



COLORADO WATER CONSERVATION BOARD

DIRECTOR'S REPORT

January 2015

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



COLORADO

Colorado Water
Conservation Board

Department of Natural Resources

TO: Colorado Water Conservation Board

FROM: James Eklund
Meg Dickey-Griffith
CWCB Staff

DATE: January 26-27, 2015

SUBJECT: Agenda Item 5d, January 2015 CWCB Board Meeting Director's Report

~TABLE OF CONTENTS~

Pg. 3 - INTERSTATE AND FEDERAL

- U.S.-Mexico, Minute 319 Implementation
- Estevan Lopez Confirmed As Commissioner for Bureau of Reclamation
- Glen Canyon Dam Adaptive Management Work Group (AMWG) and Technical Work Group (TWG) Meetings
- Glen Canyon Dam, Long Term Experimental and Management Plan (LTEMP)
- Contingency Planning
- Annual Operating Plan Finalized
- Tamarisk Coalition Conference

Pg. 4 - STATEWIDE

- Ground Water Commission Meeting
- Colorado Water Congress Annual Convention
- Water Tables Dinner
- Supplemental Yellow-billed Cuckoo Comments
- Floodplain Map Modernization/Risk Map Update
- Flood Insurance Claims from September 2013 Floods

Pg. 6 - COLORADO RIVER BASIN

- Upper Colorado River Wild and Scenic Stakeholder Group
- City of Glenwood Springs RICD Application
- Stream and Lake Protection Request for Administration
- Regional Conservation Partnership Program (RCP) Award to Colorado River District

Pg. 7 - PLATTE RIVER BASIN

- Platte River Recovery Implementation Program

Pg. 7 - ARKANSAS RIVER BASIN

- ARCA Annual Meeting

Pg. 7 - SAN JUAN/MIGUEL-DOLORES RIVER BASIN

- River Protection Workgroup

Pg. 8 - AGENCY UPDATES

- Water Project Loan Program Interest Rates
- CWCB Water Efficiency Grant Fund Program (WEGP) Update
- Water Efficiency and Drought Plan Update
- Governor's Water Availability Task Force
- Drought Update
- Net Zero Water Technical Advisory Group
- 1051 Reporting Web Portal Update
- Water and Growth Dialogue
- Rocky Mountain Land Institute Annual Conference
- AWRA National Annual Conference
- Boulder County Watershed Summit
- Colorado Climate Action Plan
- New CDSS Map Viewer
- Wyoming Weather Modification Pilot Program Completed
- CWCB Adopts NRCS Snowcourse
- Diversion Reconstruction with Species Conservation Trust Funds
- Colorado Resilience Working Group Update
- Update on Hydrology Studies for Flood Affected Watersheds

Pg. 13 - ATTACHMENTS

- 01 Press Release: Estevan Lopez Confirmed as 22nd Commissioner for the Bureau of Reclamation
- 02 Designation Memo of Jennifer Gimbel as the Designated Federal Officer to AMWG
- 03 UCRC Contingency Planning Resolution
- 04 Lower Basin States Memorandum of Understanding
- 05 Annual Operating Plan for Colorado River System Reservoirs 2015
- 06 DNR Supplemental Yellow-billed Cuckoo Comments
- 07 Stream and Lake Protection Section De Minimis Cases
- 08 Instream Flow and Natural Lake Level Program – Summary of Resolved Opposition Cases
- 09 Finance – Prequalified Project List and Loan Prospect Summary
- 10 Finance – Emergency Loans Status Report
- 11 Finance – Design and Construction Status Report
- 12 Finance – Water Project Construction Loan Program, Loan Repayment and Delinquency Report, Loan Financial Activity Report

~INTERSTATE AND FEDERAL~

U.S.-MEXICO, MINUTE 319 IMPLEMENTATION—The Minute 319 bi-national workgroups are continuing to implement Minute 319. The hydrology workgroup met in December in San Ysidro, California. At this meeting the workgroup reviewed and commented on draft scopes of work for implementation of the hydrology work under Minute 319. The next meeting is scheduled for February in San Ysidro, CA, where the U.S. and Mexico will “check-in” on the progress in implementing the various scopes of work. In addition, in 2015 the United States, Mexico, and the Colorado River basin states intend to initiate informal discussions about the successes and challenges associated with Minute 319. *(Ted Kowalski)*

ESTEVAN LOPEZ CONFIRMED AS COMMISSIONER FOR BUREAU OF RECLAMATION—On December 17, 2014, the United States Senate confirmed Estevan Lopez as the 22nd Commissioner for the Bureau of Reclamation. Congratulations to Commissioner Lopez, we look forward to working with him. A copy of the Reclamation press release is attached to this report (Attachment 01), and it can be found at the following link: <http://www.usbr.gov/newsroom/newsrelease/detail.cfm?RecordID=48386> *(Ted Kowalski)*

GLEN CANYON DAM ADAPTIVE MANAGEMENT WORK GROUP (“AMWG”) AND TECHNICAL WORK GROUP (TWG) MEETINGS—The next AMWG meeting is scheduled for February 25-27, 2015, in Salt Lake City. Some topics on that agenda include: an update on the charter; basin hydrology; an update on the Long Term Experimental and Management Plan (LTEMP); results from the annual reporting meeting; and results from the High Flow Experiment. In addition, the Glen Canyon Dam Technical Work Group (TWG) will be holding its annual reporting meeting on January 20-21, 2015, in Phoenix, Arizona. The next TWG meetings are scheduled for April 20-21, 2015, in Phoenix, Arizona. Also, on January 5, 2015, Secretary Jewell designated Jennifer Gimbel as the Designated Federal Officer for AMWG. A copy of the Secretary’s designation memo is attached to this report (Attachment 02). *(Ted Kowalski)*

