary: Statewide

These funds were used for improving and expanding the Colorado Agricultural Meteorological Network (CoAgMet) towards a multipurpose state "Mesonet" focusing both on agricultural and water resources as well as long-term climate monitoring and short term real-time weather tracking to aid weather prediction, emergency management and long term water planning. This year the funds were used to inventory and index station data and identify critical areas for expansion; better manage and maintain data collection and dissemination through the development of a metadata system co-developed with the eRAMS group in the Civil Engineering department of CSU; convert 17 newly acquired stations for inclusion in CoAgMet; improve public dissemination of data and information as well as improve stakeholder input process.

40. Colorado Drought Mitigation Strategies Implementation
Authorization: HB 14-1333
Water Source: N/A
Project Type: Drought Planning
Location: Statewide
Project Manager: Taryn Finnessey

Sponsor: CWCB Beneficiary: Statewide

In compliance with the Federal Emergency Management Agency (FEMA) requirements, CWCB completed a comprehensive revision to the State Drought Mitigation Response Plan, approved by the CWCB Members, Governor Hickenlooper and FEMA in 2010 and updated that report in 2013. The plan was adopted by the board in September 2013 and is due for revision again no later than fall of 2018. CWCB staff is working to implement past recommendations and also develop a SOW for the upcoming revision, which will take place beginning in 2017.

41. Statewide Water Supply Initiative Continuation

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

The Colorado Water Conservation Board (CWCB) officially approved the Statewide Water Supply Initiative (SWSI) 2010 Report in January 2011. Like the original SWSI study completed in 2004, the purpose of SWSI 2010 was to provide a comprehensive statewide analysis of water supply, demand, and resulting gaps. In addition, SWSI 2010 continued the inventory of local solutions to meet water supply gaps. At the completion of SWSI 2010 the Board recommended a six year planning cycle for updating SWSI. These periodic updates are important so that SWSI can continue to provide the basis for tracking demands, supplies and other drivers that inform which future scenario Colorado is entering and therefore which water strategies should be implemented.

Since the completion of SWSI 2010, the Governor requested that a Colorado Water Plan (CWP) be completed by the end of 2015. With the successful completion of the CWP, the current SWSI Update is being developed to incorporate the CWP and inform its implementation. The SWSI Update will also incorporate the Basin Implementation Plans, Colorado River Water Availability Study Continuation (CRWAS Continuation), and other efforts. In addition, new aspects of this SWSI update will include:

- Incorporation of scenario planning and adaptive management
- Incorporation of climate change into demand and supply analyses
- Hydrologic variability (examine droughts and floods in addition to average conditions)
- Agricultural gap
- Non-consumptive gap

It is envisioned that the SWSI Update will serve as the primary technical basis for the implementation of the CWP, which in turn focuses on addressing key policy issues. The SWSI Update will build off information from the previous SWSI reports and other efforts completed in the interim, such as the adaptive management and scenario planning work of the IBCC and basin roundtables (BRT's). Although funds were not disbursed in Fiscal Year 2016, Senate Bill 16-174 provided additional funding for Fiscal Year 2017 and efforts are currently underway to develop the SWSI Update.

42. Water Adaptation Partnership Program

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

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

information to meet federal drought planning requirements; and to improve forecasting and projections.

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

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

To better understand Colorado's future water supply needs and options, more local information must be incorporated into demand forecasts. During the last 3.5 years, water providers have been submitting water use and water efficiency data into the Water Efficiency Data Portal which now houses 3 years of data. The data collected from the portal is informing planning work and is being mined for the next SWSI update. CWCB staff is also working with Leonard Rice Engineers on additional output tools and reports as needed and has set up a multi-year maintenance (out to 2020) and customer support plan to spend down the remaining balance.

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

Funding has been used for various water planning studies as needed. Fiscal Year 2016 efforts have been devoted to the Colorado Water Plan and funds for these studies were not utilized. As needs arise, these funds will be available for new water planning studies.

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

This project is funding the CO-NM Regional Extreme Precipitation Study. It is a peer reviewed project to use existing methodologies and science to create updated tools and procedures for estimating regional extreme precipitation depth, area, and duration relationships and regional precipitation frequency estimates for the regional area including Colorado and New Mexico. The project also desires to develop an accepted standard of practice for these studies to be used as a national model. Finally, the project will evaluate the uncertainty of the various components, and create a list of additional future research projects to reduce the uncertainty of the chosen methods. In Fiscal Year 2015-2016, consultants for each task were selected and contracts were executed.

