COLORADO WATER CONSERVATION BOARD

DIRECTOR'S REPORT

March 2015

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

FROM: James Eklund
Meg Dickey-Griffith
CWCB Staff

DATE: March 18-19, 2015

SUBJECT: **Agenda Item 6d, March 2015 CWCB Board Meeting Director's Report**

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~INTERSTATE AND FEDERAL~

U.S.-MEXICO, MINUTE 319 IMPLEMENTATION—The Minute 319 bi-national workgroups are continuing to implement Minute 319. The hydrology workgroup is scheduled to meet on March 20, in San Ysidro, California, to coordinate on the various scopes of work associated with exploring the relationship between hydrology and the reservoir levels at Lakes Powell and Mead. In addition, the United States, Mexico, and the Colorado River basin states are planning a workshop for May 14, 2015 to discuss the successes and challenges associated with Minute 319, and what the process might be for possible subsequent agreements. *(Ted Kowalski)*

JAMES EKLUND NAMED AS COMMISSIONER FOR THE UPPER COLORADO RIVER COMMISSION—On February 6, 2015, Governor Hickenlooper named James Eklund as Colorado's representative to the Upper Colorado River Commission, and the Governor's representative on the Colorado River. Thanks to John McClow, who served in this role since 2013, for his dedication and public service. *(Ted Kowalski)*

GLEN CANYON DAM ADAPTIVE MANAGEMENT WORK GROUP (AMWG) AND TECHNICAL WORK GROUP (TWG) MEETINGS—The annual winter AMWG meeting occurred on February 25-27, 2015, in Salt Lake City. The most time consuming topics included: the Long Term Experimental and Management Plan (LTEMP); the results from the annual reporting meeting; and results from the last three High Flow Experiments (HFEs). The Glen Canyon Dam Technical Work Group (TWG) will be holding its next meeting on April 20-21, 2015, in Phoenix, Arizona. The Bureau of Reclamation (BOR) and the National Park Service (NPS) are still conducting modeling to evaluate each of the alternatives for Glen Canyon Dam operations under this EIS process. The latest schedule is still to have a public draft EIS out by the summer of 2015. *(Ted Kowalski)*

DROUGHT CONTINGENCY PLANNING CONTINUES—The Upper Colorado River Division States are continuing to develop the modeling associated with Extended Operations aspect of Contingency Planning, and are awaiting comments from the Department of the Interior on the draft Memorandum of Agreement. *(Ted Kowalski)*

SYSTEM CONSERVATION AGREEMENT (SCA)—Colorado and the other UCRC members are negotiating a facilitation agreement between the UCRC and the funding partners of the SCA (Denver Water, Southern Nevada Water Authority (SNWA), Central Arizona Project (CAP), the Metropolitan Water Authority of Southern California (MET), and the Bureau of Reclamation (BOR)). The CWCB is also working with the funding partners, the Colorado Attorney General's Office, and other stakeholders to develop a Request For Proposals (RFP), as well as a number of other implementation agreements and documents that will be necessary to implement the SCA. *(Ted Kowalski)*

UPPER COLORADO RIVER COMMISSION (UCRC) SUMMER MEETING TO OCCUR IN DURANGO, COLORADO—The UCRC Summer meeting is scheduled to occur on June 17-18, 2015, in Durango, Colorado. The agenda will include updates on a variety of topics, including: drought contingency planning; LTEMP; Mexico negotiations; and implementation of the System Conservation Agreement. *(Ted Kowalski)*

~STATEWIDE~

GROUND WATER COMMISSION MEETING—The Ground Water Commission (GWC) held its quarterly meeting on February 20, 2015, in Denver, CO. The agenda items included routine reports and a legislative update, which indicated that the proposed bill (SB17) to clarify the meaning of the court's "de novo" review of the GWC's administrative actions died in committee along party lines. The GWC affirmed the order of the Hearing Officer to dismiss Case 13-GW-07 in the matter of the application of Front Range Resources. The GWC also referred the Beedy petition for relief regarding Staff's definition of commercial use to the Hearing Officer. Lastly, the Commissioners were informed about the USFS' Proposed Ground Water Directive and were encouraged to review the draft water plan and provide comments and content to CWCB Staff. The Ground Water Commission will hold its next regular meeting on May 15, 2015 in Castle Rock, CO. For more information visit: http://water.state.co.us/groundwater/CGWC/Pages/default.aspx. *(Suzanne Sellers)*

RWEACT RADAR PROJECT—Attached to the director's report is a conference paper summarizing the recent work to fill radar coverage gaps for flash flood warnings at the five fire burn scars in the Rio Grande (General Attachment 1). This is a partnership between the CWCB, RWEACT, Oklahoma University-Advanced Radar Research Corporation, and NOAA National Severe Storms Lab. The paper shows that this partnership has yielded quality radar data to the Pueblo NWS to make flash flood and debris flow forecasts. There is interest in owning and renting radars in the Rio Grande. The PX1000 was on Lobo overlook on Wolf Creek Pass for a month in Fall 2014, and operations will be resumed in Summer 2015 for two months. The smaller PX1000 and the larger NOXP at the Alamosa airport have both created excitement about the potential and possibilities for temporary or permanent radar solutions as described in the Fire Recovery Governor's Executive Order for the Rio Grande. *(Joe Busto)*

FLOODPLAIN MAP MODERNIZATION/RISK UPDATE—

FY14 Activities: Task orders are being completed and work starting on an erosion study in Mesa County, a Risk Map project in the Upper White watershed, and completing a First Order Approximate (FOA) or countywide approximate mapping, for El Paso County. Other non-mapping projects funded by FEMA this year include conducting 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.

This past November 2014, the CWCB in coordination with the DNR Office of Information Technology (OIT) and the Colorado Geological Survey (CGS), submitted several grant proposals to the USGS to fund LiDAR acquisition for various areas in Colorado. One proposal was accepted for Mesa County. This project will receive up to $500,000 from the USGS for LiDAR acquisition. The CWCB, OIT, and CGS are currently working with USGS to begin the process.

FY13 Activities: Lidar acquisition for Rio Blanco County has delivered. A project kick off meeting took place at the end of January. The El Paso County as a partial Countywide DFIRM is currently in the review process and is anticipated to go preliminary this spring. Purgatoire Watershed and Pueblo County also received additional FEMA funding to complete the mapping projects. CWCB is finalizing the task orders to begin work.

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 will be surveying several bridges and culverts this spring and this data will be used in the hydraulic modeling.

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 will be revised to include areas that were impacted by the flood. Work on Sunshine Canyon is being completed but the rest of the project is on hold. Clear Creek Risk Map is in progress with the hydraulic analysis awaiting review from FEMA.

FY10 Activities: Chaffee and Pitkin Counties are awaiting approval of the preliminary maps. Draft preliminary maps have been completed and are in review with FEMA. Logan County preliminary DFIRMs were distributed on May 31, 2014. A final meeting with the communities was held on October 14, 2014 and this project is now in the appeal period.

FY09 Activities: The Morgan County DFIRM has been converted to a seclusion project and will not include an update of the Wiggins levee. DFIRM database tasks have almost been completed and the preliminary mapping should be submitted to FEMA for review in the next few months.

The Prowers County DFIRM is in the preliminary phase. A final meeting with the communities took place on November 6, 2014. This project is now in the appeal period.

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. 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.

FY 06 Activities: Weld County completed the Appeal period in early December 2014. There no appeals to the project and anticipate moving forward with completing Weld County DFIRMs, which

will go effective at the end of 2015. Fremont County DFIRMs became effective on January 6, 2012. Clear Creek County has gone effective July 17, 2012.

FY 05 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.

FY 04/03 Activities: Boulder County maps became effective on December 18, 2012. *(Thuy Patton)*

~COLORADO RIVER BASIN~

COLORADO RIVER WATER USE—As of February 2, 2015, the Lake Mead water level was at 1089 feet with 10.74 million acre-feet (MAF) of storage, or 51% of capacity, while the Lake Powell water level was at 3594 feet with 11.15 MAF of storage, or 46% of capacity. Total system active storage as of February 1 was 29.395 MAF, or 49% of capacity, which is 400,000 AF more than one year ago when system storage was also at 49% of capacity. For Water Year 2015, the unregulated inflow into Lake Powell for Water Year 2015 is forecast to be 9.76 MAF, or 90% of average. Precipitation as of February 2, 2015 is reported at 80% of average for the Upper Colorado River Basin.

2014 Water Use Estimate: As of February 3, the 2014 Reclamation end-of-year estimate for the Lower Basin states' consumptive use of Colorado River water totals 7.657 MAF, which includes Arizona at 2.779 MAF, California at 4.655 MAF, and Nevada at 0.224 MAF. The end-of-year estimate for 2014 for California's agricultural consumptive use of Colorado River water is 3.372 MAF. The Metropolitan Water District of Southern California's estimated 2014 use is 1.177 MAF.

2015 Water Use Forecast: As of February 25, the 2015 Reclamation forecast for the Lower Basin states' consumptive use of Colorado River water is 7.471 MAF, which includes Arizona at 2.813 MAF, California at 4.373 MAF, and Nevada at 0.286 MAF. The forecast for 2015 for California's agricultural consumptive use of Colorado River water is 3.432 MAF. The Metropolitan Water District of Southern California's forecast for 2015 use is 0.802 MAF. *(Andy Moore)*

UPPER COLORADO RIVER WILD AND SCENIC STAKEHOLDER GROUP—The Bureau of Land Management (BLM) Kremmling Field Office's Proposed Resource Management Plan (RMP)/Final Environmental Impact Statement (EIS) was released on March 21, 2014 and the Colorado River Valley Field Office's Proposed RMP/Final EIS was released on March 24, 2014 with both the Records of Decision (RODs) due out in May 2015. The joint BLM and US Forest Service (USFS) Final Wild and Scenic Rivers Suitability Report (Suitability Report) was released with each of the BLM's RMP/EIS document. The USFS White River National Forest also issued a Draft ROD for adoption of the Suitability Report on April 7, 2014.

The Upper Colorado River Wild and Scenic Stakeholder Group (Stakeholder Group) held its regular meeting on January 13, 2015 in Summit County and its next regular meeting is scheduled for March 12, 2015 at the same location. The Stakeholder Group meeting included discussions on the 2015 budget, the 2015 monitoring plan proposal, finances, and updates by the various workgroups and interest groups. The Stakeholder group approved its 2015 planning calendar. For more information, see the following link: http://www.upcowildandscenic.com *(Suzanne Sellers)*

~PLATTE RIVER BASIN~

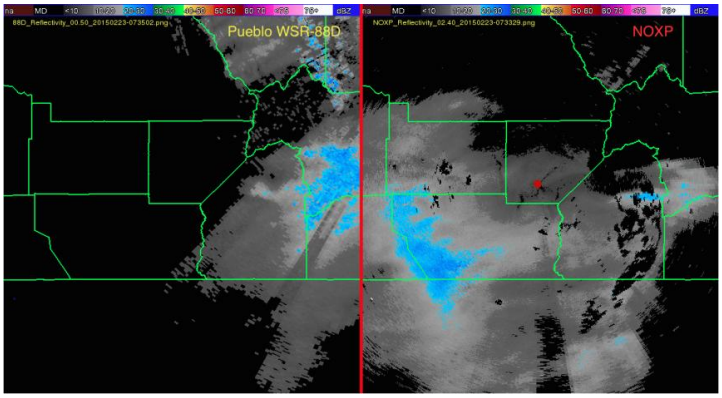
PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM—The Platte River Recovery Implementation Program (PRRIP) Governance Committee (GC) has not held a meeting since the last CWCB meeting. The next regular GC meeting will be held on March 17-18, 2015 in Kearney, NE. For more information, please visit: http://www.platteriverprogram.org/Pages/default.aspx. (*Suzanne Sellers*)

~SAN JUAN/MIGUEL-DOLORES RIVER BASIN~

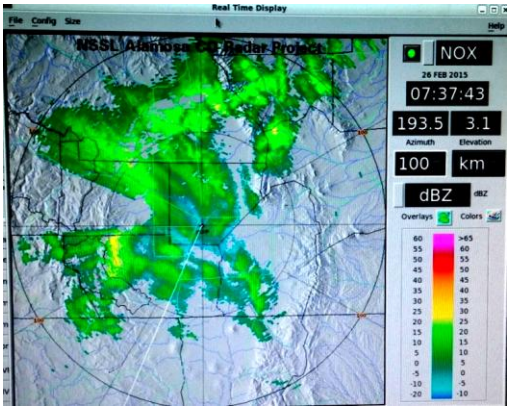
RIVER PROTECTION WORKGROUP—The River Protection Workgroup (RPW) Steering Committee held regular meetings on February 5 and 25, 2015 in Durango, CO with its next meeting anticipated to be held in mid-April 2015 in the same location. The Steering Committee is currently engaged in negotiations and development of consensus approaches for the protection of the five rivers and specific outstanding remarkable values (ORVs) in the San Juan River basin. Currently, there is an existing proposal by Trout Unlimited and an alternate proposal by the Wilderness Society and the San Juan Citizen's Alliance. The steering committee appointed a small group that will meet regularly in an attempt to work out the differences between the two proposals. Both of the outstanding proposals include combinations of removal of suitability, wild and scenic designation and maintenance of suitability within the five watersheds of the San Juan Basin. For more information, see the following link: http://ocs.fortlewis.edu/riverprotection. *(Suzanne Sellers)*

~RIO GRANDE RIVER BASIN~

RIO GRANDE FORECASTING PROJECT UPDATE—There are numerous ongoing projects in the Rio Grande to help with water supply forecasting methodology development. These include a new DSS tool that puts modeling in DWR's hands, new gauging in the Conejos and WRF hydro-model in operation, mobile radar for model forcing data, and NASA's Aerial Snow Observatory (contract pending) for model forcing data.



This item focuses on the radar work. A concept is being tested that a small, low-power, short-wavelength radar can "fill in the gaps" between the NWS radar network. The side by side picture shows the NWS Pueblo and NOAA mobile radar side by side. The mobile radar NOXP at the Alamosa airport "sees" the snow over the Conejos (yellow) which is not picked up by the NWS Pueblo radar because it is blocked by mountains. Radar reflectivity is roughly proportional to the snowfall rate, but further research is needed to more accurately depict the snow amount. Integrating the data over time should yield snow depth.



NOXP is an advanced "dual-polarametric" radar which sees particle size and shape. Thus small raindrops (roughly spherical) can be distinguished from snow (roughly flat). This is the first time this type of radar has been used in heavy snow environments. More research is needed to understand the signals received, but it appears to offer a better way to quantify snow rates than simply using reflectivity. The screen capture from the radar display in the cab shows yellow as snow in a 124 mile circle that sees most all of the whole Rio Grande basin, although not all the way up the Upper Rio Grande towards Creede and beyond.

Results from this study are yielding many scientific discoveries that will continue to improve the ability to monitor precipitation and more accurately predict snowfall and runoff.

Pictured is the NOXP radar at the Alamosa airport. *(Joe Busto)*

~AGENCY UPDATES~

CLINT EVANS: NEW COLORADO STATE CONSERVATIONIST FOR THE USDA NRCS—The Colorado State Conservationist is the head official for the USDA Natural Resources Conservation Service in Colorado. Clint Evans was recently selected for that position and assumed his duties on Feb. 23. We hope to have him attend a portion of the March meeting to introduce himself to the Board and briefly discuss the important ways NRCS programs interface with the Board's missions. A press release announcing Mr. Evans' appointment is attached (General Attachment 2). *(Steve Miller)*

CWCB WATER EFFICIENCY GRANT FUND PROGRAM (WEGP) UPDATE—Two grant applications were received since the November 2014 Director's Report

- **North Weld County Water District** – Water Conservation Plan Update
- **The Keystone Center -** Land & Water Dialogue Phase 2

One grant was approved since the last Board meeting:

- **Center for Resource Conservation -** School District Water Efficiency Project ($48,882)

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

- **The Keystone Center** – Land & Water Dialogue – *75% Progress Report*
- **Mt Werner Water & Sanitation District** – Rebate Program – *Final Report*
- **Colorado Water Wise -** Smart Phone App for Landscape Professionals - *50% Progress Report*
- **Colorado Clean Energy Cluster** - NetZero Water Template - *50% Progress Report*
- **Mount Crested Butte Water & Sanitation District/Skyland Metropolitan District -** Water Conservation Plans - *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

Plans in review

- **Pagosa Area Water and Sanitation District** - The District submitted a draft Drought Management Plan in January, CWCB has reviewed the plan and provided feedback to the District and they are working to incorporate CWCB comments. **(Taryn Finnessey & Ben Wade)**

Water Efficiency Plans

Approved Plans

- **Snowmass Water and Sanitation District**
- **Town of Louisville**

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.

- **Town of Erie**
- **Denver Water**
- **South Swink**
- **Roaring Fork Regional Water Efficiency Plan**
- **Town of Aspen**

Water Efficiency Plans in review

- **South Adams County Water & Sanitation District** – CWCB received the Plan on November 3, 2011. CWCB staff reviewed the plan and sent comments to the District on January 30, 2012. Resubmission pending.
- **Town of Las Animas**
- **Town of Carbondale**
- **Town of Basalt**
- **City of Greeley**
  (Kevin Reidy & Ben Wade)

GOVERNOR'S WATER AVAILABILITY TASK FORCE—A Joint Water Availability & Flood Task Force meeting will be held on March 17, 2015 from 1:00-3:30pm at the Colorado Parks & Wildlife Headquarters, 6060 Broadway, Denver, CO in the Bighorn 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—As of February 17th, 63% percent of the state is experiencing some level of drought. The majority of that is located in the southern and western portions of the state with 12% on

the eastern plains classified as severe. Snowpack is at 82% of normal for the state, with the eastern basins of the South Platte and Arkansas experiencing the highest snowpack levels at 106% and 95% respectively. The Colorado River basin is also near normal for this time of year. The basins of the Southwest, Rio Grande, Gunnison, Yampa/ White and North Platte are below normal at 68, 73, 75, 79% and 86% of normal, respectively. Statewide reservoir storage remains strong at 104% of average. The Colorado Drought Response Plan remains activated but meetings of the drought task force and agricultural task force have been suspended for the winter months while we monitor snowpack conditions. The group will reconvene March 20th. *(Taryn Finnessey)*

NET ZERO WATER TECHNICAL ADVISORY GROUP—The tool and guidebook are in the pilot phase and are being tested by a number of partners from November 2014 through February 2015. CWCB staff sat in on a webinar on February 6 that updated the progress on the tool and guidebook and opened it up to a wider audience for comment. The final tool and guidebook are scheduled for public release in spring/summer 2015. *(Kevin Reidy)*

WATER AND GROWTH DIALOGUE—Through a Water Efficiency Grant, the Keystone Center is facilitating a dialogue to quantify water use through different land use patterns as well as bringing together land use and water managers to discuss where integration can occur. Kevin Reidy is on the technical advisory group as well as the steering committee. The group is modeling runs using Denver Water's water use data and running that through different land use pattern scenarios. These model runs should be finished by mid March. A second round of comments on the interim draft research report was completed on February 27, 2015. This report compiled various cased studies on density and water conservation policies and tools from across the United States. Clarion Associates was the main author. Additionally, the project has received assistance from Ray Quay from the Global Institute of Sustainability for the scenario planning portion of the project. This will be happening as the modeling runs come in from Denver Water and Aurora Water. *(Kevin Reidy)*

ROCKY MOUNTAIN LAND INSTITUTE ANNUAL CONFERENCE—Director Eklund and Kevin Reidy will be presenting at the RMLUI Annual Conference in March concerning land use and Colorado's Water Plan. *(Kevin Reidy)*

AWRA NATIONAL ANNUAL CONFERENCE—Kevin Reidy has been asked to convene a panel for the AWRA Annual Conference to be held in Denver in November 2015. The submission was accepted for the conference and Kevin is bringing together a group of four to discuss the latest initiatives for Integration of Land Use and Water Efficiency in Colorado. *(Kevin Reidy)*

NATIONAL ADAPTATION FORUM—The National Adaptation Forum gathers the adaptation community to foster knowledge exchange, innovation, and mutual support for climate change adaptation.

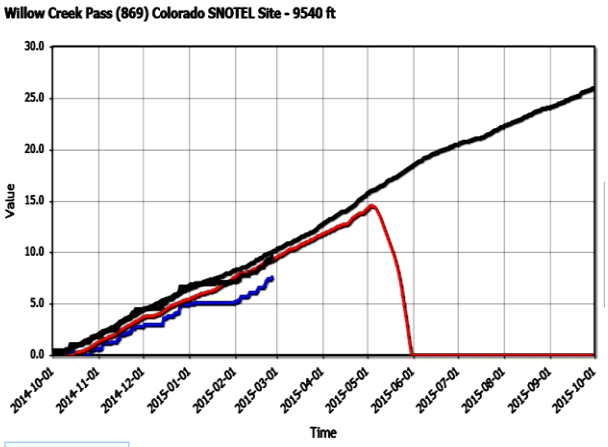
The National Adaptation Forum includes opportunities for professional development through formal trainings, facilitated practitioner presentations, and informal exchange of information all at a single venue.

Colorado is at a pivotal moment where we see risk and vulnerability to the impacts of climate change entering into the discourse of decision makers at various levels of policy and natural resource management. However the field of climate change adaptation is still in its infancy and too many are

reinventing instead of innovating. Attendance at this event affords staff the opportunity to learn more about how to incorporate climate adaption into state planning efforts, share Colorado's lessons with others, and develop a stronger network of innovative professional to help address climate adaptation efforts going forward. By attending staff will be better suited to prepare Colorado for the impacts of climate in the future. *(Taryn Finnessey)*

HB13-1293 ANNUAL UPDATE—The update to the legislature on Colorado's climate change efforts will be held April 22. This presentation will capture all agency efforts on climate mitigation and adaptation and will also provide a briefing to the legislature on the forth coming Colorado Climate Plan. *(Taryn Finnessey)*

WILLOW CREEK PASS SNOWCOURSE UPDATE—As eighty percent of Colorado's water comes from snow, the Watershed and Flood Protection section made snow data for water forecasts a priority and section responsibility for the next few years. Due to budget issues, the NRCS has had to prioritize automated snow data (SNOTEL) in favor of manual snow data sites (Snowcourse). This is unfortunate as the Snowcourse program dates back many decades further than SNOTEL and is the long term mountain climate record. Staff adopted Willow Creek Snowcourse from the Lakewood NRCS Snow Survey Program, making staff responsible for four measurements per year of snowpack depth, density, and snow water. The Willow Creek Pass Snowcourse transect is 650 feet long consisting of 13 measurements spaced every 50 feet. The course sits at 9,540 feet elevation on the pass that divides the North Platte and the Colorado River Basins. This site was deemed important by the NRCS as the SNOTEL is not as representative of the area, meaning both SNOTEL and Snowcourse data are used in forecasting. An example of this difference can be found from staff's second measurement, taken on February 25th. The Willow Creek Pass SNOTEL read 7.4in of snow water equivalent (SWE) and a snow depth of 38in depth. In reviewing the graph of the Willow Creek Pass SNOTEL this time of year 10in of SWE is the long term average (black line) and 7.4in of water (blue line) was the actual as measured by the SNOTEL. The staff measured average SWE for the Snowcourse was 8in, and the averaged measured snow depth was 35in. This 8% difference in SNOTEL vs. Snowcourse data drives the need for continued manual data collection. *(Erik Skeie, Joe Busto, Thuy Patton, Chris Sturm)*



COMMUNITY ASSISTANCE PROGRAM UPDATES—CWCB staff continues to assist local governments with the adoption and implementation of the Rules and Regulations for Floodplains in Colorado (Rules). The State of Colorado, through CWCB action in November 2010, adopted increased standards for floodplain management, which are contained in the 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. Now, more than ever, Coloradoans are aware of the devastating impacts of major floods. The CWCB effective floodplain standards can help Colorado community leaders find ways to build stronger,

smarter, and safer. To date, 228 communities provided documentation to staff of adoption of regulations that are consistent with the Rules and another 18 drafts of proposed regulations have been reviewed. In total, 97% of Colorado communities with mapped flood hazards are working collaboratively with staff to adopt and implement the Rules. Since the transition period ended, visits have been conducted with communities that have not adopted the Rules; resulting in an additional drafts reviewed and several signed and adopted ordinances provided to CWCB staff. In accordance with the procedure outlined in Rule 16, staff will begin sending notices of non-compliance to those communities, as outlined in the January 2015 board meeting. Staff will continue to provide outreach and technical assistance to communities. *(Jamie Prochno)*

HUD COMMUNITY DEVELOPMENT BLOCK GRANTS: DISASTER RECOVERY (CDBG-DR)—Staff continues to work with the Department of Local Affairs (DOLA) to administrate CDBG-DR funds allocated for the Watershed Resiliency Program. CWCB and DOLA met to review applications for CDBG-DR funding to cover staff for watershed coalitions. Applications were submitted from the Coalition for the Poudre River Watershed, Estes Valley Watershed Coalition, Big Thompson River Restoration Coalition, Little Thompson Watershed Restoration Coalition, Left Hand Watershed Oversight Group, St. Vrain Creek Coalition, Middle South Platte River Alliance, Coal Creek Canyon Watershed Partners, Fourmile Watershed Coalition, and the El Pason County Regional Watershed Collaborative. All watershed coalitions requested funding for full time watershed coordinators, and all but two coalitions requested additional funding for program assistants. The applications were reviewed favorably. CWCB and DOLA will match CDBG-DR funds with other state funds to cover expenses incurred for grant writing, fundraising, and fiscal administration of the grants. CWCB will use funds from the Colorado Watershed Restoration Program as match. CDBG-DR Watershed Resiliency Program grant applications for project implementation are due on March 16th. *(Chris Sturm)*

STATE OF COLORADO ISSUED SIGNIFICANT RECOVERY FUNDING UNDER NRCS EMERGENCY WATERSHED PROTECTION PROGRAM—CWCB staff has been asked to manage Phase II of the NRCS Emergency Watershed Protection Program (EWP). The announcement of this award, issued by the Governor's Office follows. At the time of this report, CWCB staff is working with local NRCS staff and the Colorado Recovery Office to develop a plan for grant management and technical assistance.

FOR IMMEDIATE RELEASE
Office of Gov. John Hickenlooper

Colorado flood recovery efforts receive $57 million boost

DENVER — Thursday, Feb. 26, 2015 — Gov. John Hickenlooper announced today that Colorado will receive $56.9 million from the Emergency Watershed Protection (EWP) program to support continuing flood recovery efforts. The funding specifically targets ongoing conservation work and watershed projects following the 2013 floods.

"With the support of our federal partners, and the ongoing resiliency and strength of so many Coloradans, we continue to make progress on rebuilding," said Hickenlooper. "The 2013 flood was unique not just in size but because of the impact it had on the watersheds and stream corridors, which tie our communities, wildlife and natural areas together. These funds will help restore those connections damaged in the floods that are vital to Colorado's environment and our way of life."

This is the second investment by the USDA's Natural Resources Conservation Service (NRCS) in Colorado's recovery efforts. In 2013, NRCS awarded nearly $13 million to restore watershed and protect homes and infrastructure from further flooding. Today's award of $56.9 million is the second phase to help restore stream corridors, remove debris and prevent future flooding. Work will target about 500 sites in the flood impacted area.

Hickenlooper joined Senator Michael Bennet and Secretary of Agriculture Tom Vilsack to advocate on behalf of flood impacted Coloradans to ensure this funding would come to Colorado to help severely impacted watersheds. The state will work with NRCS to get this funding to impacted communities as efficiently as possible. (*Kevin Houck; also excerpting Office of Gov. John Hickenlooper*)

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Values of Deploying a Compact Polarimetric Radar in a Mountaineous Area: Mineral County, Colorado

B. Cheong*†, P. Kirstetter**‡, T.-Y. Yu*†, T. Spezze§, J. Busto§
*Advanced Radar Research Center, University of Oklahoma, Norman, Oklahoma, USA
Email: boonleng@ou.edu
†School of Electrical and Computer Engineering, University of Oklahoma, Norman, Oklahoma, USA
‡National Severe Storms Laboratory, National Oceanic and Atmospheric Administration, Norman, Oklahoma, USA
§Rio Grande Watershed Emergency Action Coordination Team, Colorado Water Conservation Board, Colorado, USA

***Abstract*—In an effort to assess the impacts of deploying a polarimetric radar in a mountainous area where the operational weather radar network of the United States–WSR-88D has limited coverage due to terrain blockages, a preliminary assessment of added values to the operational practice in Mineral county, Colorado was performed. In Fall 2014, a transportable polarimetric radar was deployed at the Lobo Overlook of the Mineral county for such effort. This region is one of the numerous areas in the Rocky Mountains where the WSR-88D network does not provide sufficient weather coverage due to blockages. The limitations have impeded forecasters and local emergency managers from making accurate predictions and issuing weather warnings. Through a 45-day experimental campaign, several datasets were collected to demonstrate the added values of deploying a small weather radar in the Mineral county. Two selected cases are provided in this paper for illustration.**

I. Introduction

Areas affected by wildfire are prone to flash floods and landslides as roots of plants decay after wildfires. Soil that was once strongly held by plants and trees becomes weak, increasing the probability of rainfall triggered landslides [1] [2]. Post-fire debris flow caused by intense rainfall is hazardous and warnings are necessary for public safety [3]. Burned forests in watershed also promote flooding and flash flooding, which are some the most costly weather-related natural hazards in the United States and have significant impacts on transportation, infrastructure, property damage and human safety [4].

The operational network of Weather Surveillance Radar - 1988 Doppler (WSR-88D), operated by the National Weather Service (NWS) of the U.S., supplies Super Resolution data at a superior Doppler coverage out to 300 km range [5]. However, monitoring floods and heavy precipitation in mountainous basins can be challenging in the areas of complex terrain because the radar coverage is limited and, thus, prevents weather forecasters from making reliable estimations of surface precipitation amounts. Mobile or transportable radars can fill gaps in the conventional radar network coverage.

The notion of gap-filling radars dated back to mid-2000's, with some significant effort from the Collaborative Adaptive Sensing of the Amosphere (CASA, [6] [7]), which began by the deployment of four dual-pol X-band radars in Oklahoma (Integrated Prototype 1, IP-1, [8]). The network of four radars was setup in between two WSR-88D systems KTLX and KFDR, in an attempt to demonstrate the improvements on numerical weather prediction [9] [10], accurate observations of severe storms [11] and urban meteorology [12].

The Mineral county of Colorado has several burn scars that are frequently monitored by human spotters since the exposed soils have high tendency to be washed down by intense and/or prolonged precipitation. Accurate and early severe storm information is necessary in the Rio Grande watershed downstream of these burned areas (hereinafter as "burn scars"). In coordination with the Division of Water Resources, the Forest Service and the Office of Emergency Management, 6 rain gauges were installed and coordinated with 4 additional stream gauges and 2 RAWS (remote automated weather stations) for a landscape-wide instrumentation process for storm forecasting and early warning system. These instruments provide local information and have been the primary source of meteorological measurements. It has long been speculated a polarimetric radar in this county would greatly improve the quality of observation and, thus, improve the subsequent tasks of weather forecasters and local emergency managers. The idea to deploy a compact radar in this area emerged in the hopes of complementing the existing radar coverage of the WSR-88D network.

During Fall 2014, a field experiment to deploy a small X-band radar was conducted at the Lobo Overlook to monitor precipitation in the Mineral County, particularly the forest burn scars located at north of U.S. Route 160 and south of U.S. Route 149. The operations have been coordinated with the Rio Grande Watershed Emergency Action Coordination Team (RWEACT), the Colorado Water Conservation Board (CWCB), the NWS Weather Forecast Office (NWS-WFO) of Pueblo and Grand Junction, the NOAA National Severe Storms Laboratory (NSSL) and Advanced Radar Research Center (ARRC) of the University of Oklahoma (OU). The experiment took time from September 1 to October 15, 2014.

II. Background

The WSR-88D network provides a continuous coverage over the Continental U.S. (CONUS) for precipitation surveillance. It is the basis for the NOAA NSSL Multi-Radar Multi-Sensors (MRMS) system (http://nmq.ou.edu; [13]) for deriving high resolution (1 km, 2 min) mosaics of instantaneous precipitation rate over the CONUS. However, due to the lack of adequate radar coverage near surface in some areas, reliable surface-based precipitation measurements are difficult

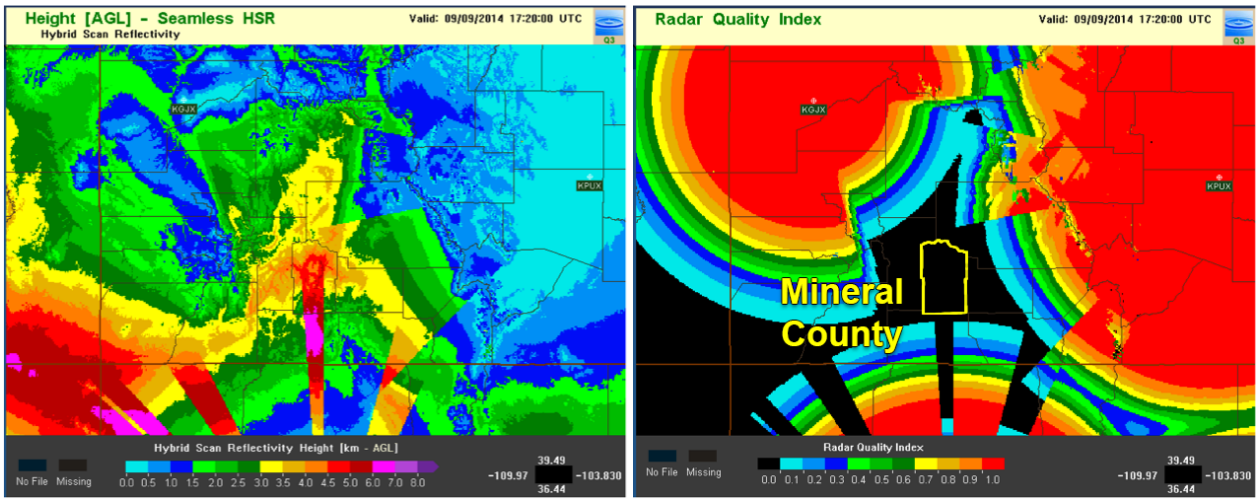

Fig. 1. Left: Hybrid scan reflectivity height showing the minimum scan height of the nearby three WSR-88D, i.e., KJGX at Grand Junction, Colorado, KPUX at Pueblo, Colorado and KABX from Albuquerque, New Mexico. Due to blockages from mountains, the radar beam height at the Mineral county is at least 4 km above the ground level. Right: Radar quality index, which is derived from the radar coverage and spatial resolution, showing an extremely poor coverage for the Mineral county.

to obtain over all regions of the entire country, including many mountainous regions. Fig. 1 shows a typical example of radar coverage (minimum usable height and radar quality index (RQI)) of the WSR-88D network over the Rio Grande region, with the Mineral county highlighted in yellow on the right panel. This particular coverage map was derived using the atmospheric conditions on September 09, 2014 at 17:20 UTC and it can be clearly seen that the lowest usable radar scan over the Mineral County is particularly high (> 4 km above the ground), which makes any detection or inference of precipitation at the surface unreliable. The RQI is a metric that indicates the level of uncertainty associated with reflectivity changes with height and associated to the melting layer (RQI = 1 for good quality and 0 for low quality) is at the absolute minimum over this area. Logically, a pertinent solution is to deploy an additional polarimetric radar at high altitude to improve the weather coverage of this area.

Fig. 2 illustrates the blocked beam at low scan elevations. In areas beyond mountain ridges from the radar perspective, one must rely on PPI (plan position indicator) scans at higher elevation angles to observe the same precipitating systems and use some kinds of model, e.g., climate average, to interfere the surface rainfall [14] [15]. It is undeniable that high elevation data is useful when no other means is available. However, often times, the reflectivity sampled aloft poorly represents the surface precipitation and this is one of the most significant errors in quantitative precipitation estimates.

The PX-1000 system is a transportable polarimetric X-band radar capable of emulating all scanning strategies currently practiced by the WSR-88D network. A picture of this trailer mounted radar is shown in Fig. 3, deployed at a high altitude of 3046 m with clear panoramic views from Lobo Overlook in the Mineral county. The radar system was developed and remotely operated by the ARRC [16]. For this campaign, real-time base moment products were shipped back to the OU computer servers through a commercial cellular service. A real-time web portal interface showing the latest snapshots was available. Over the course of the campaign, weather forecasters from the

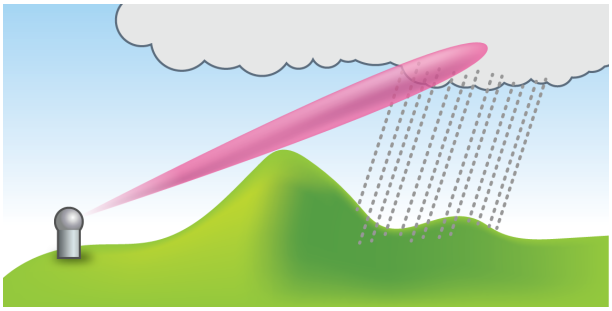

Fig. 2. In the Rocky Mountains, weather radars often encounter situations where the radar beam is obscured by mountain ridges within short distances. In such situations, the lowest usable scan beam beyond the mountains is limited, which subsequently hampers the ability of predicting the types of hydrometeors and intensities of precipitation near the surface. The situation is worsen if the beam is above the melting layer, which occurs frequently in areas of high altitudes and/or winter seasons.

NWS's weather forecast office (WFO) of Grand Junction and Pueblo were readily able utilize the real-time images on the web portal without any training as the products are displayed with identical conventions and product colormaps that have been adopted by the NWS.

III. Case Studies

As mentioned before, the primary goal of this work is to assess the values of deploying a permanent radar in this area to complement the WSR-88D's coverage. Some of the most crucial weather missions include surveillance of rain, snow and of course, severe storms. Two selected cases: a typical missing coverage of convective precipitation illustrating the proclaimed added radar coverage; and a beam overshoot of hailstorm highlighting the importance of close-range measurement of shallow events, will now be presented.

Fig. 3. The PX-1000 radar deployed at the Lobo Overlook of the Mineral County. The site was selected because of its altitude, which provide clear radar coverage toward the forest burned areas. The photograph is captured with a wide-angle lens, which show a 109° field of view facing north. The radar is clear from blockages.

A. Missing Coverage

Fig. 4 shows a collection of reflectivity Z (left column) and correlation coefficient ρ_{HV} (right column, denoted R) from the nearest two WSR-88D radars KGJX (top row) and KPUX (second row), along with the PX-1000 (bottom row). The data was collected on September 29, 2014 at 1717 UTC from all the radars at approximately the same time. Several line polygons in red indicate the forest burn scars, which are the areas of interest as they are prone to rainfall-induced land slides. This comparison clearly shows the disparities a gap-filling radar can make to the KGJX radar at Grand Junction, Colorado, which is due north-west, approximately 200 km away from the PX-1000 radar.

Prior to the field campaign, the KGJX was the primary weather radar of which the local emergency manager relied on for decision making. Due to severe blockages from mountain ridges, many convective and shallow precipitation cannot be observed by the KGJX radar. The next closest WSR-88D radar, the KPUX at Pueblo, approximately 240 km due north-east, does not provide any additional coverage either. Reflectivity data from the PX-1000 clearly shows a significant amount of rainfall within the Mineral county. In addition, the strong convective cell due south-west of the PX-1000 radar, which generated high rain rates was not detected by either radar. This case clearly demonstrates the importance of having a permanent radar set up in this area. It is emphasized here that this type scenarios has happened several times over the course of the campaign. The local emergency manager has, in many occasions, preferably used the radar data from the PX-1000 to assess conditions of the burn scars (personal communication).

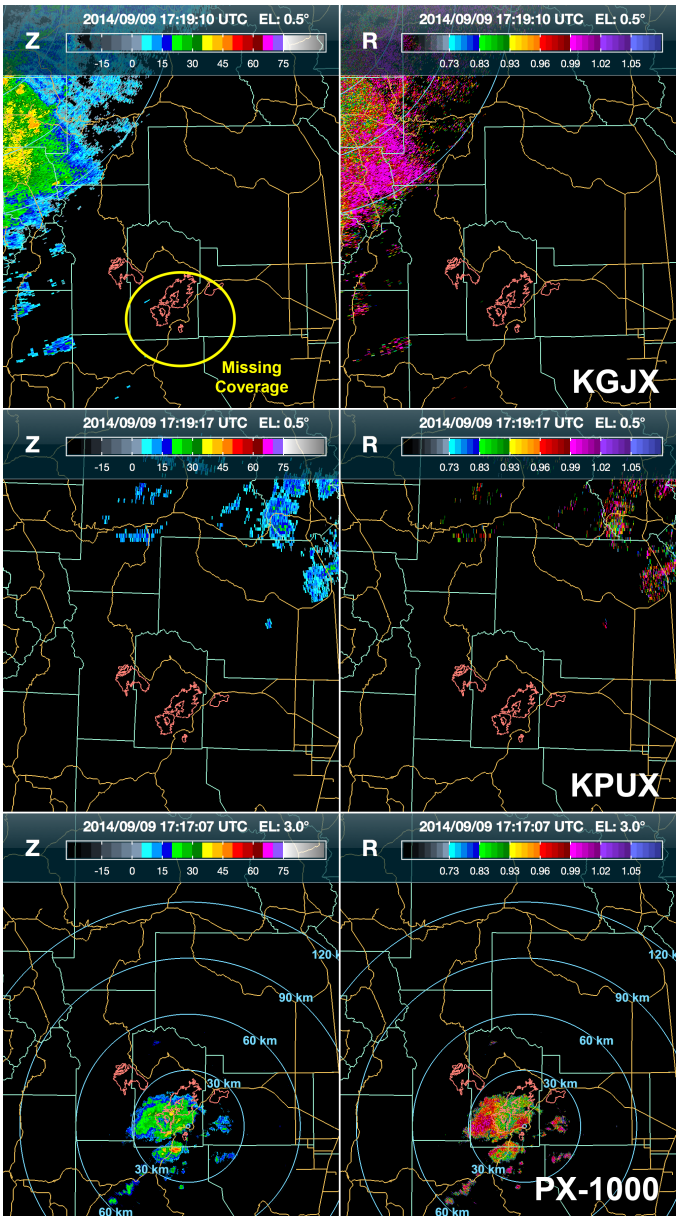

Fig. 4. Typical precipitation that are not covered by the nearest two WSR-88D radars KGJX at Grand Junction and KPUX at Pueblo. Both radars are approximately 200 km and 240 km, respectively, away from the PX-1000. While the WSR-88D radars do supply Doppler and polarimetric data out to 300 km, blockages due to mountains in this area prevent the WSR-88D radars from acquiring useful measurements for weather surveillance and forecasting. Scenarios like this have occurred multiple times over the course of the campaign.

B. Hailstorm on September 29, 2014

Hailstorm is one of the many hazardous weather events. When detected, the NWS issues severe hail warnings for the general public in order to prevent and minimize the risk of injuries and fatalities when the size of hailstones is larger than the so-called quarter size (2.54 cm in diameter). On September 29, 2014, hails up to the size of 4.45 cm (1.75 inches) on the ground were reported in Pagosa Springs [17]. The report is consistent with the polarimetric radar data collected by the PX-1000, shown in Fig. 5. It can be seen that Z and ρ_{HV} from KGJX do not exhibit typical hail signatures, which has high Z values (> 50 dBZ) and low ρ_{HV} values (< 0.9). Even at a scan elevation angle of 0.5°, the KGJX missed detecting the hail signatures as the radar beam center is already at 4.3 km with a 3-dB beamwidth of 3.2 km at the range of the hailstorm (200 km), overshot the storm entirely. Severe events such as hailstorms simply cannot be detected by this WSR-88D radar that is too far away. Same explanation can be applied to the KPUX radar, which is approximately 240 km away from the area.

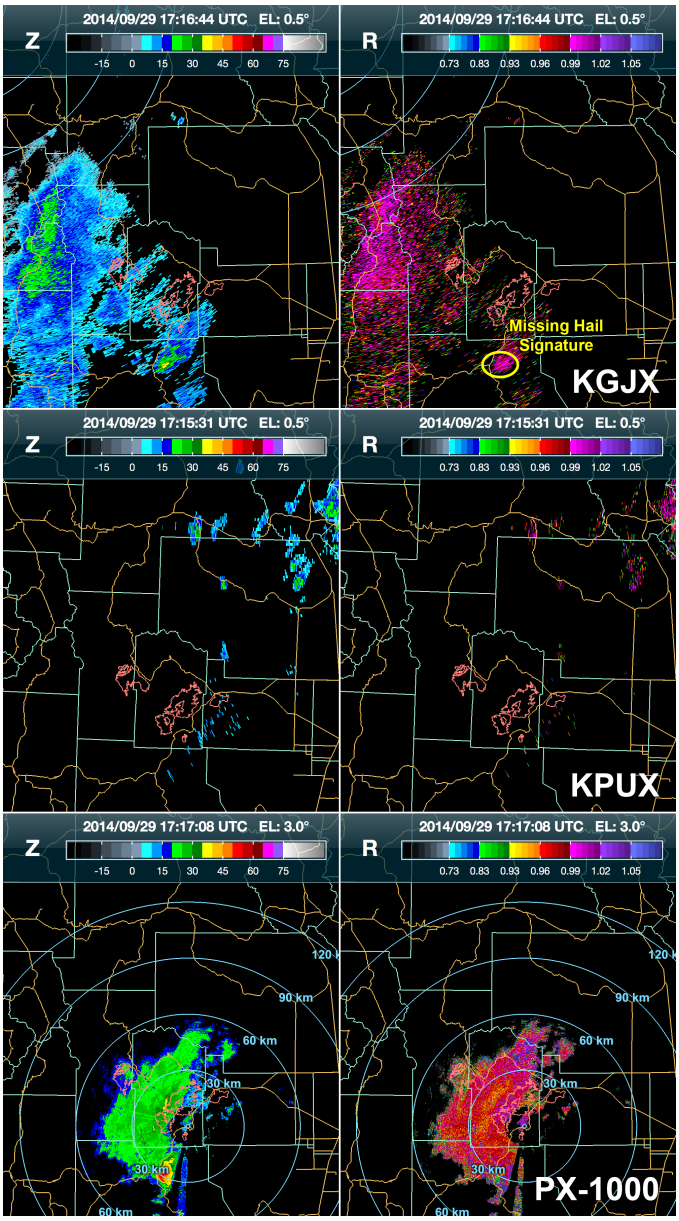

Fig. 5. Reflectivity Z and correlation coefficient ρ_{HV} on the left-column and right-column images, respectively. The two nearest WSR-88D radars KGJX, which is approximately 200 km away from the PX-1000, and KPUX, which is approximately 240 km from the PX-1000, are too far away to detect hail signature

IV. Conclusions

The field campaign to assess the added values of deploying a compact radar in the Mineral county was conducted in Fall 2014, from September 1 to October 15. The PX-1000 radar, which is small and easily transportable system, was set up at the Lobo Overlook at high altitude with clear views. Two cases were presented in this paper illustrating the values of having a radar to complement the missing coverage of the operational WSR-88D radar network.