GLEN CANYON DAM, LONG TERM EXPERIMENTAL AND MANAGEMENT PLAN (LTEMP)—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 in the winter of 2015. *(Ted Kowalski)*

CONTINGENCY PLANNING—On December 10, 2014, the Upper Colorado River Commission passed a resolution in support of the current three-pronged approach for contingency planning that could be implemented if Lake Powell were to be in danger of dropping below critical elevations. A copy of the Commission’s resolution is attached to this report (Attachment 03). In addition, the U.S. Bureau of Reclamation, the Colorado River Basin Lower Division States, and the three major municipal providers in the lower basin (Southern Nevada Water Authority, the Central Arizona Water Conservation District, and the Metropolitan Water District of Southern California) signed a Memorandum of Understanding describing their planned efforts for contingency planning for the next three years. A copy of this MOU is attached to this report (Attachment 04). Commissioner McClow and Staff will update the Board on this work at the upcoming Board meeting. *(Ted Kowalski)*

ANNUAL OPERATING PLAN FINALIZED—On December 24, 2014, Secretary Jewell signed the Annual Operating Plan (AOP) for the Colorado River System Reservoirs for 2015. The AOP projects the water year release from Lake Powell in the 2015 water year to be 9.00 million acre feet (maf), although the actual release from Lake Powell may be in the range of 8.23 maf to 11.63 maf (or higher). The 9.0 maf projected release reflects the current volumes in Lakes Powell and Mead, and this release pattern would be consistent with the Upper Elevation Balancing operational tier under the 2007 Interim Guidelines. For a copy of the entire AOP, see the attachment to this report (Attachment 05), or see the following link: <http://www.usbr.gov/uc/water/rsrvs/ops/aop/AOP15.pdf> *(Ted Kowalski)*

TAMARISK COALITION CONFERENCE—Tamarisk Coalition's 12th Annual Conference, titled "Advancing Riparian Restoration in the West," will be held February 10 through 12 in Albuquerque, New Mexico. Topics include the latest advancements; from riparian restoration case studies, success stories, regional riparian management initiatives and challenges of funding, planning, and implementing riparian restoration, to exploring novel tools, techniques, and research. The conference will present new information about wildlife and habitat, biological control, biomass removal/use, native plants, and streambank bioengineering. The CWCB is a Platinum Sponsor for this event. <http://www.tamariskcoalition.org/about-us/events/2015-conference> (Ted Kowalski)

~STATEWIDE~

GROUND WATER COMMISSION MEETING— The Ground Water Commission (GWC) held its quarterly meeting on November 21, 2014 in Castle Rock, CO. The agenda items included routine reports and a discussion on the coordination of the newly granted enforcement authority of local Ground Water Management Districts (GWMD) as a result of the passage of HB 14-1052. The GWC discussed proposed statutory language to clarify the meaning of the court's "de novo" review of the GWC's administrative actions. The GWC also discussed the procedures for appeal of an interpretation of a permit by Staff, based on Staff's definition of commercial use. 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 GWC will hold its next regular meeting on February 20, 2015 in Denver, CO. For more information visit: <http://water.state.co.us/groundwater/CGWC/Pages/default.aspx>. (Suzanne Sellers)

COLORADO WATER CONGRESS ANNUAL CONVENTION—Scheduled for January 28th through 30th at the the Denver Tech Center, this year's Water Congress will include special workshops and panel discussions on issues including the Colorado Water Plan, Succession in Agriculture, Minute 319, DSS, and the future of the Colorado River. The convention will also include a "State of the State" with Governor Hickenlooper and a Keynote Presentation by Dr. Wallace Nichols, author of Blue Mind. CWCB staff will be in attendance. http://www.cowatercongress.org/cwc_events/Annual_Convention.aspx. (Ted Kowalski)

WATER TABLES DINNER—The Water Congress is once again hosting the CSU Water Tables Dinner, on Thursday, January 29 at 6:15 p.m. The evening will include dinner and a presentation titled "Partnering the Waters" by the Honorable Ken Salazar, former U.S. Secretary of the Interior. James Eklund and Ted Kowalski will be hosting tables for conversations on "Partnering for Colorado's Water Plan," and "It Only Takes a Minute: A Recap of the Historic Colorado River Agreement between Mexico and the United States," respectively. <http://lib.colostate.edu/archives/water/water-tables/2015/> (Ted Kowalski)

SUPPLEMENTAL YELLOW-BILLED CUCKOO COMMENTS—The Colorado Department of Natural Resources submitted supplemental comments regarding the designation of critical habitat for the Western distinct population segment of the Yellow-billed Cuckoo. Original comments were filed on October 14, 2014. This supplemental letter was submitted on January 12, 2014 and is included as an attachment to this report (Attachment 06). (Ted Kowalski)

FLOOD PLAIN MAP MODERNIZATION/RISK MAP UPDATE—

FY14 Activities: The CWCB is currently working on completing task orders to begin work 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 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.

FY13 Activities: Lidar acquisition for Rio Blanco County has been completed and awaiting the final deliverable. 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.