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

Funding of $5,000,000 was provided to the San Luis Irrigation District (SLVID) for the rehabilitation of the Rio Grande Reservoir. Five contracts were executed towards this effort; which included project design, project management, embankment material processing, federal land exchange, and seepage control. To-date, SLVID has completed the material processing, seepage control, final design of the outlet works and is currently working on the federal land exchange. The Bill also authorized funding of $15,000,000 for additional rehabilitation work which would be in the form of a grant/loan; the proportion is still to be determined. The outlet works should be constructed in 2016.

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

Funding was awarded to the Colorado Mountain College-Timberline Campus for a demonstration project designed to explore the extent to which the harvest and transplantation of slow-forming organic peat soils, from an area of potential impact to specifically prepared receiver sites, can serve as mitigation of impacts to fens. The funding for the project is dependent on the project sponsor acquiring a 50/50 cost share from other outside sources to match the CWCB funds. To date, no matching funds have been acquired by the project sponsor, and therefore, no Construction Fund monies have been expended on this project.

Funding for this project should be considered for De-authorization.

48. Windy Gap Reservoir Bypass Channel Project
Authorization: SB 13-181
Water Source: Colorado River
Location: Windy Gap Reservoir
Sponsor: Northern Colorado WCD
Project Type: Diversion Structure
Project Manager: Kirk Russell
Beneficiary: Water Users

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

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

Severance Tax Operational Fund

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

No.	Manager	Project Name	FY 16 Amount
		Interstate, Federal, and Water Information Programs	
1	Moore	County Groundwater Resources Series, Year 3	$50,000
2	Fritz	CSU Water Resources Archive	$25,000
3	Moore	Data Collection and Analysis in Support of ArkDSS, Year 2	$50,000
4	Miller	Determination of Consumptive Water Use of Winter Wheat in the Arkansas Valley	$49,675
5	Miller	DWR Measuring Equipment	$43,000
6	Moore	Ecological benefits of Irrigated Ag and potential risks under changing water allocation and supply	$31,720
7	Miller	Fort Lyon Recharge Pond Demonstration Project	$39,725
8	Moore	Modeling the Influence of Conjunctive Water Use on Flow Regimes in the South Platte River Basin using the SPDSS Groundwater Flow Model	$49,000
9	Miller	Using Remote sensing Assessments to Document Historical and Current Saved Consumptive Use (CU) on Alfalfa and Grass Hayfields Managed	$49,230
10	Sellers	Work Related to Recreational Projects	$35,000
11	Moore	StateDMI Software Revision	$15,000
12	Moore	Testing of StateDMI Software Revision	$10,000
13	Brown	CSU Water Tables	$5,000
		Finance Programs	
14	Russell	MSU Watershed Summit	$25,000
15	Russell	Norwood Feasibility Study	$47,000
16	Hernandez	Dam Safety Inundation Mapping Grant Program	$50,000
		Stream and Lake Protection Programs	
17	Bassi/Baessler	ISF Outreach and Education	$10,000
18	White	Case Management and Litigation Support	$62,000
19	Viehl / Fritz	ISF Database Update	$148,000
		Watershed and Flood Protection Programs	
20	Houck	FEMA Coordinator Matching Program	$32,260
21	Patton	FEMA LIDAR Mapping	$40,000
22	Busto	Weather Modification Program – Winter Park	$28,000
23	Busto	Weather Modification Program – Dolores WCD	$35,000
24	Sturm	Kiowa Creek Watershed Flood Control Dam Maintenance	$24,700
25	DiBetitto	River Change & Flood Hazards on the Colorado's Front Range	$50,000
26	Busto	Enhanced Snowpack Monitoring above Taylor Reservoir	$73,000
27	Busto	Colorado Dust on Snow Program	$25,000
28	Busto	Evaluating the Time Series Discontinuity of the NRCS Snow Telemetry (SNOTEL) Temperature Data across Colorado	$39,250