Acknowledgment

This work is supported by the Rio Grande Watershed Emergency Action Coordination Team of the Colorado Water Conservation Board under project A15-0035. The authors would also like to thank Nick Guy, Brandon Smith and Race Clark for their support during the experimental campaign.

References

[1] S. H. Cannon, J. E. Gartner, R. C. Wilson, J. C. Bowers, and J. L. Laber, "Storm rainfall conditions for floods and debris flows from recently burned areas in Southwestern Colorado and Southern California," *Geomorphology*, vol. 96, pp. 250–269, 2008.

[2] R. Iverson, "Landslide triggering by rain infiltration," *Water Resour. Res.*, vol. 36, pp. 1897–1910, 2000.

[3] D. P. Jorgensen, M. N. Hanshaw, K. M. Schmidt, J. L. Laber, D. M. Staley, J. W. Kean, and P. J. Restrepo, "Value of a dual-polarized gap-filling radar in support of Southern California post-fire debris-flow warnings," *J. Hydrometeo.*, vol. 12, no. 6, pp. 1581–1595, December 2011.

[4] J. J. Gourley, Y. Hong, Z. L. Flamig, A. Arthur, R. Clark, M. Calianno, I. Ruin, T. Ortel, M. E. Wieczorek, P.-E. Kirstetter, E. Clark, and W. F. Krajewski, "A unified flash flood database across the united states," *Bull. Amer. Meteor. Soc.*, vol. 94, pp. 799–805, June 2013.

[5] (2007, October). [Online]. Available: http://www.roc.noaa.gov/wsr88d/buildinfo/build10faq.aspx

[6] J. A. Brotzge, K. K. Droegemeier, and D. J. McLaughlin, "Collaborative Adaptive Sensing of the Atmosphere (CASA): New radar system for improving analysis and forecasting of surface weather conditions," *J. Transport. Res. Board*, vol. 1948, pp. 145–151, 2006.

[7] D. McLaughlin, D. Pepyne, B. Philips, J. Kurose, M. Zink, D. Westbrook, E. Lyons, E. Knapp, A. Hopf, A. Defonzo, R. Contreras, T. Djaferis, E. Insanic, S. Frasier, V. Chandrasekar, F. Junyent, N. Bharadwaj, Y. Wang, Y. Liu, B. Dolan, K. Droegemeier, J. Brotzge, M. Xue, K. Kloesel, K. Brewster, F. Carr, S. Cruz-Pol, K. Hondl, and P. Kollias, "Short-wavelength technology and the potential for distributed networks of small radar systems," *Bull. Amer. Meteor. Soc.*, vol. 90, no. 12, pp. 1797–1817, December 2009.

[8] F. Junyent, V. Chandrasekar, D. McLaughlin, E. Insanic, and N. Bharadwaj, "The CASA Intergrated Project 1 networked radar system," *J. Atmos. Oceanic Technol.*, vol. 27, pp. 61–78, January 2010.

[9] K. Brewster, M. Hu, M. Xue, and J. Gao, "Efficient assimilation of radar data at high resolution for short-range numerical weather prediction," in *WWRP International Symposium on Nowcasting and Very Short Range Forecasting*, 2005, p. CDROM 3.06.

[10] K. Brewster, K. Thomas, J. Gao, J. Brotzge, M. Xue, and Y. Wang, "A nowcasting system using full physics numerical weather prediction initialized with CASA and NEXRAD radar data," in *25th Conference on Severe Local Storms*. Denver, Colorado: Amer. Meteor. Soc., 2010.

[11] J. Brotzge and S. Erickson, "Tornadoes with no NWS warning," *Wea. Forecasting*, vol. 25, pp. 159–172, 2010.

[12] V. Chandrasekar, H. Chen, B. Philips, D. Seo, F. Junyent, A. Bajaj, M. Zink, J. Mcenery, Z. Sukheswalla, A. Cannon, E. Lyons, and D. Westbrook, "The CASA Dallas Fort Worth remote sensing network ICT for urban disaster mitigation," in *EGU General Assembly 2013*. Vienna, Austria: European Geosciences Union, April 2013.

[13] J. Zhang, K. Howard, C. Langston, S. Vasiloff, B. Kaney, A. Arthur, S. V. Cooten, K. Kelleher, D. Kitzmiller, F. Ding, D.-J. Seo, E. Wells, and C. Dempsey, "National mosaic and multi-sensor qpe (nmq) system: Description, results, and future plans," *Bull. Amer. Meteor. Soc.*, vol. 92, pp. 1321–1338, October 2011.

[14] M. Kitchen and R. M. Blackhall, "Orographic rainfall over low hills and associated corrections to radar measurements," *J. Hydrol.*, vol. 139, pp. 115–139, 1992.

[15] M. Montopoli and G. Vulpiani, "Preliminary analysis of vertical profiles of polarimetric radar observables in complex orography for operational purpose," in *ERAD 2014 - The 8th European Conference on Radar in Meteorology and Hydrology*, Garmisch-Partenkirchen, Germany, 2014.

[16] B. L. Cheong, R. Kelley, R. D. Palmer, Y. Zhang, and T.-Y. Yu, "PX-1000: A solid-state polarimetric X-band radar and time-frequency multiplexed waveform for blind range mitigation," *IEEE Trans. Instrum. Meas.*, vol. 62, no. 11, pp. 3064–3072, November 2013.

[17] (2014, January). [Online]. Available: http://hail.org

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State Public Information Officer
Petra Barnes 720-544-2808

NRCS in Colorado gets a new State Conservationist

Denver, CO - February 19, 2015 – The highly anticipated selection of USDA's Natural Resources Conservation Service's (NRCS) State Conservationist in Colorado was recently announced. Clint Evans, Assistant State Conservationist for Operations, in Idaho reports to the Mile High City and assumes his new role Monday, February 23, 2015. *"It's an exciting time,"* shares Evans. *"I'm looking forward to this opportunity to work with the NRCS employees, conservation partners, landowners and land managers across the state."*

Evans started his career with NRCS in March of 2000 as a Soil Conservation Technician in Altamont, Kansas, but that wasn't his first experience with the Agency. His introduction to NRCS was in the late 1990s while working on the ranch where his then employer enrolled in the Environmental Quality Incentive Program (EQIP). As a result, Evans gained experience in conservation planning and practice implementation thru financial assistance programs from the customer's perspective. He enjoyed working with the NRCS field staff so much that he decided to pursue a career with the Agency.

After his tenure as a technician, Evans served as a Soil Conservationist in two Kansas field offices and was then promoted to District Conservationist in Kingman, Kansas. Evans' next move was to the Kansas State Office where he served as a Resource Conservationist on the programs staff and shortly thereafter he was selected as Idaho's Assistant State Conservationist for Programs in 2009. In an effort to gain a wider range of expertise and experience, in 2013 Evans transferred to serve as Idaho's Assistant State Conservationist for Operations. This offered invaluable insight into human resource management, budgets, strategic planning, and conservation partnerships.

Additionally and in cooperation with his permanent assignments, Evans served on numerous details in other states and Washington, DC. *"It's important to look back and learn from our past and previous experiences. It's equally important and essential that we refocus the lens when new opportunities and challenges present themselves and each time we look towards the future,"* Evans goes on to say.

-more-

Evans attended Kansas State University where he studied animal science, agri-business, and agronomy earning a Bachelor's of Science Degree in Agriculture. Accompanying Clint to Colorado is his wife Lynn, whom he met at Kansas State. The Evans family doesn't include any two-legged children but they have plenty of four-legged loved ones. They say their dogs, horses, and other pets keep them plenty busy.

-end-

Director's Report Attachment – March 18-19, 2015 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 Number	ISF Amount	Percent Injury	Cumulative % Injury	Previous Cases
5-14CW3146	Trevor & Sheri Taylor	Colorado River/ 5-92CW286	581 cfs (summer)	0.02165 %	0.05929 %	1
5-14CW3146	Trevor & Sheri Taylor	Colorado River/ 5-92CW330	300 cfs (summer)	0.04192 %	0.04192 %	0

March 18-19, 2014 Board Meeting
Instream Flow and Natural Lake Level Program
Summary of Resolved Opposition Cases

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

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

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

(1) Case No. 5-12CW192 – Application of Deerfield Investments, LTD., an Ohio Limited Partnership

The Board ratified this statement of opposition at its March 2013 meeting. The Board's main objective in filing the statement of opposition in this case was to ensure that the Applicant's proposed application for absolute water right and plan for augmentation including exchange does not injure the Board's instream flow water rights on Snowmass Creek and the Roaring Fork River. Staff, in cooperation with the Attorney General's Office, has negotiated a settlement to ensure that the CWCB's instream flow water right will not be injured.

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

CWCB Case No.	Stream/Lake	Amount (cfs)	Approp. Date	Watershed	County
5-76W2943	Snowmass Creek	11/12, some multistage flows	1/14/1976	Roaring Fork	Pitkin
5-92CW281*	Snowmass Creek	10.5	9/15/1992	Roaring Fork	Pitkin
5-92CW280*	Snowmass Creek	3	9/15/1992	Roaring Fork	Pitkin
5-85CW646	Roaring Fork River	30/55	11/8/1985	Roaring Fork	Pitkin, Eagle
5-85CW639	Roaring Fork River	75/145	11/8/1985	Roaring Fork	Pitkin, Eagle

* denotes an increase

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

- Pursuant to C.R.S. § 37-92-102(3)(b), Applicant shall not curtail, or replace evaporation or irrigation depletions caused by the existing uses from the pond system to satisfy a CWCB call, and the pond system and Deerfield Exchange shall be administered senior to the CWCB appropriations. The "exempt" open water surface evaporation and irrigation depletions are shown on decree Tables 1-3.

- Pursuant to C.R.S. § 37-92-102(3)(b), the CWCB's instream flow water rights on Snowmass Creek decreed in Case Nos. 76W2943B, 92CW281, 76W2943A, and 92CW280, Division 5 Water Court, and on the Roaring Fork River decreed in Case Nos. 85CW646 and 85CW639, Division 5 Water Court, are subject to Applicant's in-priority uses of the Deerfield Well Pond System as they existed on the dates that the CWCB appropriated its instream flow water rights. Any change in use of the pond system in volume, type of use, or season of use occurring after the dates that the CWCB appropriated its instream flow water rights is not subject to § 37-92-102(3)(b) and will be administered as junior to the CWCB's instream flow rights described above. The subordination of the instream flow water rights to the uses of Deerfield Well Pond System decreed in this case shall not interfere with administration of the pond system in priority against other water rights, and shall not cause general subordination of the CWCB's instream flow rights to any other water rights that are junior to the instream flow rights. While the CWCB's instream flow rights described above are subject to the uses of the Deerfield Well Pond System decreed in this case, the pond system shall be administered subject to the prior appropriation system in relation to all other water rights.

(2) Case No. 4-13CW3074 – Application of Bruce R. Cranor, Roy J. Cranor and Colorado Dream Ranch, LLC

The Board ratified this statement of opposition at its March 2014 meeting. The Board's main objective in filing the statement of opposition in this case was to ensure that the Applicant's proposed plan for change of water rights right does not injure the Board's instream flow water rights on Clear Creek, Willow Creek, or Pass Creek. The Court granted Applicants' Motion to Withdraw without Prejudice on November 13, 2014.

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

CWCB Case No.	Stream/Lake	Amount (cfs)	Approp. Date	Watershed	County
4-84CW364	Cow Creek	1.0	5/4/1984	East-Taylor	Gunnison
4-74CW2375	Willow Creek	15	9/19/1974	East-Taylor	Gunnison
4-82CW249	Pass Creek	1.5	6/3/1982	East-Taylor	Gunnison

(3) Case No. 5-11CW021 – Application of Denver Water

The Board ratified this statement of opposition at its May 2011 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 approval of existing exchanges does not injure the Board's instream flow water rights in the Fraser, Williams Fork and Colorado River basins. 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 No.	Stream/Lake	Amount (cfs)	Approp. Date	Watershed	County
5-80CW446-448	Colorado River	Varies from 90-150	7/8/1980	Colorado	Grand
5-79CW165, 168-170, 172-173, 175, 180-181, 183, 185	Williams Fork River	Varies from 1-38	5/18/1979	Colorado	Grand
5-79CW163-164	Bobtail Creek	Varies from 1-2	5/18/1979	Colorado	Grand
5-79CW166-167	Steelman Creek	Varies from 1-2	5/18/1979	Colorado	Grand
5-90CW289, 302, 307, 308, 315	Fraser River	Varies from 2.5-30	5/18/1979	Colorado	Grand
5-90CW303-304, 316-317	St. Louis Creek	Varies from 2.5-11	11/27/1990	Colorado	Grand
5-90CW318	Vasquez Creek	6/3	11/27/1990	Colorado	Grand
5-90CW305, 306, 314	Ranch Creek	Varies from 1.5-8	11/27/1990	Colorado	Grand

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

- The exchanges from Dillon Reservoir to Williams Fork Reservoir or from Dillon Reservoir to the Fraser River and Williams Fork River Diversion Projects shall not be exercised or operated if the Division 5 Engineer advises Denver Water that curtailment of the exchanges is required to satisfy any instream flows senior to 2010, and located in the applicable stream reach affected by the diversion.

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

1313 Sherman Street
Denver, CO 80203

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

John Hickenlooper, Governor

Mike King, DNR Executive Director

James Eklund, CWCB Director

TO: Colorado Water Conservation Board Members

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

DATE: March 18-19, 2015 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:
1.75% - Agricultural
2.45% - Low-income Municipal
2.80% - Middle-income Municipal
3.15% - 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.

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

1313 Sherman Street
Denver, CO 80203

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

John Hickenlooper, Governor

Mike King, DNR Executive Director

James Eklund, CWCB Director

TO: Colorado Water Conservation Board Members

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

DATE: March 18-19, 2015 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 two 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						
Lower Arkansas Valley Water Conservancy District	Water Rights Purchase	Jan 1, 2015	Arkansas	This project is a 2 phase project to purchase water rights. Phase I funding is anticipated to be a CWCB loan. Phase II funding is anticipated to be a WSRA Grant / CWCB loan.	$4,100,000	$2,500,000
Donald Shahan	Crowley Dam Rehabilitation	May 1, 2014	San Juan / Dolores	This project involves the replacement of the outlet pipe and spillway repair at Crowley Reservoir.	$260,000	$234,000
Totals					$4,360,000	$2,734,000

The Finance Section also compiles a list of potential borrowers/projects for the Water Project Loan Program. This list represents borrowers that have contacted the CWCB about a potential need for funding but have not submitted a loan application and/or a loan feasibility study.

LOAN PROSPECTS

Basin	Last Contact	BORROWER	PROJECT NAME	PROJECT COST	LOAN AMOUNT
South Platte					
	11-Jan	East Larimer County Water District	Rigdon Storage Project		$3,000,000
	11-Oct	NISP Participants	NISP		$30,000,000
	12-Feb	McKay Lateral	Ditch Lining Project		$50,000
	12-Jun	Foothills Park & Recreation	Reservoir Expansion	$10,000,000	$900,000
	12-Oct	Shamrock Irrigation Company	Reservoir Rehabilitation		$100,000
	13-Dec	Julesburg Irrigation District	Flume Repair		$150,000
	13-Dec	Harry Lateral Ditch Company	Ditch Lining Project		$70,000
	14-May	Colorado Trout Group	Reservoir Rehabilitation		$300,000
	14-Jun	Dixon Reservoir Water Company	Reservoir Rehabilitation		$300,000
	14-Nov	Kembel Reservoir	Reservoir Rehabilitation		$200,000
	14-Dec	Upper Platte & Beaver Ditch Company / Duel & Snyder Ditch Company	Diversion Structure		$1,000,000
	14-Dec	Bijou Irrigation District	Reservoir Rehabilitation		$500,000
	14-Dec	Bijou Irrigation Company	Pipeline Project		$200,000
				TOTAL	**$36,470,000**
Arkansas					
	11-Sep	Ditch and Reservoir company	Big Johnson Reservoir		$8,000,000
	12-Oct	Highline Canal Company	Water Rights Purchase	$4,500,000	$4,100,000
	12-Feb	Colorado City Metro District	Beckwith Dam Repair		$500,000
	13-Apr	City of Walsenburg	Reservoir(s) Rehabilitation		$6,000,000
	14-Dec	Stonewall Springs, LLC	Reservoir Construction	$6,000,000	$5,500,000
	13-Nov	Two Rivers Water & Farming	Augmentation Project		$1,000,000
	14-Feb	Colorado Springs Fly Casting Club	Reservoir Rehabilitation		$450,000
	14-Oct	Oxford Ditch	Siphon Repair	$2,000,000	$1,800,000
	14-Dec	Holita Ditch and Reservoir Company	Reservoir Rehabilitation		$500,000
	14-Nov	Town of Manitou Springs	Raw Water Pipeline	$3,500,000	$3,000,000
	15-Jan	Southeastern Colorado Water Conservancy District	Hydro Project		$15,000,000
	15-Jan	Fort Lyon Canal Company	Siphon Repair	$2,000,000	$1,800,000
				TOTAL	**$47,650,000**

San Miguel/Juan					
	11-Feb	City of Ouray	Red Mountain Ditch Rehabilitation	$200,000	$200,000
	14-Jun	Thompson - Epperson Ditch Company	Ditch Rehabilitation Project		$100,000
	14-July	Moonlight Ditch	Ditch Lining (NRCS)		$200,000
				TOTAL	**$500,000**
Colorado					
		Highland Ditch Co	Ditch Rehabilitation Project	$200,000	$200,000
		Ian Carney - Felix Tornare	Polaris Reservoir Rehabilitation	$500,000	$500,000
				TOTAL	**$700,000**
Gunnison					
	12-Oct	Fire Mountain Canal & Reservoir Co.	New Reservoir		$500,000
	14-Oct	Farmers Ditch	Ditch Rehabilitation		$100,000
				TOTAL	**$600,000**
Rio Grande					
	13-Jun	Manasa Land & Irrigation Co.	Ditch Rehabilitation		$1,000,000
	14-May	Baca Grande Water and Sanitation District	Water Rights Purchase		$1,000,000
				TOTAL	**$2,000,000**
Yampa					
	13-Dec	R Lazy J Ranch	New Reservoir and Diversion Structure Rehab	$1,000,000	$750,000
	14-Oct	Town of Oak Creek	Reservoir Rehabilitation		$500,000
				TOTAL	**$1,250,000**
				TOTAL	**$71,470,000**

Information shown is based on current staff knowledge and will likely change as Loan Prospects develop.

Recent inquiries:

Oligarchy Irrigation Company - Reservoir outlet works repair

Fountain Creek Watershed District - Water rights purchase

Orchard Ranch Ditch - Ditch lining project

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1313 Sherman Street
Denver, CO 80203

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

John Hickenlooper, Governor

Mike King, DNR Executive Director

James Eklund, CWCB Director

TO: Colorado Water Conservation Board Members

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

BOARD MEETING: March 18-19, 2015

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

The CWCB Loan Program has Substantially Completed ten (10) projects in Fiscal Year 2014-2015 as shown in Table 1. There are currently sixty-one (61) projects authorized to receive loan funding totaling $314.5 million. There are fifty-two (52) projects currently under contract and in the Design and Construction phase totaling $167.6 million. There are an additional twenty (20) Emergency Loans approved totaling $22.6 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	Missouri Heights- Mountain Meadows Irrigation Company	Irrigation Ditch Lining Project	Eagle/ Garfield	$454,500	7/1/14
2	Boulder & Left Hand Irr. Co.	Tracy Lateral Pipeline	Boulder	$202,000	7/1/14
3	Fisher Ditch Company	Ditch Infrastructure Project	Denver	$454,500	7/1/14
4	Petrocco Family, LLP	Water Rights Purchase	Adams/Wel	$840,825	10/1/14
5	Lamar, City of	Water Transmission Line	Prowers	$792,850	10/1/14
6	Tri-County Water Cons. Dist.	Ridgway Res. Micro-Hydro Proj	Ouray	$13,130,000	10/1/14
7	Roxbourough Water & San. District	Raw Water Supply Project	Douglas	$18,538,550	12/1/14
8	Mancos WCD	Inlet & Outlet Canal Rehab.	Montezuma	$5,486,531	1/1/2015
9	Lone Cabin Ditch & Res. Co.	Lone Cabin Dam Rehab. Proj.	Delta	$252,803	2/1/2015 (a)
10	Joseph W. Bowles Res. Co.	Bowles No. 1 Dam Rehab.	Jefferson	$1,703,870	3/1/2015 (b)
			Total:	$41,856,429	

Fiscal Year 2014-2015 has added or preserved 2,225AF of reservoir storage [(a) 163AF, (b) 2,062]

Missouri Heights – Mountain Meadow Irrigation Company
Irrigation Ditch Lining Project

Project Description

The Company provides irrigation water to approximately 1,500 acres of ranch land located 12 miles northeast of Carbondale. The Company worked with NRCS to determine a solution to the ditch losses. A one-mile section was lined with a product called Mega Ditch (shown in the pitcture above). The NRCS provided technical design assistance and field inspection. The Company received funding assistance from NRCS and the Water Supply Reserve Account. Construction was completed in the spring of 2014.

Project Data

Sponsor: Missouri Heights – Mountain Meadow Irrigation Company

County: Eagle/Garfield

Water Source: Roaring Fork

Terms of Loan: $454,500 for 30 years @ 2.2%

Substantial Completion: July 1, 2014

Design Engineer: NRCS, Glenwood Spring, CO

Contractor: Kuersten Constuction Co, Rifle CO

Project Elements: 3,500 feet of Mega Ditch lining product and concrete terminus structures

Boulder and Left Hand Irrigation Company
Tracy Lateral Pipeline at the Wederquist "Y" Project

Project Description

The Boulder and Left Hand Irrigation Company is a Mutual Ditch Company and Non-Profit Corporation. The Irrigation Company acquired Boulder and Left Hand Ditch Company in 1921, which had operated the ditch system since 1873. The Irrigation Company serves approximately 2,000 acres of farm land between Boulder, CO and Longmont, CO. The Tracy Lateral Pipeline at the Wederquist "Y" project will improve the hydraulic efficiency of the Tracy Lateral while reducing the operational and maintenance cost of the Irrigation Company by replacing a 1500 ft problem section of the Tracy Lateral with a pipeline. Construction occurred in the spring of 2014.

Project Data

Sponsor: Boulder and Left Hand Irrigation Company

County: Boulder

Water Source: Boulder Creek

Terms of Loan: $202,000 for 30 years @ 2.35%

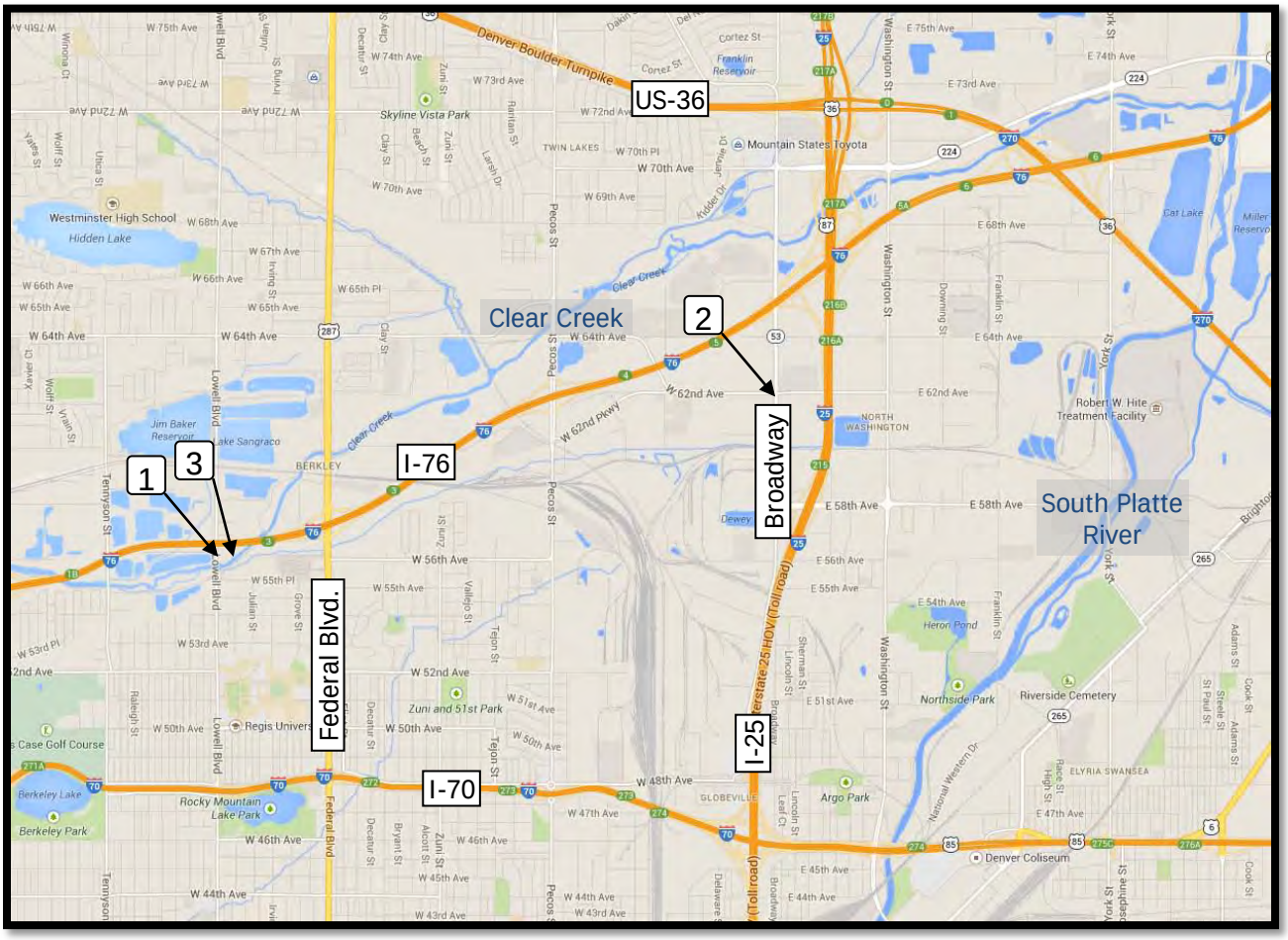
Substantial Completion: July 1, 2014

Design Engineer: Mark Severin, P.E., Deere & Ault Consultants

Contractor: DeFalco Construction

Project Elements: Install a new Wederquist "Y" structure, replace 1,500 feet of open ditch with 600 feet of reinforced concrete pipe, tying into existing piping.

Fisher Ditch Company
Ditch Infrastructure Improvements



Project Description

The Fisher Ditch Company (Company) utilizes the Fisher Ditch to supply water to its 28 shareholders for the purpose of irrigation, augmentation and industrial uses. The ditch has been in place for over 100 years and annual maintenance of its aging infrastructure is becoming a burden and inhibiting its ability to provide a reliable supply of water. The Company requested a loan from the CWCB for four system rehabilitation tasks: 1) headgate rehabilitation, 2) replacement of 650 LF of damaged CMP with RCP (Broadway Pipeline), 3) installation of a sand-out pipe and gate, and 4) burying 1,500 LF of open ditch with plastic irrigation pipe (Federal Pipeline). The Company successfully completed Tasks 1-3 but ultimately decided to not pursue the Federal Pipeline Project as that project was the Company's lowest priority.

Project Data

Sponsor: Fisher Ditch Company **County:** Denver **Water Source:** Clear Creek

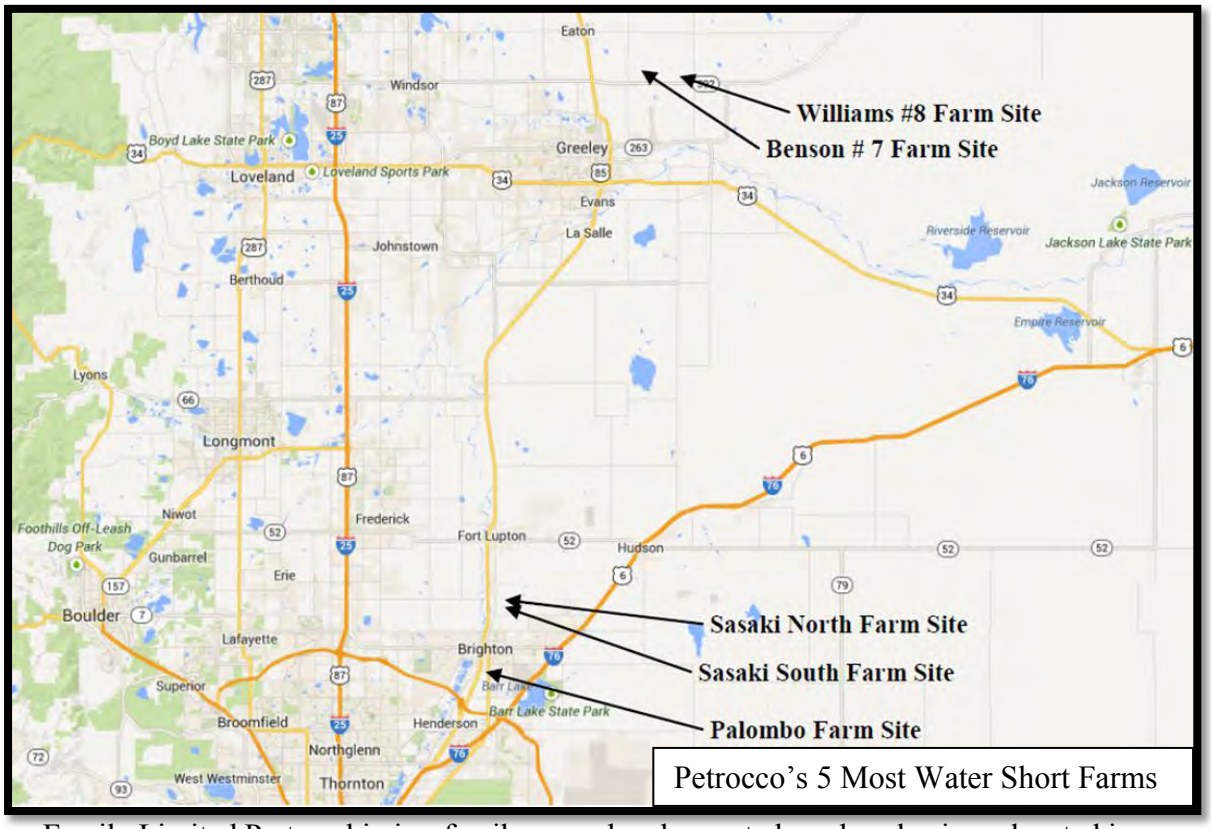
Terms of Loan: $110,780.84 for 30 years @ 5.95% **Substantial Completion:** July 1, 2014

Design Engineer: Richard Belt, P.E.

Contractor: Lillard & Clark (Task 1 & 3); Garney Companies, Inc (Task 2)

Project Elements: Repair Fisher Ditch headgate, install sand-out gate and pipeline, replace 650 LF of damaged CMP with RCP.

Petrocco Family Limited Partnership
Water Rights Purchase



Petrocco's 5 Most Water Short Farms

Petrocco Family Limited Partnership is a family owned and operated produce business located in Brighton, CO and has been in operation since 1916. Its operations currently include farming approximately 2,600 acres in western Adams and Weld counties. This area extends from the home offices south of Brighton, north along the U.S. Highway 85 corridor approximately 25 miles to an area east of Lucerne. The Petrocco Family Limited Partnership holds ownership of land, water, buildings, and equipment assets for the farming operation. The farms are water short when it comes to providing water to irrigate its 2,600 acres of farmland. In wanting to maintain its long term family business goals and to provide a more reliable water supply for its future farming operations, the Partnership has initiated a program of purchasing land and water shares, when available, from ditch and irrigation companies adjacent to its owned and leased farms. The water rights to be purchased from this loan are expected to provide an additional average annual yield of 261 acre-feet across 5 farm sites.

Project Data

Sponsor: Petrocco Family Limited Partnership

County: Adams/Weld

Water Source: South Platte River

Terms of Loan: $840.825 for 20 years @ 1.50%

Substantial Completion: 10/1/2014

Design Engineer: Mike Serlet, P.E. / Bruce Johnson, P.E., Serlet Project Consulting

Contractor: N/A

Project Elements: Purchased seventy-two (72) shares of the Fulton Irrigation Ditch Company.

City of Lamar
Raw Water Transmission Line Replacement Project

Project Description

The City of Lamar provides water service to a population of approximately 7,800 people, sourced from 29 active wells. This project replaced portions of the original cast iron transmission line, built in1933 as a part of the Works Projects Administration, in response to testing that showed high amounts of scale build-up, pin-hole leaks, and pressure drops. It is estimated that between 378 to 662 acre-feet of water will be saved annually as a result of these improvements.

In June of 2013, the City was approved for a $200,000 grant by the Arkansas Basin Roundtable from the Water Supply Reserve Account ($50,000 from the Arkansas Basin Account and $150,000 from the Statewide Account). In July of 2013, it was also awarded a $985,000 grant from the Department of Local Affairs (DOLA) Energy/Mineral Impact Assistance Fund.

Project Data

Sponsor: City of Lamar **County:** Prowers **Water Source:** Groundwater

Terms of Loan: $616,994 for 30 years @ 2.25% **Substantial Completion:** 10/1/2014

Design Engineer: Gary Berngard, Honeywell Building Solutions

Contractor: Carrigan Excavating

Project Elements: 2 miles of 12-inch pipe, 4.5 miles of 16-inch pipe, and connections to existing wells

Tri-County Water Conservancy District
Ridgway Reservoir Micro-Hydro Project

Project Description

The District constructed a 8MW hydroelectric power generating facility at Ridgway Reservoir. The project was permitted through the "Lease of Power Privilege" process with the Bureau of Reclamation, allowing the incorporation of a hydropower facility into the existing outlet works of Ridgway Dam. The dam, constructed by the Bureau as part of the Dallas Creek Project, began storing waters of the Uncompahgre Basin in 1987. The District expects to produce 24,000 MWh annually, which will be sold to Tri-State Generation and Transmission and the City of Aspen through a Power Purchase Agreement. The District began producing power in February 2014 and substantially completed in May 2014.

Project Data

Sponsor: Tri-County Water Conservancy District

County: Ouray/Montrose/Delta

Water Source: Uncompahgre River

Terms of Loan: $13,130,000 for 30 years @ 2.0%

Substantial Completion: October 1, 2014

Design Engineer: Sorenson Engineering and China Huadian Engineering

Contractor: Mountain States Hydro, LLC and Riverside Inc.

Project Elements: 1,700 cy of concrete, interconnection switchyard, a large and a small turbine and generator.

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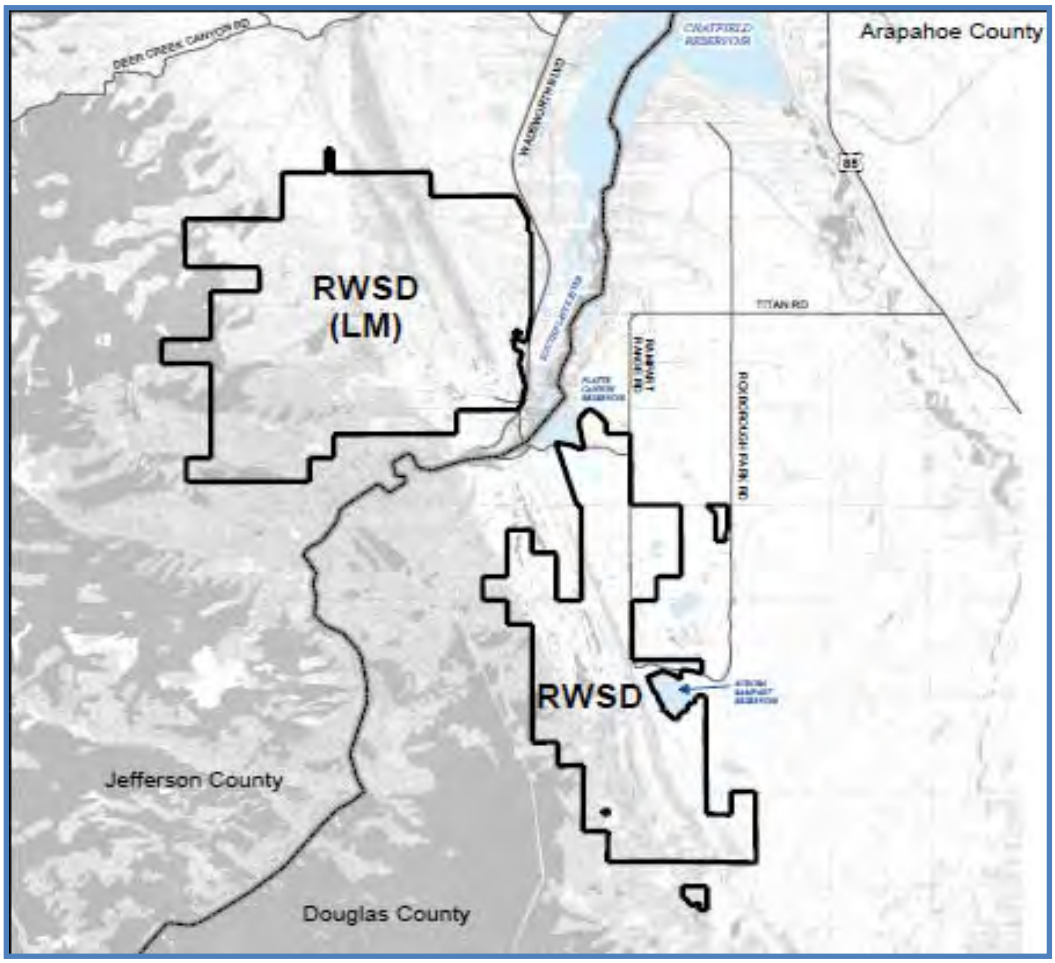
Raw Water Supply Project

Roxborough Water and Sanitation District, Water Activity Enterprise

Substantially Complete December 1, 2014

Project Description



PROJECT DATA		
Sponsor: Roxborough Water and Sanitation District, Water Activity Enterprise	*County:* Douglas, Jefferson	*Water Source:* South Platte
Type of Loan: Water Acquisition	*Board Approval Date:* January 28, 2013	
Design Engineer: TST Infrastructure LLC		
Contractor: N/A		
Project Elements: The District executed an agreement with Aurora to purchase a permanent raw water supply based on the use of Aurora's existing and future raw water supplies and infrastructure. Through this agreement, the District paid a connection fee for 3,395 Equivalent Residential Units. Aurora will deliver up to 1,800 AF annually through its existing system for treatment by the District. In addition, 285 AF will be delivered annually for irrigation customers within the District.		

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Jackson Gulch Inlet Canal Rehabilitation

Mancos Water Conservancy District

Substantially Complete January 1, 2015

Project Description

The Project included the rehabilitation of the District's Jackson Reservoir Inlet Canal. Improvements included access road rehabilitation along with seepage repairs of the half mile long existing concrete box culvert. In addition, the canal required approximately a half mile of concrete lining and the installation of approximately 1600 feet of twin eight foot diameter concrete pipes. The trapezoidal concrete canal is approximately 30 feet wide at the top, 12 feet wide at the bottom and 6 feet deep. The canal was reshaped and covered with a PVC geomembrane liner sandwiched between two layers of geotextile fabric and covered with a protective concrete filled Geoweb surface on the side slopes with a rock-filled canal bottom.

P R O J E C T D A T A		
Sponsor: Mancos Water Conservancy District	*County:* Montezuma	*Water Source:* Mancos River
Type of Loan: Ditch Rehabilitation	*Board Approval Date:* November 2002	
Amended Term of Loan: $1,451,556.12 at 2.80% Interest for 20 years		
Design Engineer: Buckhorn Geotech, Montrose CO		
Contractor: Mays Construction Specialists – Grand Junction CO; C&J Gravel, Durango CO		
Project Elements: 1600LF twin 8ft diameter RCP, 1000LF access road improvements, 2000LF trapezoidal contract lining, 2000LF of box culvert seepage repair.		

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Lone Cabin Reservoir Rehabilitation Project

Lone Cabin Ditch and Reservoir Company

Substantially Complete February 1, 2015

The Lone Cabin Ditch and Reservoir Company provides irrigation water storage for 18 farms located on Lamborn Mesa approximately 5 miles southeast of Paonia, CO. The reservoir has a storage capacity of 163 acre-feet. This project became necessary due to a slump on the downstream face of the dam that resulted in a State Engineer's Office storage restriction to 20 feet below the dam crest. The construction project included excavation and reconstruction of the slumped area, installation of 200 LF of 6-inch toe drain collector pipe, a precast outlet pipe structure for the toe drain system, and final grading and re-seeding.

P R O J E C T D A T A		
Sponsor: Lone Cabin Ditch and Reservoir Company	*County:* Delta	*Water Source:* Minnesota Crk.
Type of Loan: Dam Rehabilitation	*Board Approval Date:* September 2013	
Amended Terms of Loan: $252,803 at 1.75% for 30 years		
Design Engineer: Buckhorn Geotech, Montrose, CO - Norman Aufderheide, P.E.		
Contractor: Lacy Construction, Crested Butte, CO		
Project Elements: Reconstruct slumped area in dam embankment, install new toe drain collector pipe, install piezometers, install new drain outlet structure		

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Department of Natural Resources

Bowles No. 1 Dam Rehabilitation Project

Joseph Bowles Reservoir Company

Substantially Complete March 2015

Project Description

The Joseph W. Bowles Reservoir Company owns and operates Bowles No. 1 Reservoir, located in the southwest metropolitan area of Denver. The Company was formed in 1906 and has 50 shareholders who use the water for municipal uses including parks, open space, and golf courses, as well as some individual ranches for irrigation water. The Project consisted of several repairs to correct dam safety deficiencies and improve the long-term performance of Bowles No. 1 Dam. Dam repairs included the widening the dam crest, reconstructing the upstream slope, installing a seepage collection and toe drain system on the downstream slope, and lining the existing dam outlet pipe. Additionally, the Project rehabilitated a section of the reservoir's inlet ditch. This work included piping a section of the open ditch, reconstructing the ditch alignment, placing slope protection in high erosion areas, and installing a flow control pipe that will provide for the safe discharge of excessive ditch flows into an existing spillway and drainage structure. This was a long term Project with many phases which saw some level of construction occurring from fall of 2010 to fall of 2014.

P R O J E C T D A T A		
Sponsor: Joseph W. Bowles Reservoir Company	*County:* Jefferson	*Water Source:* Bear Creek
Type of Loan: Dam Rehabilitation	*Board Approval Date:* May 19, 2009	
Terms of Loan: $1,703,870 for 30 years @ 4.65%		
Design Engineer: W.W. Wheeler and Associates		
Contractor: Winslow Construction Company, Tezak Heavy Equipment		
Project Elements: Widen dam crest, reconstruct upsteam slope, install toe drains, line outlet pipe, ditch erosion control, pipe open ditch.		

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 (CT15-015)	Eagle	$169,175	100%	Feb 2015 - March 2015	30%	AM	Project was bid in June 2014. The District received no bids. The engineer and District reevaluated the project and opted to drill a smaller test well. Drilling began on February 17, 2015.
2	Bergen Ditch & Reservoir Company > Bergen Reservoir No. 2 Rehabilitation C150344 (CT15-017)	Jefferson	$2,020,000	100%	Spring 2015 - 2015	0%	JH	Final Design is complete and has been approved by SEO Dam Safety. Project is out to bid. Contractor selection anticipated by the end of February 2015
3	Boxelder Basin Regional Stormwater Authority > Larimer & Weld Canal Crossing Structure Project C150352 (CT15-071)	Larimer/ Weld	$1,010,000	0%	2015 - 2016	0%	JH	Project pending land acquisition, anticipated to be resolved by the end of March 2015
4	Boxelder Basin Regional Stormwater Authority > East Side Detention Facility Project C150353 (CT15-070)	Larimer/ Weld	$7,171,000	0%	2015 - 2016	0%	JH	Project pending land acquisition, anticipated to be resolved by the end of March 2015
5	Boxelder Basin Regional Stormwater Authority > County Rd 52 Culvert Project C150393 (CT15-069)	Larimer/ Weld	$818,100	0%	2015 - 2016	0%	JH	Project pending land acquisition, anticipated to be resolved by the end of March 2015
6	Central CO WCD - WAS > Augmentation Water Supply Project C150337 (CT15-060)	Weld/ Adams/ Morgan	$3,030,000	50%	Apr 13 - Apr 16	30%	JH	Purchased a portion of the water rights on 4/25/13.
7	Colorado Parks & Wildlife > Beaver Park Reservoir Rehabilitation C150343	Rio Grande	$10,000,000	Ph1 100% P2 100%	Summer '13 & Spring '15	100% 80%	KR	Phase 1 Alsand Construction $2M. Spillway & Grout work is complete. Phase 2 Construction by ASI Contractors is behind schedule. Essential work for a partial dam fill this winter is expected. ASI will remobilize in spring
8	Crystal Lakes Water and Sewer Association > Lower Lone Pine Lake Enlargement Project C150325 (CT15-045)	Larimer	$2,363,400	100%	Apr 12 - Nov 14	99%	AM	Construction was completed in November 2014. Loan will be substantially completed in early 2015. There will be a ribbon cutting ceremony in May 2015.
9	Dillon, Town of > Old Dillon Reservoir Enlargement C150295 (CT15-038)	Summit	$1,515,000	100%	Sep 10 - Oct 14	99%	KR	Construction is complete and accepted. Corrections to dam were made. SC expected in late April 2015.