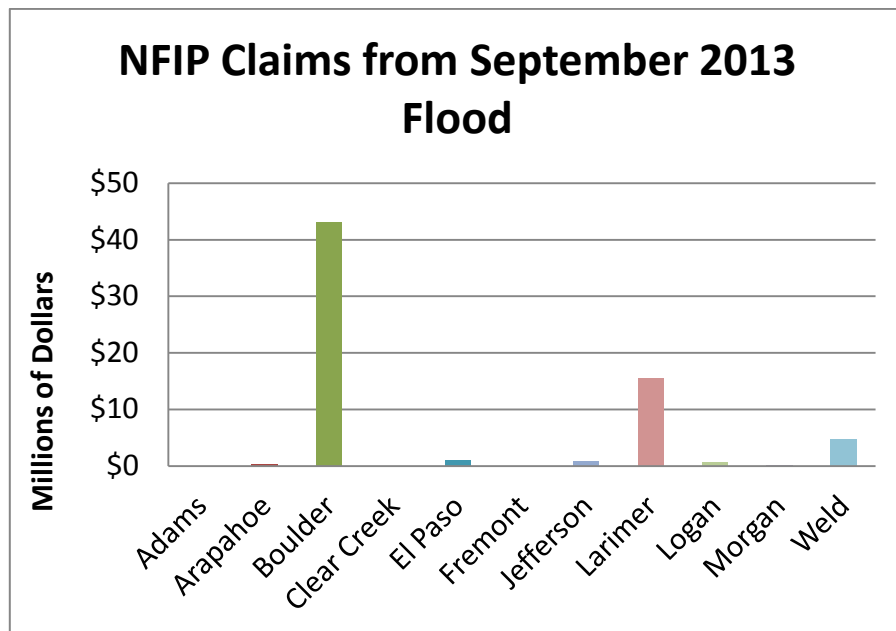
FY07 Activities: Summit County DFIRMs became effective November 2011. La Plata County received their effective maps in August 2010. Park County has gone effective in December 2009. Delta County maps became effective in July 2010. Teller County and Archuleta County have gone effective since September 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)*

FLOOD INSURANCE CLAIMS FROM SEPTEMBER 2013 FLOODS— The National Flood Insurance Program (NFIP) was created in 1968 by Congress to provide a means for property owners to purchase flood insurance. Flood insurance is available through private insurance agents and is backed by the Federal government. Any property owner or renter in a community participating in the NFIP is eligible for flood insurance coverage. While flood insurance is not required for properties outside of mapped high-risk flood areas, nationally 25% of all NFIP flood insurance claims come from low-risk areas. In the September 2013 floods, that number may have been even higher. There were over 16,500 applicants for FEMA’s Individual Assistance grant program and just 2,093 flood insurance claims, which indicate that there were many uninsured losses. Over \$65 million in flood insurance claims have been approved. The graph below shows the breakdown of claims in millions of dollars by county.



(Jamie Prochno)

~COLORADO RIVER BASIN~

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 January 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/EISs. 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) has not met since the last CWCB meeting and its next regular meeting is scheduled for January 13, 2015 at the same location. For more information, see the following link: <http://www.upcowildandscenic.com> (Suzanne Sellers)

CITY OF GLENWOOD SPRINGS RICD APPLICATION—The Division 5 Water Court has been petitioned to extend the deadline for the CWCB to report its findings to the water court in Case No. 13CW3109 until August 14, 2015. The CWCB is planning to conduct a public deliberation on this matter at its regular July 2015 board meeting. (Suzanne Sellers)

STREAM AND LAKE PROTECTION REQUEST FOR ADMINISTRATION—On December 12, 2014, after investigating low flow alerts from the satellite monitoring system, staff placed two calls for administration of the Board’s instream flow (ISF) water rights on Tenmile Creek and the Colorado River. The Tenmile Creek ISF water right was decreed in Case No. 5-86CW209 for 7 cfs in the reach from the confluence with West Tenmile Creek to the confluence with Dillon Reservoir. The call was active for two days prior to water levels rebounding. As a result of the call, the Water Commissioner communicated with Climax Mine and they will work with DWR/CWCB to schedule maintenance for a time when impacts to the stream will not be injurious. The Colorado River ISF water right was decreed in Case No. 5-80CW446 for 90 cfs from the headgate of the Windy Gap Diversion Project to the confluence with the Williams Fork River. Flows in the reach have fluctuated above and below the decreed ISF rate. The Division Engineer’s staff has been working with junior water right holders to administer the call. *(Brian Epstein)*

REGIONAL CONSERVATION PARTNERSHIP PROGRAM (RCPP) AWARD TO COLORADO RIVER DISTRICT—The Colorado River District’s proposal titled “Modernizing Agricultural Water Management in the Lower Gunnison River Basin” has been approved in the first round of funding. This project is designed to increase water use efficiency by coordinating expanded efforts and integrating off-farm irrigation conveyance system and on-farm water application efficiency improvements. The RCPP program focuses on locally-led public-private partnership efforts to deliver conservation solutions that help to protect important drinking water supplies, provide critical habitat for many at-risk species, enhance environmental markets, make farms and ranches more resilient, and address important waterways. A formal announcement was made on January 16th at the Colorado Department of Agriculture.

~PLATTE RIVER BASIN~

PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM—The Platte River Recovery Implementation Program (PRRIP) Governance Committee (GC) held a meeting to discuss the coming year’s budget on November 12, 2014 and held its regular meeting on December 2-3, 2014. Both meetings were held in Denver, CO. Agenda items included regular committee meeting updates and an in-depth update on the J2 reregulating reservoir. A member of the Independent Science Advisory Committee (ISAC) presented to the GC their responses to scientific questions posed to the committee and provided recommendations related to the 2014 AMP Reporting Session. A presentation was given to the GC on work that has been done on hydroclimatic indices in the Platte River basin. GC discussions included the proposed service agreement with Central for Phelps Canal groundwater recharge and other pending water service agreements. The GC approved the annual budget, annual work plan, annual Executive Director’s Office contract, and a permitting services contract. CWCB staff also participated in Finance Committee (FC), Technical Advisory Committee (TAC) and Land Advisory Committee (LAC) meetings. 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)*