Water Supply Planning, Drought, and Conservation Programs

29	Feehan	Gold King Mine Spill Facilitation	$5,000
30	Mitchell	Water Planning Outreach and Education	$46,500
31	Ecklund	Intermountain Infrastructure Exchange	$49,940
		Total Severance Tax Expended for FY 16	**$1,243,000**

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

1. County Groundwater Resources Series, Year 3
   Water Source: N/A
   Location: Chaffee County
   Sponsor: CGS / CWCB
   Project Type: Study
   Project Manager: Andy Moore
   Beneficiary: Local Water Users

   This multi-year effort addresses counties where development pressures are currently straining water resources and where comprehensive county-wide assessments have not been done. Chaffee County was identified as a priority county for a groundwater assessment in the third year of this effort. This county is experiencing considerable development pressure with potential effects on groundwater resources. The proposed assessment will be comprehensive, addressing all aquifer types within the given county. This would include near-surface unconsolidated aquifers and bedrock aquifers as well as crystalline rocks in the highland areas.

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

   CSU's Water Resource Archive digitized 17.033 pieces of paper, and 717 photographs and glass plate negatives from several collections, including but not limited to; Consolidated Home Supply Ditch and Reservoir Company Records, Irrigation Research Papers, and the Delph E. Carpenter and Family Papers. Material types selected include ledgers, data, indices, administrative records, research notes, correspondence, diaries, meeting minutes, conference proceedings, photographs, and glass plate negatives. Digitized materials can be found at: https://dspace.library.colostate.edu (home page; click through "Colorado State University, Fort Collins" and "CSU Archives and Special Collections" links to get to Water Resources Archive).

3. Data Collection and Analysis in Support of ArkDSS, Year 2
   Water Source: N/A
   Location: N/A
   Sponsor: CSU
   Project Type: Data Collection
   Manager: Andy Moore
   Beneficiary: Local Water Users

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

4. Determination of Consumptive Water Use of Winter Wheat in the Arkansas Valley
   Water Source: Arkansas River
   Location: Arkansas River Basin
   Sponsor: CSU
   Project Type: Study
   Managers: Steve Miller
   Beneficiary: Compact compliance and Local Water Users

   This grant provided half time funding for a CSU employee at the Arkansas Valley Agricultural Research Center in Rocky Ford to supervise and manage lysimeter operations in a continuation of a multi-year project to determine crop coefficients to be used in calculating

actual crop ET for Arkansas River Compact compliance. A series of paper for technical journals describing the research are in various stages of completion.

5. DWR Measuring Equipment

Water Source: Arkansas River
Location: Arkansas Basin
Sponsor: DWR, Div. 2

Project Type: Technical
Project Manager: Steve Miller
Beneficiary: Water Commissioners and Local Water Users

Measuring equipment was purchased by the Division 2 Engineer in Pueblo and provided to his water commissioners to expedite verification of measuring gaging and meters operated by local water users. This enabled more timely and accurate administration of water rights in an over appropriated basin and helped maintain compact compliance.

6. Ecological Benefits of Irrigated Agriculture and Potential Risks under Changing Water Allocation and Supply

Water Source: South Platte River
Location: Weld County
Sponsor: CSU

Project Type: Study
Managers: Andy Moore
Beneficiary: Local Water Users

Diversion of water from streams has a major effect on that stream's flow regime including altering the magnitude and duration of flooding events. The water is typically not consumed at the point of diversion, but flows through a system of canals and ditches to its point of use. These constructed canals account for significantly more length of flowing water than the natural channels in regions with irrigated agriculture. The novel riparian and aquatic habitats that have developed in and along canals contribute significantly to regional biodiversity.

While there have been numerous studies of how changing the hydrologic regime of streams alters the in-channel and riparian processes and biota, little is known about how the hydrologic regime of canal networks influences its processes and biota. In this project, canals have been investigated using the same scientific approaches as have been used for natural streams. This will help us better understand how aquatic and riparian biota may respond to changes in the flow regime of canals.