Design and Construction – Summary

	Contract Borrower	County	Loan Amount	Design Status	Const. Start/End	Const. Status	PM	Status Description/Update
e	East Mesa Water Company > Ditch Piping Project C150360 (CT15-141)	Pitkin/ Garfield	$555,500	100%	Feb 15 - May 15	50%	KR	Company has elected to rehab ditch and tunnel instead of a siphon solution. Engineering by NRCS and AECOM. Construction by Rock Solid Inc. and Mueller Exc. Tunnel blasting and pipe welding underway. Construction completion expected by irrigation season 2015.
10	Eckhardt Farms Inc > Water Rights Purchase C150338 (CT15-051)	Weld	$1,336,230	N/A	N/A	N/A	JH	Water rights purchase. Borrower purchased ditch company shares with a bridge loan from a local bank. CWCB disbursement of funds is expected to occur in early 2015.
11	Ephraim Ditch Company > Ephraim Diversion and Headgate Rehabilitation C150402 (CT15-090)	Rio Grande	$101,000	100%	Summer 15 - Fall 15	0%	JH	NRCS has finalized design. Working with contractor to finalize cost based on final design.
12	Farmers' High Line Canal and Reservoir Company > System Rehabilitation Project C150314 (CT15-019)	Adams/ Jefferson	$2,209,597	100%	Feb 11 - May 15	99%	JH	The Co. received a loan increase of nearly $900K in November 2012. Siphons complete. Clear Creek construction finished April 2014. SC expected May 2015.
13	Farmers Pawnee Canal Company > Diversion Structure Replacement Project C150394 (CT15-132)	Logan	$2,067,470	100%	Fall 14 - Spring 15	45%	DRJ	Demolition of existing structure complete. Vertical structure construction under way.
14	Fowler, Town of > Augmentation Pipeline Project C150359 (CT15-054)	Otero	$277,245	100%	Spring/summer 2015	0%	DRJ	DOLA funding approved, waiting for contract. Expected schedule: survey, bid process early spring, June construction.
15	Fulton Irrigating Ditch Company > Diversion Structure Rehabilitation Project C150399 (CT15-092)	Adams	$2,027,070	100%	Fall/Winter 2014	15%	DRJ	136th Ave bifurcation structure demolished, new concrete poured, backfill week of 2/16. River headgates structure prepared for new roller gates to ship 2/16.
16	Georgetown, Town of > Outlet Works Modification Project C150321 (CT15-055)	Clear Creek	$2,976,975	100%	Aug 14 - March 15	90%	AM	Construction began in August 2014. Construction is expected to be complete in early 2015.
17	Grand Mesa Water Conservancy District > Peak Res. & Blanche Park Res. Rehabilitation C150354 (CT15-061)	Delta	$227,250	100%	Mar 13 - Nov 16	85%	AM	Construction began in the 2013 season and will be completed in the 2016 construction season.
18	Greeley Irrigation Company > Greeley Canal No. 3 Rehabilitation C150239 (CT15-021)	Wled	$2,233,867	90%	Feb 08 - Dec 15	90%	KR	Nearly complete. The Company is working on their SCADA system and the realignment and reshaping of various sections of existing channel. Substantially Completed on July 2015

Design and Construction – Summary

	Contract Borrower	County	Loan Amount	Design Status	Const. Start/End	Const. Status	PM	Status Description/Update
19	Greeley and Loveland Irrigation Company > Irrigation System Improvements C150362 (CT15-022)	Larimer	$3,154,230	95%	Summer 14 - Fall 16	45%	JH	Phase 1 Horseshoe complete. Phase 2 Horseshoe should be SEO approved by end of February 2015. Boyd Lake Project start construction January 2015.
20	Gypsum, Town of > LEDE Ditch and Reservoir Rehabilitation C150296 (CT15-058)	Eagle	$2,689,731	100%	Jul 13 - Sep 16	20%	DRJ	Construction began in winter 2013 and continues into 2014. The new outlet pipe has been backfilled and dam earthwork construction is underway. Contractor is effectively halted due to weather, but will continue to work on backfill material excavation when possible. Site visit occurred 12/10/14.
21	Huerfano County Water Conservancy District > Regional Augmentation Project C150364 (CT15-047)	Huerfano	$2,222,000	100%	Mar 14 - Oct 15	60%	AM	Land and water rights purchase to occurred in January 2014. Camp Ranch augmentation site construction is underway.
22	Lake Canal Reservoir Company > North Gray Reservoir Rehab Project C150322 (CT15-042)	Larimer/ Weld	$116,625	20%	2015 - 2016	0%	JH	Project has been delayed until neighboring Boxelder East Side Detention Facility is finalized.
23	Lake Durango Water Authority > Source Water Supply Project C150317 (CT15-013)	LaPlatta	$2,525,000	95%	June 15 - Dec 15	0%	KR	Final design efforts are underway. ROW and easements are being negotiated.
24	Left Hand Ditch Company > Allen Lake and Lake Isabelle Repair Project C150336 (CT15-088)	Boulder	$1,475,307	100%	Nov 12 - June 15	90%	AM	Allen Lake construction was completed in August 2013. Lake Isabelle outletworks construction will be completed in 2015.
25	Louden Irrigating Canal & Reservoir Company > Emergency Diversion Structure and Ditch Repair C150398 (CT15-151)	Larimer	$ 121,200	100%	Summer 14 - Summer 14	95%	JH	Project has mostly been completed, awaiting pay request.
26	McDonald Ditch Company > Ditch Diversion and Headgate Replacement C150334 (CT15-044)	Rio Grande	$101,000	100%	Fall 14 - Spring 15	30%	JH	Project Bid October 2014. Construction started December 2014.
27	Monte Vista, City of > Augmentation Water Rights Acquisition C150309 (CT15-011)	Rio Grande	$1,693,770	n/a	Oct 10 - Jul 17	50%	AM	The City purchased Anderson Ditch rights and will file a water court application to enable the use of those rights to replace depletions. Contracted with the San Luis Valley Irr. Dist. for storage space in the Rio Grande Res. City continues negotiations to purchase additional water.
28	Northern Colorado WCD- Hydropower Enterprise > Granby Hydropower Project C150396 (CT15-140)	Grand	$5,135,183	80%	May 15 - May 16	0%	JH	Power Purchase and Lease of Power Privledge agreements both to be signed early March 2015. Construction anticipated to start in May 2015

Design and Construction – Summary

	Contract Borrower	County	Loan Amount	Design Status	Const. Start/End	Const. Status	PM	Status Description/Update
29	North Poudre Irrigation Co > Reservoir No. 4 Rehabilitation C150378 (CT15-003)	Larimer	$1,636,200	90%	Fall 14 - Fall 15	10%	JH	Design being updated per SEO suggestion to upsize spillway to meet higher classification. Wildlife Mitigation began December 2014. Construction to be bid June 2015.
30	Overland Ditch and Reservoir Company > Overland Reservoir Rehabilitation C150206 (CT15-034)	Delta	$1,130,000	50%	Permitting	0%	KR	Project on-hold until fens can be addressed in enlarged reservoir area.
31	Owl Creek Reservoir Company > Owl Creek Reservoir Rehabilitation C150089 (CT15-048)	Weld	$1,125,000	99%	On Hold	0%	TF	The Company received bids and does not have enough funds to complete the project. The Company has expended approximately $450,000 to-date for permitting, soils, and design and will need an additional $600,000 to complete the project. A project partner is being sought.
32	Penrose Water District > Water Rights Purchase and Pipeline Installation C150237 (CT15-040)	Fremont	$9,763,670	100%	Summer 14 - Fall 15	70%	DRJ	Pipeline and pump station building construction continues. Contract increase app'd but not yet executed. Ability to pump must be achieved by May 1 2015
33	Pisgah Reservoir and Ditch Company > Mount Pisgah Dam/Wrights Reservoir Rehab C150341 (CT15-027)	Teller	$549,091	99%	Spring 15 - Dec 16	0%	JH	After SEO design review, scope of Project increased. Approved for additional loan funds at November 2014 Board Meeting. SEO provided final approval in November 2014. Project to be bid in March 2015 for an spring construction start.
34	Platte Valley Irrigation Company >Sand Hill Lake Outlet Works Rehabilitation CT15-139	Weld	$745,380	100%	Summer 14 - Summer 15	99%	JH	Dam Construction (emergency) completed summer 2014. To be substantially completed May 2015.
35	Prairie Ditch Company > Plaza Phase 3: Prarie Ditch Imp. Project C150400 (CT15-134)	Rio Grande	$131,300	20%	Fall 15 - Spring 16	0%	JH	Final draft of NRCS design expected in March.
36	Ridgway, Town of > Lake Otonowanda Rehabilitation Project C150340 (CT15-056)	Ouray	$606,000	100%	June 14 - July 15	80%	KR	Land acquisition purchase completed. Construction is underway. Earthwork and outlet construction is nearly complete. Winter ended const. for 2014. Contractor will be back in spring 2015
37	Riverside Ditch and Allen Extension Company > Ditch System Rehabilitation C150301 (CT15-050)	Chaffee	$186,345	85%	Jul 10 - Dec 15	80%	KR	Ditch lining phase of the project was completed in December 2010. Additional phases will be constructed in 2014. Utilizing NRCS La Junta Fld office for design and assistance with field modifications of original work.
38	Riverside Reservoir and Land Company > Riverside Reservoir Spillway Enlargement C150291 (CT15-026)	Weld	$2,838,100	80%	Summer 215	0%	DRJ	The engineer is re-evaluating design options with support from the SEO. Construction not expected until summer of 2015.

Design and Construction – Summary

	Contract Borrower	County	Loan Amount	Design Status	Const. Start/End	Const. Status	PM	Status Description/Update
39	Sanchez Ditch and Reservoir Company > Sanchez Reservoir Outlet Rehabilitation Project C150342 (CT15-012)	Costilla	$1,381,276	100%	Summer 14 - Winter 15	80%	AM	Construction began in Oct 2014. Outlet works work was completed in Jan 2015. Seepage and monitoring work is scheduled for fall of 2015.
40	Sanford Canal Company > Sanford Diversion and Headgate Rehabilitation C150401(CT15-091)	Rio Grande	$101,000	100%	Summer 15 - Fall 15	0%	JH	NRCS has finalized design. Working with contractor to finalize cost based on final design.
41	Santa Maria Reservoir Company > Siphon and Canal System Rehabilitation Project C150350 (CT15-005)	Hinsdale/ Mineral	$1,405,163	100%	2014 - 2015	99%	AM	Construction was completed in Oct 2014. As-built drawings are in progress.
42	Santa Maria Reservoir Company > Continental Dam Spillway Rehabilitation Project C150365 (CT15-006)	Hinsdale/ Mineral	$3,071,633	100%	2014 - 2015	50%	AM	Bid was awarded in April 2014. Construction began in May 2014 and is scheduled for two construction seasons. Loan increase was approved in Jan 2015.
43	Sterling Irrigation Company > Emergency Sterling Ditch Rehabilitation Project CT15-097	Logan	$101,000	100%	May-14	99%	JH	Overall Project completed. Substantial Completion scheduled May 2015
44	Terrace Irrigation Co > Spillway Replacment Project C150332 (CT15-033)	Conejos	$2,751,968	100%	Jul 12 - Jul 13	99%	KR	Construction by ASI Contractors is complete. SEO has provided final approval. ASI has submitted final invoice. Substantial Completion in 2015
45	Thunderbird W&S Dist > Lambert Ranch Water Rights Purchase C150320 (CT15-049)	Douglas	$318,150	100%	N/A	0%	JH	Closing has been delayed until 2015 due to easement access to purchased wells. Easement aquisition process is still underway with target date of April 2015
46	Upper Arkansas Water Conservancy District > Reservoir Rehabilitation C150192 (CT15-052)	Chaffe/ Custer	$3,520,000	100%	Permitting	90%	KR	The project requires Forest Service special use permit and an environmental assessment prior to construction. The initial phase of construction was awarded to ASI, Buena Vista, CO, and completed in May 2007. The enlargement effort is delayed due to NEPA permitting issues.
47	Upper Platte & Beaver Canal Company > Hospital Rd Recharge Facility & Bridge Project CT15-101	Morgan	$190,890	30%	Fall 14 - Spring 15	30%	DRJ	Augmentation land purchase completed and funded. Bridge component is currently on hold pending consideration of a possible larger diversion dam rehamb/replacement project with Deuel & Snyder ditch company.
48	Windsor, Town of > Kyger Reservoir Project C150366 (CT15-057)	Larimer/ Weld	$4,545,000	20%	Summer 15 - Winter 15/16	0%	JH	Town to purchase reservoir and water rights in summer 2014. Currently engineering the conveyance structures. Construction to occur in 2015.

Design and Construction – Summary

	Contract Borrower	County	Loan Amount	Design Status	Const. Start/End	Const. Status	PM	Status Description/Update
49	WISE Project - ECCV Pipeline Purchase > Cottonwood W&S Dist - C150408A (CT15-102) > Inverness W&S Dist - C150409A (CT15-117) > Parker W&S Dist - C150410A (CT15-107) > Pinery W&S Dist - C150411A (CT15-083)	Douglas/ Arapahoe	$8,500,000	NA	Fall 14 - Spring 15	40%	DRJ	Purchase Agreement has been executed 3 of 4 reimb reqs processed. 1 subst compl processed.
50	WISE Project - Phase 1 Infructure Project > Cottonwood W&S Dist - C150408B (CT15-106) > Inverness W&S Dist - C150409B (CT15-118) > Parker W&S Dist - C150410B (CT15-108) > Pinery W&S Dist - C150411B (CT15-085)	Douglas/ Arapahoe	$24,200,000	0%	Spring 15 - Fall 19	0%	DRJ	{{{{{ all WISE contracts to be separated out one line per contract with corresponding contract $s }}}}}
51	WISE Project - Phase 2 Infructure Project > Cottonwood W&S Dist - C150408C (CT15-105) > Inverness W&S Dist - C150409C (CT15-119) > Parker W&S Dist - C150410C (CT15-109) > Pinery W&S Dist - C150411C (CT15-086)	Douglas/ Arapahoe	$2,370,000	0%	Spring 15 - Fall 23	0%	DRJ	
52	WISE Project - DIA Connection Purchase > Cottonwood W&S Dist - C150408D (CT15-104) > Inverness W&S Dist - C150409D (CT15-120) > Parker W&S Dist - C150410D (CT15-110) > Pinery W&S Dist - C150411D (CT15-087)	Douglas/ Arapahoe	$35,070,000	NA	Fall 14 - Spring 23	12%	DRJ	3 of 4 First Requests for Reimbursement processed
	Projects Under Contract SubTotal =		$167,580,091					
	Approved Projects - Not Under Contract							
a	Town of Bennett >Wells #3 and #6 Replacement Project	Adams Arapahoe	$145,400	In Contracting			AM	
b	Chatfield Realocation Project - Storage Purchase > Castle Pines MD - C150403A > Castle Pines North MD - C150404A > Centennial W&S Dist - C150405A > Center of CO WCD - C150406A > Central CO WCD - C150407A	Arapahoe Douglas Park Weld	$9,549,247	In Contracting			JH	

	Contract Borrower	County	Loan Amount	Design Status	Const. Start/End	Const. Status	PM	Status Description/Update
c	Chatfield Realocation Project - Phase 1 Mitigation > Castle Pines MD - C150403B > Castle Pines North MD - C150404B > Centennial W&S Dist - C150405B > Center of CO WCD - C150406B > Central CO WCD - C150407B	Arapahoe Douglas Park Weld	$54,687,763	In Contracting			JH	
d	Chatfield Realocation Project - Phase 2 Mitigation > Castle Pines MD - C150403B > Castle Pines North MD - C150404B > Centennial W&S Dist - C150405B > Central CO WCD - C150407B	Arapahoe Douglas Weld	$19,646,520	In Contracting			JH	
e	City of Cortez > Water Meter Replacement Project	Montezuma	$858,500	In Contracting				
f	Las Animas Consolidated Canal Company >Repair and Replacement of the Las Animas Consolidated Canal Spillway Structure	Bent	$363,782	In Contracting			DRJ	Anticipated schedule for 2015: Survey March, Engr revw by Aug, Final plans by mid-Sept, contracting by Oct/Nov, Nov 15 ditch out, anticipated Thanksgiving contruction NTP, finish by Mar 1, 2015
g	San Luis Valley Water Conservancy District > Anaconda Ditch Water Right Acquisition C150348	Alamosa	$839,000	In Contracting			AM	
h	Southeastern CO Water Conserv. District > Arkansas Valley Conduit C150238	Crowley	$60,600,000	In Contracting			KR	Pending Federal Appropriation
i	West Reservoir and Ditch Company >Repair of West Reservoir No. 1 Outlet Works	Delta	$248,378	In Contracting			DRJ	Construction anticipated spring of 2015
	Not Under Contract SubTotal =		$146,938,590					
	Grand Total =		$314,518,681					
	Projects Substantially Completed in Fiscal Year 2014/2015							

Design and Construction – Summary

	Contract Borrower	County	Loan Amount	Design Status	Const. Start/End	Const. Status	PM	Status Description/Update
1	Missouri Heights - Mountain Meadows Irrigation Company > Irrigation Ditch lining Project C150351 (CT15-053)	Eagle/ Garfield	$454,500	100%	Sept 13 - June 14	100%	KR	7/1/2014
2	Boulder & Left Hand Irrigation Company > Tracy Lateral Pipeline C150357	Boulder	$202,000	100%	Nov 13 - Jul 14	100%	JH	7/1/2014
3	Fisher Ditch Company > Ditch Infrastructure Project C150319 (CT15-043)	Denver	$454,500	100%	Nov 12 - July 14	100%	JH	7/1/2014
4	Petrocco Family Limited Partnership > Water Rights Purchase C150363 (CT15-001)	Adams/ Weld	$840,825	N/A	N/A	N/A	JH	10/1/2014
5	Lamar, Town of > Raw Water Transmission Line Replacement C150367 (CT15-007)	Prowers	$792,850	100%	Mar 14 - Nov 14	100%	DRJ	10/1/2014
6	Tri-County Water Conservancy District > Ridgway Reservoir Micro Hydro Project C150324 (CT15-037)	Ouray/ Mont/ Delta	$13,130,000	100%	Jul 12 - Jul 14	100%	KR	10/1/2014
7	Roxborough Water & Sanitation Dist. > Raw Water Supply Project C150346 (CT15-041)	Douglas	$18,538,550	100%	Oct 14 - Dec 14	100%	AM	12/1/214
8	Mancos Water Conservancy District > Inlet and Outlet Canal Rehabilitation C150120 (CT15-036)	Montezuma	$5,486,531	100%	Jan 04 - Oct 13	100%	KR	1/1/2015
9	Lone Cabin Ditch & Reservoir Company > Lone Cabin Dam Rehab. Project C150361 (CT15-059)	Delta	$252,803	100%	Summer 14 - Fall 14	100%	DRJ	2/1/2015
10	Joseph W. Bowles Reservoir Company > Bowles No. 1 Dam Rehabilitation C150290 (CT15-030)	Jefferson	$1,703,870	100%	Aug 10 - Dec 14	100%	JH	3/1/2015
		SubTotal =	$41,856,429					

CWCB Water Project Loan Program
Project Data Sheet

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

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

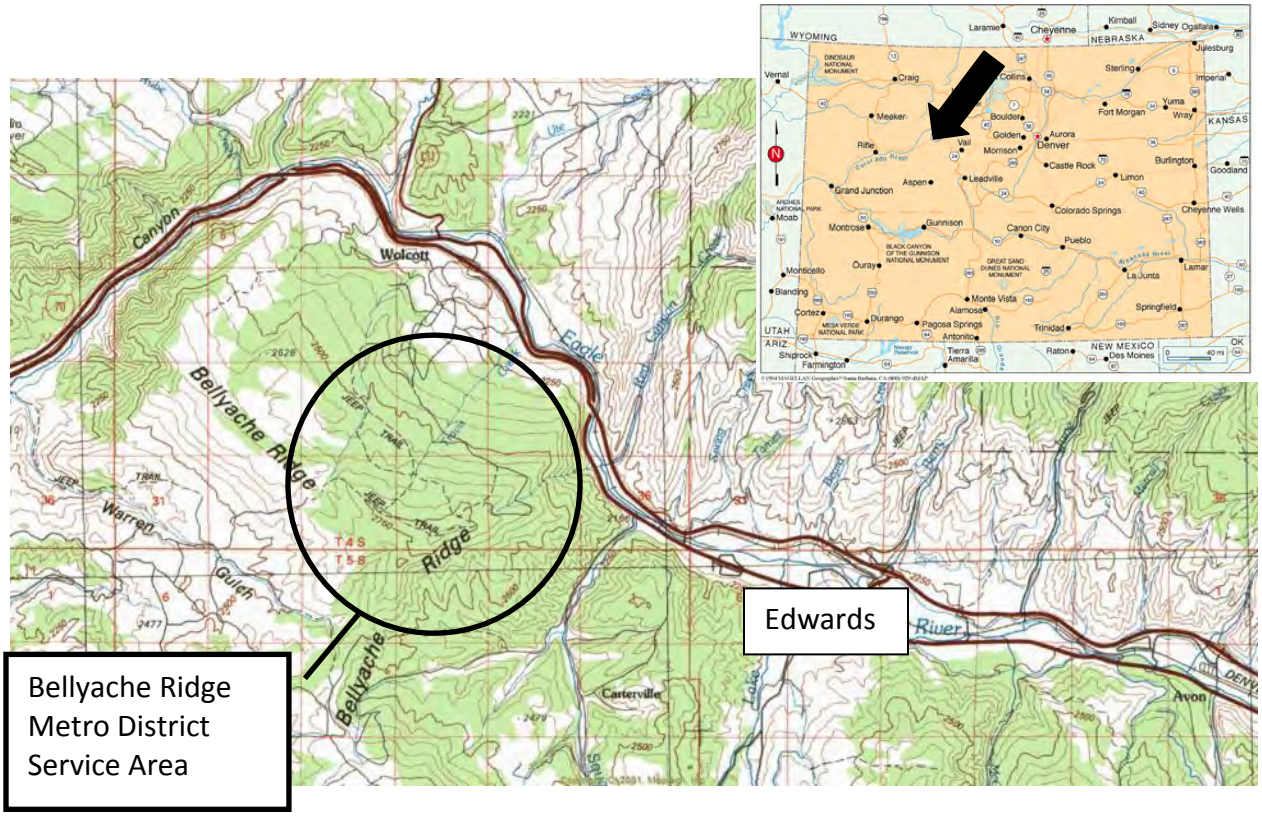
Drainage Basin/ District: Colorado / 37 **Water Source:** Groundwater

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.



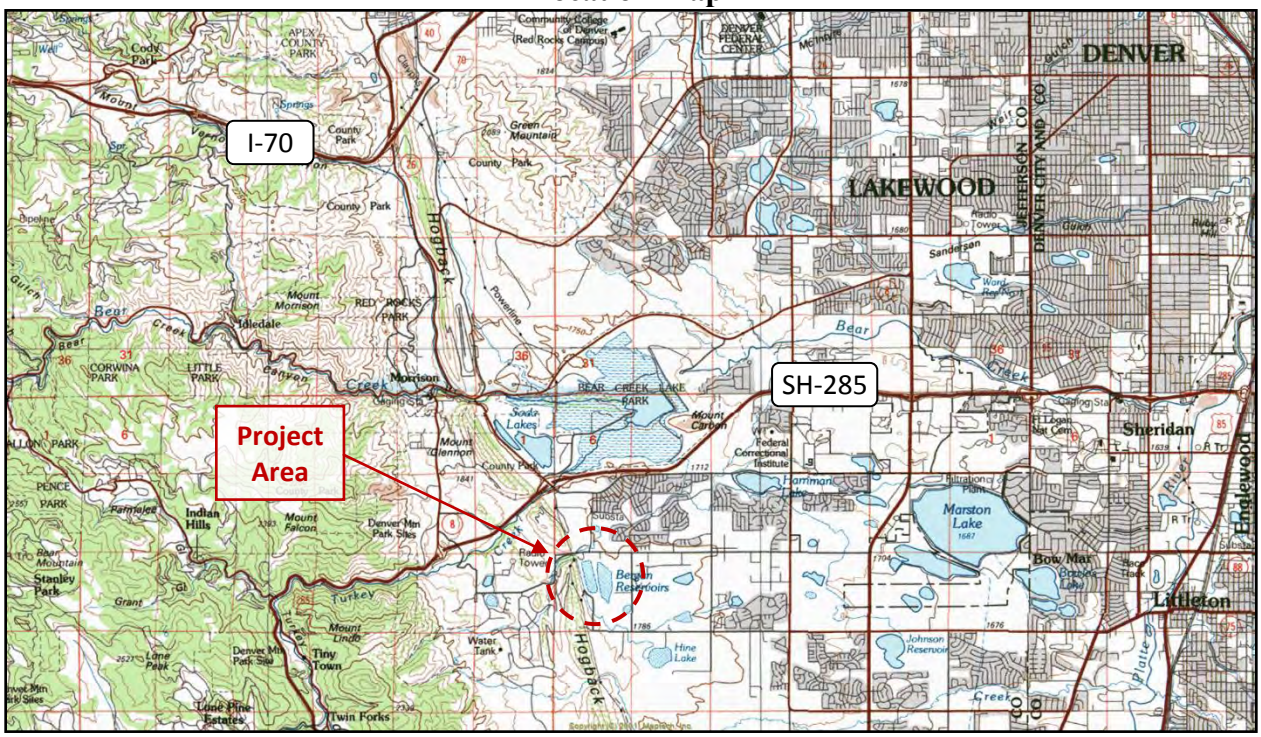
Water Project Loan Program – Project Data Sheet

Borrower:	Bergen Ditch & Reservoir Company	**County:**	Jefferson
Project Name:	Bergen Reservoir No. 2 Rehabilitation	**Project Type:**	Dam Rehabilitation
Drainage Basin:	South Platte, District 9	**Water Source:**	Turkey Creek
Total Project Cost:	$2,225,000	**Funding Source:**	Construction Fund
Type of Borrower:	Blended - (64% high-income muni, 36% middle-income muni)	**Avg. Annual Diversion:**	800 AF

CWCB Loan: $2,020,000 (w/ 1% service fee) **Interest Rate:** 3.15% **Term:** 30 years

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 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 consists of full replacement of the outlet works and rehabilitation of the dam.

Location Map



CWCB Water Project Loan Program
Project Data Sheet

Borrower: Boxelder Basin Regional Stormwater Authority
County: Larimer

Project Name: Larimer-Weld Canal & Boxelder Creek Crossing Structure
Project Type: Flood Control

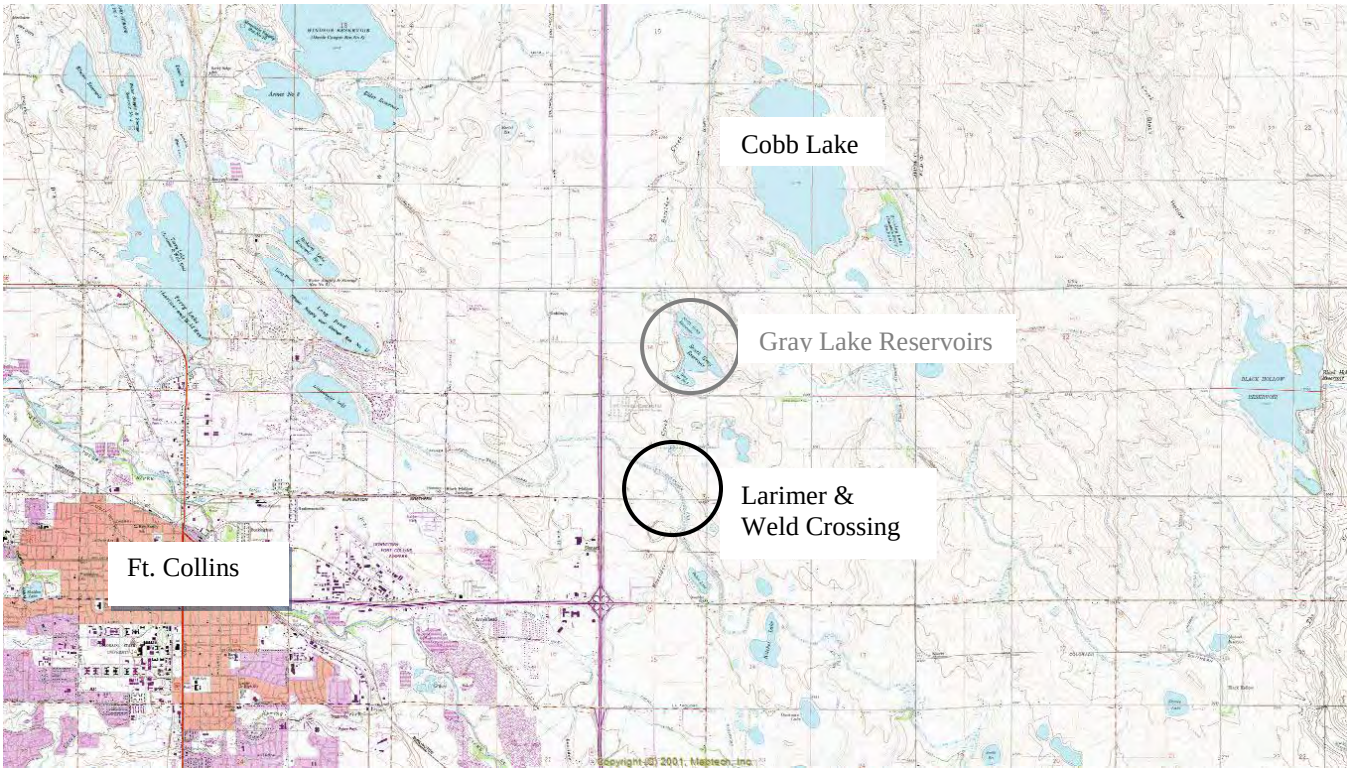
Drainage Basin / District: South Platte / 3
Water Source: Boxelder Creek

Total Project Cost: $1,139,000
Funding Source: Construction Fund

Type of Borrower: Middle Income Municipal
Average Annual Diversion: N/A

CWCB Loan: $1,010,000 (with 1% service fee)
Interest Rate: 2.75% **Term:** 15-years (rate reduced from 3.0% for middle income municipal)

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 will provide conveyance for 100-year flows from Boxelder Creek across the Larimer-Weld Canal in a safe and controlled manner. Currently the Boxelder Creek 100-year flows inundate the Larimer and Weld Canal and cause it to overflow west of I-25 into the Cooper Slough drainage within the City of Fort Collins. The design of the crossing structure calls for the construction of a side-flow spillway. Construction is expected to occur between the fall of 2014 through the spring of 2014. Repayment for the project will come from stormwater service and system development fees collected by the Authority.



CWCB Water Project Loan Program
Project Data Sheet

Borrower: Boxelder Basin Regional Stormwater Authority
County: Larimer

Project Name: East Side Detention Facility
Project Type: Flood Control

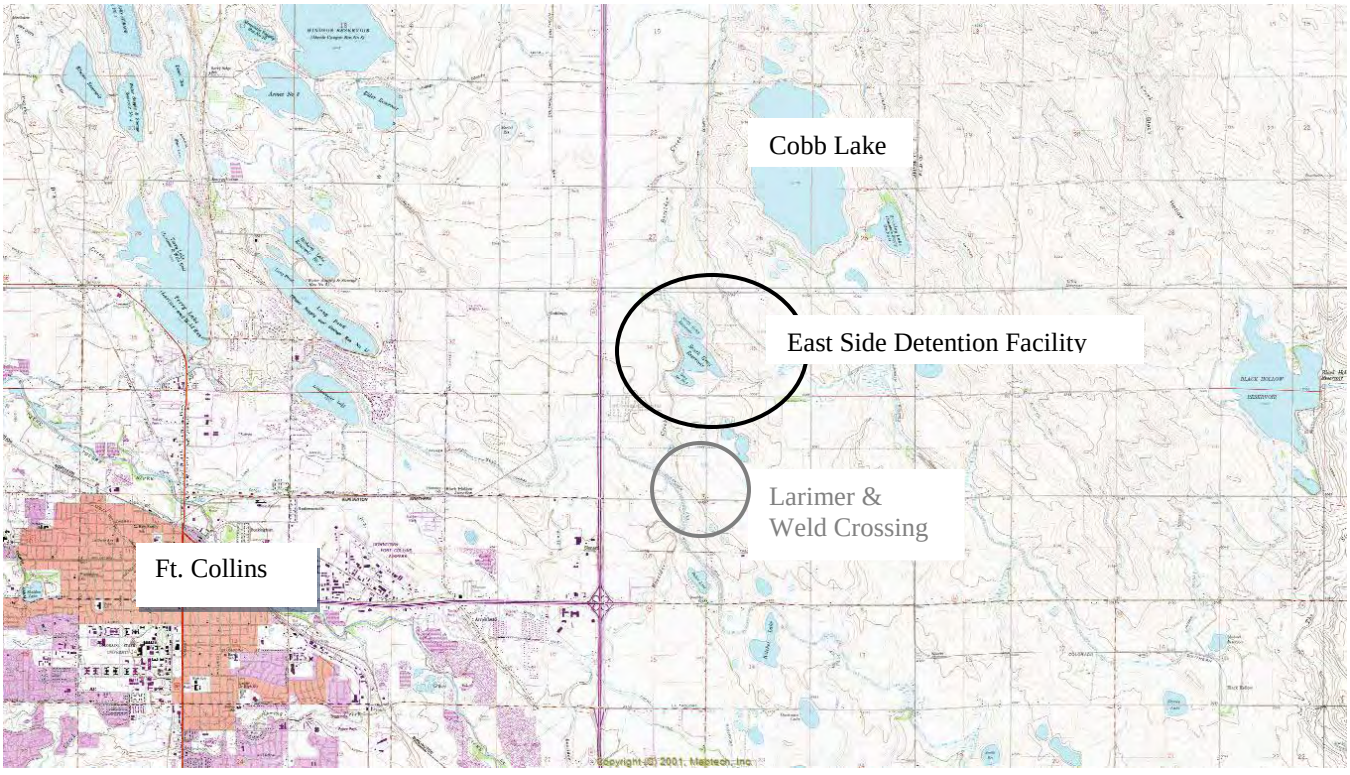
Drainage Basin/ District: South Platte / 3
Water Source: Boxelder Creek

Total Project Cost: $8,761,000
Funding Source: Construction Fund

Type of Borrower: Middle Income Municipal
Average Annual Diversion: N/A

CWCB Loan: $7,171,000 (with 1% service fee)
Interest Rate: 2.75% **Term:** 15-years (Reduced from 3.0% for middle income municipal)

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 will provide 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. Construction is expected to take one year beginning in December of 2013. Repayment for the project will come from stormwater service and system development fees collected by the Authority.



CWCB Water Project Loan Program
Project Data Sheet

C150393

Borrower: Boxelder Basin Regional Stormwater Authority

County: Larimer

Project Name: County Road 52 Improvements

Project Type: Flood Control

Drainage Basin/ District: South Platte / 3

Water Source: Boxelder Creek

Total Project Cost: $1,850,000

Funding Source: Construction Fund

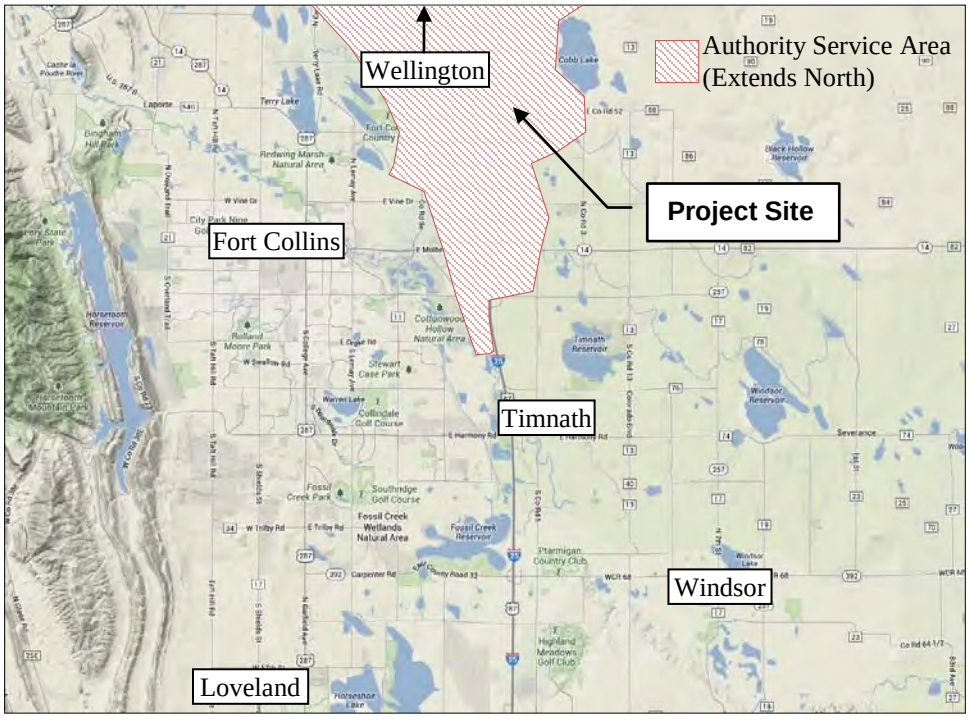
Type of Borrower: Middle Income Municipal

Average Annual Diversion: N/A

CWCB Loan: $818,100 (with 1% service fee)

Interest Rate: 2.50% **Term:** 15 years
(Reduced from 2.75% for middle income municipal)

The Boxelder Basin Regional Stormwater Authority was formed in 2008, through an IGA between Fort Collins, Larimer County, and 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 will be completed in conjunction with the Authority's East Side Detention Facility (CWCB Loan Contract C150352) and Larimer and Weld Canal Crossing Structure (CWCB Loan Contract C150353). This Project will install box culverts under County Road 52 to reduce roadway overtopping in a 100-year storm event. 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.

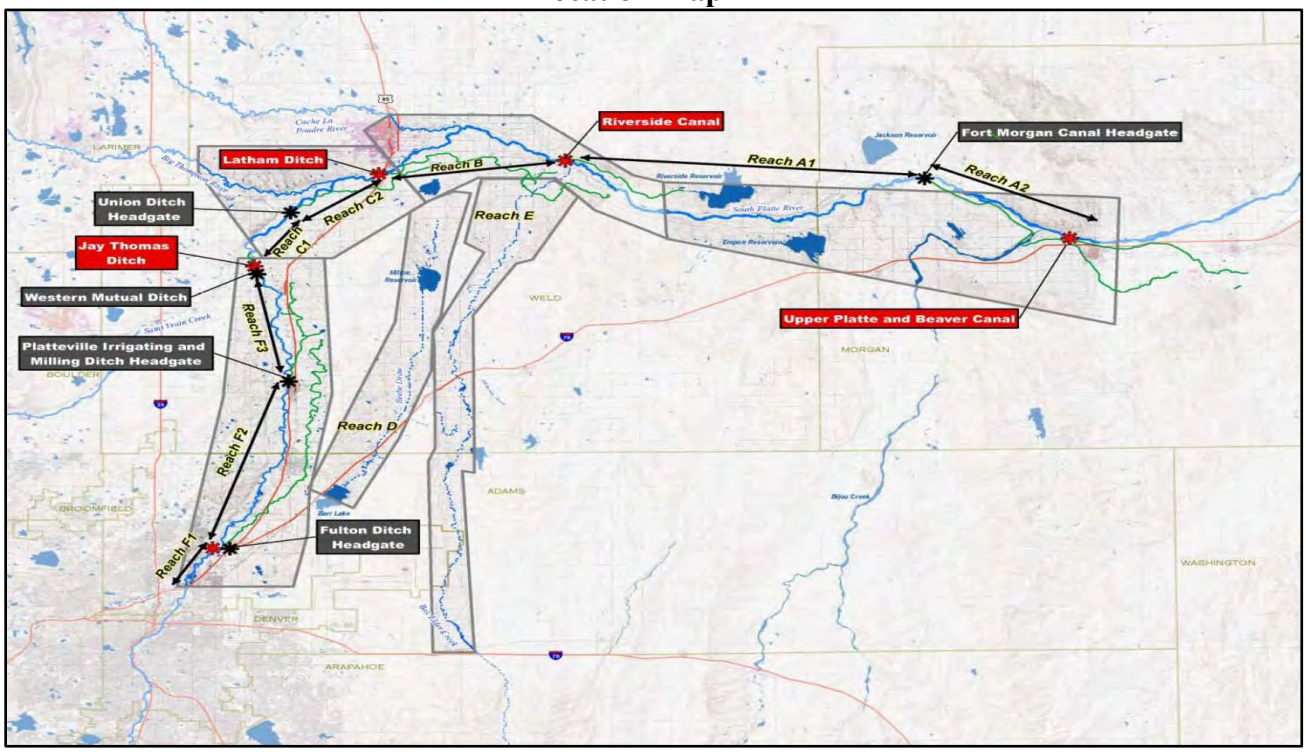


Water Project Loan Program – Project Data Sheet

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



Loan Program
Attachment 3
C150343

CWCB Water Project Loan Program
Project Data Sheet

Borrower: Colorado Parks and Wildlife

County: Rio Grande

Project Name: Beaver Park Dam

Project Type: Reservoir Rehabilitation

Drainage Basin: Rio Grande Basin

Water Source: Beaver Creek

Total Project Cost: $15,939,606

Funding Source: Construction Fund

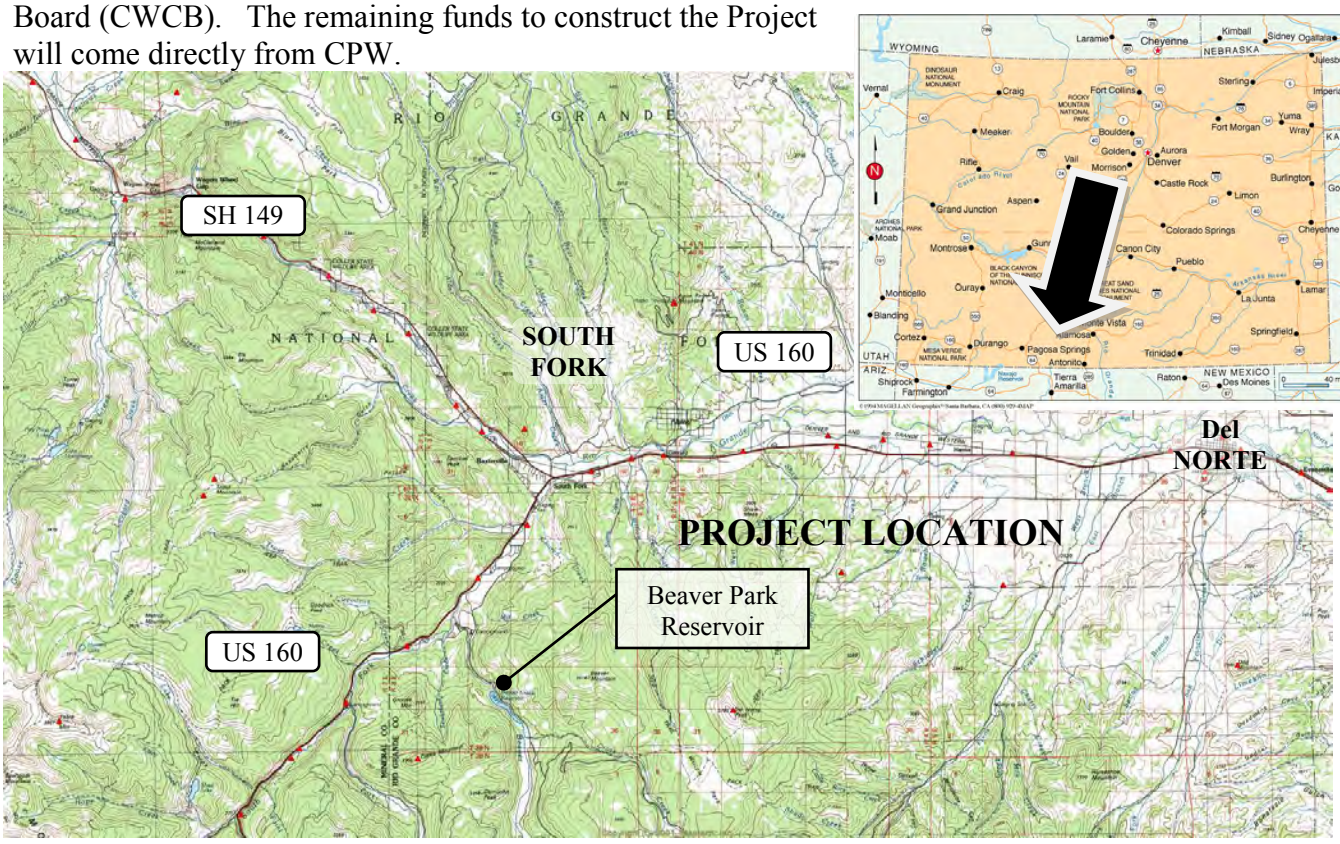
Type of Borrower: State Agency

Average Annual Diversion: 4,434 AF
Restricted Capacity Reclaimed: 2,201 AF

CWCB Loan: $10,000,000

Interest Rate: 0% **Term:** 30-year

Colorado Division of Parks and Wildlife (CPW) is applying for a loan for the Beaver Park Dam Rehabilitation Project (Project). 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 intends to construct a downstream filter/drain system, an upstream high density liner, and a spillway chute. The total Project cost for the alternative selected is $15,939,606. The General Assembly authorized CPW for a $10,000,000 loan, at a 0% interest rate, through the 2012 Projects Bill (SB12S-002) to assist in constructing the Project, contingent upon final loan approval by the Colorado Water Conservation Board (CWCB). The remaining funds to construct the Project will come directly from CPW.