~ARKANSAS RIVER BASIN~

ARCA ANNUAL MEETING—The 2014 Annual Arkansas River Compact Administration (ARCA) meeting was held in Lamar, CO on December 16th and 17th. This year ARCA welcomed Jim Rizzuto of Swink as the new federal representative to the administration. The meeting covered the USGS agreement to work in improving accuracy of gage readings at the state line and affirmed the commitment of both Colorado and Kansas to use the Special Engineering Committee in an effort to resolve several long-standing accounting disputes. ARCA requested that the USBR commence a 10 year review of Trinidad Project operations for years 2005-2014. Additionally, the meeting marked the approval and roll-out of the new ARCA website, jointly managed by the two states (found at <http://www.co-ks-arkansasrivercompactadmin.org/>). CWCB staff attending the meeting included James Eklund, Steve Miller, Brent Newman, and Meg Dickey-Griffith. *(Steve Miller)*

-SAN JUAN/MIGUEL-DOLORES RIVER BASIN-

RIVER PROTECTION WORKGROUP—The River Protection Workgroup (RPW) Steering Committee held a regular meeting on December 15, 2014 in Durango, CO with its next meeting scheduled for February 5, 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. At the meeting, the group discussed the existing proposal by Trout Unlimited and the alternate proposal by the Wilderness Society and the San Juan Citizen's Alliance. The group indentified areas of agreement between the two proposals and topics that require more discussions. Both of the outstanding proposals include combinations of removal of suitability, wild and scenic designation and maintaining suitability within the five watersheds of the San Juan Basin. The RPW is also celebrating the passage of the Hermosa Creek Watershed Protection Act. The Act was signed into law on December 19, 2014 as part of the National Defense Authorization Act. The RPW expressed their appreciation to the CWCB for supporting the RPW process and its efforts on Hermosa Creek. For more information, see the following link: <http://ocs.fortlewis.edu/riverprotection>. (*Suzanne Sellers*)

-AGENCY UPDATES-

WATER PROJECT LOAN PROGRAM INTEREST RATES—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: Agricultural 1.85%, Low-income Municipal 2.60%, Middle-income Municipal 3.00%, High-income Municipal 3.35%, Commercial 6.00%, Hydroelectric 2.00%. 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. (*Kirk Russell*)

CWCB WATER EFFICIENCY GRANT FUND PROGRAM (WEGP) UPDATE—Over the last few years of research/projects along with evaluating this grant program, CWCB staff is identifying trends in water efficiency & drought planning and implementation. It is an on-going discussion as staff considers a guideline update for this grant program.

4 grant applications were received since the November 2014 Director's Report

- **City of Lamar** - Water Conservation Plan Update
- **Green Industries of Colorado (GreenCO)** - Quantification of Landscape Water Conservation Practices
- **Center for Resource Conservation** - School District Water Efficiency Project
- **Arapahoe County Water & Wastewater Authority** - Water Conservation Update

2 grants were approved since the last Board meeting:

- **City of Lamar** - Water Conservation Plan Update (\$32,933.52)
- **Colorado Clean Energy Cluster** - Net Zero Water Planning Template (\$49,399)

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

- **Town of Erie** - Water Conservation Plan Update - 75% Progress Report
- **Town of Firestone** - Rebate Program - Final Report
- **City of Grand Junction** - Residential & Commercial Water Audits - 50% Progress Report
- **City of Louisville** - Water Conservation Plan - Water Conservation Plan submitted
- **The Keystone Center** - Water & Land Use Planning Dialogue - 50% Progress Report
- **Left Hand Water District** - Water Conservation Plan Update - 50% Progress Report
- **City of Brighton** - WaterSmart Software Pilot Program - 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

- **Town of Telluride**
- **Town of Ouray**
- **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**

Water Efficiency Plans in review

- **Town of Aspen** - CWCB received the plan on January 5, 2015
- **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. (*Kevin Reidy & Ben Wade*)

GOVERNOR'S WATER AVAILABILITY TASK FORCE—The next Water Availability Task Force meeting will be on January 20, 2015 from 1:00-2:30pm at the Colorado Parks & Wildlife Headquarters, 6060 Broadway, Denver, CO in the Bighorn Room. Please check the website (<http://cwc.state.co.us/public-information/flood-water-availability-task-forces/Pages/main.aspx>) for additional information. (*Ben Wade*)

DROUGHT UPDATE—As of January 6th, 30% percent of the state is experiencing some level of drought. The majority of that is located in the southern portion of the state with 12% classified as severe. Snowpack is at 94% of normal for the state, with the eastern basins of the South Platte and Arkansas experiencing the highest snowpack levels at 113% and 110% respectively. The Colorado, North Platte, Yampa/ White, and Gunnison are all near normal for this time of year. The basins of the Southwest and the Rio Grande are below normal at 71% and 67% of normal, respectively. Statewide reservoir storage is at 103% 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. If conditions improve enough a recommendation for deactivation will be made to the Governor. (*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. (*Kevin Reidy*)

1051 REPORTING WEB PORTAL UPDATE—Stephanie DiBettito has organized much of the water conservation program data that was pulled out of the Web Portal. Kevin Reidy is analyzing that data at present time. Additionally, Kevin is creating a scope of work to enhance the features of the portal and adding functionality based on user feedback from the first year of operation. *(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. Additionally, an interim draft research report was completed on December 29, 2014 that compiled various case studies on density and water conservation policies and tools from across the United States. This has been completed by Clarion Associates. *(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 abstract is due at the end of January. *(Kevin Reidy)*

BOULDER COUNTY WATERSHED SUMMIT—Staff will be presenting on the State's efforts to integrate climate change into long term planning efforts at the January 21st Watershed Summit. This event builds on a three year collaborative effort in Boulder County that helped identify gaps, strategies and innovate solutions related to water planning. *(Taryn Finnessey)*