7. Fort Lyon Recharge Pond Demonstration Project

Water Source: Arkansas River
Location: Fort Lyon Canal
Sponsor: LAVWCD

Project Type: Feasibility Study
Project Manager: Steve Miller
Beneficiary: Fort Lyon Canal Water Users

The Lower Arkansas Valley Water Conservancy District (LAVWCD) conducted an initial evaluation of potential recharge facility sites to assist the Fort Lyon Canal Company water users in meeting return flow obligations under the Division 2 Irrigation Improvement Rules. The study looked at locations where return flow deliveries were needed and hydro-geology to identify 3 potential sites. A draft report documenting the work has been prepared and will be considered before deciding whether to seek funding to construct a demonstration project.

8. Modeling the Influence of Conjunctive Water Use on Flow Regimes in the South Platte River Basin using SPDSS Groundwater Flow Model

Water Source: South Platte River
Location: South Platte Basin
Sponsor: CSU

Project Type: Study
Project Manager: Andy Moore
Beneficiary: Local Water Users

This is a multi-year CSU research project that is focusing on the critical linkages between groundwater pumping for irrigation and the coupled groundwater/surface water regimes in the South Platte River Basin. The study will rely on the use of the South Platte Decision Support System (SPDSS) alluvial groundwater flow model. The long-term goal of this project is to provide the Colorado Water Conservation Board (CWCB) with an independent evaluation of the SPDSS groundwater flow model, highlighting model capabilities, strengths and weaknesses. Year four of this effort has been completed.

9. Using Remote Sensing Assessments to Document Historical and Current Saved Consumptive Use (CU) on Alfalfa and Grass Hayfields Managed under Reduced and Full Irrigation Regimes

Water Source: Gunnison River Tributaries
Location: Delta, Montrose, & Gunnison Counties
Sponsor: CSU
Project Type: Study
Project Manager: Steve Miller
Beneficiary: Local Water Users

Extensive on field measurements of irrigation deliveries and evapotranspiration were made to document the crop water budget under varying levels of irrigation supply. A CSU Completion Report is being prepared and will provide useful data to evaluate future ATM's and deficit irrigation proposals.

10. Work Related to Recreational Projects

Water Source: Various
Location: Various
Sponsor: CWCB
Project Type: Technical Assistance
Project Manager: Suzanne Sellers
Beneficiary: Local Water Users

These funds are used to help assist mountain communities with their economies by increasing recreation-based tourism. In particular, these funds were granted to the Town of Lyons to prepare a preliminary grading plan, a design and perform a hydraulic analysis for Lyons Valley River Park which was damaged in the September 2013 flood.

11. StateDMI Software Revision

Water Source: N/A
Location: N/A
Sponsor: CWCB
Project Type: Technical
Project Manager: Andy Moore
Beneficiary: Local Water Users

StateDMI is a CDSS data management interface (DMI) that is used to process data from HydroBase and other sources into model input files for StateCU and StateMod. The StateDMI software facilitates a data-centered approach, where data processing flows from raw data to model input files, with command history documented in command files.

During recent CDSS model updates, an issue was identified in StateDMI regarding the association of irrigated acre parcel identifiers and irrigation wells associated with those parcels. As irrigated acreage data has been updated throughout the State, the irrigated acreage parcel identifiers have became non-unique. In order to prevent the reprocessing of a large amount of modeling input data each time a CDSS model is updated with new irrigated acreage data, another methodology was needed in StateDMI.

This project revised the StateDMI software to change the well aggregate/system data from using non-unique irrigated acreage parcel numbers to using the unique well identifiers associated with the parcels. Wells will consequently be associated with unique identifiers in modeling files rather than rely on parcel relationships to identify wells.

12. Testing of StateDMI Software Revision

Water Source: N/A
Location: N/A
Sponsor: CWCB
Project Type: Technical
Project Manager: Andy Moore
Beneficiary: Local Water Users

StateDMI is a CDSS data management interface (DMI) that is used to process data from HydroBase and other sources into model input files for StateCU and StateMod. The StateDMI software facilitates a data-centered approach, where data processing flows from raw data to model input files, with command history documented in command files.

This work tested revisions to the StateDMI software (made in Item #11 above) that changed the well aggregate/system data from using parcel numbers to using the well identifiers associated with the parcels. This testing was necessary to confirm the new software functionality and to review and compare results of the updated StateDMI to ensure that the software was working correctly.