Water Project Loan Program – Project Data Sheet

Borrower: Crystal Lakes Water and Sewer Association

County: Larimer

Project Name: Lower Lone Pine Reservoir Enlargement

Project Type: Reservoir Enlargement

Drainage Basin: South Platte, District 1

Water Source: North Lone Pine Creek (tributary to Cache la Poudre River)

Total Project Cost: $2,600,000

Funding Source: Construction Fund

Type of Borrower: Lower-Income Municipal

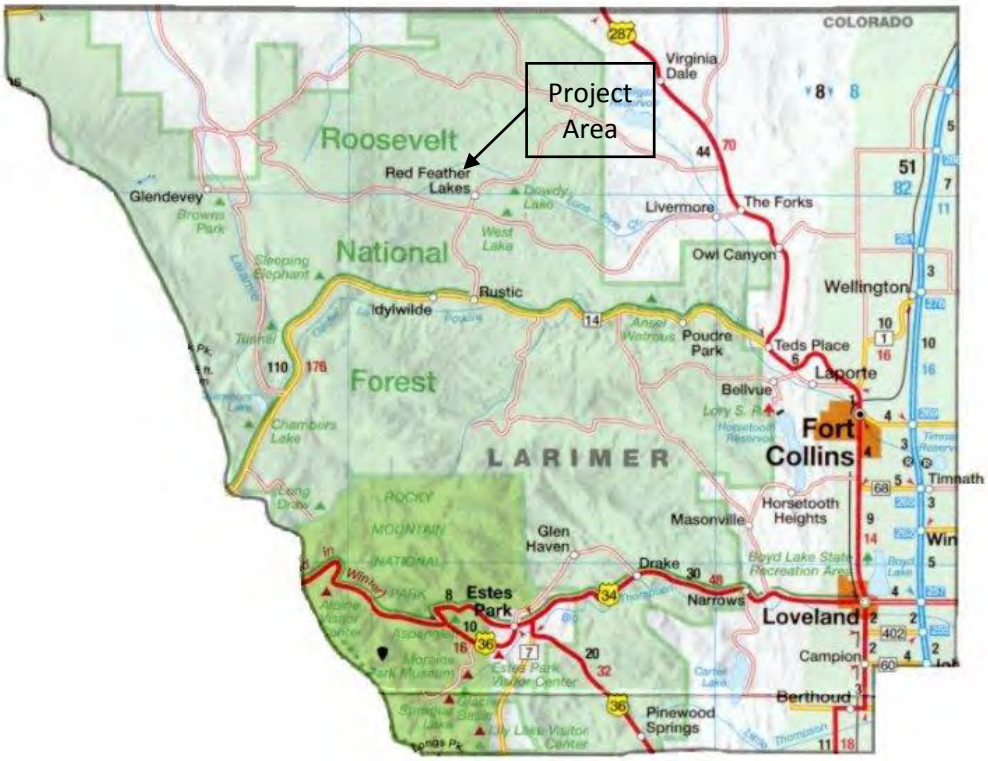
Avg. Annual Diversion: 271 AF

CWCB Loan: $2,363,400 (w/ 1% service fee)

Interest Rate: 4.00% **Term:** 30 years

The Crystal Lakes Water and Sewer Association (Association) is requesting a loan to enlarge Lower Lone Pine Lake Reservoir from 10.5 AF to 100.5 AF. The enlargement will be used to store Upper Lone Pine Reservoir (no yet constructed) water rights in Lower Lone Pine Reservoir for the purpose of augmentation of well water consumption for residences of Crystal Lakes. The Crystal Lakes subdivision, a private community located in Larimer County, was established in 1969 and includes 1,656 lots distributed over 4,800 acres. More than 800 residences are currently served by the Association. The decreed augmentation plan specifically links the allowable use of water to the amount of augmentation water held in storage. Without increased storage capacity the community is likely to face routine water restriction. No change in use of the Upper Lone Pine Reservoir rights has been requested, only an alternate place of storage.

Location Map



CWCB Construction Loan Program
Project Data Sheet

Borrower: Town of Dillon

County: Summit

Project Name: Old Dillon Reservoir Enlargement

Project Type: Reservoir Enlargement

Drainage Basin: Colorado River

Water Source: Salt Lick Gulch

Total Project Cost: $6,315,000 Total Cost
$1,667,000 Town's Portion

Funding Sources: Construction Fund

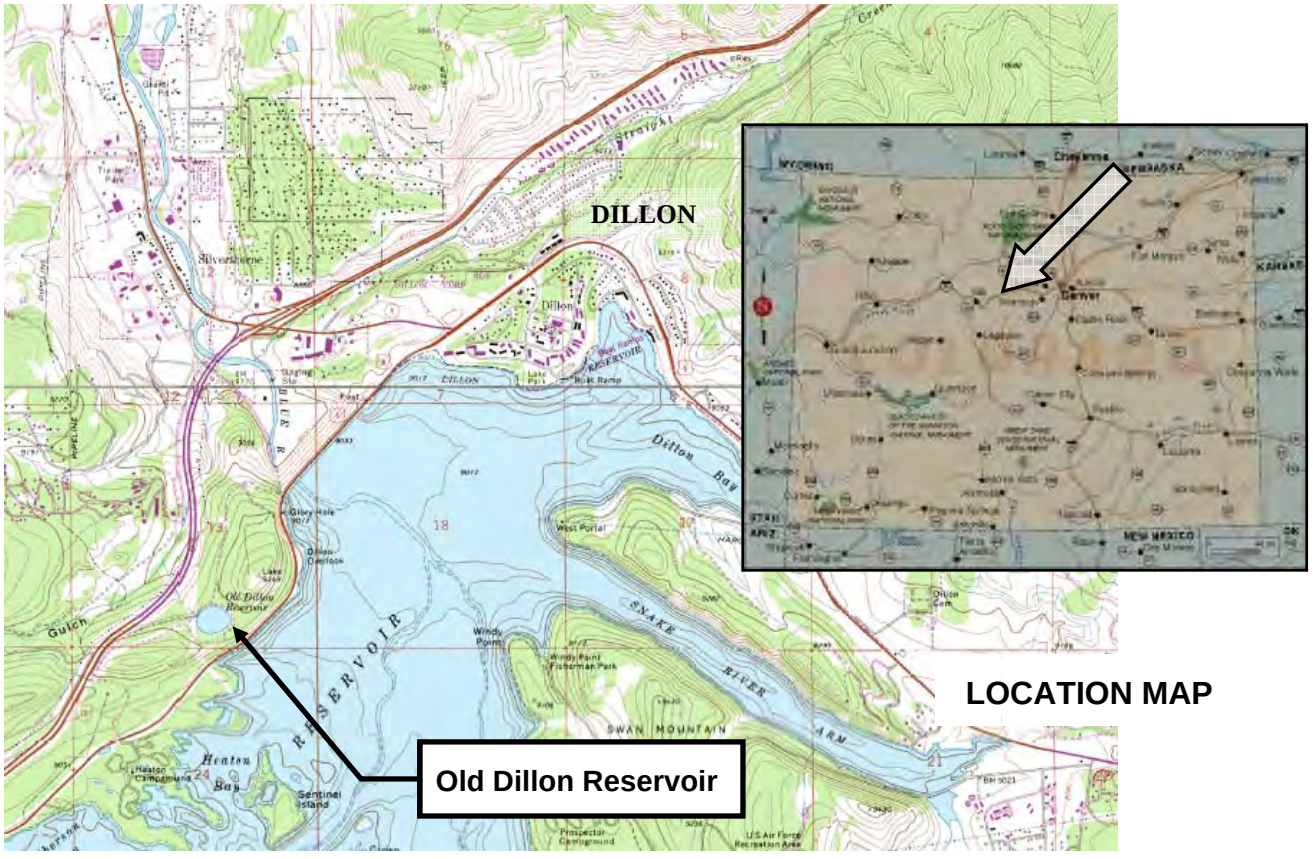
Type of Borrower: Municipal Middle Income

Average Delivery: 321 AF
New Storage: 109 AF (Restricted + New)

Loan Amount: $1,515,000 (Including 1% fee)

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

The Town of Dillon is applying for a loan to participate in the enlargement of the Old Dillon Reservoir. In 2004, the Town, Summit County and Town of Silverthorne signed an agreement to enlarge the reservoir. The Town's participation cost is approximately 27% of the construction costs and 20% of the Engineering costs. The Town and the County initiated a feasibility study in 1995. The Reservoir was originally constructed as a 46 AF raw water storage reservoir filled via the Dillon Ditch, which diverts from Salt Lick Gulch. The Reservoir site is southwest of the Dillon Reservoir Dam. In the summer of 2008, the SEO issued an order to drain the Reservoir due to concerns over the integrity of the north dam. The Reservoir is currently not available for storage. Permitting is underway and construction of the enlargement is scheduled to occur in 2010.



CWCB Water Project Loan Program
Project Data Sheet

C150360

Borrower: East Mesa Water Company

County: Pitkin, Garfield

Project Name: Ditch Piping Project

Project Type: Ditch Rehabilitation

Drainage Basin/District: Colorado/38

Water Source: Crystal River

Total Project Cost: $550,000

Funding Source: Construction Fund, NRCS

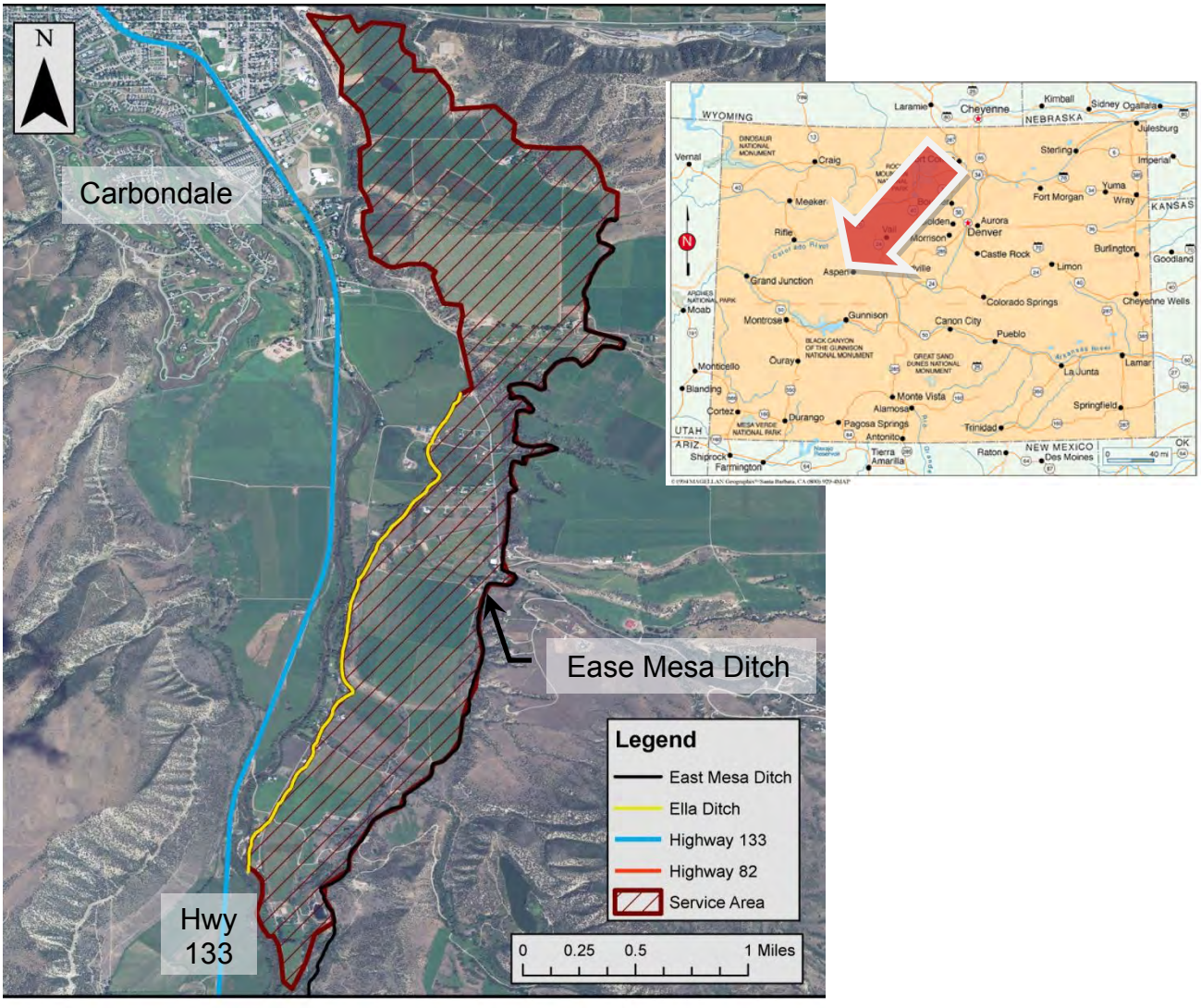
Type of Borrower: Agricultural

Average Annual Diversion: 9,669AF

CWCB Loan: $555,500 (initial loan)
$255,500 (long term - post construction loan w/service fee)

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

This Company is located in the Crystal River Valley in the western portion of Pitkin County and provides irrigation water diverted out of the Crystal River. The earthen ditch enters a 650 foot long rock tunnel that is collapsing. The Company is working with the NRCS to realign the ditch to avoid the tunnel by putting the ditch into a new 1,450 foot HDPE pipe. The Company serves 12 shareholders and is primarily used to grow hay and forage crops for cattle ranching. The Company is approved for grant funding from NRCS and construction is anticipated to occur in the fall of 2013.



CWCB Water Project Loan Program
Project Data Sheet

Borrower: Eckhardt Farms Inc.

County: Weld

Project Name: Water Rights Purchase

Project Type: Water Rights Purchase

Basin: South Platte **District:** 1

Water Source: Western Mutual Ditch

Total Project Cost: $1,470,000

Funding Source: Construction Fund

Type of Borrower: Agricultural

Average Annual Diversion: 694 AF

CWCB Loan: $1,336,230 (w/ 1% service fee)

Interest Rate: 1.75%

Term: 30-years

Eckhardt Farms Inc. is located in Weld County near LaSalle, Colorado. The farming Corporation has been incorporated since 1993. It farms 3,000 acres and generates revenues from crops of hay, wheat, corn, sugar beets, onions, and pinto beans. In the past, the Corporation was able to irrigate with well water. The wells it used are part of Central Colorado Water Conservancy District's – Well Augmentation Subdistrict and have not been able to be pumped since 2005. Since that time the Corporation has been leasing shares in the Western Mutual Ditch Company. Through this loan, the Corporation intends to purchase the water it has been leasing for the past seven years and continue to use it for agricultural production.

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

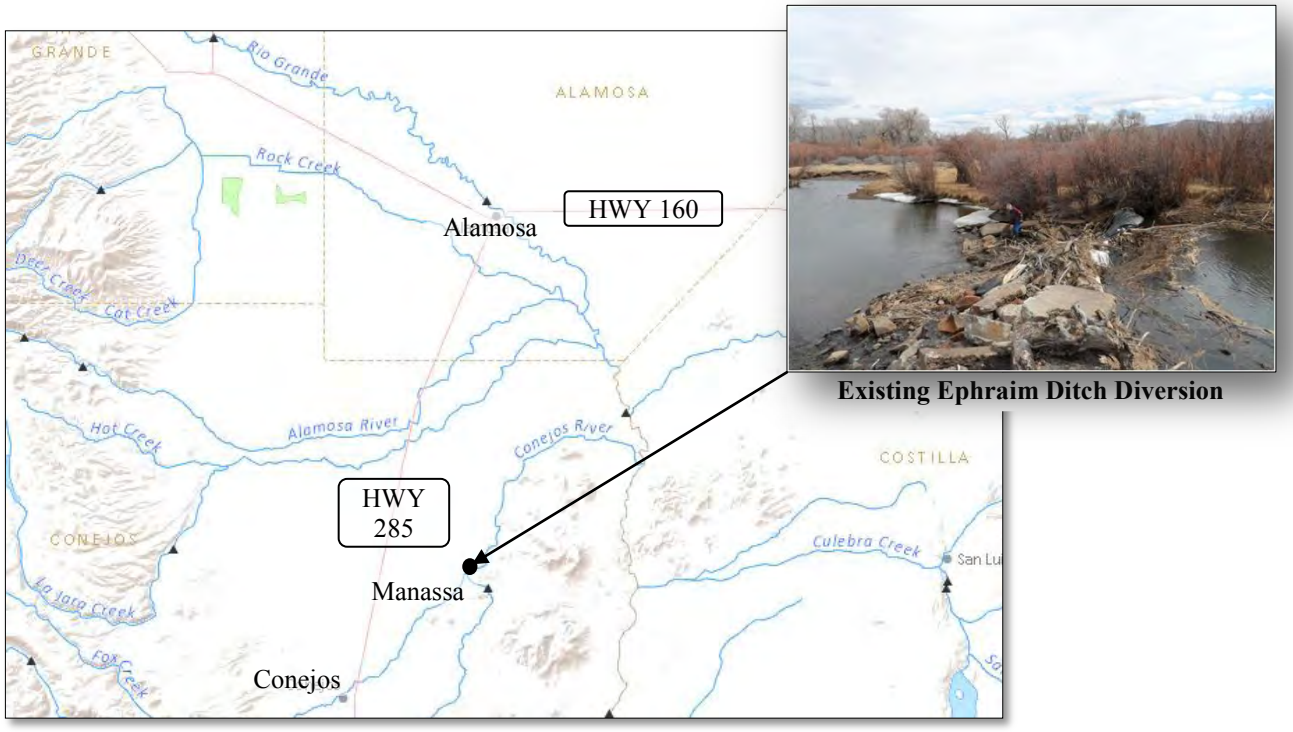
Average Annual Diversion: 4,100 AF

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.

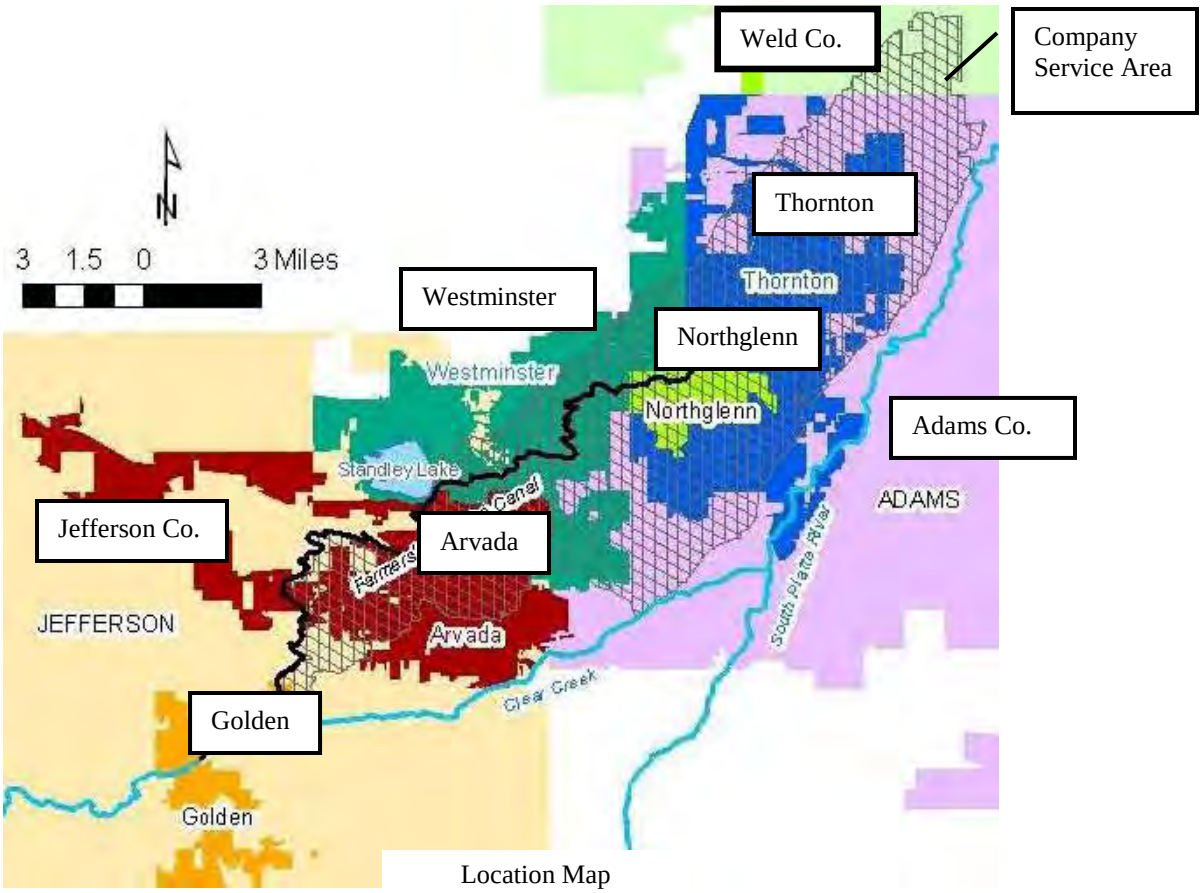


Existing Ephraim Ditch Diversion

CWCB Water Project Loan Program
Project Data Sheet

Borrower: Farmers' High Line Canal and Reservoir Company
County: Adams/Jefferson
Project Name: System Rehabilitation
Project Type: Ditch Rehabilitation
Drainage Basin/District: South Platte / 7
Water Source: Clear Creek
Total Project Cost: $2,430,000
Funding Source: Construction Fund
Type of Borrower: Municipal
Water Delivery: 24,000 AF/yr
CWCB Loan: $2,209,597 (incl. 1% loan fee)
Interest Rate: 4.65% **Term:** 30 years (Blended rate)

The Farmers High Line Canal and Reservoir Company (Company) is a ditch company that was established in 1885. It diverts water off of clear creek and it delivers water through a 31 mile canal running from Golden to Northglenn, through Arvada and Westminster. The Company has completed a canal evaluation and engineering planning study and identified a list of improvements it intends to do with the CWCB loan proceeds. These items include: replacement of corroded drain pipes, replacement of three siphons, headgate rehabilitation, SCADA control system installation at the headgate, diversion dam rehabilitation, and tree removal along the ditch. This work is expected to be completed between the fall of 2010 through the winter of 2014.



Location Map

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

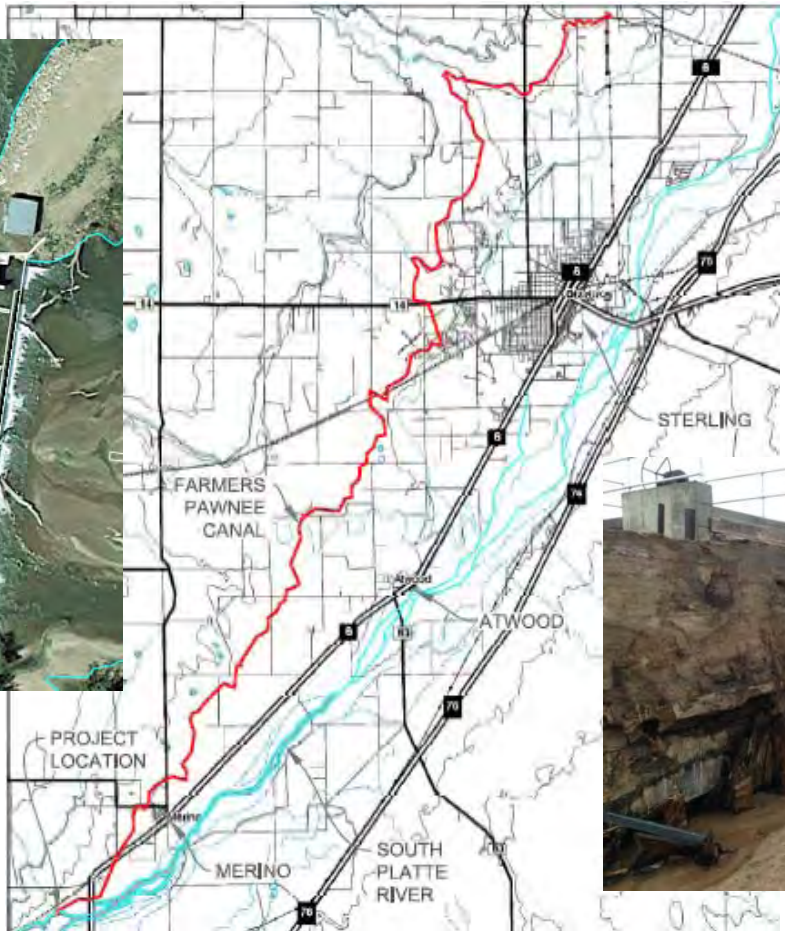
Type of Borrower: Agricultural

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

C150399

Borrower: Fulton Irrigation Ditch Company

County: Adams

Project Name: Diversion Structure Rehabilitation Project

Project Type: Diversion Rehabilitation

Drainage Basin/ District: South Platte / 2

Water Source: South Platte River

Total Project Cost: $2,230,000

Funding Source: Construction Fund

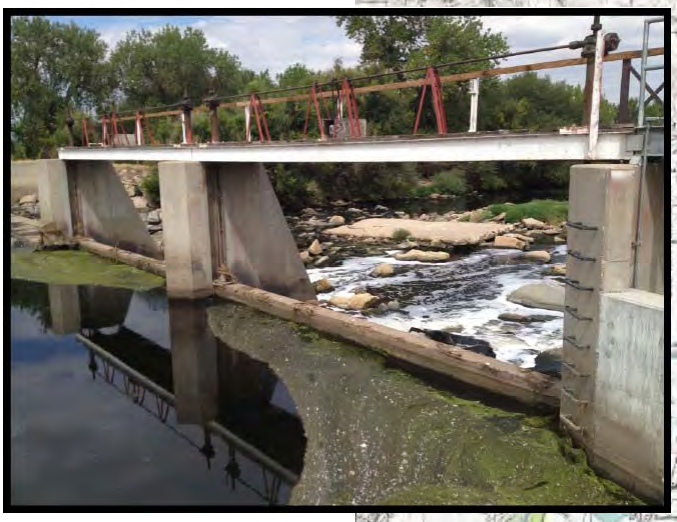
Type of Borrower: Blended

Average Annual Diversion: 29,684 AF

CWCB Loan: $2,027,070 (with 1% service fee)

Interest Rate: 2.45% **Term:** 30-years

The purpose of the Project is to replace the Company's South Platte River diversion gates and rehabilitate the existing trash rack. The Project will also include the reconstruction of the Branch Ditch Diversion Structure on the Fulton Ditch. The Company diverts South Platte River water near 100th Ave. in Commerce City to a 38,000 acre service area. Sago pond weed in the South Platte River has escalated and is beginning to obstruct the flow of water through the existing trash rack. Construction is expected to occur in the fall/winter of 2014/2015.



CWCB Water Project Loan Program
Project Data Sheet

Borrower: Town of Georgetown (Water and Sewer Enterprise)

County: Clear Creek County

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

Drainage Basin/District: South Platte / 7

Water Source: Clear Creek

Total Project Cost: $3,275,000

Funding Source: Construction Fund

Type of Borrower: Middle-Income Municipal

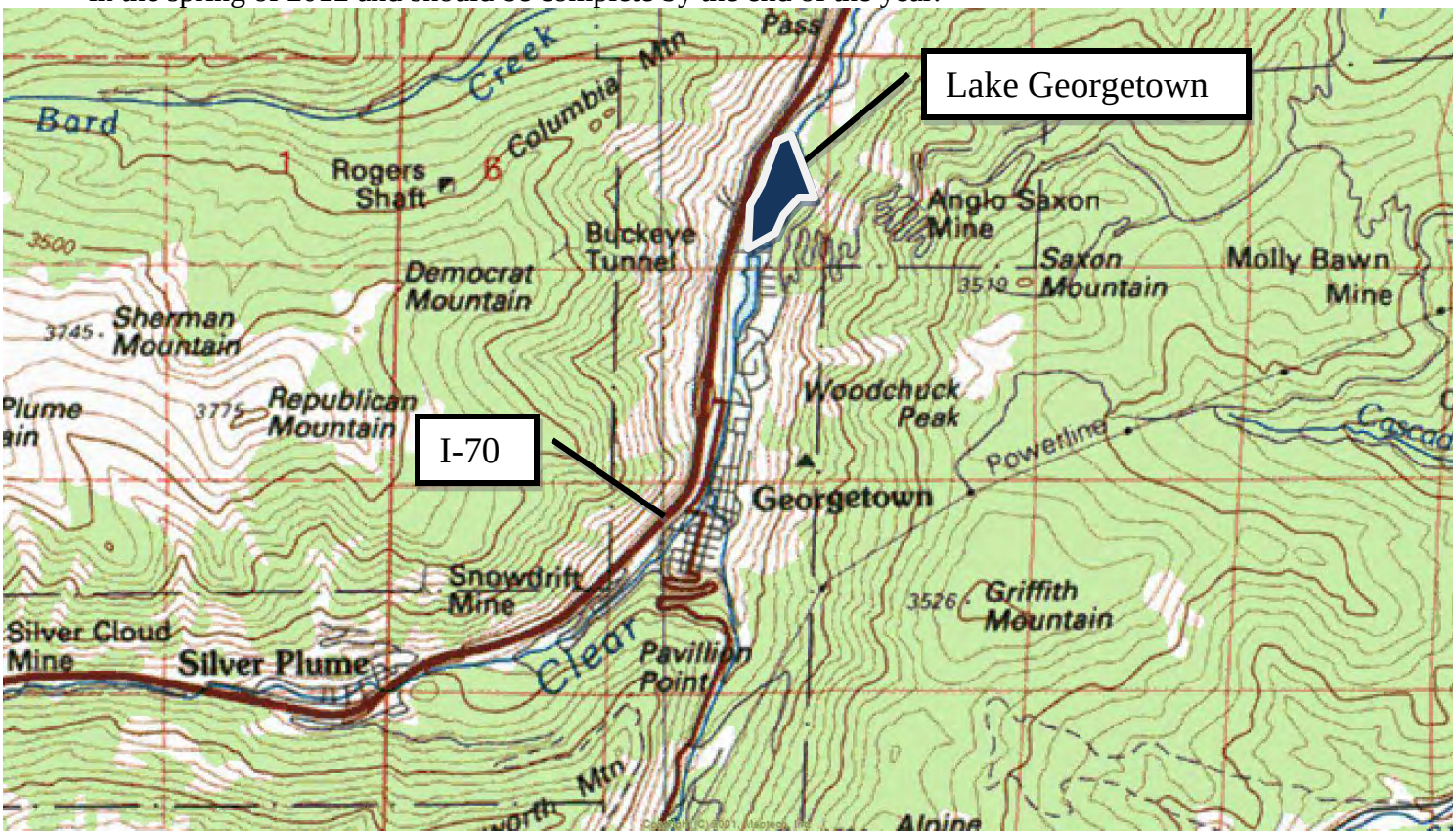
Average Diversion: 208 AF

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

Interest Rate: 4.5%

Term: 30 years

The Town of Georgetown is located on Clear Creek, along the I70 corridor, east of the continental divide. The Town needs to increase the outlet works capacity at Georgetown Lake Dam. The outlet works currently can release up to 260 cfs. In order to comply with an October 2010 court order regarding Georgetown Lake operations, up to 500 cfs must be released so the Town can meet the terms of its augmentation plan. The CWCB loan will be used to pay for the engineering costs and for the construction costs associated with the outlet works project. Construction is expected to begin in the spring of 2012 and should be complete by the end of the year.



CWCB Water Project Loan Program
Project Data Sheet

Borrower: Grand Mesa Water Conservancy District

County: Delta

Project Name: Peak Reservoir and Blanche Park Reservoir Rehabilitation

Project Type: Reservoir Rehabilitation

Drainage Basin/ District: Gunnison / 40

Water Source: Surface Creek

Total Project Cost: $640,000

Funding Source: Construction Fund/ WSRA Gunnison Basin Funds

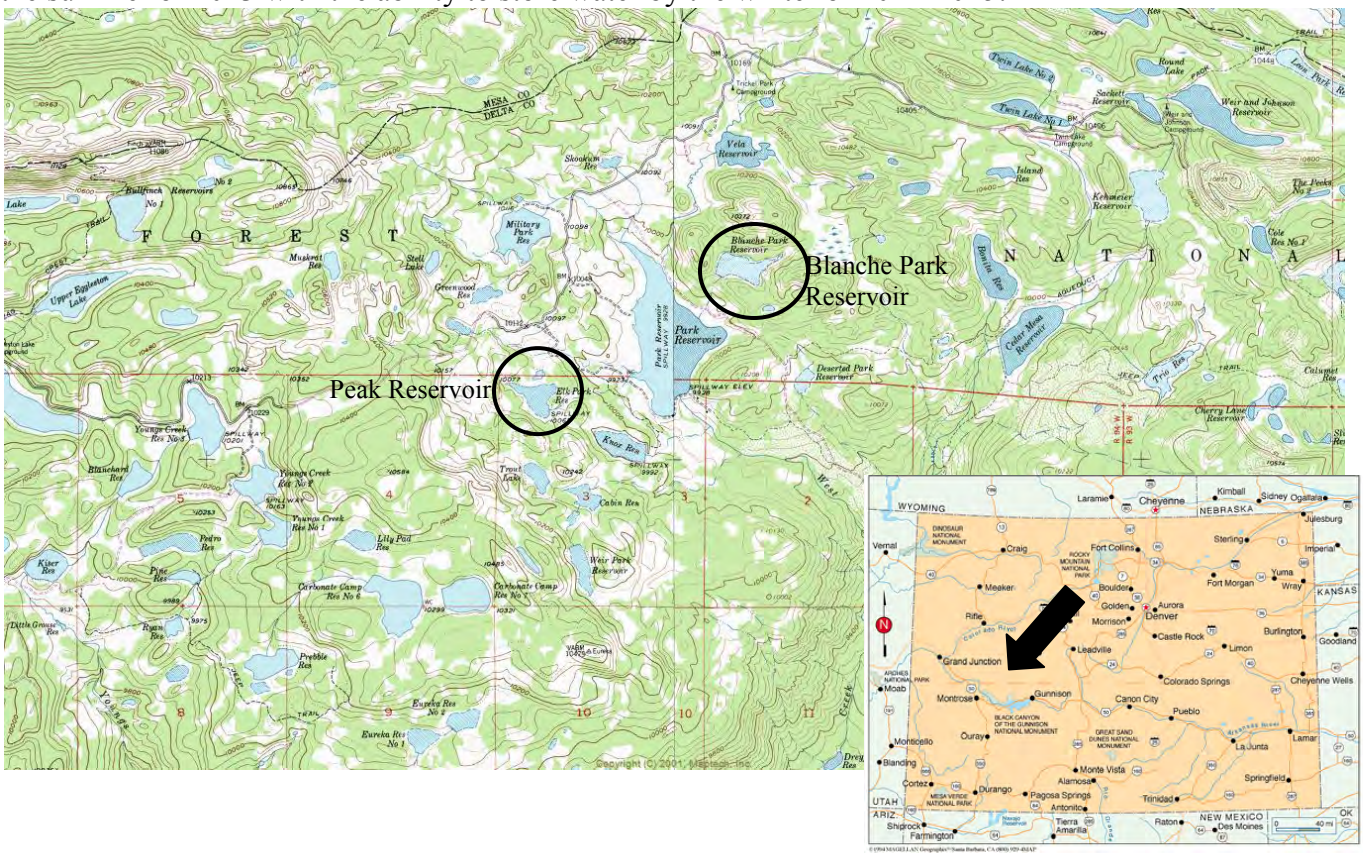
Type of Borrower: Municipal/Agricultural

Average Annual Diversion: 400 AF
Storage Added: 155 AF

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

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

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



Water Project Construction Loan Program - Project Data

Borrower: Greeley Irrigation Company

County: Weld

Project Name: Greeley Canal No. 3

Project Type: Ditch Rehabilitation

Drainage Basin: South Platte

Water Source: Cache La Poudre River

Total Project Cost: $2,457,500

Funding Sources: CWCB, GIC

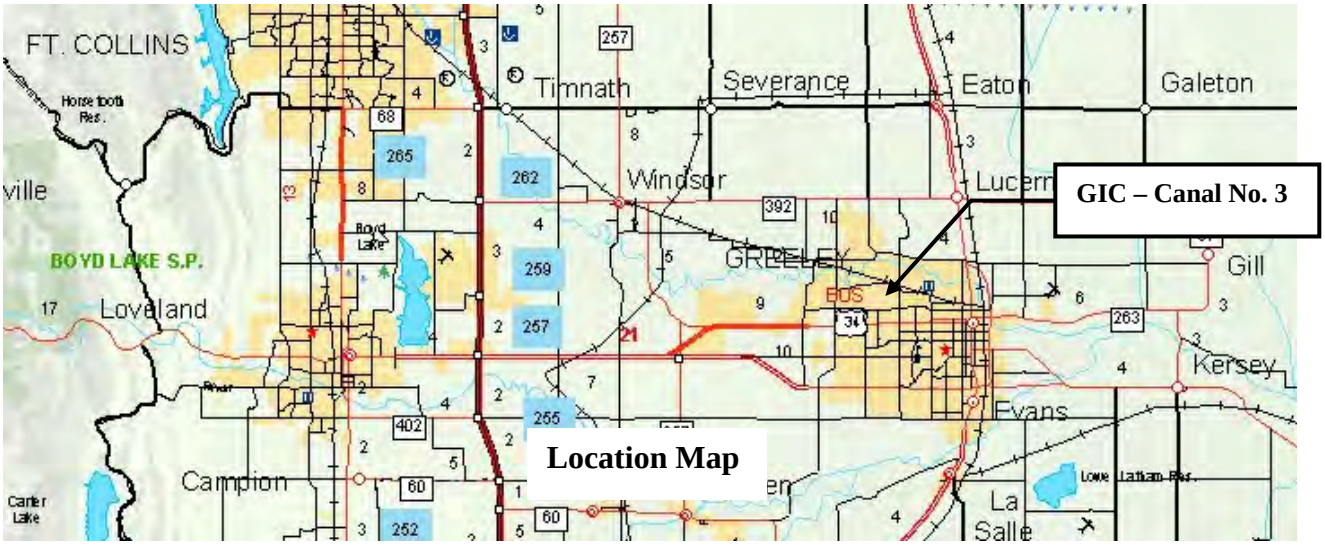
Type of Borrower: Agricultural/Municipal

Aver. Delivery: 18,000 acre-feet

CWCB Construction Fund Loan: $2,233,867 (incl. 1% loan fee)

Interest Rate: 2.85% **Term:** 30 years

GIC provides irrigation water to a service area of 2,367 acres in Weld County, generally within the City of Greeley and east of the City. GIC operates the Greeley Canal No. 3, constructed in 1870 by the Union Colony. In 1875, the Union Colony deeded an undivided 3/8ths interest in the Canal to the then Town of Greeley. In 1882, the GIC was incorporated and the Union Colony quit-claimed its remaining 5/8ths interest in the Canal to GIC. About 1,100 acres of the 3,500 original irrigated acres have been subject to dry-up, and water converted to augmentation use. Present canal usage is roughly 1/3 City of Greeley, 1/3 agricultural irrigation, and 1/3 augmentation. GIC facilities consist of a river diversion structure, approximately 13 miles of earthen canal, check structures, delivery headgates, spill structures, trash screens, and other minor structures. A portion of these facilities are in need of repair, upgrades, or replacement. GIC diverts water from the Cache la Poudre River west of Greeley and the canal terminates east of approx. 12 miles downstream. Average annual headgate diversions are 18,678 acre-feet. GIC also receives about 1300-1400 acre feet annually from Fossil Creek Reservoir. Combined delivery from direct flow diversions and storage is about 18,000 AF. The GIC Board is undertaking a number of phased improvements to the canal including: 1) repairs to, and partial replacement of, the river diversion; 2) piping or lining of portions of the canal; 3) consideration of canal automation using supervisory control and data acquisition (SCADA) equipment; 4) tree removal and tree pruning; 5) canal realignment, reshaping, and straightening; and 6) removal or repair of selected headgates and installation of new headgates. This is the first step of a phased canal modernization, that would have the effect of improving overall canal operations and operational efficiency; increasing consistency of shareholder headgate deliveries; decreasing operational liabilities; and reducing unnecessary operational spills.



CWCB Water Project Loan Program
Project Data Sheet

C150362

Borrower: Greeley and Loveland Irrigation Company

County: Larimer

Project Name: Irrigation System Improvements

Project Type: Reservoir Rehabilitation

Drainage Basin/ District: South Platte / 4

Water Source: Big Thompson River

Total Project Cost: $3,470,000

Funding Source: Construction Fund

Type of Borrower: Agricultural

Average Annual Diversion: 45,000 AF

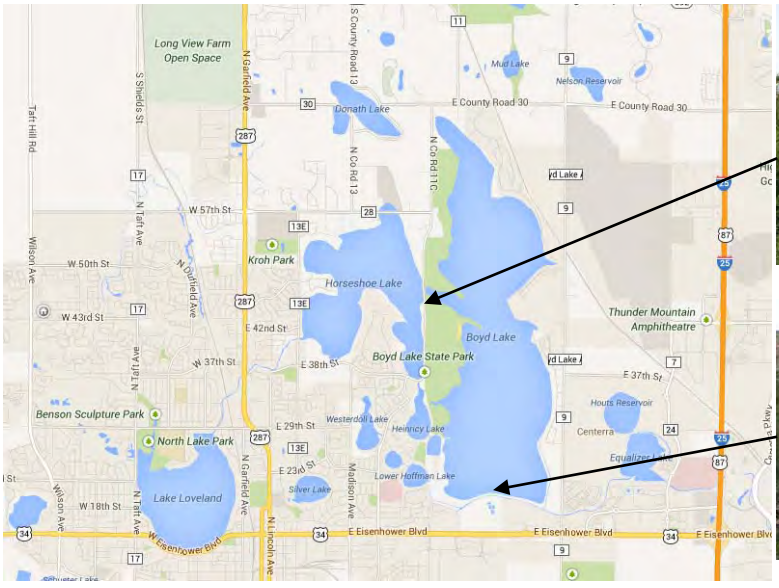
CWCB Loan: $3,154,230
(with 1% service fee)

Interest Rate: 2.15% **Term:** 30-years
(34% Ag, 53% Low, 12% Mid, <1% High, <1% Com)

The Greeley and Loveland Irrigation Company (Company) is a mutual ditch company established in 1900. Together with the Seven Lakes Reservoir Company (Seven Lakes), 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 4,874 acre-feet. The Boyd Lake project will replace 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.

Horseshoe Lake, owned by Seven Lakes, has a surface area of 650 acres and a storage capacity of 8,051 acre-feet. The Horseshoe Lake project will be used 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.




Existing Horseshoe Lake High-Level Outlet


Existing Boyd Lake High-Level Outlet

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

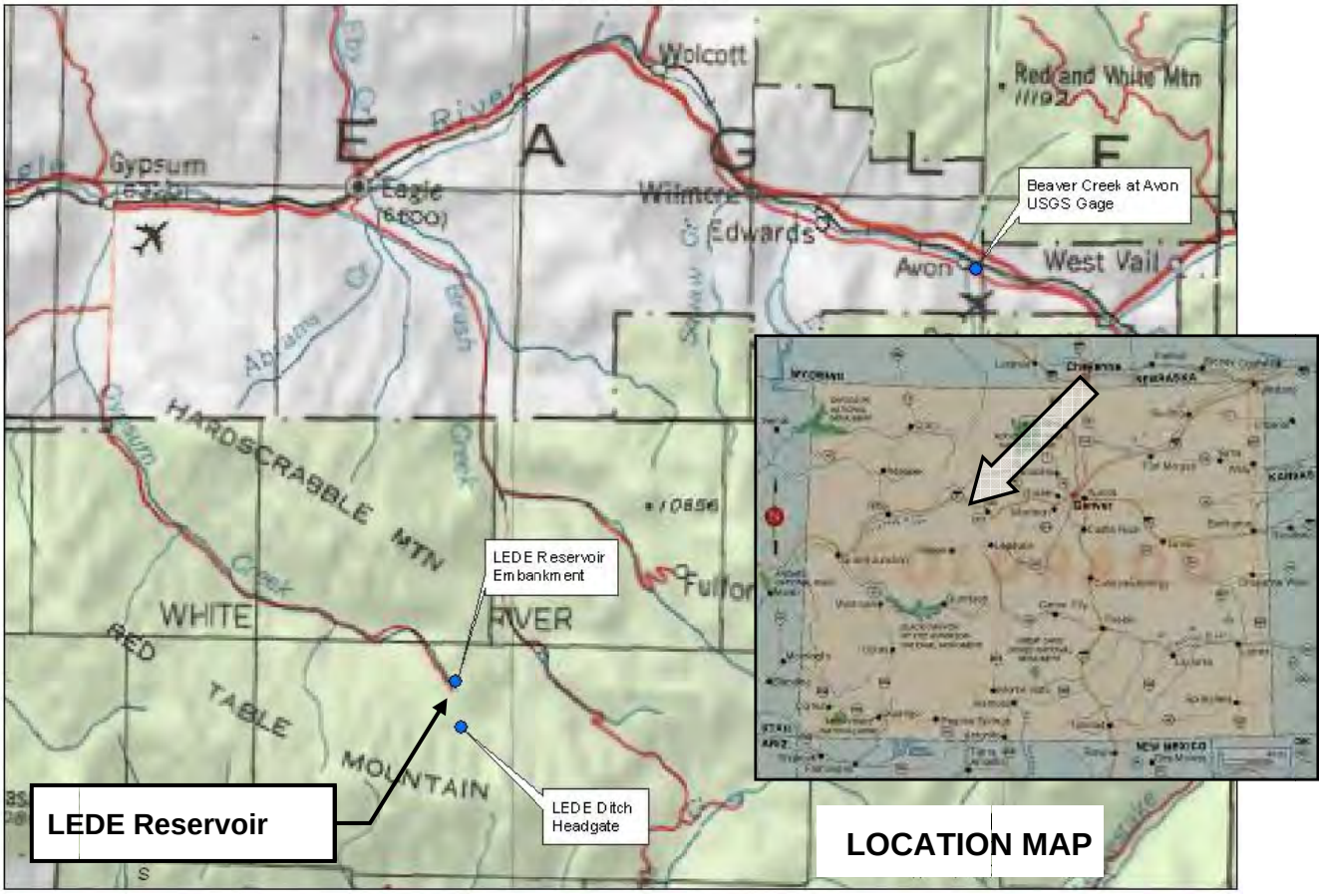
Average Delivery: 1,200 AF
New Storage: 254 AF

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.