COLORADO CLIMATE ACTION PLAN—Efforts are underway to develop a new climate action plan for the state with specific policy recommendations as called for in HB 13-1293. CWCB staff is leading this effort in collaboration with CDPHE and CEO. *(Taryn Finnessey)*

NEW CDSS MAP VIEWER—DWR, with financial support from CWCB, has revamped the CDSS Map Viewer. Now hosted in the Cloud, it's crisper and faster than the previous version. Users can now do queries, location searches, and search across multiple data sets for water rights and other information. Users can also do some analysis, such as buffering and distance measuring. Additional functionality includes the ability to download data, draw and annotate the map, and save the current view, including annotation and drawings, for use later or to send to others for collaboration.

Phase 2 of the project will bring in additional functionality and data currently found in AquaMap.

The new viewer can be found at <https://coloradodnr.info/slv/?Viewer=MapView&Viewer=MapView>

Links to the viewer can also be found the CDSS website:

<http://cdss.state.co.us/onlineTools/Pages/MapView.aspx>, and on DWR's website:

<http://water.state.co.us/DATAMAPS/GISANDMAPS/MAPVIEWER/Pages/FAQ.aspx> *(Carolyn Fritz)*

WYOMING WEATHER MODIFICATION POILOT PROGRAM COMPLETED— Members of the National Center for Atmospheric Research in Boulder and from the Wyoming Water Development Office will make a presentation to the CWCB Board in January on the results of this nine year \$14M randomized wintertime research experiment. This study was designed to answer the call to action by a 2003 National Research Council Report called "Critical Issues in Weather Modification Research". The report stated there is still no convincing "proof" of the efficacy of

weather modification. The final report is not due out until March 2015 but the executive summary is posted at <http://wwdc.state.wy.us/>. (Joe Busto)

CWCB ADOPTS NRCS SNOWCOURSE—As part of ongoing federal budget cuts, several water users have agreed to partner with the Natural Resources Conservation Service (NRCS) and its federal snow survey program. The CWCB Watershed and Flood Protection Section have agreed to sign the cooperators agreement and take measurements at the Willow Creek Pass snowcourse site once per month and report them back to the NRCS for incorporation into their data set. The Willow Creek Pass site is at an elevation of 9540 feet and was established in 1938 in Grand County. It is used in snowpack calculations for the Upper Colorado and North Platte basins.

Once per month during the last weeks of January through April, staff will take 13 measurements along a snow course transect established at the site. The data is collected by using a snow tube set to measure depth and water content. SNOTEL sites are automated and are mostly used for water supply forecasts. However, snowcourse data are also extremely valuable as they are the long term mountain climate record and have much longer records than the automated SNOTEL sites that started in the 1980s. Snowcourse measurements are compared to nearby SNOTEL sites, and if the snow course and neighboring SNOTELs are not well correlated, then the snow course is sometimes used in place of the SNOTEL data as it is considered more reliable information. It is staff's belief that continuation of this data record, and our involvement in this work, will lead to more reliable water supply and flood forecasts in these critical watersheds.

In addition, the NRCS is looking for more cooperators statewide. Board members and BRT Chairs are encouraged to spread the word that more help is needed on the western slope and interested parties should contact Mage.hultstrand@usda.nrcs.gov (Joe Busto)

DIVERSION RECONSTRUCTION WITH SPECIES CONSERVATION TURST FUNDS—Staff has been working with Colorado Parks and Wildlife (CPW) to develop criteria to prioritize diversions for fish passage on St. Vrain Creek. Evaluation criteria include:

1. Native species presence- diversions that fall within historic range of special status fishes rank high. Historic distribution of common shiner was used due to high priority for recovery actions, and because it is representative of the guild of cool water fishes that inhabit the transition zone. In St. Vrain Creek, the distribution was defined as extending from the Lefthand Creek confluence upstream to Hygiene Rd.
2. Public visibility and education- diversions that have high public visibility, with educational opportunities on importance of stream connectivity and fish passage
3. Miles of connectivity- (distance to the next upstream diversion), the longer the distance, the higher the rank
4. Shovel readiness
5. Cost
6. Partner/Ditch Company Willingness

A prioritize list of diversions has been discussed with the St. Vrain and Left Hand Conservation District (District). The next step will involve further discussions with the District to develop a strategy to approach individual ditch companies. Other objectives in diversion reconstruction will include increased flood resiliency and sediment transport capabilities. (Chris Sturm)

COLORADO RESILIENCE WORKING GROUP UPDATE—Staff continues to participate in a comprehensive resiliency planning effort being led by the Colorado Recovery Office (CRO). The end result will be a statewide resiliency plan designed to make the State and its citizens more able to prepare for, respond to, and recover from various kinds of disasters and disruptions.

The effort is being led by a steering committee led by the CRO and consisting of members from various State departments. CWCB staff is a member of this steering committee. To support this committee, eight working groups (referred to as sectors) have been established. These include the Watershed and Natural Resources Sector, led by CWCB staff. In addition, staff participates in (but does not lead) the Infrastructure Sector and the Community Sector. Outreach is being conducted by the CRO, and any questions related to the effort should be forwarded to Iain Hyde of the CRO at iain.hyde@state.co.us.

The state's resiliency plan will support an application to the U.S. Department of Housing and Urban Development (HUD), which launched a \$1 billion National Disaster Resilience Competition on Sept. 17, 2014. The intent of the competition is to support and implement thoughtful, innovative, and resilient approaches to recover from disasters and address future risks. This competition is being conducted in two phases with the Phase I application due on March 16, 2015 and Phase II due on or around October 1, 2015. The State is the only eligible applicant within Colorado and will be competing with 66 other eligible applicants (states and territories) nationwide.