13. Water Tables Conference

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

This funding was used to educate and inform the water community and the greater public about a variety of water related activities, including the Colorado Water Plan, the implementation of the U.S.-Mexico agreement involving the Colorado River, and federal permitting processes for new water projects.

14. MSU Watershed Summit

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

Funding was provided for the Metro State University (MSU) Denver Watershed Summit (South Platte STEM Project Conference) which provides education and outreach to watershed and water users including a variety of water related topics.

15. Norwood Feasibility Study

Water Source: San Miguel River
Location: San Miguel County
Sponsor: Town of Norwood
Project Type: Feasibility Study
Project Manager: Kirk Russell
Beneficiary: Local Water Users

This funding was used to prepare a feasibility study in order to construct a raw water irrigation system in the Town of Norwood, separate from the Town's treated water system. A separate raw water irrigation system for the Town of Norwood would provide a more economical way for the Town to conserve its water resources, while also taking pressure off its water treatment facility during peak summer demand months. The raw water irrigation system would provide customers with an efficient cost and effective way to promote and develop long term landscaping, which would benefit individual home owners and the community as a whole. The report was completed in June 2016.

16. Dam Safety Inundation Mapping Grant Program

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

These funds were for the preparation of flood inundation mapping for two different entities, totaling four dams. The effort included dam breach modeling to assess the extent of downstream impacts should the dam(s) fail. Deliverables included a letter report for the inundation mapping, digital files of the inundation limits, inundation maps and supporting hydraulic calculations prepared by a licensed professional engineer.

17. Stream and Lake Protection Section Outreach and Education

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

These funds were used to support outreach and education activities to address issues associated with new appropriations and to inform the general public and stakeholders regarding the CWCB's acquisition program and the Colorado Water Trust's efforts to purchase water for donation to the Colorado Water Conservation Board. Funding was used in part to help support the Colorado Water Trust (CWT) River Bank Event which helps to foster the private-public partnership between the CWCB and the CWT to restore and improve stream and river systems throughout Colorado.

18. Case Management and Litigation Support

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

These funds were used to retain a temporary legal assistant to assist the Section with ISF case management, including database design and implementation, organizing and tracking case files, coordinating with the Attorney General's Office, tracking court deadlines, and drafting pleadings, memos, correspondence and other documents as appropriate. The CWCB is a party in approximately 70 active water court cases. In these cases, the Stream and Lake Protection

Section staff is responsible for: (1) protecting the CWCB's water rights, (2) obtaining decrees for new ISF water rights; or (3) obtaining decrees for changes of acquired water rights to ISF use. This project enables staff to focus on the substantive aspects of water court cases, and to resolve more cases in a timely manner.

19. ISF Database

Water Source: N/A
Location: Denver
Sponsor: CWCB / OIT
Project Type: Database Application
Managers: R. Viehl/ C. Fritz/ B. Logan
Beneficiary: CWCB

Funding was used to modernize and enhance the Instream Flow database. The previous ISF database was based on Microsoft Access, which is no longer supported by the Governor's Office of Information Technology (OIT). The new framework is .NET, the same framework currently run by the Division of Water Resources' HydroBase, which will allow for full technical support from OIT.

Solutions identified during a LEAN event in 2015 were fully incorporated in the new database. Database enhancements improved work flow and increased efficiency in the four primary areas of the ISF Program (acquisitions, legal protection, new appropriations, monitoring and enforcement). The new database is a repository for the ISF water right portfolio, manages the new appropriation processes, streamlines legal protection by generating documents and improving data querying, and increases the tools and resources needed to monitoring and enforce ISF water rights.

20. FEMA Coordinator Matching Program

Water Source: N/A
Location: Various
Sponsor: CWCB
Project Type: Operational Costs
Project Manager: Kevin Houck
Beneficiary: NFIP Interests

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

21. FEMA LiDAR Mapping

Water Source: N/A
Location: N/A
Sponsor: CWCB / OIT
Project Type: LiDAR Mapping
Project Manager: Thuy Patton
Beneficiary: Statewide

The Colorado Light Detection and Ranging (LiDAR) mapping group's main goal is to have complete LiDAR coverage at quality level two or three with derivative products (bare earth DEM, classified point clouds, appropriate contours) over the eastern plains in five years and over the mountainous terrain in seven years. The CWCB has and continues to utilize LiDAR to determine regulatory FEMA flood hazard mapping in the State. Potentially, we will be looking at utilizing LiDAR to develop floodplain mapping, debris flow, and erosion zone mapping as part of the State Hazard Mapping program. Other uses include High Water Mark and dam-inundation mapping.