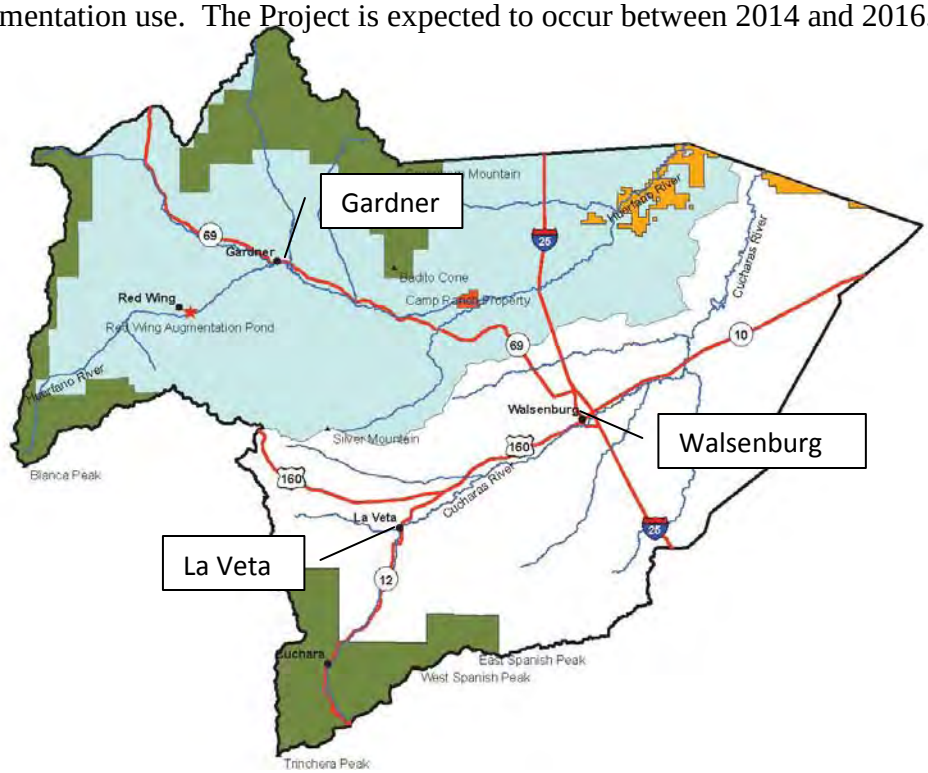
General Locations



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.



CWCB Construction Loan Program
Project Data Sheet

Borrower: Lake Canal Reservoir Company

County: Larimer and Weld

Project Name: North Gray Reservoir Rehabilitation

Project Type: Reservoir Rehabilitation

Drainage Basin: South Platte River

Water Source: Box Elder Creek

Total Project Cost: $128,300

Funding Sources: Construction Fund

Type of Borrower: Blended Agricultural Municipal & Commercial

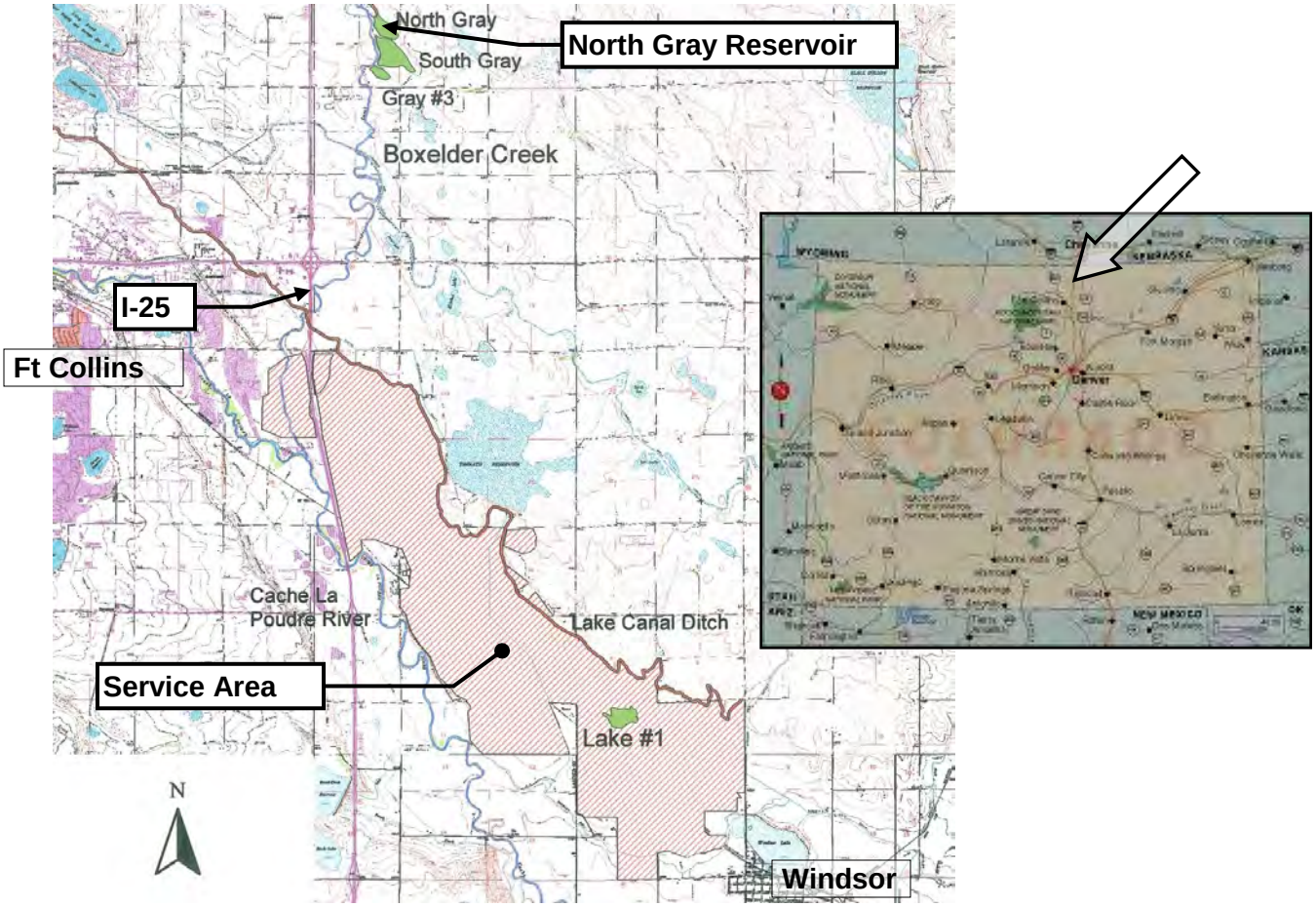
Details: 333 AF Stored
75 AF Recovered

Loan Amount: $116,625 (Including 1% fee)

Interest Rate: 2.10% **Term:** 30 years

The Lake Canal Reservoir Company is requesting a CWCB loan to construct a new spillway on North Gray Reservoir. The reservoir is currently under a storage restriction by the Office of the State Engineer (SEO). The existing spillway is a corrugated metal pipe that has corroded through. The existing pipe will be removed and the area will be backfilled. A new concrete cutoff wall and riprap lined channel will be constructed to replace the old spillway. Project design and SEO review is expected to be completed by July 2012. Construction is planned for September through November of 2012.

Note: Because this reservoir is on the SEO's restricted reservoir list and the Company is predominately owned by agricultural interests, this loan qualifies for a 1.0% interest rate reduction. The blended rate of 3.10% was reduced to 2.10%.



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).

Water Project Loan Program - Project Data

Borrower: Left Hand Ditch Company

County: Boulder

Project Name: Allen Lake and Lake Isabelle Repair Project

Project Type: Dam Rehabilitation

Drainage Basin: South Platte, District 5

Water Source: Left Hand and St. Vrain Creek

Total Project Cost: $1,273,000

Funding Source: Construction Fund

Type of Borrower: Blended (46% ag, 38% mid-muni, 16% high-muni)

Avg. Annual Delivery: 22,700 AF

CWCB Loan: $1,157,157 (incl. 1% loan fee)

Interest Rate: 2.45% **Term:** 30 years

The 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, are in need of repair. Lake Isabelle lies within the Indian Peaks Wilderness which is operated by the Forest Service. The outlet works are deteriorated and unreliable. This project will reconstruct the outlet works while placing the control valve at a more accessible location. The second reservoir, Allen Lake, is located just north of Boulder and west of Highway 36. Its 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 will flatten out the slope and re-armor it with rock rip-rap.

LOCATION MAP

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.

CWCB Water Project Loan Program
Project Data Sheet

C150334

Borrower: The McDonald Ditch Company

County: Rio Grande

Project Name: McDonald Ditch Diversion and Headgate Replacement Project

Project Type: Ditch Rehabilitation

Drainage Basin/ District: Rio Grande / 20

Water Source: Rio Grande River

Total Project Cost: $1,085,200

Funding Source: Construction Fund

Type of Borrower: Agricultural

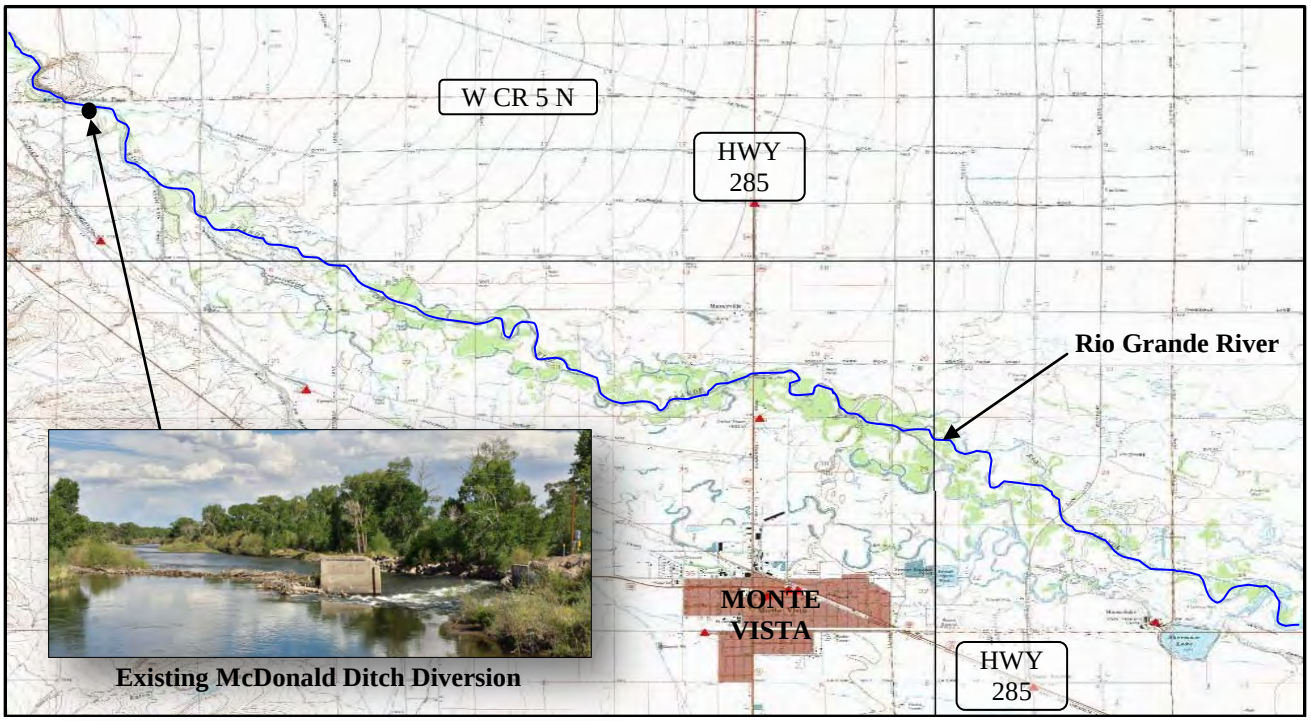
Average Annual Diversion: 45,000 AF

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

Interest Rate: 2.50% **Term:** 30-years

The McDonald Ditch Company is a Mutual Ditch Company formed in 1921. Their diversion structure and headgate were poorly designed and are rapidly 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. Phase 2 of the Plaza Project includes the final engineering design and construction of a new diversion and headgate for the McDonald Ditch Company.

A loan to the McDonald Ditch Company was approved for this Project in May 2012 in the amount of $70,700. During the final engineering design of the McDonald Ditch diversion structure, analysis showed that the chosen design of the diversion structure at the existing location would cause flooding in the local community including the upstream bridge of W CR 5 N (Sevenmile Plaza Bridge). The solution is to relocate the diversion structure and headgate just upstream of the bridge and has increased Project cost. This loan increase request of $30,300 is sought to cover the Company's portion of the Project cost increase.



Water Project Loan Program - Project Data

Borrower: City of Monte Vista (Water Activity Enterprise)

County: Rio Grande

Project Name: Augmentation Water Rights Acquisition

Project Type: Water Rights Purchase

Drainage Basin: Rio Grande

Water Source: Rio Grande River

Total Project Cost: $1,863,500

Funding Source: Construction Fund

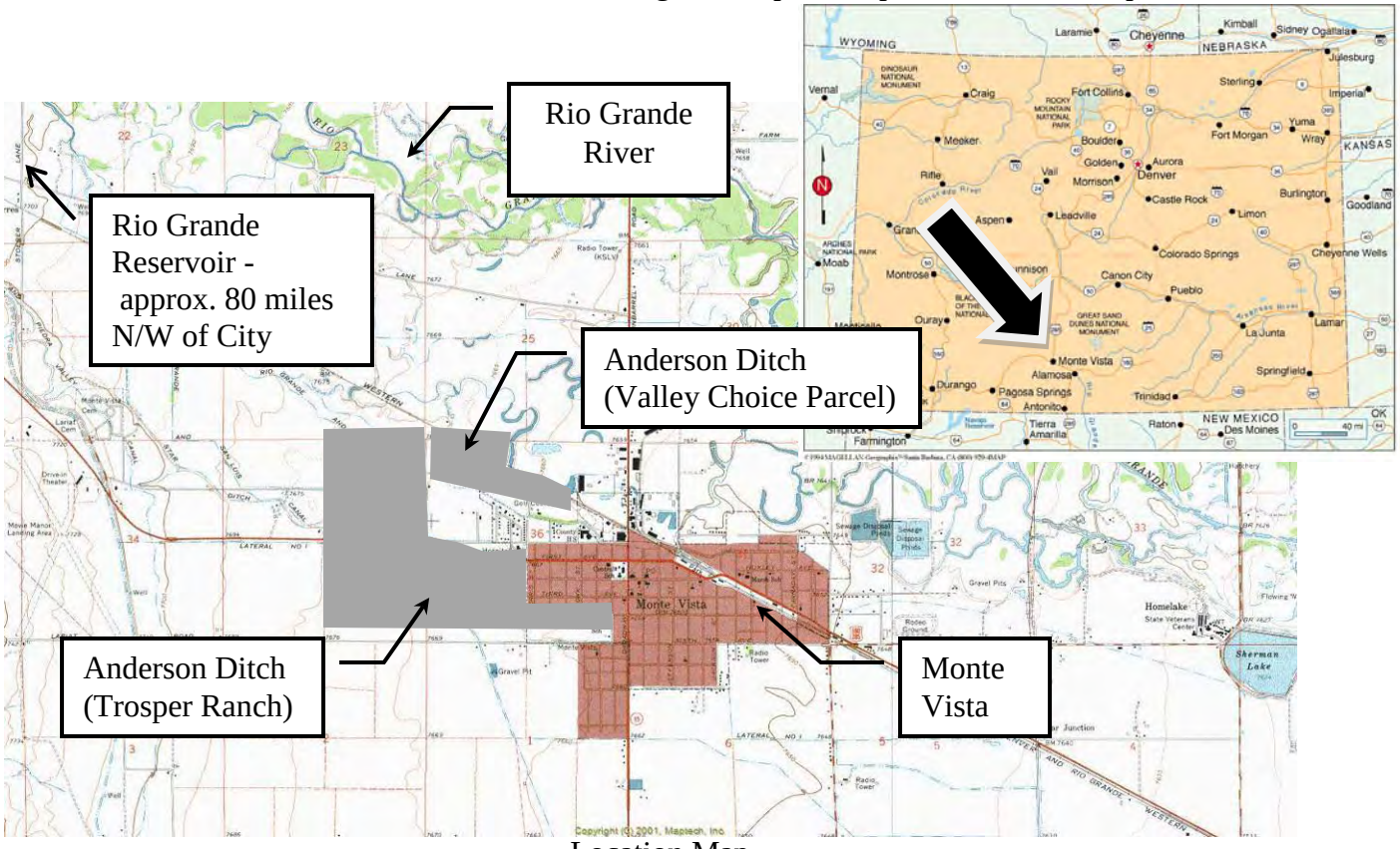
Type of Borrower: Low-Income Municipal

Aver. Demand: 1,212 AF/year

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

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

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



Location Map

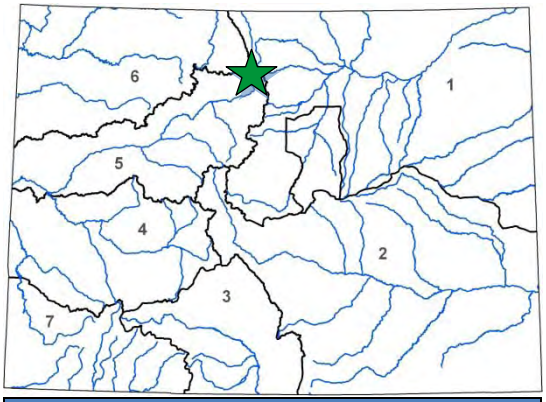
COLORADO
Colorado Water Conservation Board
Department of Natural Resources

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

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

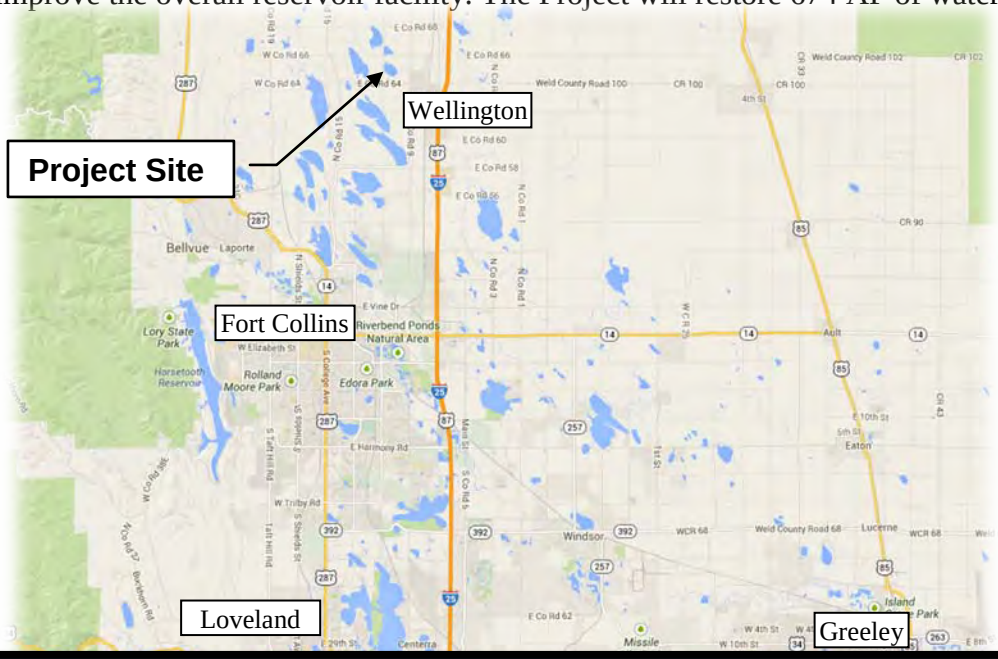
Type of Borrower: Blended

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.



CWCB Construction Loan Program
Project Data Sheet

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

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

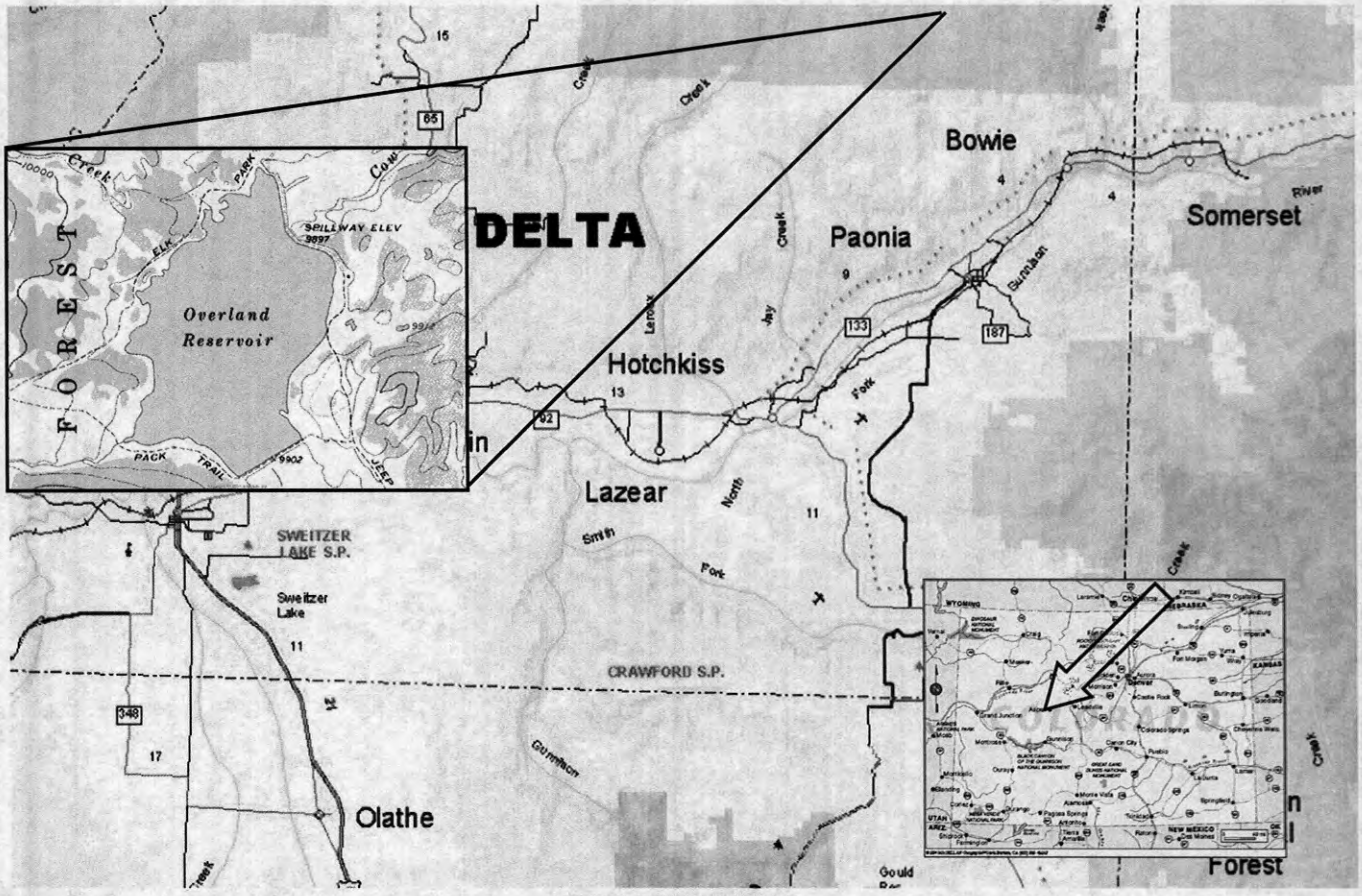
Drainage Basin: Gunnison River Basin **Water Source**: Cow Creek

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

Owl Creek Reservoir Company
November 20, 2001

Agenda Item 22E

WATER PROJECT CONSTRUCTION LOAN PROGRAM-PROJECT DATA

Borrower: Owl Creek Reservoir Company/J. Gale and Valerie A. Moody

Project Name: Owl Creek Reservoir Project **Project Type:** Rehabilitation

Drainage Basin: Owl Creek Tributary **County:** Larimer **Water Source:** Owl Creek

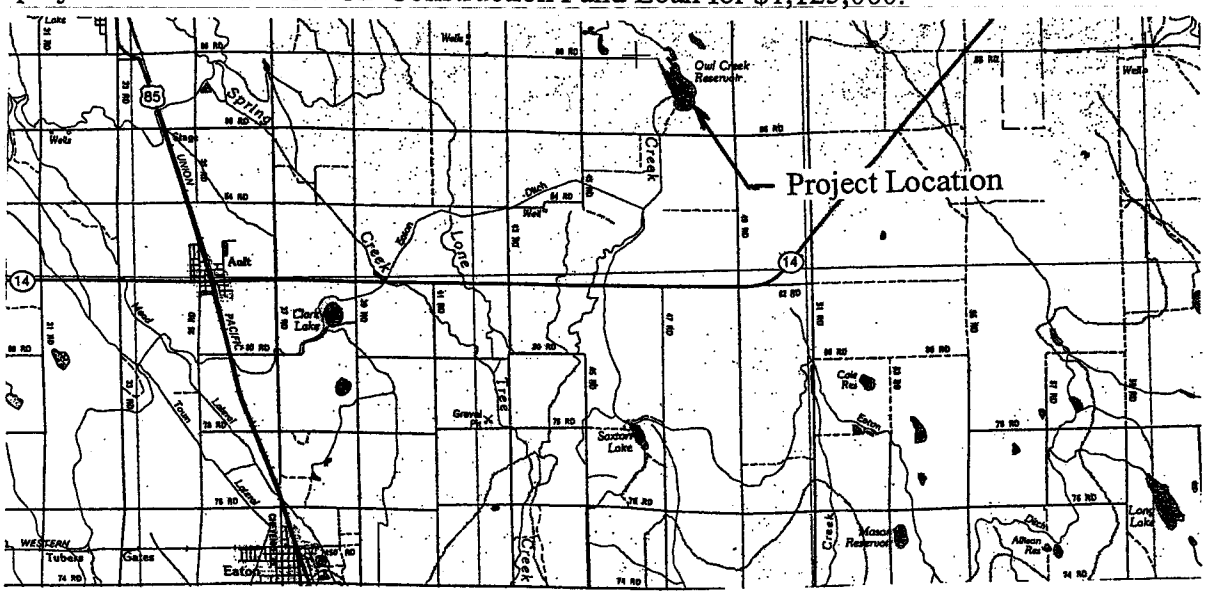
Total Project Cost: $1,250,000 **Funding Source:** CWCB

Type of Borrower: Agricultural **Median Household Income:** N/A

CWCB Construction Fund Loan: $1,125,000 **Interest Rate:** 3.25%

Term: 30-years **CWCB Grant:** $0 **Reservoir Volume:** 1,200 acre-feet

Owl Creek Reservoir is land located in Weld County, Colorado, approximately 6 miles east and 3 miles north of the Town of Ault. The reservoir was originally constructed in 1896 to store water for irrigation. The dam 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 proposed project involves rehabilitating the existing facility to meet the State of Colorado's "Rules and Regulations for Dam Safety and Dam Construction", therefore permitting the storage of approximately 1,200 acre-feet of water. The Applegate Group, Inc., has completed preliminary design plans and specifications for the project. Proposed funding for the project consists of a CWCB Construction Fund Loan for $1,125,000.



Location Map

Water Project Construction Loan Program - Project Data

Borrower: Penrose Water District (PWD)
Water Activity Enterprise

County: Fremont

Project Name: Penrose Raw Water Acquisition and Development Project

Project Type: Water Rights Purchase and Raw Water Pipeline

Drainage Basin: Arkansas

Water Source: Arkansas – Pleasant Valley Ditch

Total Project Cost: $9,730,000

Funding Sources: CWCB, PWD, DOLA

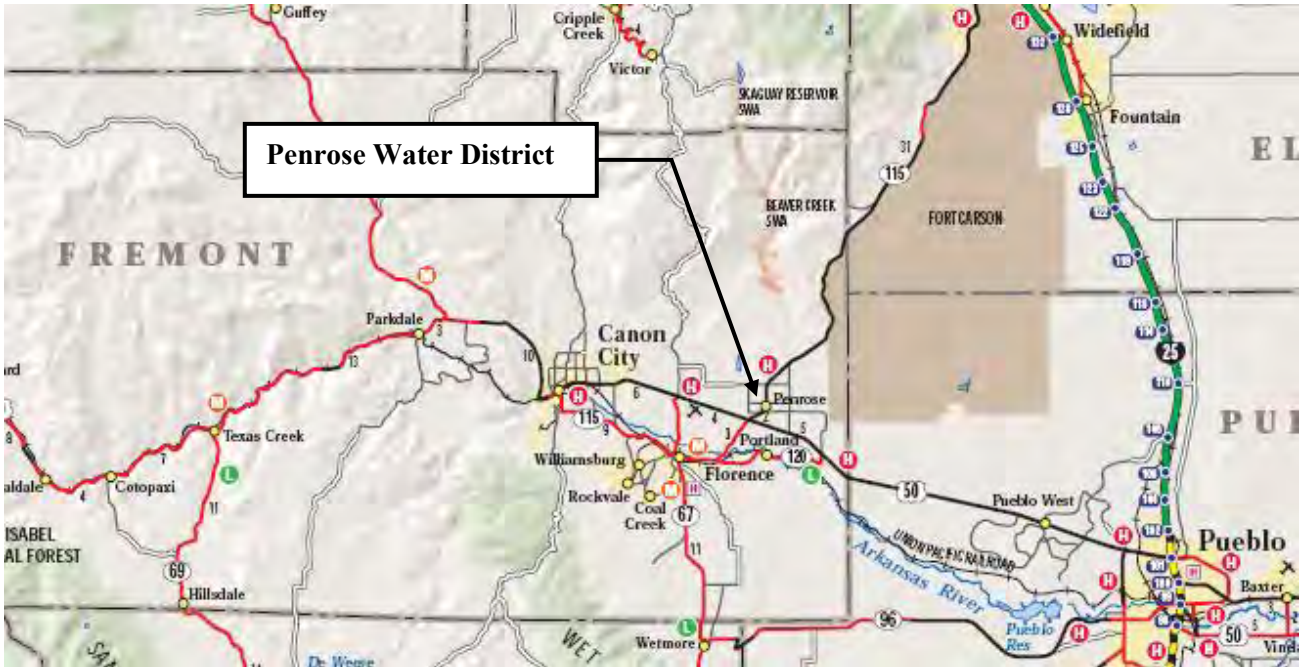
Type of Borrower: Municipal/Low

Aver. Delivery: 339 AF consumptive use

CWCB Construction Fund Loan: $8,844,570 (incl. 1% loan fee)

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

The PWD currently provides domestic water to approximately 4,000 people with 1,700 taps in and around the Town of Penrose, with existing demand of 489 acre-feet per year. PWD's water supply is obtained by a lease with the Beaver Park Water, Inc. (BPW) who owns and operates Brush Hollow Reservoir. The 1990 lease has a 30-year term, and provides an increasing amount of water each year, 751 AF in 2006, leveling out at 1,000 AF in 2020. In drought years, the amount available to PWD is further reduced below the contract amount. Future build-out demand in 2040 is projected to be 1,200 acre-feet for about 8,000 residents and 3,240 taps. The proposed Enterprise project includes the acquisition of 10/12th of the Pleasant Valley Ditch water rights near Howard, with a change in use and change in point of diversion approximately 50 miles downstream to Sec. 13, T19S, R69W. Water will be obtained through the installation of 7 shallow alluvial wells immediately north of the Arkansas River, and then pumped approximately 5.8 miles through a 12-inch transmission line to Brush Hollow Reservoir. As part of the project, Brush Hollow Reservoir will be enlarged by raising the dam four feet. Because of the drought, there has been reduced availability of water from BPW. The project and water rights purchase will supplement the existing BPW lease, and lessen PWD's reliance on BPW leased water, particularly in drought situations.



Location Map

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Mt. Pisgah Dam/Wrights Reservoir Outlet Works Rehabilitation

Pisgah Reservoir and Ditch Company

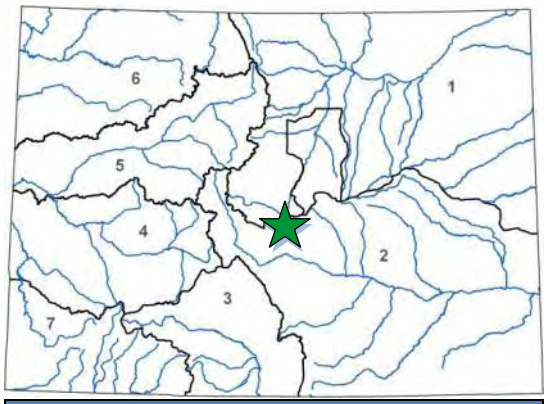
November 2014 Board Meeting

(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%

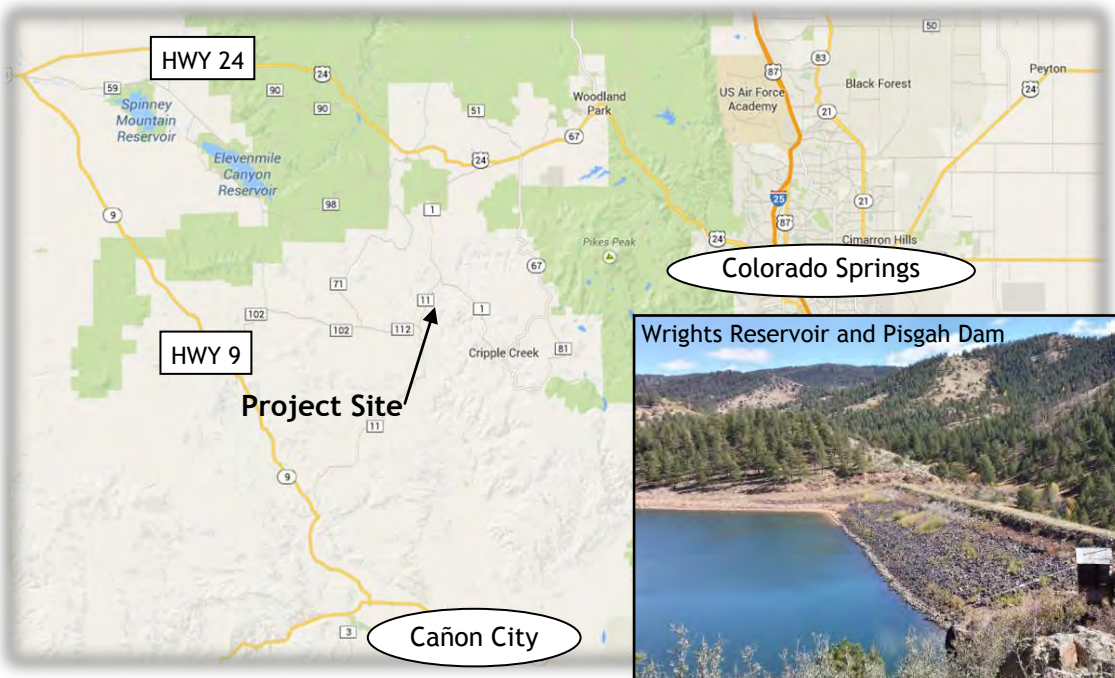
PROJECT DETAILS	
Project Type:	Reservoir Rehabilitation
Average Annual Diversion:	86,000 AF
Water Supply Storage Preserved:	2,192 AF

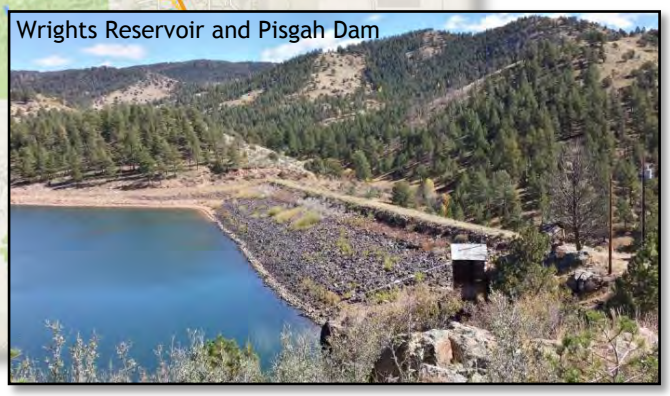


LOCATION			
County:			Teller
Water Source:			Fourmile Creek
Drainage Basin:			Arkansas
Division:	2	*District:*	12

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

Sand Hill Lake Outlet Works Rehabilitation

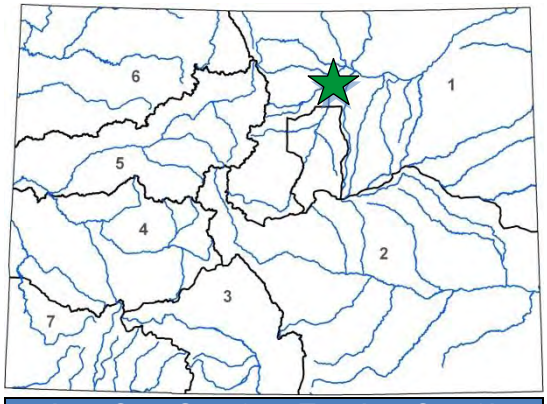
Platte Valley Irrigation Company

November 2014 Board Meeting

LOAN DETAILS	
Project Cost:	$820,000
CWCB Loan (with Service Fee):	$745,380
Loan Term and Interest Rate:	30 Years @ 2.0%
Funding Source:	Severance Tax Perpetual Base Fund

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

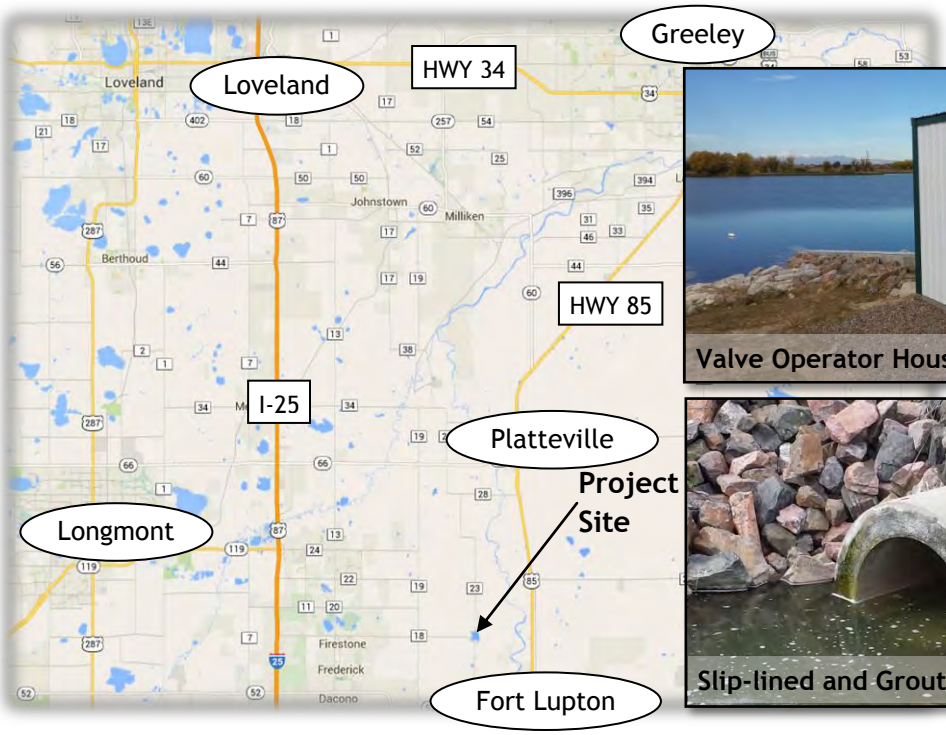
PROJECT DETAILS	
Project Type:	Reservoir Rehabilitation
Average Annual Diversion:	27,900 AF
Restored Water Supply Storage:	400 AF



LOCATION			
County:	Weld		
Water Source:	South Platte River, C-BT		
Drainage Basin:	South Platte		
Division:	1	*District:*	2

The Platte Valley Irrigation Company provides raw water for the irrigation of approximately 14,800 acres of agricultural land extending from Platteville to approximately 28 miles east along Highway 85.

In January 2014, the Company was in the process of replacing the 48" gate in the outlet of Sand Hill Reservoir. During construction a sink hole developed in the dam around the outlet structure, prompting an emergency response from the Company and the SEO's Dam Safety Branch. The Project team, in close coordination with the SEO, developed a project approach for the completion of the rehabilitation of the outlet structure. The Project was completed in May 2014 and the SEO issued an acceptance of construction in July 2014. Due to the emergency nature of the Project, and the need to get the reservoir back online for the irrigation season, the Company temporarily funded the Project using cash funds previously raised for an upcoming reservoir construction project. The Company is seeking this CWCB loan to provide final Project financing.




Valve Operator House


Slip-lined and Grouted Outlet Pipe

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

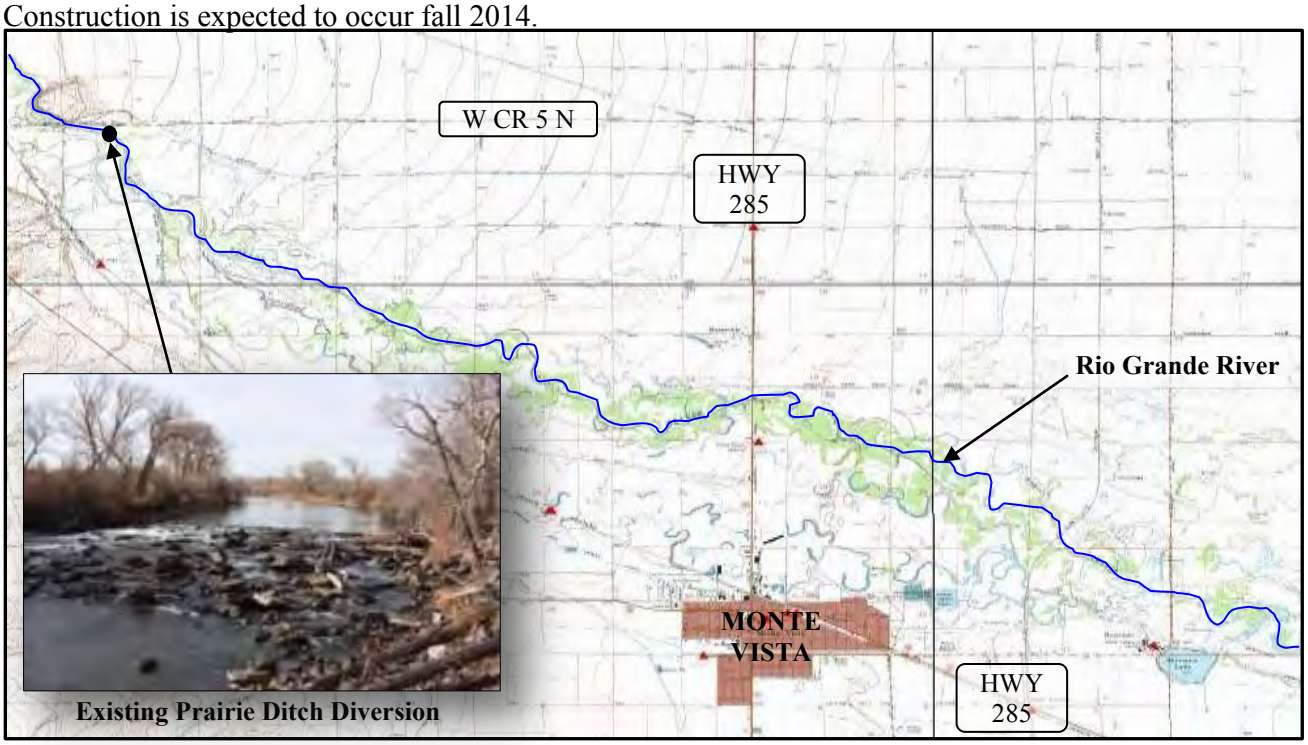
Average Annual Diversion: 16,000 AF

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.