Staff has been supporting this effort by attending or leading sector meetings and development of deliverables that will be incorporated into both the Resiliency Plan and the HUD application. A no-fee regional workshop is being held January 20-22 by the Rockefeller Foundation to assist with these efforts, and members of CWCB staff have been invited to attend this workshop in support of the ongoing work. *(Kevin Houck)*

UPDATE ON HYDROLOGY STUDIES FOR FLOOD AFFECTED WATERSHEDS—CWCB staff continues to partner with CDOT on a CDOT-funded project to reevaluate the flood hydrology of seven of the watersheds affected by the 2013 flood. These watersheds include Coal Creek, Boulder Creek, Lefthand Creek, St. Vrain Creek, the Little Thompson River, the Big Thompson River, and the South Platte River. Hydrology is being reevaluated throughout the watershed canyons and the plains to their confluence with the South Platte River. The South Platte River will be analyzed from the confluence with the St. Vrain River to the Nebraska State Line.

Phase I of the study focused on the canyon environments and was completed in August 2014. Final reports are posted on the CWCB website at <http://cwcb.state.co.us/water-management/flood/Pages/2013FloodResponse.aspx>

Phase II of the study is ongoing and focuses on the plains environments to the confluences with the South Platte River. Good progress is being made and draft reports are anticipated for watersheds no later than March 2015. Community outreach will take place and affected communities will have the opportunity to review the reports and models and provide feedback that will be addressed prior to issuance of final reports.

It is the intent of staff that any watersheds that produce higher peak flowrates than those currently being regulated to will have this new flood hydrology incorporated into new floodplain maps when they are produced. For watersheds in which this analysis produces lower flowrates, a dialogue will take place with the local governments to determine how to address this new information with any mapping updates.

CWCB staff will update the Board as to the status and results of the studies at the March 2015 meeting. *(Kevin Houck)*

~ATTACHMENTS~

- 01 Press Release: Estevan Lopez Confirmed as 22nd Commissioner for the Bureau of Reclamation
- 02 Designation Memo of Jennifer Gimbel as the Designated Federal Officer to AMWG
- 03 UCRC Contingency Planning Resolution
- 04 Lower Basin States Memorandum of Understanding
- 05 Annual Operating Plan for Colorado River System Reservoirs 2015
- 06 DNR Supplemental Yellow-billed Cuckoo Comments
- 07 Stream and Lake Protection Section De Minimis Cases
- 08 Instream Flow and Natural Lake Level Program — Summary of Resolved Opposition Cases
- 09 Finance — Prequalified Project List and Loan Prospect Summary
- 10 Finance — Emergency Loans Status Report
- 11 Finance — Design and Construction Status Report
- 12 Finance — Water Project Construction Loan Program, Loan Repayment and Delinquency Report, Loan Financial Activity Report

Commissioner's Office
Washington, D.C.

Media Contact:
Daniel DuBray
202-513-0574

Released On: December 17, 2014

Estevan López Confirmed as 22nd Commissioner for the Bureau of Reclamation

WASHINGTON - The United States Senate has confirmed President Obama's selection for Commissioner of the Bureau of Reclamation. Having served as Principal Deputy Commissioner since October 8, 2014, with all of the responsibilities of Commissioner, Estevan López will now carry the title and formally take the helm of the 5500 person agency that manages water and generates power in the western United States. For the past 2 months as Principal Deputy Commissioner, López has immersed himself in Reclamation's issues, met with stakeholders, become familiar with policy and personnel and is prepared to lead Reclamation into the future.

"I am deeply honored to be a part of the proud tradition of Reclamation and all of its accomplishments as we move into the future of the West," said Commissioner López. "I am grateful to President Obama and Secretary Jewell for asking me to join this administration and I am very proud to lead this professional, knowledgeable and extraordinary team."

"I am pleased the Senate confirmed Estevan López as the Bureau of Reclamation's Commissioner. He is uniquely qualified to lead Reclamation, with a strong background in water management, dealing with drought and climate change issues," said Secretary Sally Jewell.

López has 25 years of experience in the public sector including being appointed by Governor Bill Richardson of New Mexico, as the Director of the Interstate Stream Commission in January 2003. He was re-appointed to that position by Governor Susana Martinez in 2011. As Director of the ISC, López oversaw water management within New Mexico and negotiations with other states over interstate water matters. He represented New Mexico as the Governor's Representative on Colorado River Compact matters and as Commissioner to the Upper Colorado River Compact and Canadian River Compact Commissions. While at the ISC, he also served as the Deputy State Engineer. Previous public sector positions included serving as County Manager and Land Use and Utility Department Director for Santa Fe County, and Public Utility Engineer for the New Mexico Public Utilities Commission. López also worked for several years in the private sector as an Engineer for ARCO Alaska, Inc.

A native New Mexican, he earned two Bachelor of Science degrees from New Mexico Institute of Mining and Technology; one in chemistry and one in petroleum engineering. López is a registered Professional Engineer in New Mexico.

López and his wife Susana live in Peñasco, New Mexico. They have two grown children, Victoria and Juan, who attend college in New Mexico.

The Bureau of Reclamation is a contemporary water management agency and the largest wholesale provider of water in the country. It brings water to more than 31 million people, and provides one out of five Western farmers with irrigation water for farmland that produces much of the nation's produce. Reclamation is also the second largest producer of hydroelectric power in the Western United States with 53 powerplants.