22. Weather Modification Program

Water Source: N/A
Location: Winter Park
Sponsor: CWCB / University of Nevada
Project Type: Study
Project Manager: Joe Busto
Beneficiary: Statewide Water Users

The funding was used to upgrade the winter Park cloud seeding program operational tools by purchasing a ceilmeter, which is used to measure cloud base height. The instrument will be hosted by a local government in Winter Park upwind of the target area which is Winter Park Ski Area.

23. Weather Modification Program

Water Source: N/A
Project Type: Technical

Location: Dolores County
Sponsor: Dolores WCD
Project Manager: Joe Busto
Beneficiary: Local Water Users

This funding was used for the purchase of an Idaho Power Company ice nucleus generator or cloud seeding machine. The purchase price is $35,000 only and the extra parts, software, deployment and training was handled under a separate contract. It is owned by Dolores WCD and operated by the local permit holder/seeding contractor Western Weather Consultants. It was deployed near Ground Hog above McPhee Reservoir in early September 2016.

24. Kiowa Creek Watershed Flood Control Dam Maintenance Program

Water Source: Kiowa Creek
Location: El Paso County
Sponsor: Dept of Ag / KCD
Project Type: Watershed
Project Manager: Kevin Houck
Beneficiary: Local Water Users

The Kiowa Conservation District has operation and maintenance responsibility for the Kiowa Creek Watershed Protection Project, which consists of 63 flood control dams. Dam K-38 has been classified as the highest priority dam for repair, having been given an unsatisfactory rating by the Colorado Dam Safety Division.

Dam K-38, in northern El Paso County had been found to be in need of repairs to the dam crest, the upstream toe, the downstream toe, the emergency spillway, and the area surrounding the outlet pipe. In addition, the dam required reseeding of the repaired areas as well as fencing to keep wildlife and livestock from disturbing the repairs. All of these repairs needed to be done in accordance with NRCS standards.

Funding was provided to the Kiowa Conservation District to begin work on repairing dams. Dam K-38 was the obvious choice as the dam was in the most serious condition. Funds were used to repair Dam K-38 to required standards.

25. River Change and Flood Hazards on the Colorado's Front Range

Water Source: N/A
Location: N/A
Sponsor: CSU
Project Type: Study
Project Manager: Stephanie DiBetitto
Beneficiary: Local Water Users

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. The objective of a mapped FHZ is to identify lands most vulnerable to fluvial hazards in the near term. CWCB utilized this funding to review the need for fluvial erosion hazard mapping and the regulatory history of the mapping; review a comparison of existing fluvial hazard related protocols and studies across the nation and abroad; discuss the applicability of existing protocols to Colorado and approaches to mapping fluvial hazard zones in Colorado; provide a framework and proposed protocol for mapping; discuss logistics surrounding fluvial hazard zone map generation, practitioner qualifications, map maintenance, and limitations; discuss program implementation; and suggest follow-up studies necessary to further develop and refine fluvial hazard mapping in Colorado. The work completed with this funding has laid the groundwork for the creation of a robust fluvial hazards mapping program in Colorado.

26. Enhanced Snowpack Monitoring above Taylor Reservoir

Water Source: Gunnison River
Location: Gunnison Basin
Sponsor: CWCB / Upper Gunnison River WCD
Project Type: Equipment
Project Manager: Joe Busto
Beneficiary: Local Water Users

This project was designed to add more snow data to the NRCS network completing with existing two SNOTEL sites with four new SNOTEL-lite stations. This is needed to address known spill fill issues at Taylor reservoir as part of the Aspinal Unit operations. The partnership had Upper Gunnison river WCD, CWCB staff, and National Center for Atmospheric Research Staff design, purchase, and test equipment in Boulder. We will also help with the permitting and installation for the NRCS Snow Survey Program and then turn over the four stations to be hosted

by and maintained by the NRCS as part of their snow data network. Equipment was ordered built and tested. We are working on USFS permitting and hope to have these stations installed for winter 2016-17. The equipment will be turned over to the NRCS Snow Survey Program by the Upper Gunnison River WCD and be part of the data network used for water supply forecasting.