CWCB Construction Loan Program
Project Data Sheet

Borrower: Town of Ridgway

County: Ouray

Project Name: Lake Otonowanda Rehabilitation Project

Project Type: Reservoir Enlargement

Drainage Basin: Gunnison, District 68

Water Source: Ridgway Ditch

Total Project Cost: $2,080,843

Funding Sources: Construction Fund, WSRA, DOLA, CO River District

Type of Borrower: middle-income municipal

Avg. Diversion: 280 AF (363 AF of reservoir storage)

Loan Amount: $606,000 (Including 1% fee)

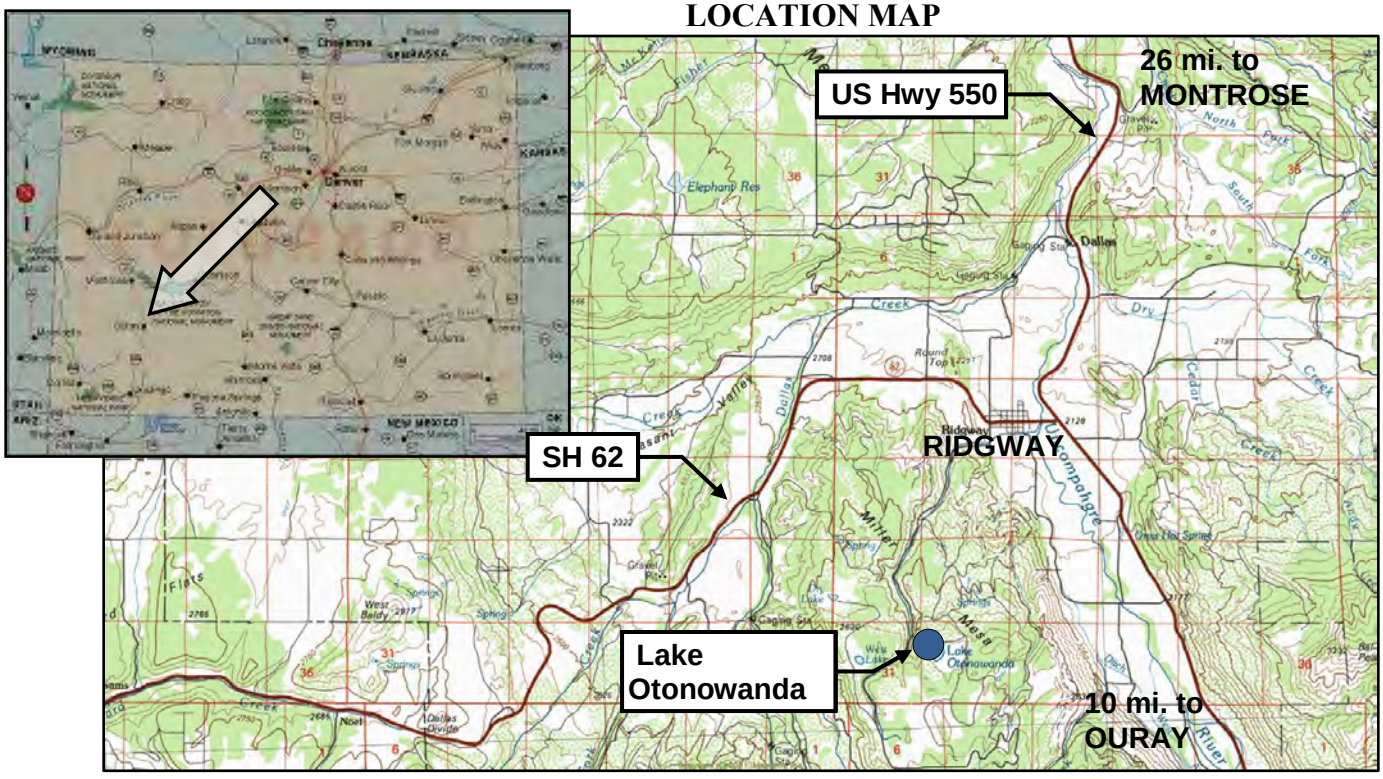
Interest Rate: 3.0%

Term: 30 years

WSRA Grant Amounts: $60,000 Gunnison Basin & $540,000 Statewide

The Town of Ridgway is requesting a CWCB loan for rehabilitation improvements and enlargement of Lake Otonowanda to ensure a reliable water supply of raw water is 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, with a current capacity of 109 AF, does not have a functional outlet works; therefore, no way to control reservoir discharge. 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, will provide 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.

LOCATION MAP



Water Project Loan Program - Project Data

Borrower: Riverside Ditch & Allen Extension Co.

County: Chaffee

Project Name: Phased Canal Improvements

Project Type: Ditch Rehabilitation

Drainage Basin: Arkansas

Water Source: Arkansas River

Total Project Cost: $205,000

Funding Source: Construction Fund

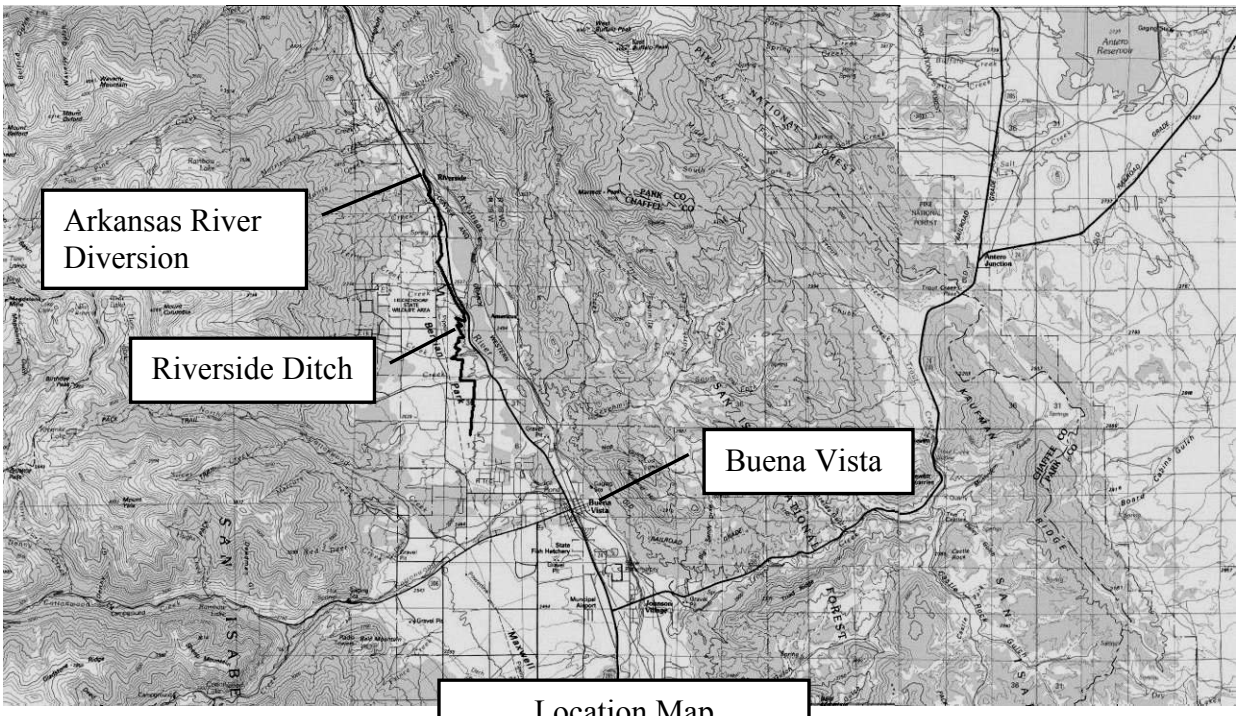
Type of Borrower: Agricultural

Average Diversion: 3,250 acre-feet

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

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

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



Location Map

CWCB Construction Loan Program
Project Data Sheet

Borrower: Riverside Reservoir and Land Co.

County: Weld

Project Name: Emergency Spillway Project

Project Type: Reservoir Rehabilitation

Drainage Basin: South Platte

Water Source: South Platte River

Total Project Cost: $3,120,000

Funding Sources: Severance Tax Trust Fund Perpetual Base Account

Type of Borrower: Agricultural

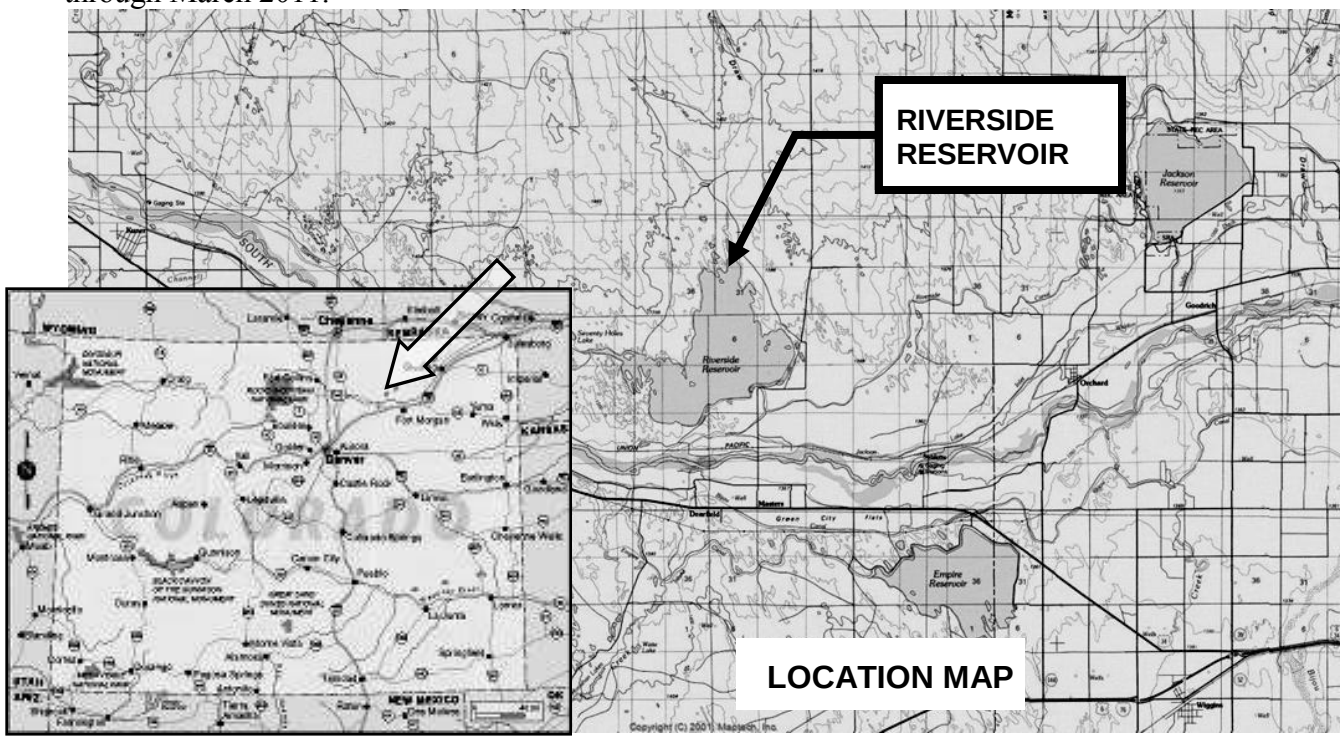
Average Delivery: 39,000 AF (from Reservoir storage) (105,000 Total AF for Company)

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

Interest Rate: 2.5%

Term: 30 years

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



C150342

CWCB Construction Loan Program
Project Data Sheet
(Increase)

Borrower: Sanchez Ditch and Reservoir Co.

County: Costilla

Project Name: Sanchez Reservoir Outlet Rehabilitation Project

Project Type: Dam Rehabilitation

Basin / District: Rio Grande / 24

Water Source(s): Ventero Creek

Total Project Cost: $2,282,000

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

Type of Borrower: Agricultural

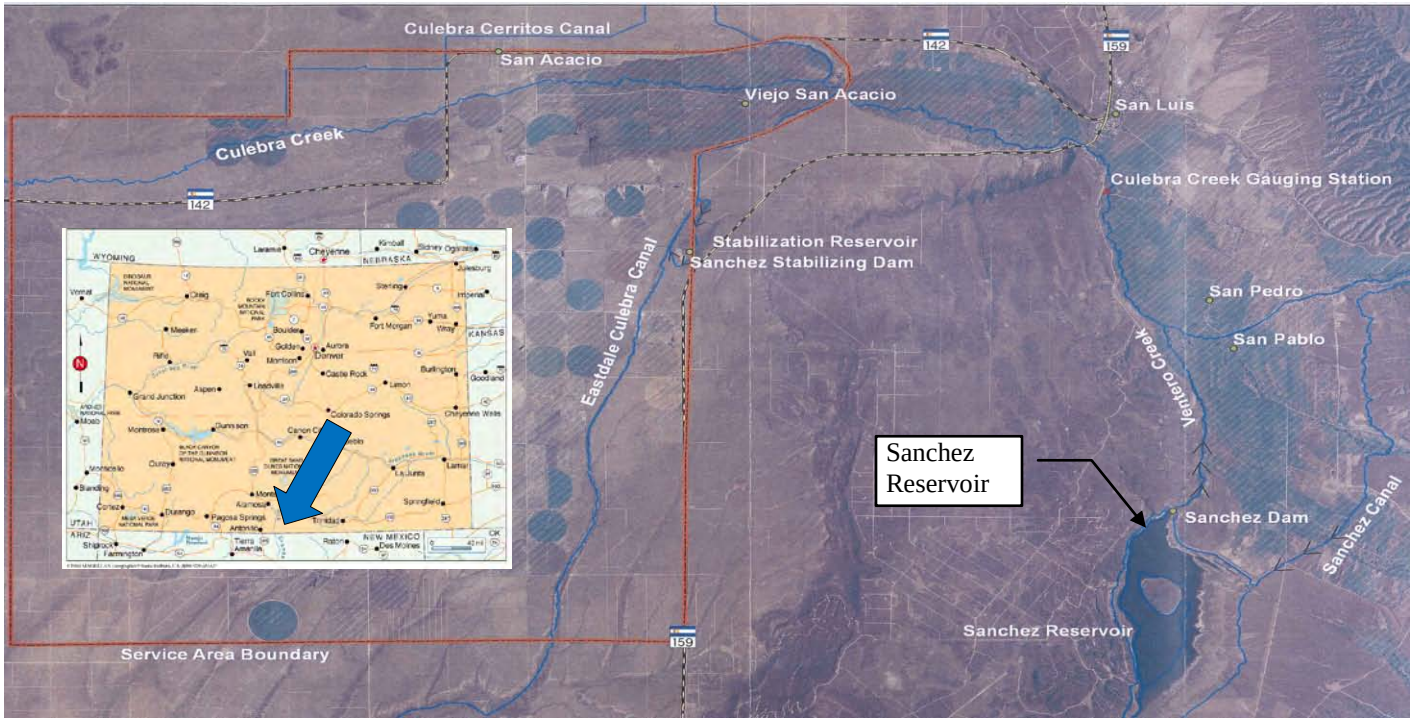
Average Diversions: 15,000 AF

(Interest Rate Increased by 0.25% for longer term)

Loan Amount: $1,381,276 (Including 1% fee) **Interest Rate:** 2.0% **Term:** 40 years

WSRA Grant Amounts: $55,000 Rio Grande Basin & $859,400 Statewide

The Company provides irrigation water for users in Costilla County, southwest of the town of San Luis. The Company's primary storage reservoir is Sanchez Reservoir. The approximately 104,000 acre-foot reservoir was built in 1910. The reservoir's outlet includes a 135 foot tall concrete gate tower. In order to access the gates to operate the dam, a tramway/gondola runs along a cable and is powered by a portable gasoline generator. Because daily access to the tower is required during irrigation season, the reliability and safety of the gondola system has been a concern of the Company. Using loan and grant funds, the Company intends to address the safety and operational management concerns at the reservoir through the demolition of the gate tower; the installation of new control gates and operators; patching the outlet conduit; repairing the downstream outlet structure; and, installing a new perimeter drain and weir along the right side of the outlet structure to control seepage. The project schedule is estimated as: final design and State Engineer's Office (SEO) approval by August 2014; bid the project in May of 2014; award the bid by August of 2014; start construction in September of 2014; complete construction by March of 2015.



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

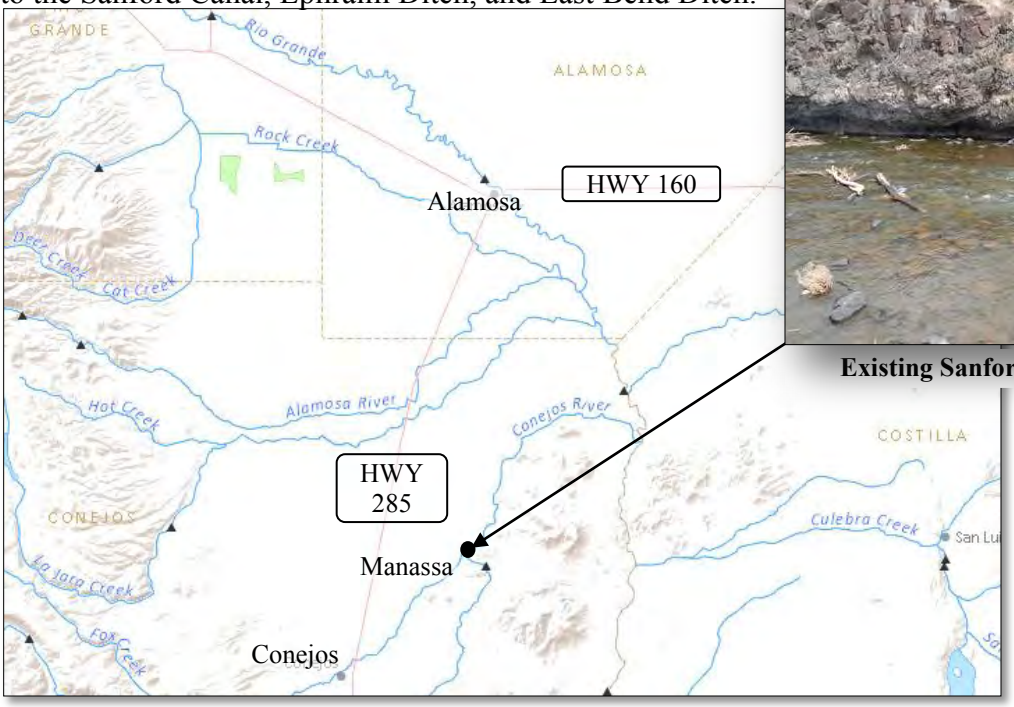
Average Annual Diversion: 4,000 AF

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.

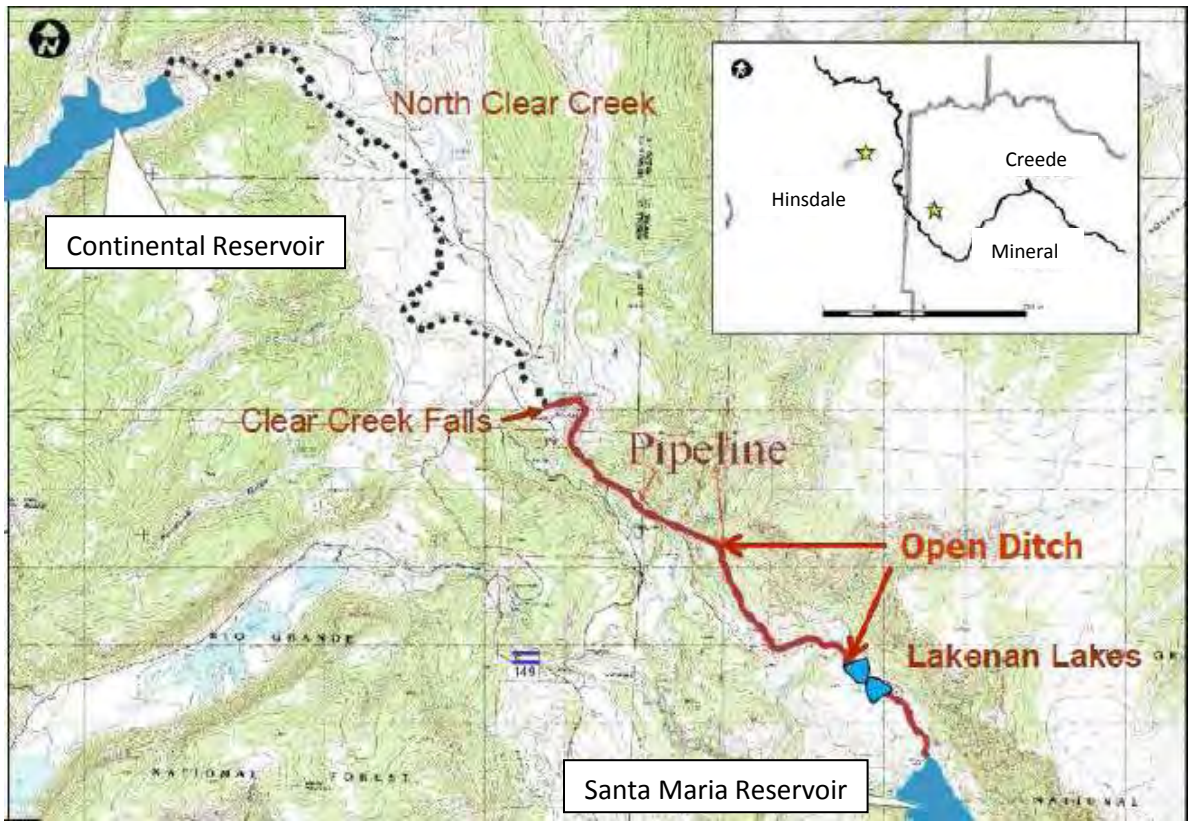


Existing Sanford Ditch Diversion

Water Project Loan Program
Project Data Sheet

Borrower:	Santa Maria Reservoir Company	**County:**	Hinsdale & Mineral
Project Name:	Santa Maria Siphon and Canal System Rehabilitation Project	**Project Type:**	Dam Rehabilitation & Ditch Rehabilitation
Drainage Basin:	Rio Grande / District 20	**Water Source:**	North Clear Creek
Total Project Cost:	$1,855,000	**Funding Source:**	Construction Fund and Water Supply Reserve Account Grants
Type of Borrower:	Agricultural	**Avg. Annual Diversion:**	6,300 AF
CWCB Loan:	$1,405,163 (w/ 1% service fee)	**Interest Rate:**	1.75% **Term:** 30 years

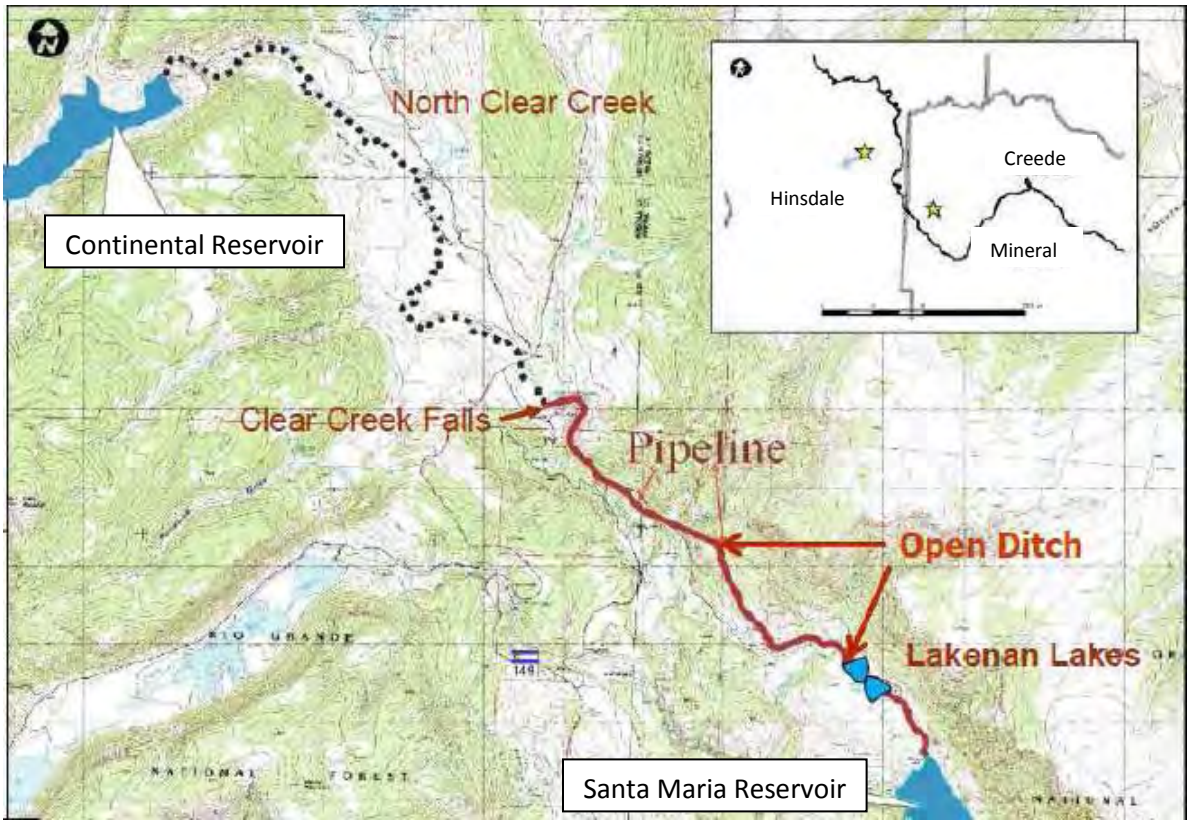
Santa Maria Reservoir Company owns and operates Continental Reservoir (27,000 AF) and Santa Maria Reservoir (43,500 AF), located in the Rio Grande River Basin near Creede, Colorado. Santa Maria and Continental operate in conjunction with each other via a century old conveyance system made up of a pipeline, siphon, and open ditch. For the past 20 years, Continental has been under a storage restriction due to seepage issues, limiting the storage to 15,000 AF. The Company is planning a two phased approach to rehabilitate its system. The first phase (the subject of this funding request) is the rehabilitation of the conveyance system between the reservoirs including repairs to the siphon and lining of the canal. Construction is expected to occur in the summer/fall of 2013.



Water Project Loan Program
Project Data Sheet

Borrower:	Santa Maria Reservoir Company	**County:**	Hinsdale & Mineral
Project Name:	Continental Dam Spillway Restoration Project	**Project Type:**	Dam Rehabilitation
Drainage Basin:	Rio Grande / District 20	**Water Source:**	North Clear Creek
Total Project Cost:	$4,055,000	**Funding Source:**	Construction Fund and Water Supply Reserve Account Grants
Type of Borrower:	Agricultural	**Avg. Annual Diversion:**	6,300 AF
		Recovered Storage:	12,000 AF
CWCB Loan:	$3,071,633 (w/ 1% service fee)	**Interest Rate:**	1.75% **Term:** 30 years

Santa Maria Reservoir Company owns and operates Continental Reservoir (27,000 AF) and Santa Maria Reservoir (43,500 AF), located in the Rio Grande River Basin near Creede, Colorado. Santa Maria and Continental operate in conjunction with each other via a conveyance system made up of a pipeline, siphon, and open ditch. For the past 20 years, Continental has been under a storage restriction due to seepage issues, limiting the storage to 15,000 AF. The purpose of this Project is to address seepage issues and repair the spillway Continental Reservoir in order to lift the storage restriction. Construction is expected to occur in the 2014 construction season.



COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Emergency Sterling Ditch Rehabilitation Project

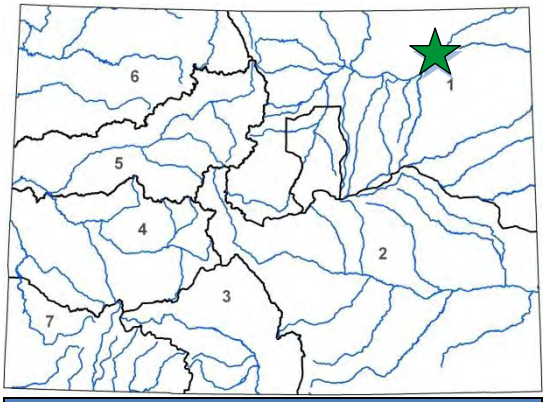
Sterling Irrigation Company

September 2014 Board Meeting

LOAN DETAILS	
Project Cost:	$123,250
CWCB Loan (with Service Fee):	$101,000
Loan Term and Interest Rate:	10 Years @ 1.50%
Funding Source:	*Severance Tax Perpetual Base Fund*

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

PROJECT DETAILS	
Project Type:	Ditch Rehabilitation
Average Annual Diversion:	21,360 AF



LOCATION			
County:			Logan
Water Source:			South Platte River
Drainage Basin:			South Platte
Division:	1	*District:*	64

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. Floodwaters entered the ditch resulting in breaches and significant sedimentation. Construction crews repaired the breaches and removed sand from the channel enabling the Company to divert its water right during the 2014 irrigation season, irrigating approximately 7,400 acres. No additional flood related repairs are expected to occur.

Cleaned out Ditch Sections

Water Project Loan Program – Project Data Sheet

Borrower: Terrace Irrigation Company

County: Conejos

Project Name: Spillway Replacement Project

Project Type: Reservoir Rehabilitation

Drainage Basin: Rio Grande River Basin, District 21

Water Source: Alamosa River

Total Project Cost: $4,500,000

Funding Source: Construction Fund

Type of Borrower: Agricultural

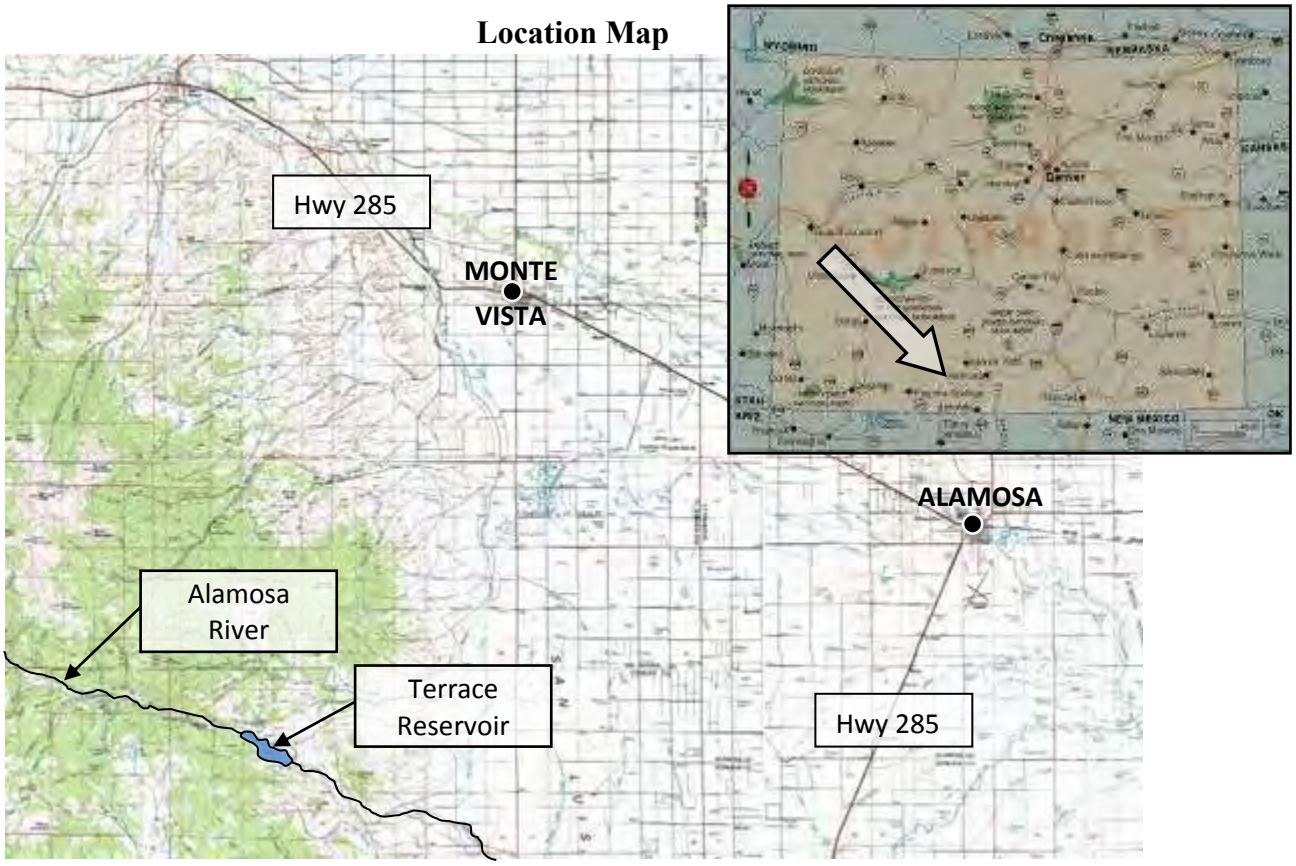
Avg. Annual Delivery: 15,339 AF

CWCB Loan: Project: $1,010,000 (w/ 1% service fee)
Consolidated: $2,751,968

Interest Rate: 1.75% **Term:** 30 years
(with a 1% Restricted Reservoir reduction)

The Company, responsible for supplying irrigation water to its shareholders for irrigation of 9,300 acres of agricultural lands, is also an active participant in the Alamosa River Instream Flow Project. The ISF Project is intended to restore flows and replace natural resources damaged by mining operations in the upper reaches of the Alamosa River. The Company relies on Terrace Reservoir to meet its irrigation demands throughout the later part of the irrigation season. The reservoir is currently under a restriction order from the SEO, reducing its available capacity by 2,000 AF. This project will replace the existing spillway and remove the SEO restriction order. Funding for this project includes grant money from WSRA ($1,500,000) and the Summitville Natural Resource Damage (NRD) account ($2,000,000). In return for NRD funding, the Company has agreed to donate 2,000 AF of storage in Terrace Reservoir towards instream flow storage to further the efforts of the ISF Project. Construction is expected to begin in summer/fall of 2012 and be completed by the end of 2013.

Location Map



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

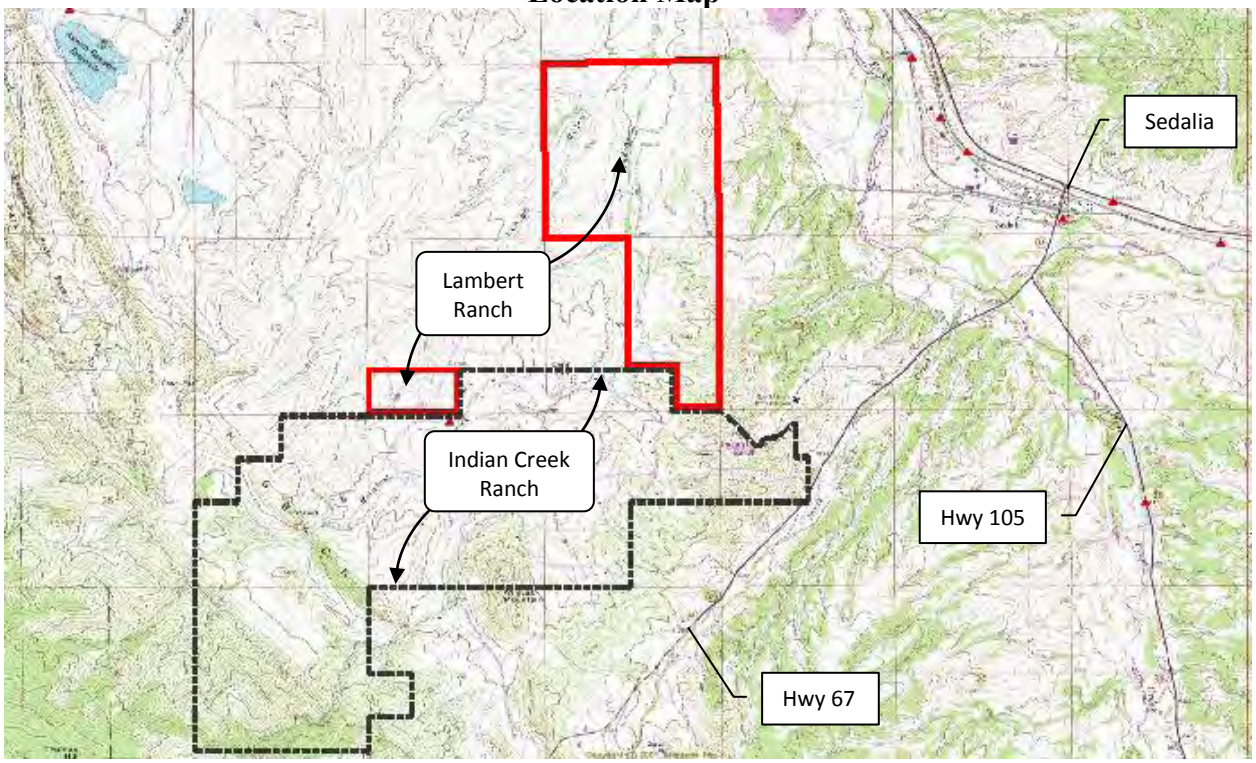
Avg. Annual Delivery: 55 AF

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



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

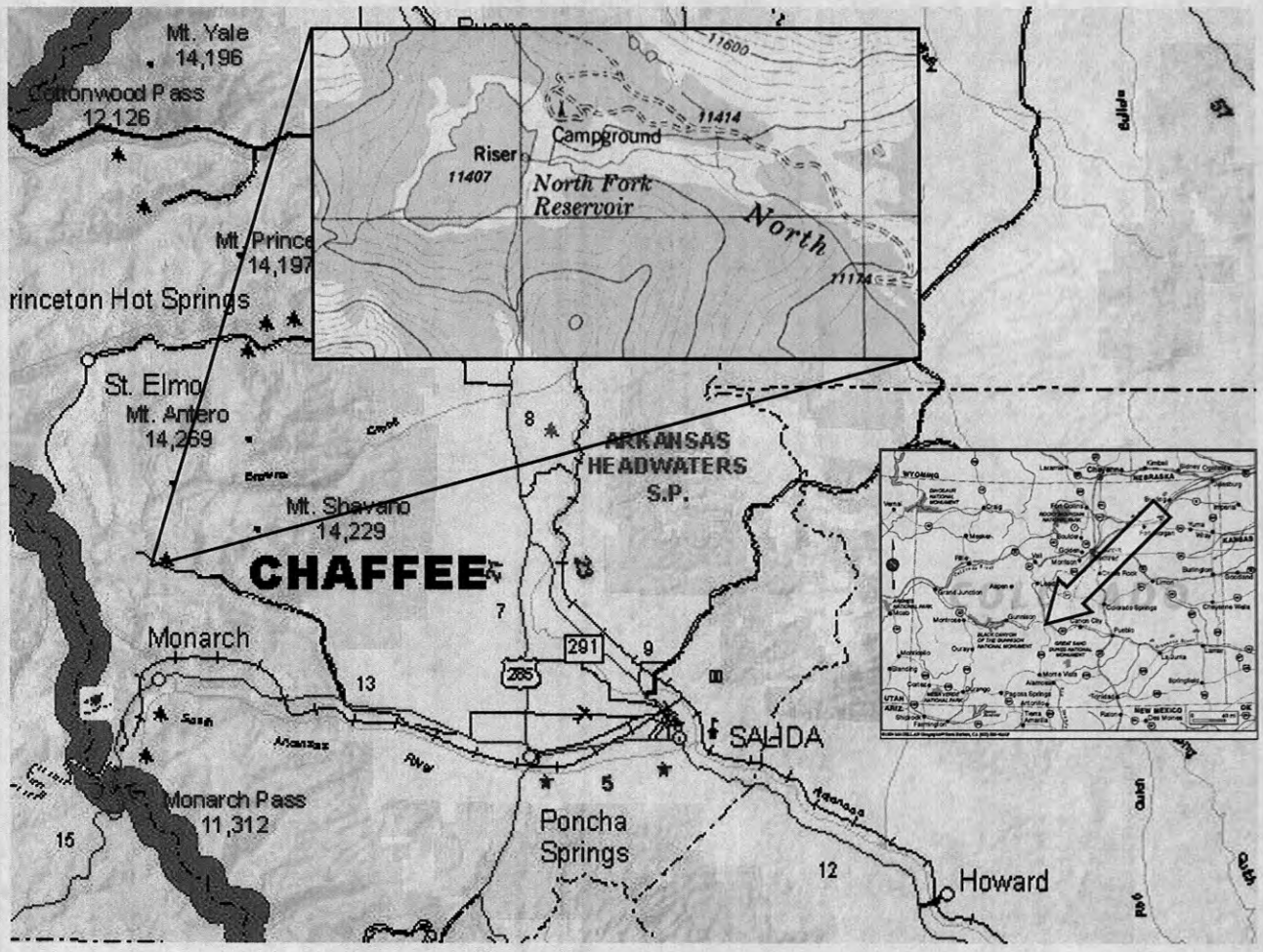
Project Type: Dam and Spillway Modifications **Water Source:** N. Fork of S. Arkansas

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

CWCB Water Project Loan Program

Project Data Sheet

Borrower:	Upper Platte & Beaver Canal Company	**County:**	Morgan
Project Name:	Hospital Road Recharge Facility and Bridge Widening Project	**Project Type:**	Augmentation
Drainage Basin/ District:	South Platte Basin Division 1, District 1	**Water Source:**	South Platte River
Total Project Cost:	$210,000	**Funding Source:**	Construction Fund
Type of Borrower:	Blended	**Average Annual Diversion:**	35,000 Acre-feet
CWCB Loan:	$190,890 (with 1% service fee)	**Interest Rate:** 1.75%	**Term:** 10 years

The Upper Platte & Beaver Canal Company desires funding to construct an augmentation pond, and, at a separate location, to widen an existing access bridge at their primary diversion along the South Platte River. The augmentation pond will enable better retiming of return flows to the river by virtue of its further location from the river than existing augmentation ponds operated by the Company. The widening of the access bridge will allow improved function and safety crossing the canal for ongoing maintenance needs.