#

Reclamation is the largest wholesale water supplier and the second largest producer of hydroelectric power in the United States, with operations and facilities in the 17 Western States. Its facilities also provide substantial flood control, recreation, and fish and wildlife benefits. Visit our website at www.usbr.gov.

Relevant Links:

[Commissioner's Page](#)

**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: January 26-27, 2015****AGENDA ITEM: Directors Report
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 \$22.4 million. There are currently eighteen (18) 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
Terms of Loan: \$105,171 for 30 years @ 1.75%
Expended Amount: \$105,171
Anticipates FEMA Funding: NO
Design Engineer: None

Water Source: Big Thompson River
Construction Completed: May 2014

Contractor: Custom Design Fabricators – Livermore, Colorado

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

Current Projects in Design or under Construction			Loan			Construction			Status Description/Update	
Borrower/Project			County		Amount	Design Status	Start/End	PM		
1	Beeman Irrigation > Emergency Beeman Diversion Dam Repair C150385	Weld	\$	2,020,000	100%	1/2014-5/2014	95%	JH	Project 95% complete. Waiting on installation of appurtenances....walkways, gauges, handrails, etc.	
2	Big Elk Meadows Association > Emergency Raw Water Storage Repair C150391	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	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	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	Boulder	\$	277,750	100%	4/2014-5/2014	100%	JH	Construction complete, loan funds remaining. No additional disbursements are anticipated.	
6	Church Ditch Water Authority > Leyden Creek Crossing Repair C150377	Jefferson	\$	606,000	100%	1/2014-5/2014	95%	JH	Repair construction complete, loan funds remaining. Additional disbursements are anticipated for mitigation portion of project.	
7	Consolidated Home Supply Ditch & Reservoir Co > Big Dam Diversion Structure Repair C150375	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	Larimer	\$	519,140	100%	2/2014-5/2014	95%	JH	Project 95% complete. Waiting on installation of appurtenances. Loan Increase request approved during July 2014 Board Meeting	
9	Culver Ditch Company > Culver Mahoney Ditch Repair C150390	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	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.	
11	Haldi Ditch Company > Emergency Haldi Ditch Repair C150389	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	Boulder	\$	1,999,800	100%	10/2013-4/2014	100%	JH	Construction complete, loan funds remaining. No additional disbursements are anticipated.	

13	Ish Reservoir Company > Inlet Ditch & Diversion Structure Repair C150376	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	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	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	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	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	Sylvan Dale Ranch,LLP > Emergency Irrigation Pond Excavation C150392	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 = \$ 17,695,737

Projects Not Under Contract

a	Louden Irrigating Canal & Reservoir Company > Emergency Diversion Structure and Ditch Repair C150398	Larimer	\$	121,200	In Contracting	JH	Approved May 2014 Board Meeting. In Contracting
b	St. Vrain and Left Hand Water Conservancy District > Emergency Rock'n WP Ranch Lake No. 4 Repair C150???	Boulder	\$	4,545,000	In Contracting	JH	Approved July 2014 Board Meeting. In Contracting

Not Under Contract SubTotal = \$ 4,666,200

Grand Total = \$ 22,361,937

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

C150385

Borrower: Beeman Irrigating Ditch and
Milling Company

County: Weld

Project Name: Emergency Beeman
Diversion Dam Repair

Project Type: Diversion Rehabilitation

Drainage Basin/ District: South Platte / 2

Water Source: South Platte River

Total Project Cost: \$2,000,000

Funding Source: Severance Tax PBF

Type of Borrower: Agricultural

Average Annual Diversion: 10,586 AF

CWCB Loan: \$2,020,000
(with 1% service fee)

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

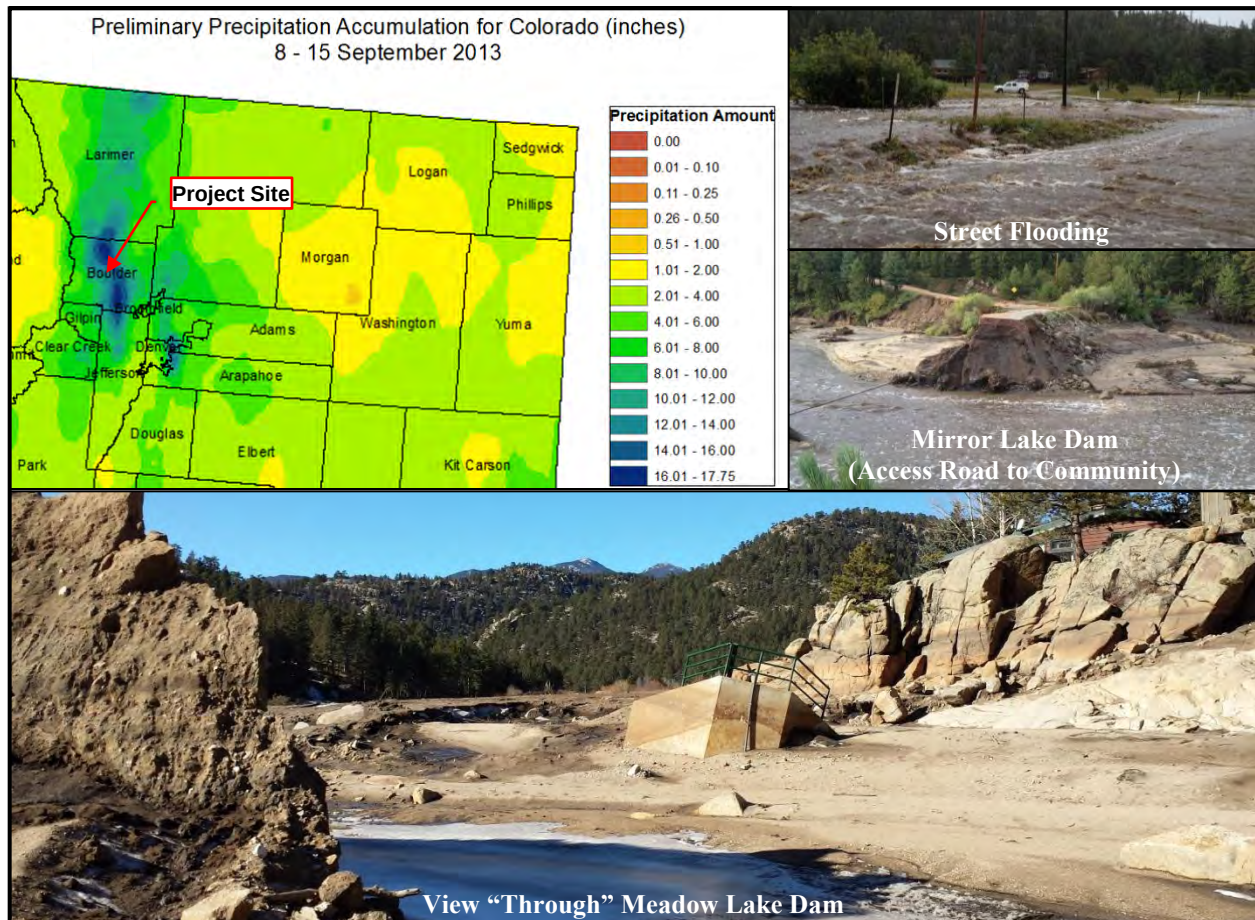
The Company and Meadow Island No. 2, jointly operate a diversion dam, measurement flume, and bifurcation structure. (Beeman is allocated 75% of costs, Meadow Island is allocated 25% of costs). The diversion headworks was constructed in the early 1900s to irrigate approximately 5,000 acres under both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