27. Colorado Dust on Snow Program

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

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

On behalf of the Colorado and Colorado River Basin water management community, the Center for Snow and Avalanche Studies (CSAS), based in Silverton, conducts the Colorado Dust-on-Snow program (CODOS) at its Senator Beck Basin Study Area at Red Mountain Pass and at ten additional sites located throughout the Colorado Mountains. Over the past year CODOS created site-specific web pages for all of those sites, and for the CODOS program, containing archived dust-on-snow, SNOTEL, hydrologic, snowpack, snowmelt, and spring weather datasets for your handy reference. CODOS also introduced a conceptual Dust Enhanced Snowmelt Space capturing the interactions of March 1 snowpack conditions, dust-on-snow, and March/April/May weather. The WY Summary report is at: http://www.codos.org/#codos. In high dust years the Colorado Basin River Forecast Center now uses this CODOS information to adjust peak timing of stream flows on the western slope of Colorado. In a 2016 Atmospheric Environment publication the USGS had this to say about dust impacts, "Spatial patterns in chemistry of snow, wet deposition, and aerosols indicate that dust deposition increases from north to south in the Rocky Mountains, and temporal trends indicate that that winter/spring dust deposition increased by 81% in the southern Rockies between 1993-2014. Using a multi-variate modeling approach we determined that increases in dust deposition and decreases in springtime snowfall combined to accelerate snowmelt timing in the Southern Rockies by approximately 7-18 days between 1993 and 2014.

28. Evaluating the Time Series Discontinuity of the NRCS Snow Telemetry (SNOTEL) Temperature Data across Colorado

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

Project Type: Study
Project Manager: Joe Busto
Beneficiary: Statewide

Recent studies illustrated a very strong rate of warming in the mountains of Colorado based on trends from SNOTEL stations. The temperature sensors have been moved at all the sites in the mid-2000s. There is a discontinuity in the temperature time series. In order to use climate change information in future water planning, it is crucial to have a homogeneous time series of temperature data for higher elevation locations across Colorado. This projects cleans up the temperature data times series and is useful for hydrologic and climate modeling.

29. Gold King Mine Spill Facilitation

Water Source: Cement Creek
Location: Silverton
Sponsor: DNR

Project Type: Planning
Project Manager: Tim Feehan
Beneficiary: Local Water Users

The Department of Natural Resources enlisted the assistance of Ms. Marsha Porter-Norton to facilitate the meetings for affected and interested Colorado residents near Silverton and in the Bonita Peak Mining District where minerals were released accidentally during an EPA investigation of the Gold King Mine into Cement Creek, a tributary of the Upper Animas River which occurred in August 2015.

30. Water Planning Outreach and Education

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

Project Type: Planning
Project Manager: Rebecca Mitchell
Beneficiary: Statewide

Funds were used for operational costs to continue the progress on the State Water Plan and other planning projects. Included were outreach and education costs for the Colorado Foundation for Agriculture's booklet entitled, "Colorado Reader," and assistance with the Colorado Water Congress's water conference.

31. Intermountain Infrastructure Exchange (IMX)

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

Project Type: Planning
Project Manager: James Ecklund
Beneficiary: Statewide

The funding of Colorado water projects and effort is highlighted as a challenge in Colorado's Water Plan. While the vast majority of the future may be accommodated with existing financing mechanisms, a significant balance (an estimated $3 million) remains, even if "good" severance tax revenue years are attained. Therefore, Colorado's Water Plan takes an all-of-the-above approach to future financing options. Alternative financing and delivery of public infrastructure (including water) will be important to understand and deploy in appropriate circumstances moving forward.

The Intermountain Infrastructure Exchange (IMX) is being formed to assist states and local governments in the intermountain region to choose the most appropriate method to accelerate the delivery of infrastructure projects, particularly those that may have significant implementation challenges using traditional delivery methods and funding sources. IMX is a collaborative effort of the governors of Colorado, Utah, and Arizona to help their states, local governments, and infrastructure agencies address well-documented infrastructure needs. The scope of work with detailed information can be provided upon request and Director Eklund stands ready to field any questions about this item.