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

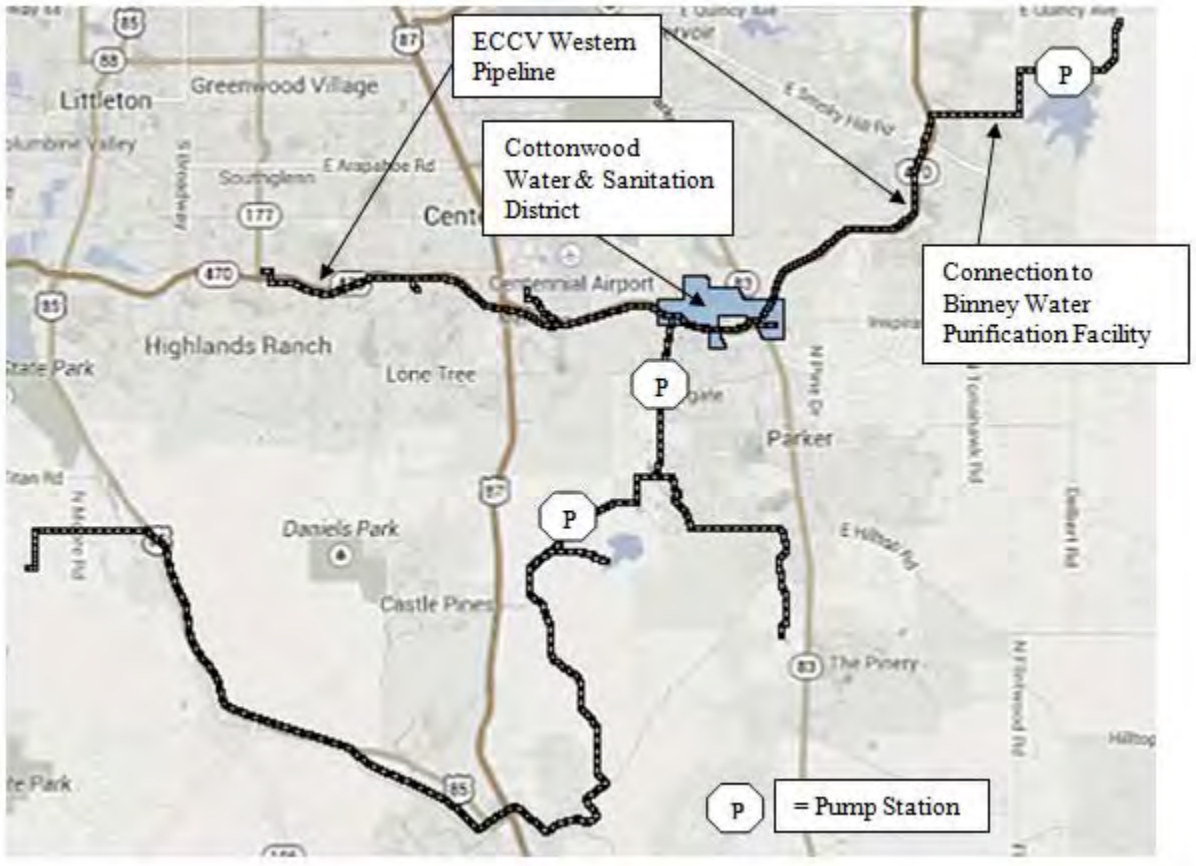
CWCB Loan: $4,508,640 (with 1% service fee)

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

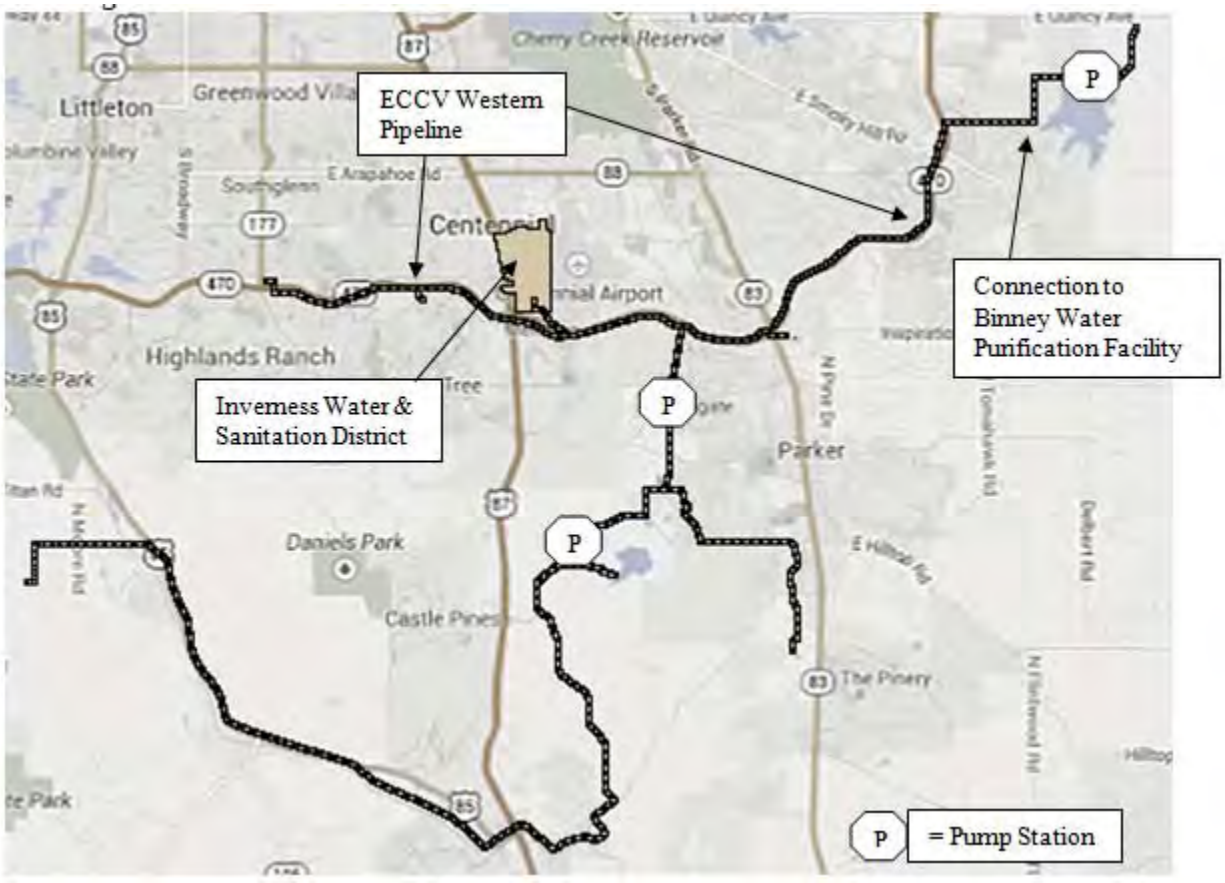
C150409

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

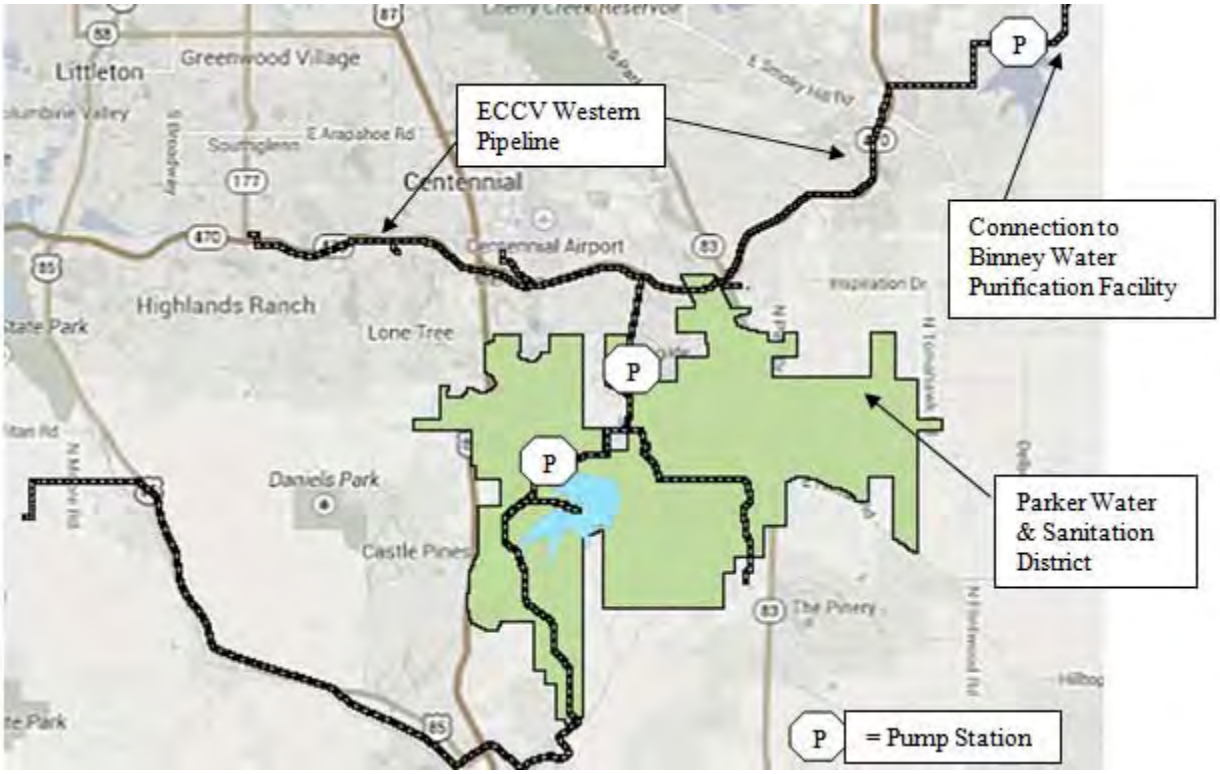
CWCB Loan: $15,734,790 (with 1% service fee)

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

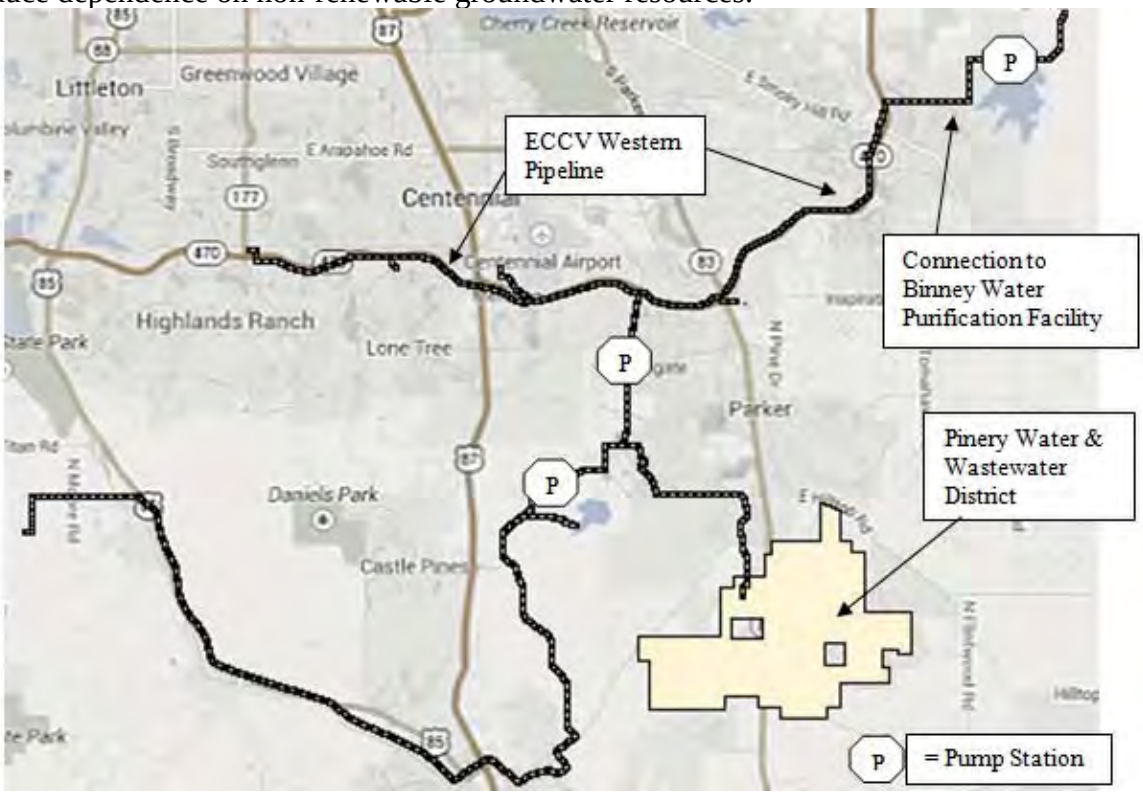
CWCB Loan: $9,926,280 (with 1% service fee)

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

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Wells #3 and #6 Replacement Project

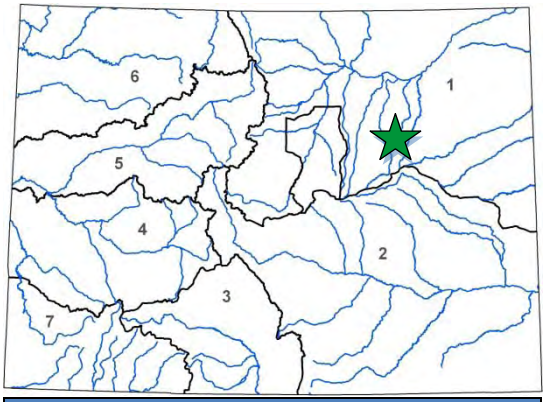
Town of Bennett

November 2014 Board Meeting

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

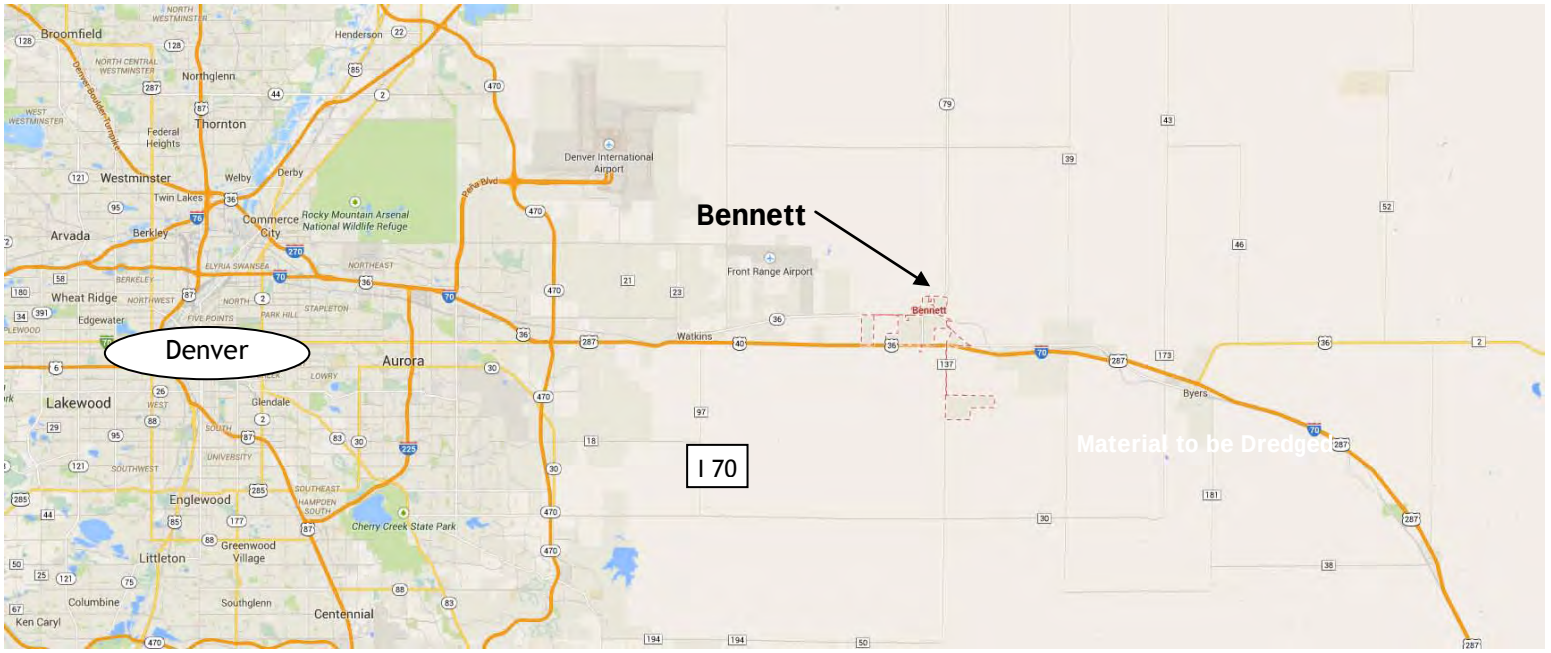
BORROWER TYPE		
Agriculture	*Municipal*	*Commercial*
0%	0% Low - 100% Mid - 0% High	0%

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



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

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



CWCB Water Project Loan Program
Project Data Sheet

C150403

Borrower: Castle Pines 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: $5,550,000

Funding Source: Severance Tax Perpetual Base Fund

Type of Borrower: High-income Municipal

Average Annual Delivery: 1,056 AF

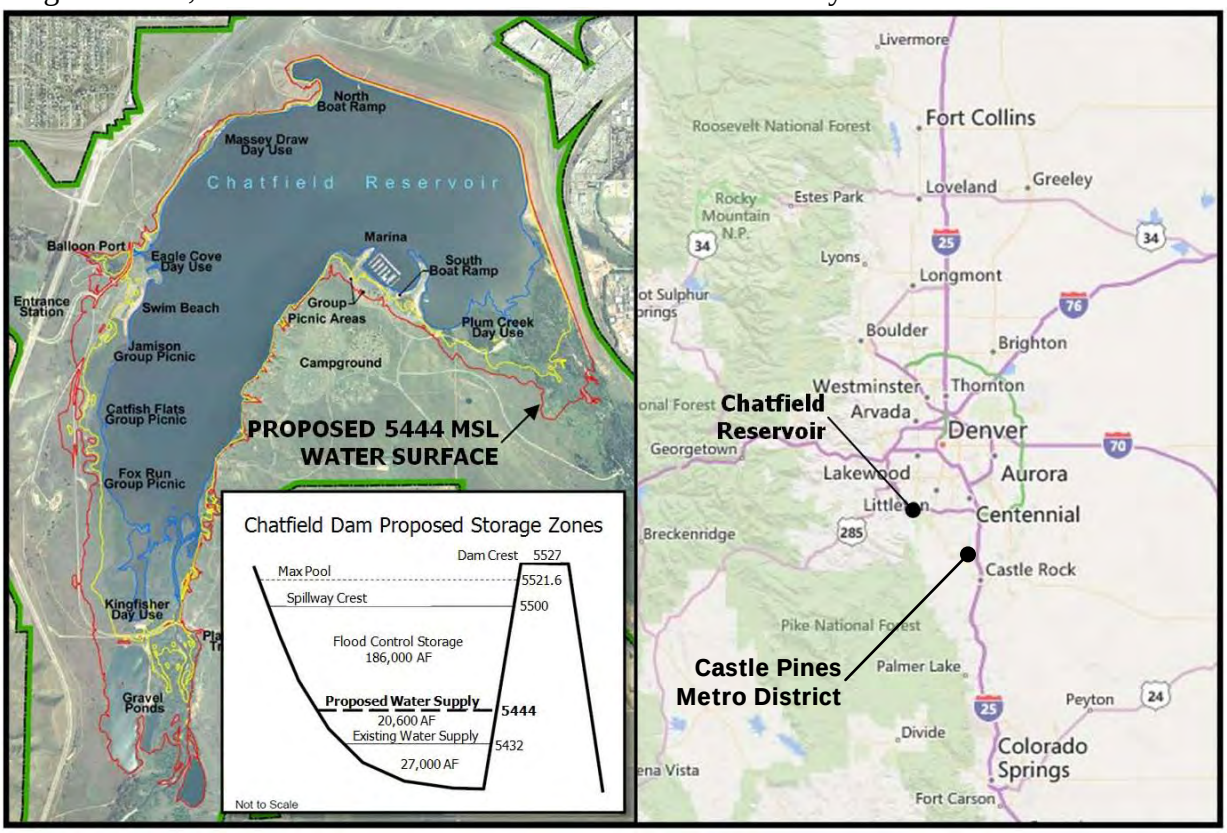
Added Water Supply Storage: 786.7 AF

CWCB Loan: $5,050,000 (with 1% service fee)

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

The Castle Pines Metropolitan District provides water and wastewater services to the residents and businesses of Castle Pines Village 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 32% of its average annual water demand. Of the 20,600 acre-feet proposed to be reallocated, the District would receive 786.7 acre-feet of storage, or 3.82% of the total reallocation. The District will use Chatfield storage through an exchange on east Plum Creek as authorized in water court Case No 04CW308.

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

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

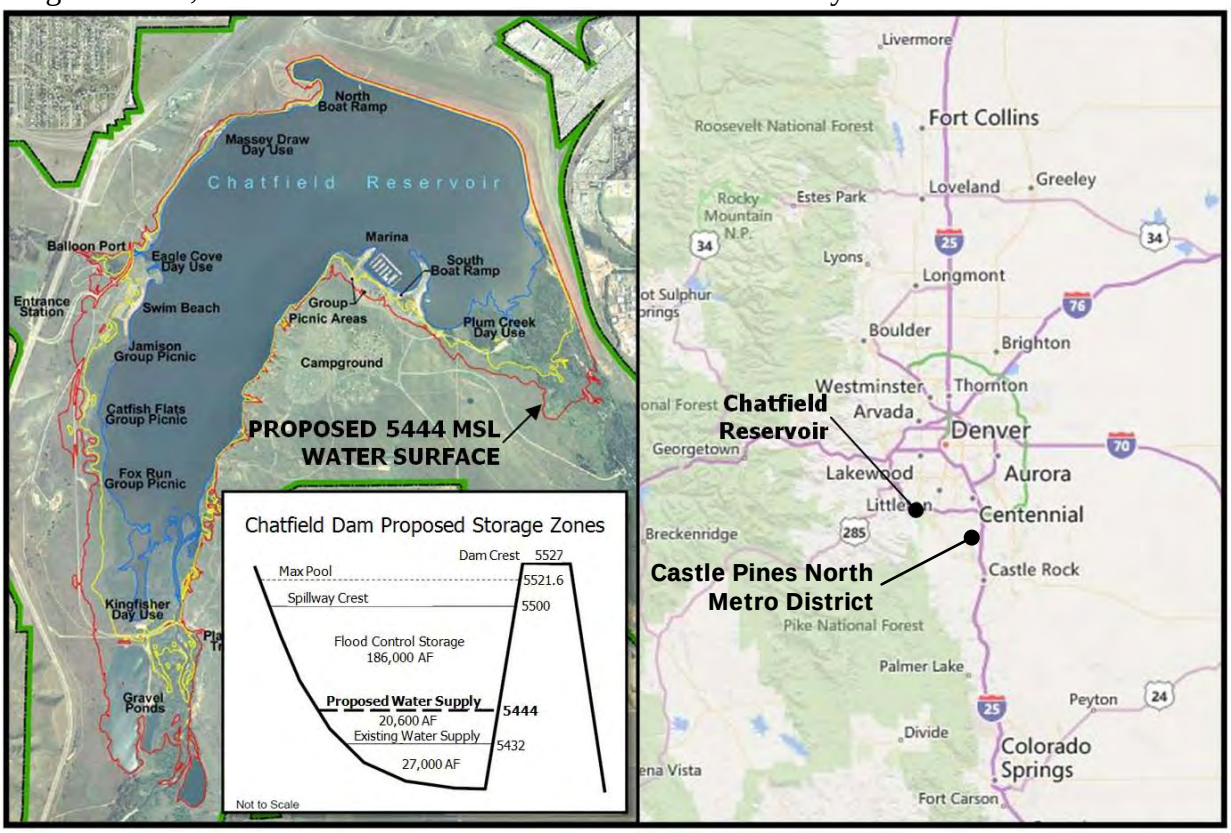
Total Project Cost: $7,100,000
Funding Source: Severance Tax Perpetual Base Fund

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

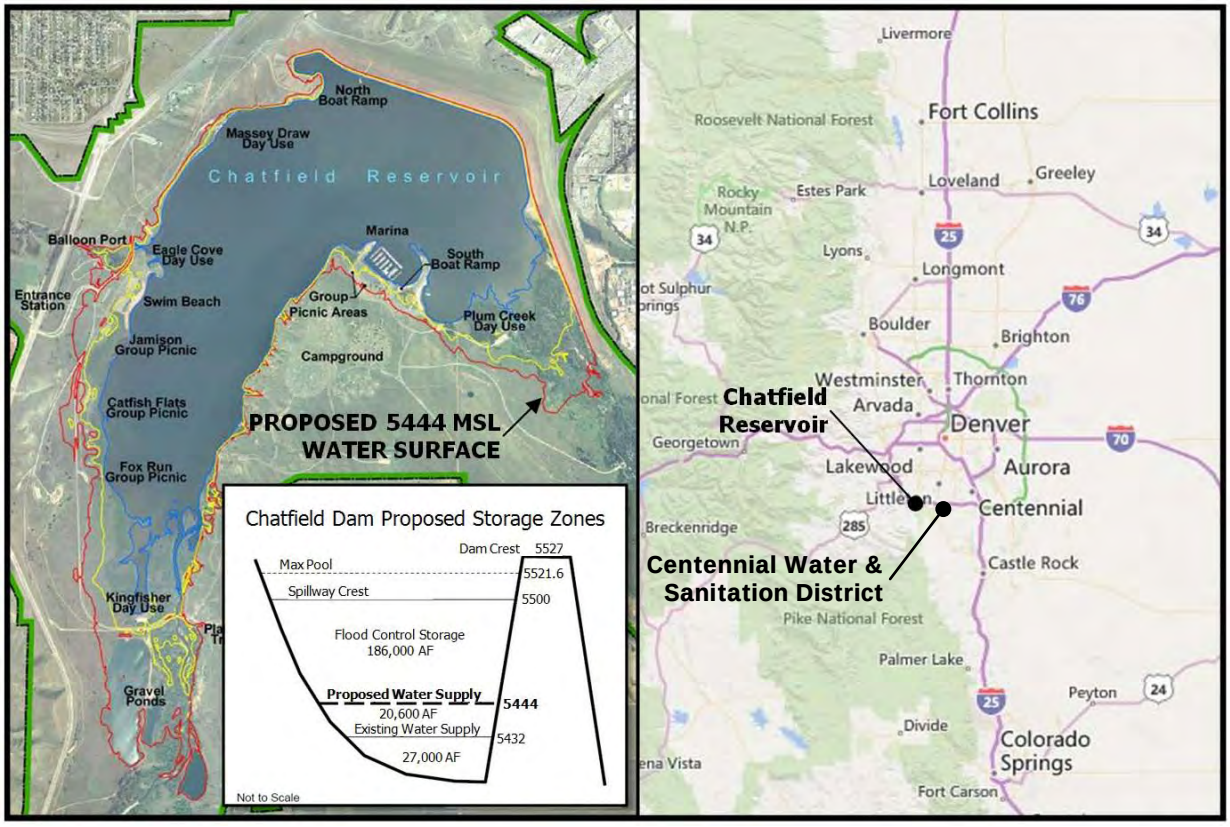
Average Annual Delivery: 17,500 AF

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.



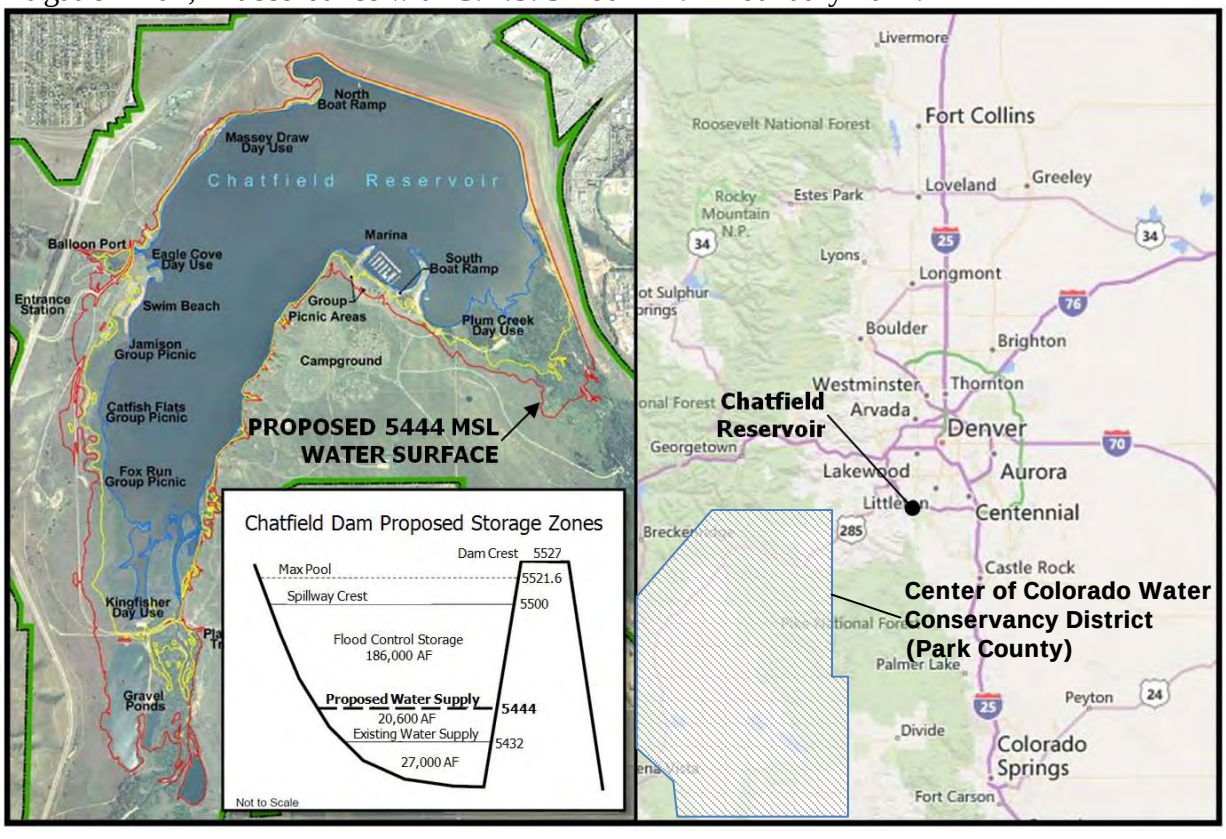
CWCB Water Project Loan Program
Project Data Sheet

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.



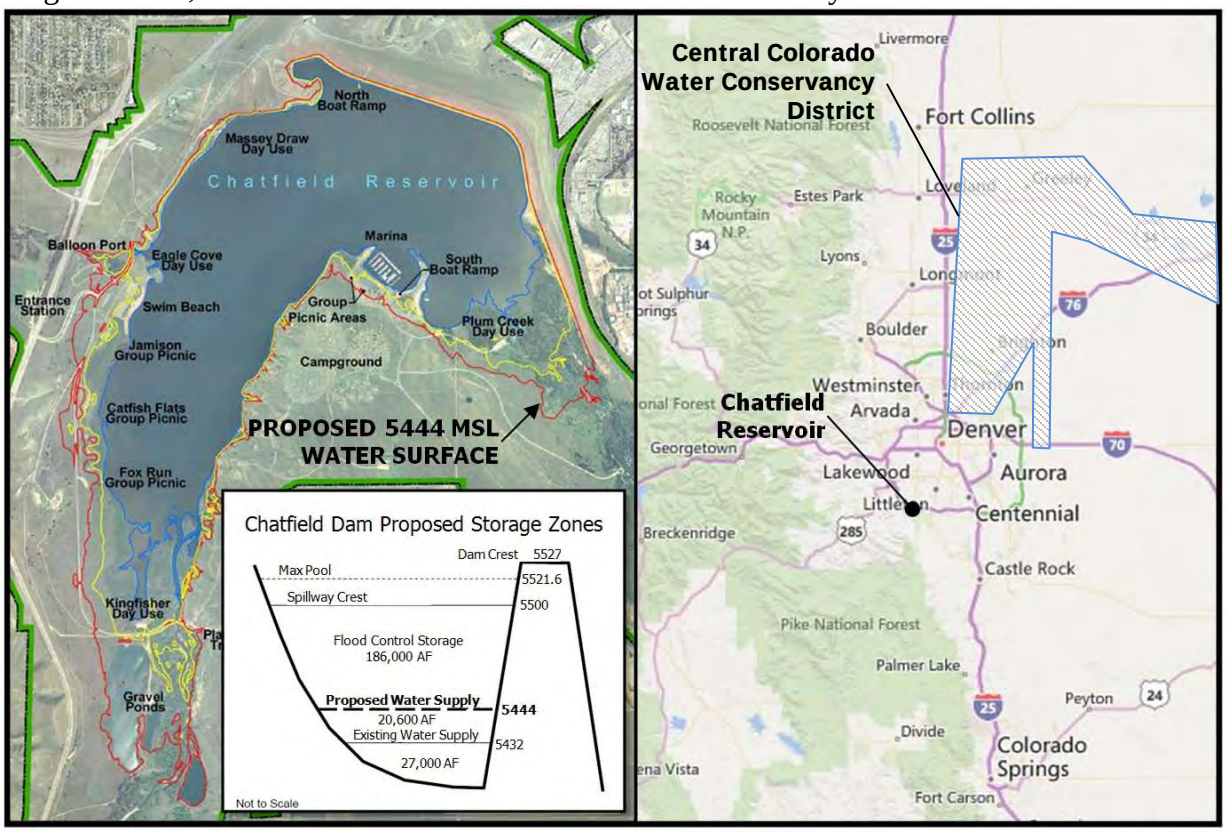
CWCB Water Project Loan Program
Project Data Sheet

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

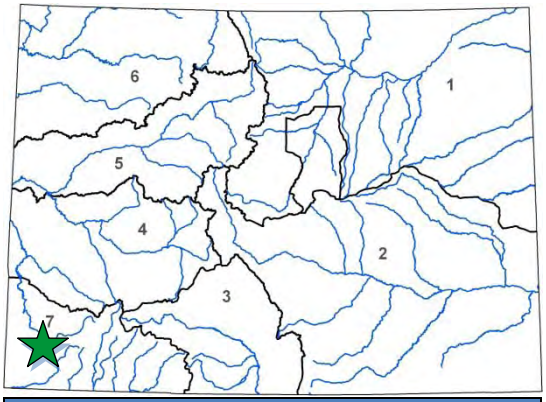
City of Cortez

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

Repair & Replacement of the Las Animas Consolidated Canal Spillway Structure

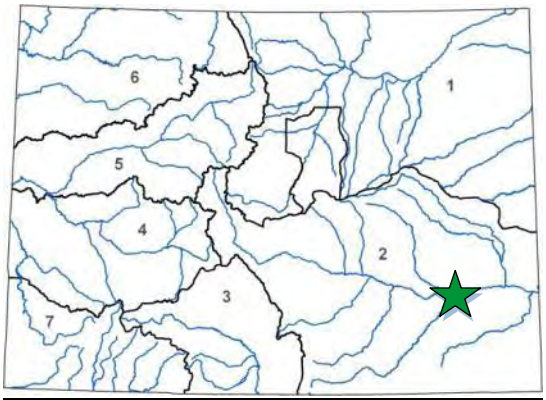
Las Animas Consolidated Canal Company

November **2014 Board Meeting**

LOAN DETAILS	
Project Cost:	$ 400,200
CWCB Loan (with Service Fee):	$ 363,782
Loan Term and Interest Rate:	30 Years @ 5.05%
Funding Source:	

BORROWER TYPE		
Agriculture	*Municipal*	*Commercial*
23%	0%	77%

PROJECT DETAILS	
Project Type:	Spillway Structure Replacement
Average Annual Diversion:	26,000 AF



LOCATION			
County:			Bent
Water Source:			Arkansas River
Drainage Basin:			Arkansas
Division:	2	*District:*	17

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. While temporary measures have been put in place to keep the ditch in operation, a long-term solution is being sought. The Company is seeking to replace 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.

Loan Program
Attachment 3

C150348

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

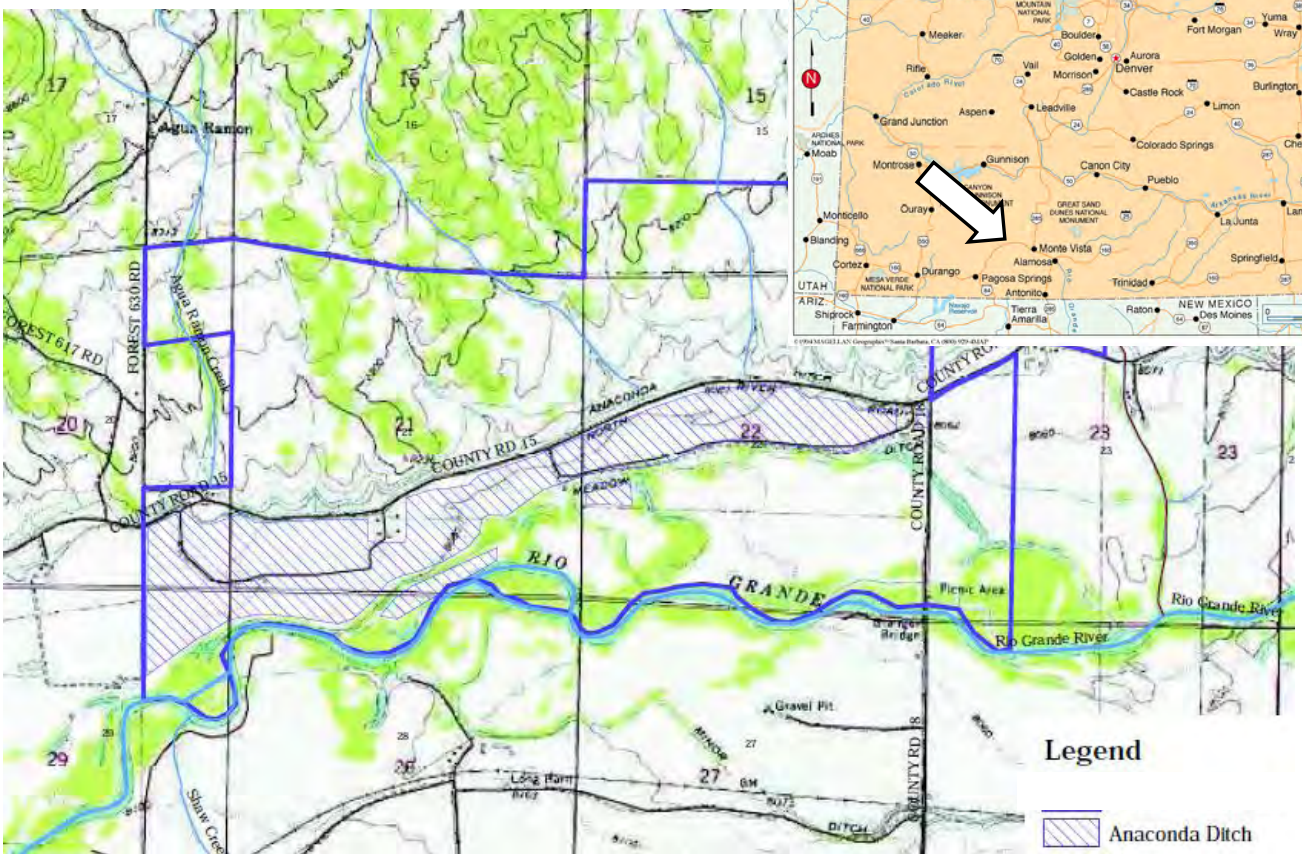
Type of Borrower: Municipal Low Income

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.



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

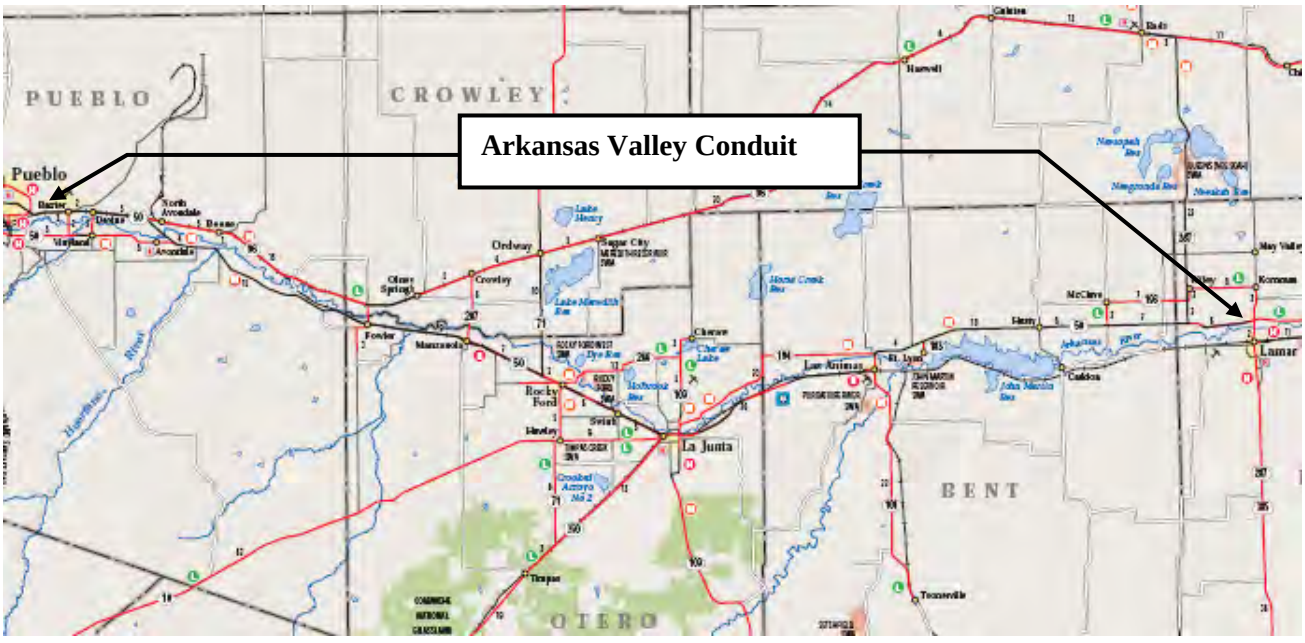
Aver. Delivery: 6,555 AF (2005 demand)

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

West Reservoir And Ditch Outlet Repair Project

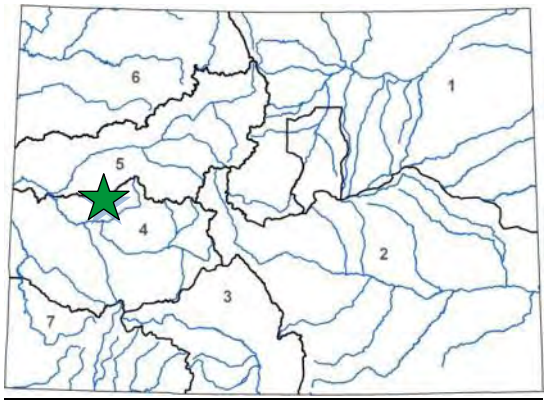
West Reservoir and Ditch Company

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:	

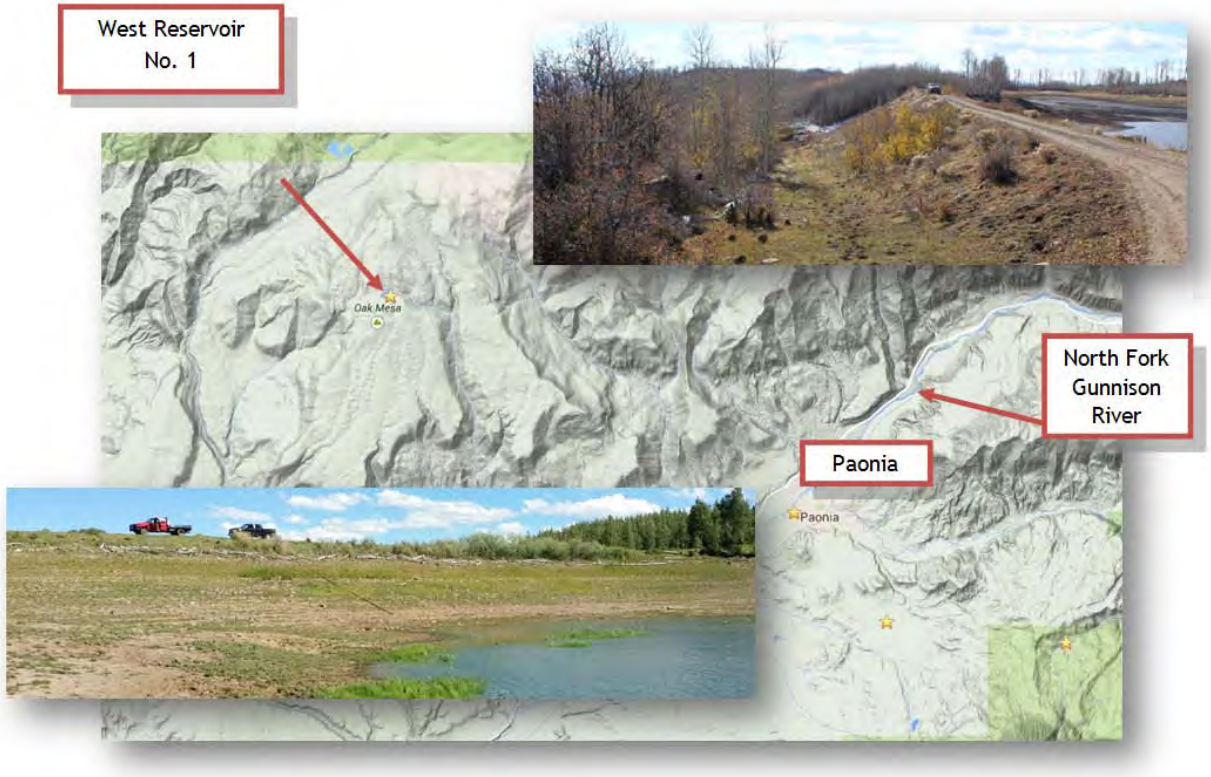
BORROWER TYPE		
Agriculture	*Municipal*	*Commercial*
100%	0%	0%

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.



COLORADO
Colorado Water Conservation Board
Department of Natural Resources

1313 Sherman Street
Denver, CO 80203

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

John Hickenlooper, Governor

Mike King, DNR Executive Director

James Eklund, CWCB Director

TO: Colorado Water Conservation Board Members

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

DATE: March 18-19, 2015

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 twenty (20) projects authorized totaling $22.6 million. There are currently nineteen (19) projects under contract ready to receive loan funds for eligible project expenses. 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	April '14
2	Culver Ditch Company	Culver Mahoney Ditch Repair	Boulder/Larimer	$151,500	May '14
3	Ish Reservoir Company	Inlet Ditch & Div. Repair	Boulder	$207,050	April '14
4	Sylvan Dale Ranch, LLLP	Emergency Pond Excavation	Larimer	$105,171	May '14
			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	Contract	County	Loan Amount	Design Status	Construction Start/End	Construction Status	PM	Status Description/Update
1 Beeman Irrigation > Emergency Beeman Diversion Dam Repair C150385	385	Weld	$ 2,020,000	100%	1/2014-5/2014	95%	JH	Project 95% complete. Waiting on installation of appurtanences….walkways, gauges, handrails, etc.
2 Big Elk Meadows Association > Emergency Raw Water Storage Repair C150391	15-039	Boulder/ Larimer	$ 1,515,000	75%	7/2014-4/2015	5%	JH	Project includes the reconstruction of 5 dams in series. Only one dam, the lowest one. is jurisdictional. Two dams under construction. Rest of dams to follow.
3 Big Thompson and Platte River > Big Thompson & Platte River Div. Structure Repair C150373	373	Larimer	$ 808,000	100%	5/2014-6/2014	95%	JH	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	374	Boulder & Larimer	$ 202,000	100%	1/2014-4/2014	100% Ltr	JH	Construction complete, used all loan funds. No grant reimbursements are expected.
5 Butte Irrigation & Milling Company > Emergency Berm Repair C150382	382	Boulder	$ 277,750	100%	4/2014-5/2014	100%	JH	Construction complete, loan funds remaining. No additional dibursements are anticipated.
6 Church Ditch Water Authority > Leyden Creek Crossing Repair C150377	377	Jefferson	$ 606,000	100%	1/2014-5/2014	95%	JH	Repair construction complete, loan funds remaining. Additional dibursements are anticipated for mitigation portion of project.
7 Consolidated Home Supply Ditch & Reservoir Co > Big Dam Diversion Structure Repair C150375	15-010	Larimer	$ 1,840,000	100%	1/2014-10/2014	50%	JH	The project is 50% complete and running water. The dam will be topped off this fall after the irrigation season. Loan increase approved at Sept 2014 for flood mitigation work.
8 Consolidated Home Supply Ditch & Reservoir Co > George Rist Ditch Repair C150380	15-020	Larimer	$ 519,140	100%	2/2014-5/2014	95%	JH	Project 95% complete. Waiting on installation of appurtanences. Loan Increase request approved during July 2014 Board Meeting
9 Culver Ditch Company > Culver Mahoney Ditch Repair C150390	390	Boulder & Larimer	$ 151,500	100%	2/2014-4/2014	100% Ltr	JH	Construction complete, used all loan funds. FEMA grant reimbursement is expected.
10 Green Ditch Company > Emergency Green Ditch Channel Repair C150383	383	Boulder	$ 530,250	100%	5/2014-6/2014	100%	JH	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 later in the fall.

Emergency Loan – Summary

11	Haldi Ditch Company > Emergency Haldi Ditch Reapir C150389	389	Boulder	$ 50,500	100%	1/2014-3/2014	100%	JH	Construction completed as part of larger project. PM for larger project waiting to bill borrower until FEMA funds are in.
12	Highland Ditch Company > Highland Ditch System Repairs C150369	369	Boulder	$ 1,999,800	100%	10/2013-4/2014	100%	JH	Construction complete, loan funds remaining. No additional dibursements are anticipated.
13	Ish Reservoir Company > Inlet Ditch & Diversion Structure Repair C150376	376	Boulder	$ 207,050	100%	1/2014-4/2014	100% Ltr	JH	Construction complete, used all loan funds
14	Left Hand Ditch Company > Left Hand Ditch System Repairs C150370	15-008	Boulder	$ 3,276,056	100%	10/2013-5/2014	85%	JH	Contractor removing debris and regrading river. Several projects are included in this loan. All are in different levels of completion. Major progress has taken place over the last two months. Project on schedule for completion 5/15/14
15	North Poudre Irrigation Company > Fossil Creek Res. Diversion Structure Repair C150368	15-024	Larimer	$ 481,770	100%	2014	0%	JH	The Poudre River is still running high. Construction likely delayed to to river conditions.
16	Oligarchy Irrigation Company > Oligarchy Irr. Ditch River Diversion Struct. Repair C150372	372	Boulder	$ 1,262,500	100%	1/2014-5/2014	90%	JH	Main project completed May 2014. Additional riprap to be placed fall 2014
17	Rough & Ready Irrigation Ditch Company > Rough & Ready River Diversion Struct.Repair C150371	371	Boulder	$ 1,843,250	100%	1/2014-5/2014	98%	JH	Main project completed May 2014. May require additional punch list type work to be done such as re-seeding.
18	Supply Irrigating Ditch Company >Emergency Supply Irrigating Ditch Repair Project CT15-142	15-142	Boulder	$324,210	4,650			JH	Newly Contracted
19	Sylvan Dale Ranch,LLP > Emergency Irrigation Pond Excavation C150392	392	Larimer	$ 105,171	100%	6/2014-4/2014	100% Ltr	JH	Construction complete, used all loan funds. Have provided a grant reimbursement, no additional reimbursement is expected.

Projects Under Contract SubTotal = $ 18,019,947

Projects Not Under Contract

Emergency Loan – Summary

a	St. Vrain and Left Hand Water Conservancy District > Emergency Rock'n WP Ranch Lake No. 4 Repair C150???	388	Boulder	$ 4,545,000	In Contracting	JH	Approved July 2014 Board Meeting. In Contracting

Not Under Contract SubTotal = $ 4,545,000

Grand Total = $ 22,564,947

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

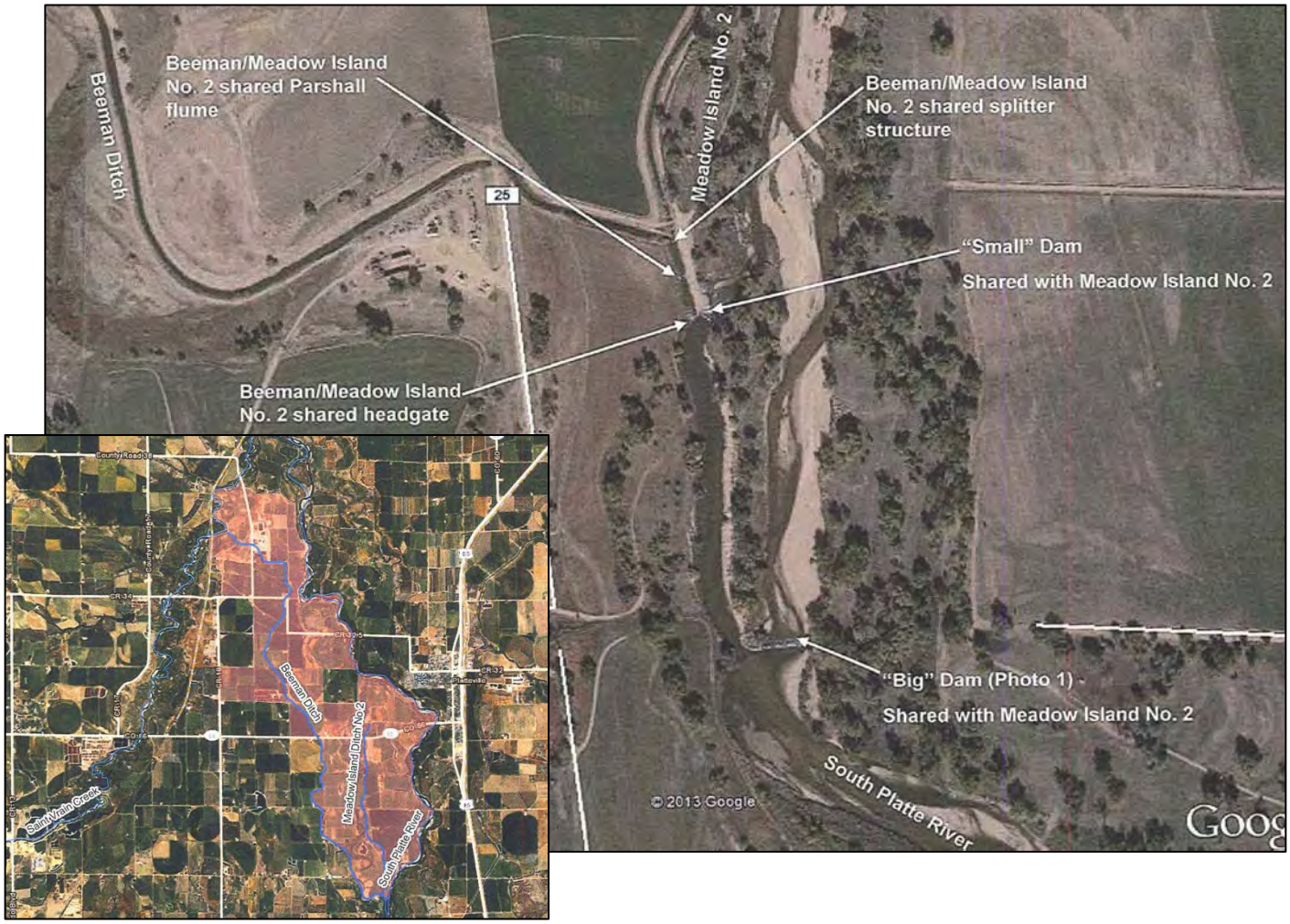
County: Weld
Project Type: Diversion Rehabilitation
Water Source: South Platte River

Total Project Cost: $2,000,000
Type of Borrower: Agricultural

Funding Source: Severance Tax PBF
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

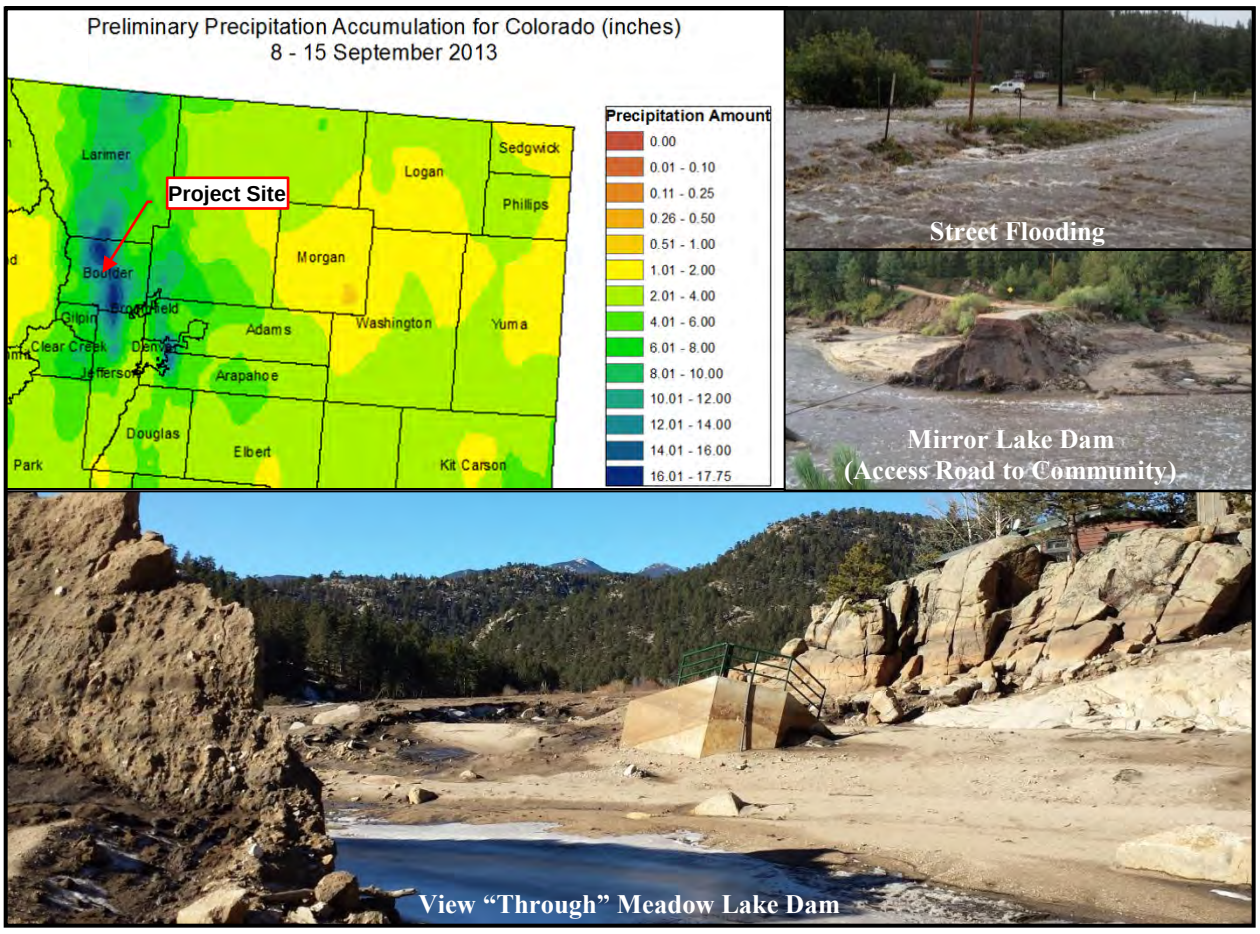
Type of Borrower: Middle-Income Municipal

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

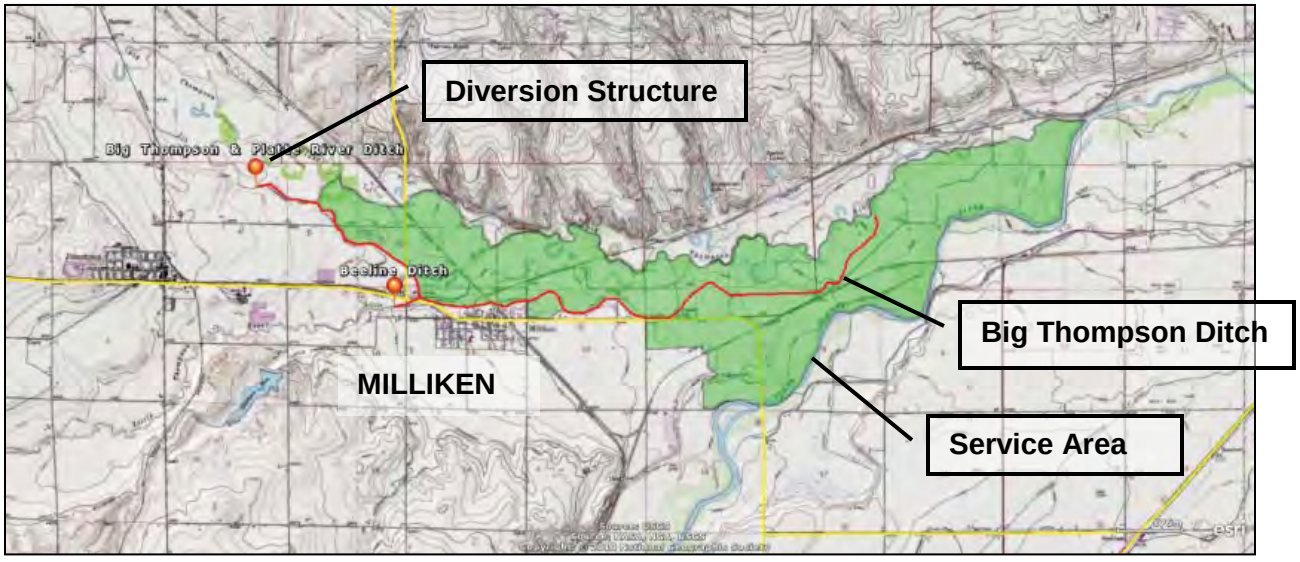
Type of Borrower: Blended

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

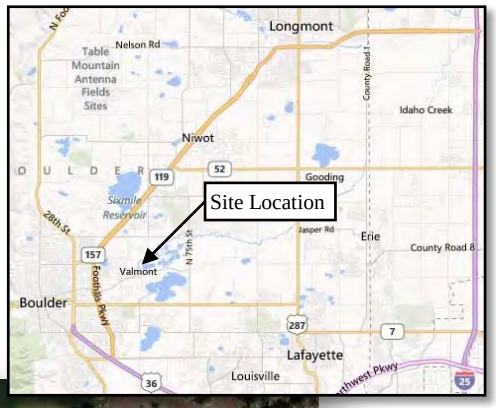
Type of Borrower: Blended

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*

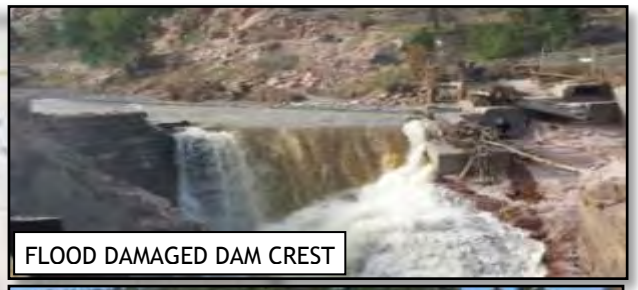
BORROWER TYPE		
Agriculture	*Municipal*	*Commercial*
76%	0% Low - 23% Mid - <1% High	<1%

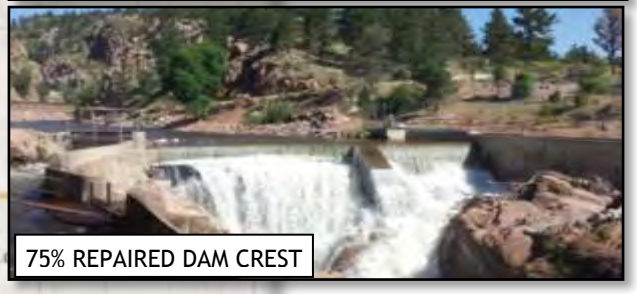
PROJECT DETAILS	
Project Type:	Diversion Rehabilitation
Average Annual Diversion:	22,000 AF

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

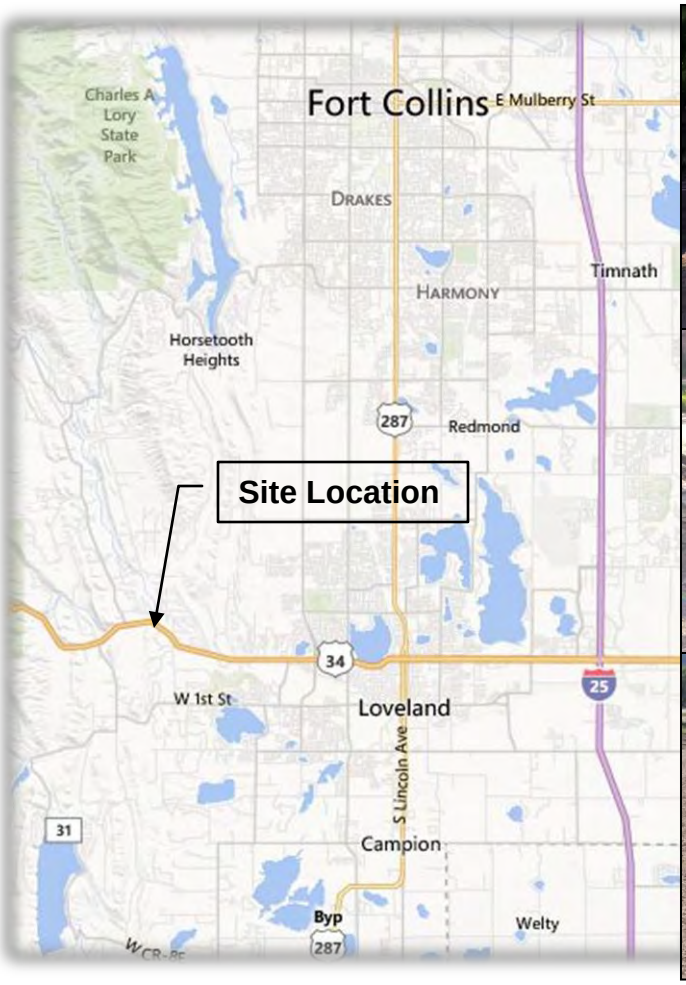

75% REPAIRED DAM CREST

CWCB Water Project Loan Program
Project Data Sheet
(Increase)

C150380

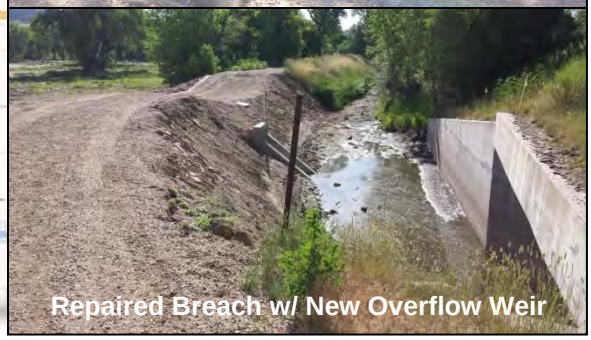
Borrower: Consolidated Home Supply Ditch & Reservoir Company
County: Larimer
Project Name: Emergency George Rist Ditch Repair
Project Type: Ditch Rehabilitation
Drainage Basin/ District: South Platte / 4
Water Source: Big Thompson River
Total Project Cost: $514,000
Funding Source: Severance Tax PBF
Type 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

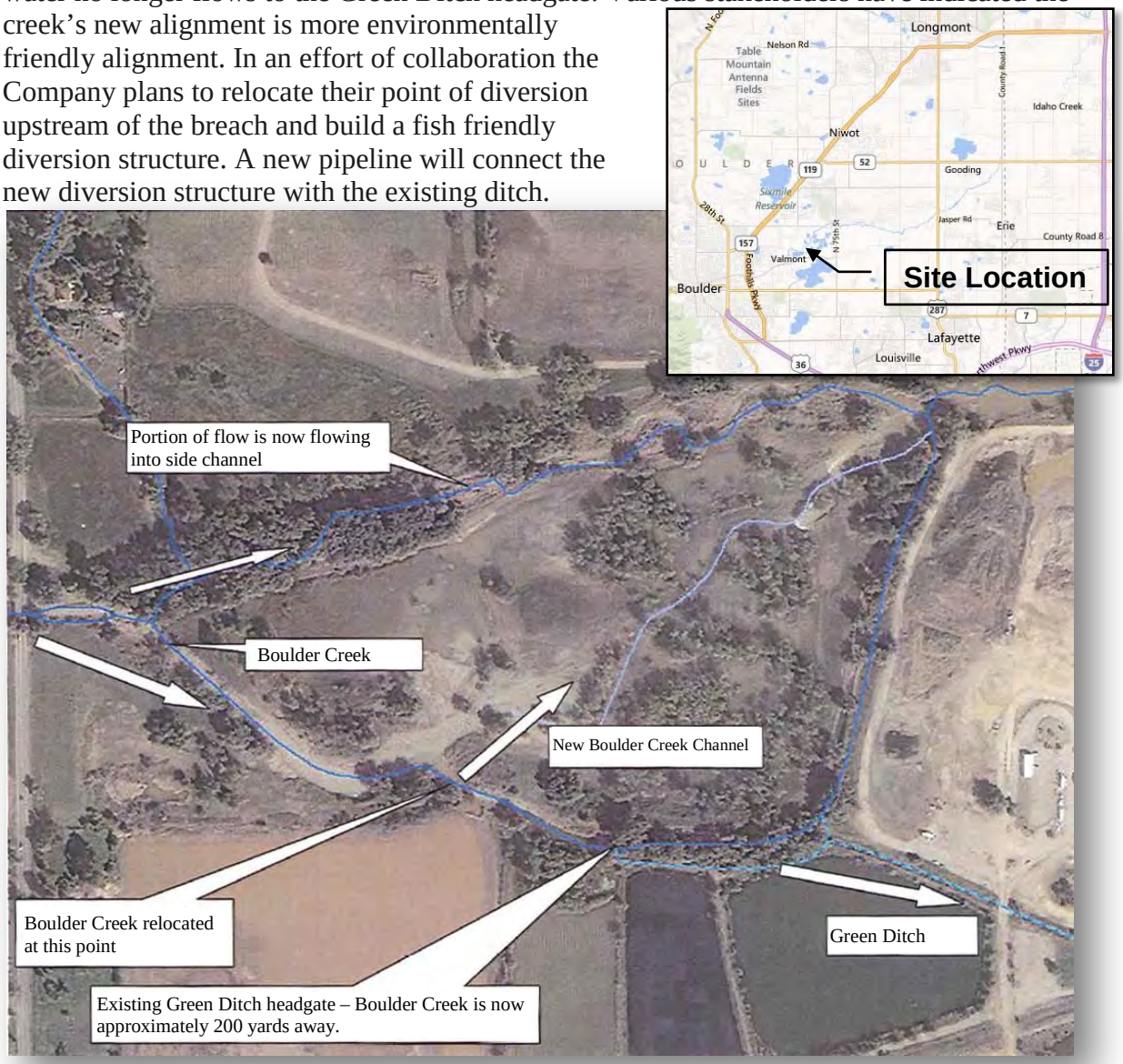
Type of Borrower: Blended

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

C150389

Borrower: Haldi Ditch Company

County: Boulder

Project Name: Emergency Haldi Ditch Repair

Project Type: Ditch Rehabilitation

Drainage Basin/ District: South Platte / 5

Water Source: Left Hand Creek

Total Project Cost: $343,000

Funding Source: Severance Tax PBF

Type of Borrower: Agricultural/Municipal

Average Annual Diversion: 3,000 AF

CWCB Loan: $50,500
(with 1% service fee)

Interest Rate: 2.35% **Term:** 30-years

The Haldi Ditch is located within the Left Hand Ditch Company's system and within the Left Hand Water District. The Haldi Ditch conveys Left Hand Ditch Company shares via a pipeline for irrigation users and as a raw water source for the Left Hand Water District's Spurgeon Water Treatment Plant and two Left Hand Water District reservoirs. During the 2013 flood event, the Left Hand Creek left its bank immediately upstream of the Haldi Diversion scouring a new channel and disconnecting the creek from the diversion. The proposed project involves the construction of a grouted boulder drop structure to divert water back into the historic channel leading to the intake structure. The historic channel and structures will be cleared of debris and repaired. The pipeline that was scoured and damaged will be removed and replaced with new ductile iron pipe. The access road will be restored to existing conditions and the diversion and stream bank will be armored.

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.

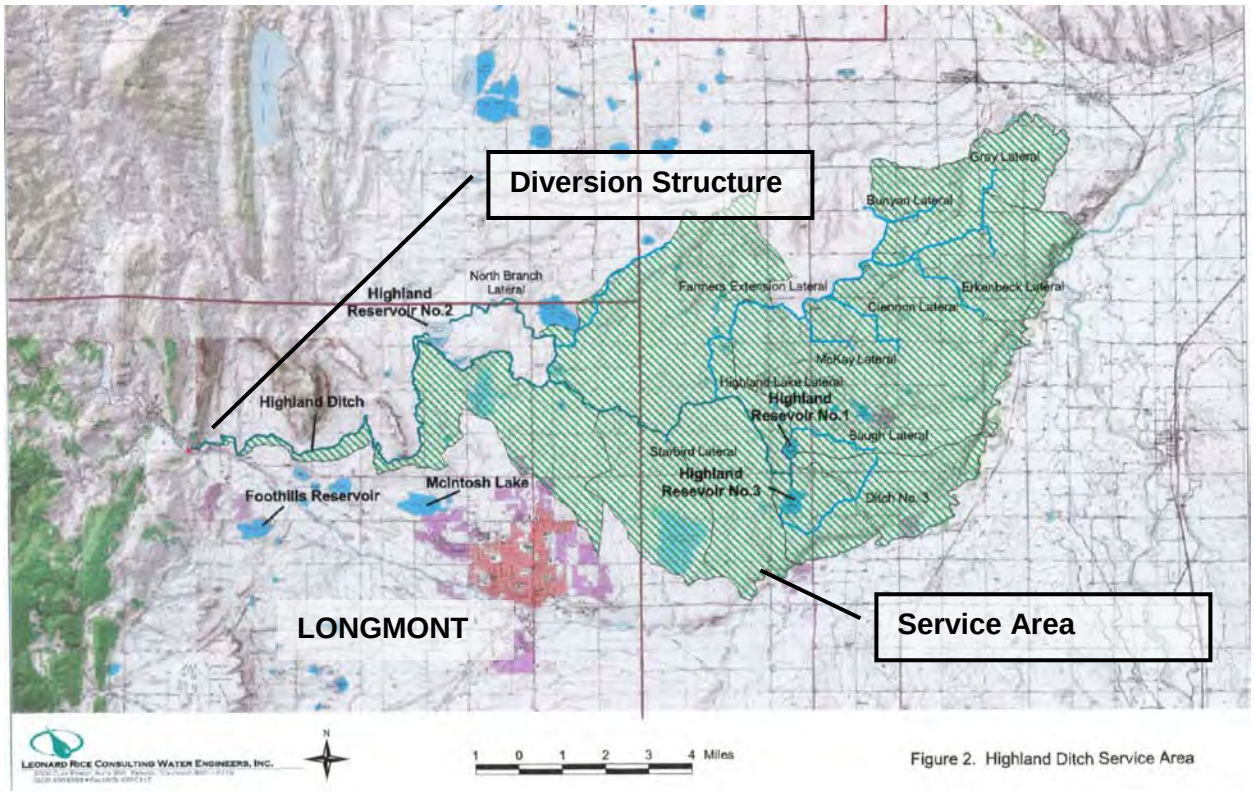


Figure 2. Highland Ditch Service Area

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

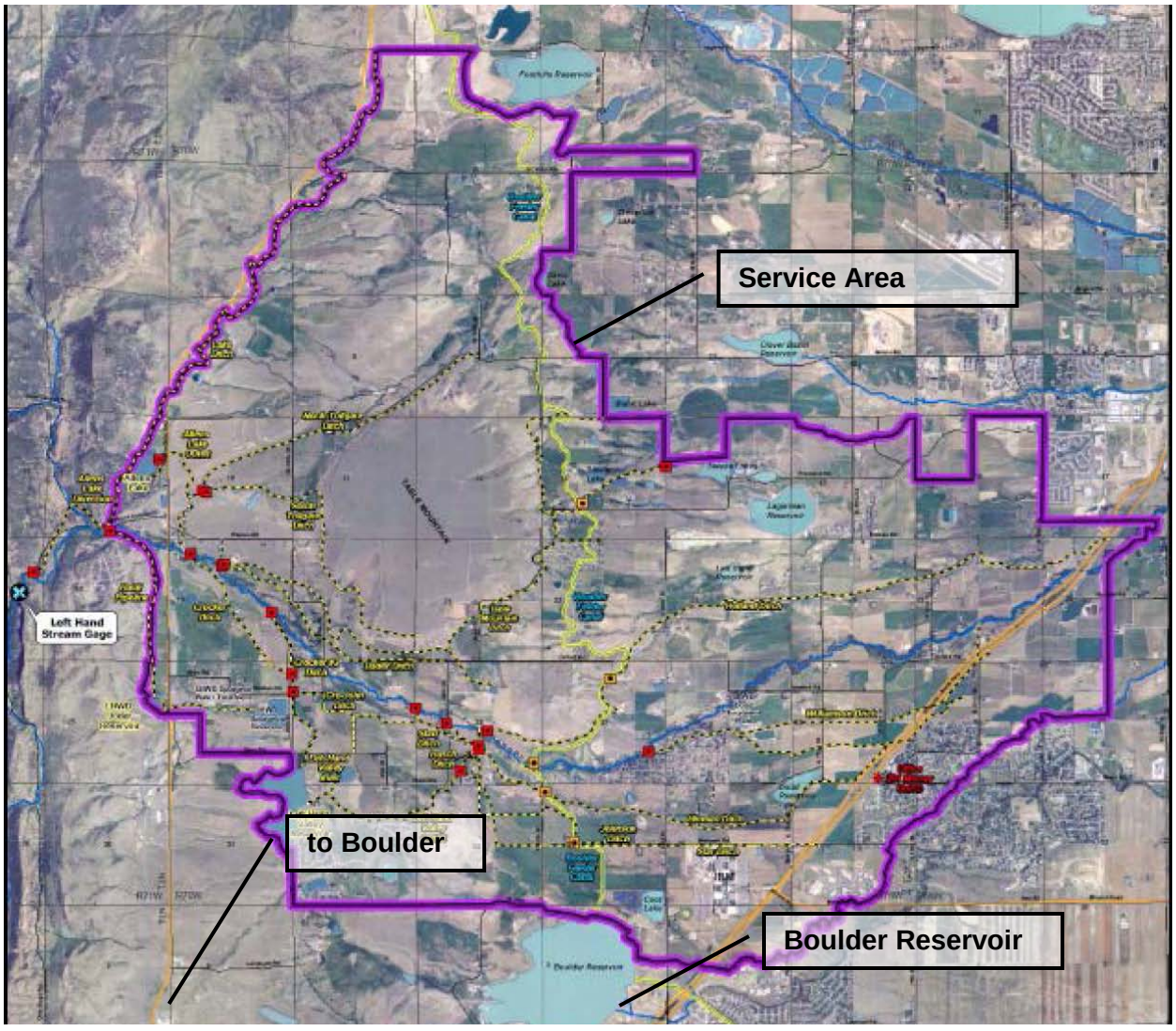
Type of Borrower: Blended

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

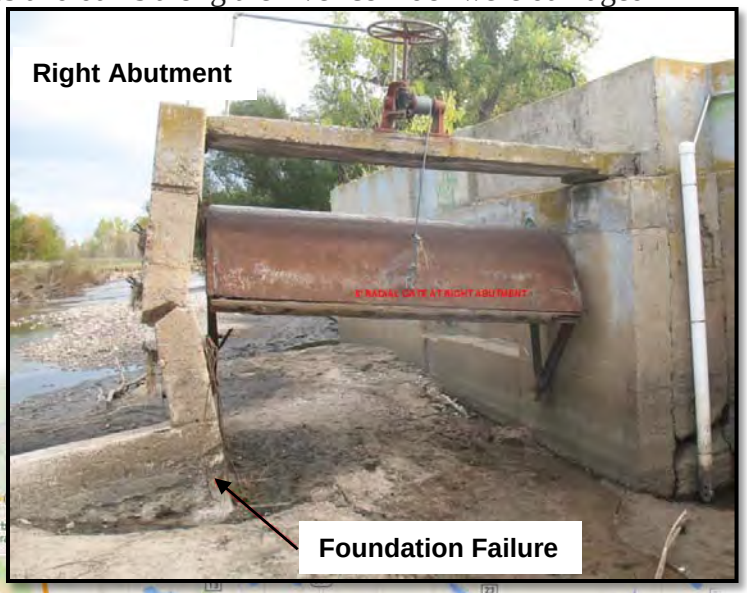
Type of Borrower: Blended

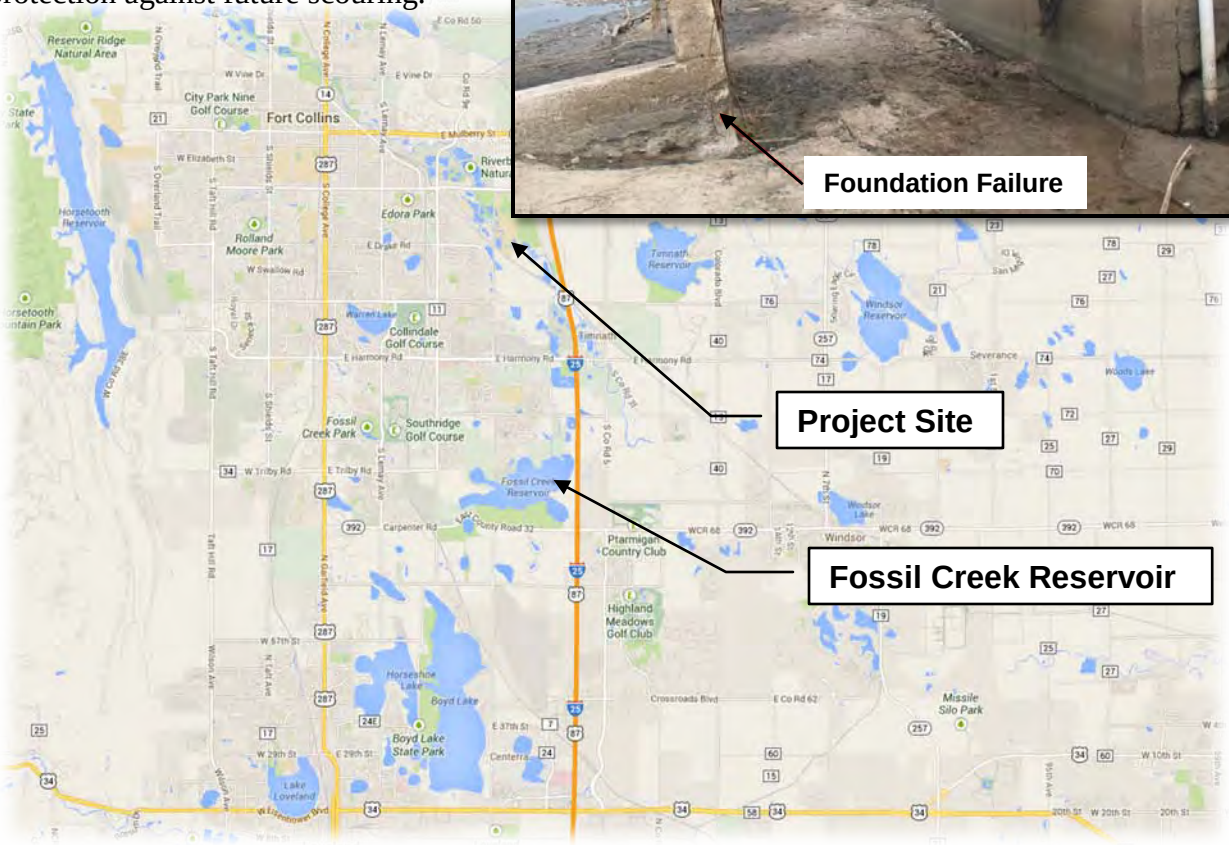
Average Annual Diversion: 31,700 AF

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

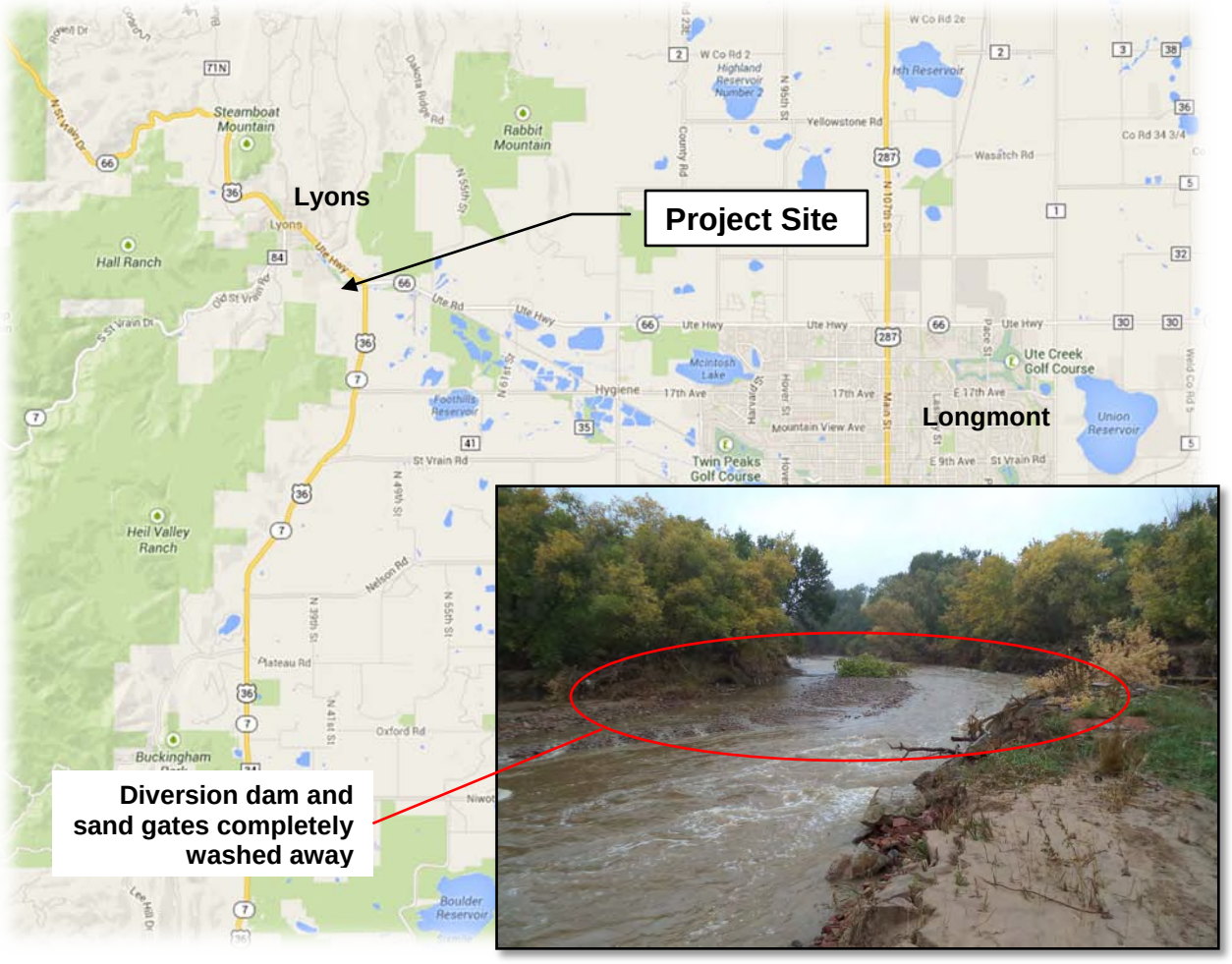
Type of Borrower: Blended

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.



COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Emergency Supply Irrigating Ditch Repair Project

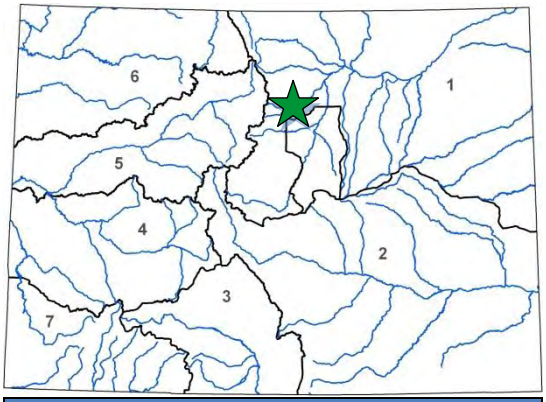
Supply Irrigating Ditch Company

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.

Projects Not Under Contract

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)

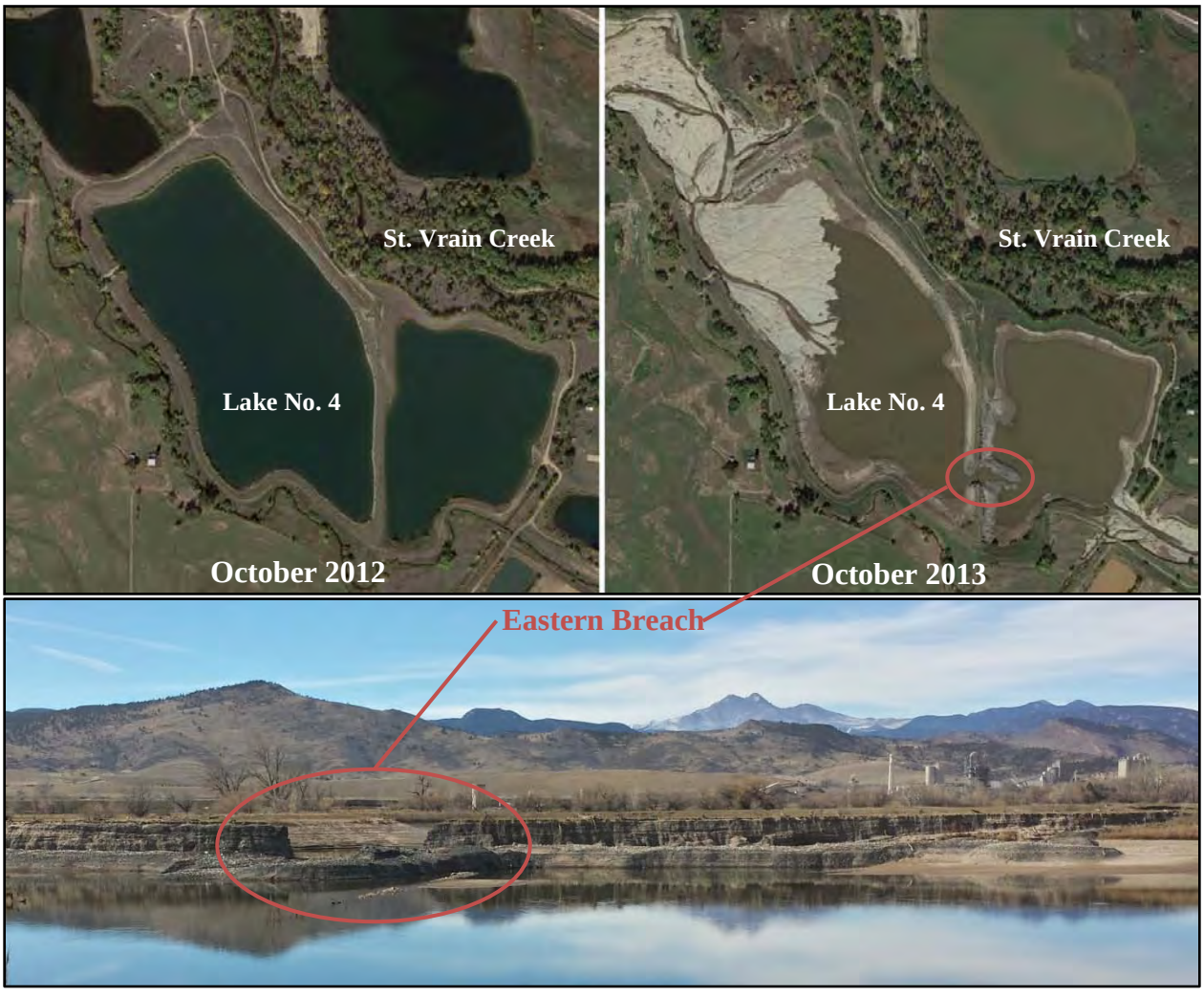
County: Boulder

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

1313 Sherman Street
Denver, CO 80203

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

John Hickenlooper, Governor

Mike King, DNR Executive Director

James Eklund, CWCB Director

TO: Colorado Water Conservation Board Members

FROM: Steve Biondo, Finance Manager

DATE: March 18-19, 2015 Board Meeting

DIRECTORS REPORT: Water Project Loan Program
Loan Repayment Delinquency Report
Loan Financial Activity Report

LOAN REPAYMENT DELINQUENCY

Loan Repayments received relative to the Water Project Construction Loan Program have been reviewed for the period covering July 2014 through February 2015. The effective due date of the payment is inclusive of the Board's current 30 day late policy. Hence, the date the payment was received was compared to the last day allowable prior to the payment being considered late.

Repayments due for the first eight months of Fiscal Year 2015 totaled 171. There were four loan payments not received on time during this period. The loan payments from the Loveland Lake and Ditch Company and the Grandview Irrigation Ditch Company were less than 30 days late. The loan payment from the North Poudre Ditch Company is less than 30 days late (to date) but has notified us in advance. The loan payment from Fuchs Ranches, Inc. was over 30 days late. Thus, the on-time performance for the total repayments due was 98% in compliance or 2% not in compliance.

LOAN FINANCIAL ACTIVITY

Loan Financial Activity relative to the Water Project Construction Loan Program for Fiscal Year 2015 is summarized as follows: Funds received relative to loans in repayment totaled $18.9 M for this year. Funds disbursed relative to new project loans totaled $39.5 M for this year. Net activity resulted in $20.6 M disbursed by the CWCB Construction Fund and the Severance Tax Perpetual Base Fund (STPBF) over the total received.

Further breakdown is summarized as follows: The Construction Fund portion consists of $5.9 M in receivables and $34.0 M in disbursements for a total net activity of $28.1 M disbursed over received. The STPBF consists of $13.0 M in receivables and $5.5 M in disbursements for a total net activity of $7.5 M received over disbursed.

[See details of the table on the following page]

COLORADO WATER CONSERVATION BOARD

FINANCIAL ACTIVITY REPORT FOR FISCAL YEAR 2015

CONSTRUCTION FUND

Period	Principal	Interest	Total Received	Disbursements	Net Activity
July 2014	$ 437,835	$ 258,516	$ 696,351	$ -	$ 696,351
August 2014	$ 672,304	$ 355,624	$ 1,027,928	$ 3,051,658	$ (2,023,729)
September 2014	$ 173,303	$ 1,125,445	$ 1,298,748	$ 1,780,359	$ (481,611)
October 2014	$ 313,537	$ 418,508	$ 732,045	$ 2,563,666	$ (1,831,621)
November 2014	$ 174,136	$ 430,835	$ 604,972	$ 23,266,337	$ (22,661,365)
December 2014	$ 448,450	$ 439,188	$ 887,638	$ 258,605	$ 629,033
January 2015	$ 273,454	$ 129,477	$ 402,931	$ 1,089,882	$ (686,952)
February 2015	$ 149,107	$ 122,686	$ 271,793	$ 2,056,092	$ (1,784,298)
March 2015	$ -	$ -	$ -	$ -	$ -
April 2015	$ -	$ -	$ -	$ -	$ -
May 2015	$ -	$ -	$ -	$ -	$ -
June 2015	$ -	$ -	$ -	$ -	$ -
FY 2015 Totals	**$ 2,642,127**	**$ 3,280,279**	**$ 5,922,406**	**$ 34,066,599**	**$ (28,144,193)**

SEVERANCE TAX PERPETUAL BASE FUND

Period	Principal	Interest	Total Received	Disbursements	Net Activity
July 2014	$ 197,023	$ 217,983	$ 415,006	$ -	$ 415,006
August 2014	$ 591,573	$ 117,520	$ 709,093	$ 312,973	$ 396,120
September 2014	$ 4,053,527	$ 1,241,699	$ 5,295,226	$ 338,024	$ 4,957,202
October 2014	$ 1,043,914	$ 432,461	$ 1,476,376	$ 456,076	$ 1,020,299
November 2014	$ 282,573	$ 67,380	$ 349,953	$ 1,566,008	$ (1,216,054)
December 2014	$ 3,690,916	$ 133,118	$ 3,824,034	$ 778,996	$ 3,045,038
January 2015	$ 262,297	$ 133,394	$ 395,691	$ 793,973	$ (398,282)
February 2015	$ 517,783	$ 43,714	$ 561,497	$ 1,255,324	$ (693,827)
March 2015	$ -	$ -	$ -	$ -	$ -
April 2015	$ -	$ -	$ -	$ -	$ -
May 2015	$ -	$ -	$ -	$ -	$ -
June 2015	$ -	$ -	$ -	$ -	$ -
FY 2015 Totals	**$ 10,639,607**	**$ 2,387,269**	**$ 13,026,877**	**$ 5,501,374**	**$ 7,525,502**
GRAND TOTALS	**$ 13,281,734**	**$ 5,667,548**	**$ 18,949,283**	**$ 39,567,973**	**$ (20,618,691)**