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

C150391**Borrower:** Big Elk Meadows Association**County:** Boulder/Larimer**Project Name:** Emergency Raw Water Storage
Repair Project**Project Type:** Reservoir Rehabilitation**Drainage Basin/ District:** South Platte / 4**Water Source:** West Fork of the Little
Thompson River**Total Project Cost:** \$1,900,000**Funding Source:** Severance Tax PBF**Type of Borrower:** Middle-Income Municipal**Water Storage:** 108 AF**CWCB Loan:** \$1,515,000
(with 1% service fee)**Interest Rate:** 2.75% **Term:** 30-years

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



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

C150373

Borrower: Big Thompson & Platte River
Ditch Company

County: Larimer

Project Name: Big Thompson & Platte
River Diversion Structure Repair

Project Type: Diversion Rehabilitation

Drainage Basin/ District: South Platte / 4

Water Source: Big Thompson River

Total Project Cost: \$800,000

Funding Source: Severance Tax PBF

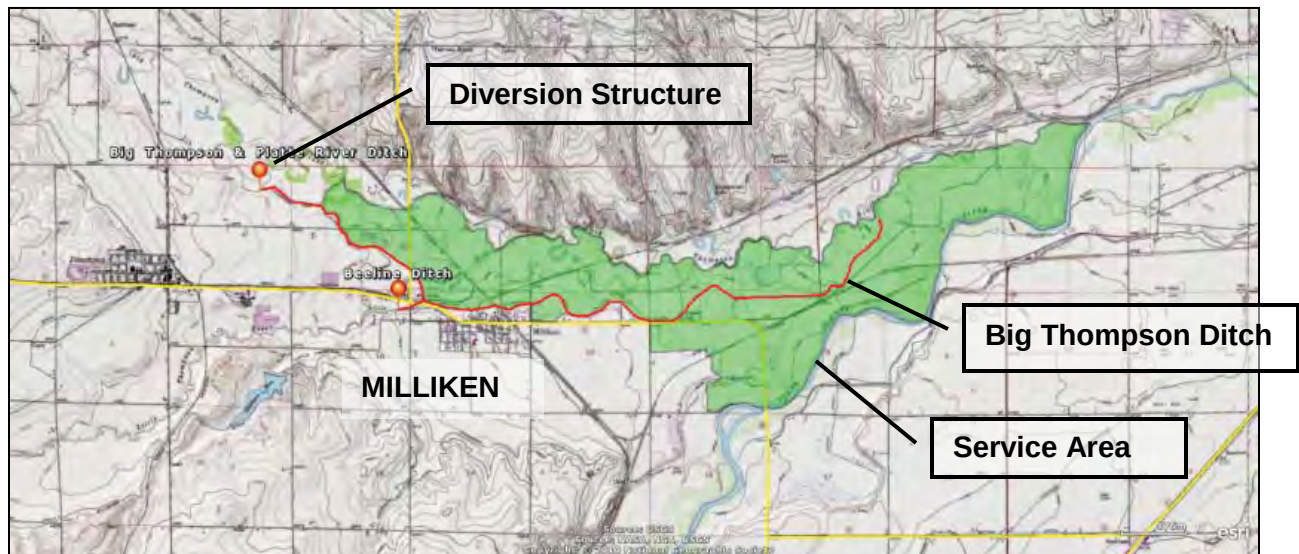
Type of Borrower: Blended

Average Annual Diversion: 9,736 AF

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

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

During the unprecedented flood of September 2013 in the tributaries to the South Platte River, a significant number of diversion structures and dams along the river corridor were damaged. The purpose of this Project is to repair the diversion structure and crossing structures to allow the Company to deliver water to shareholders. The Company's diversion structure and by-pass structure will be repaired and its crossing over the Little Thompson River will be replaced. The crossing structure was a bottleneck at times of free river, so the structure will be improved to allow for additional flows.

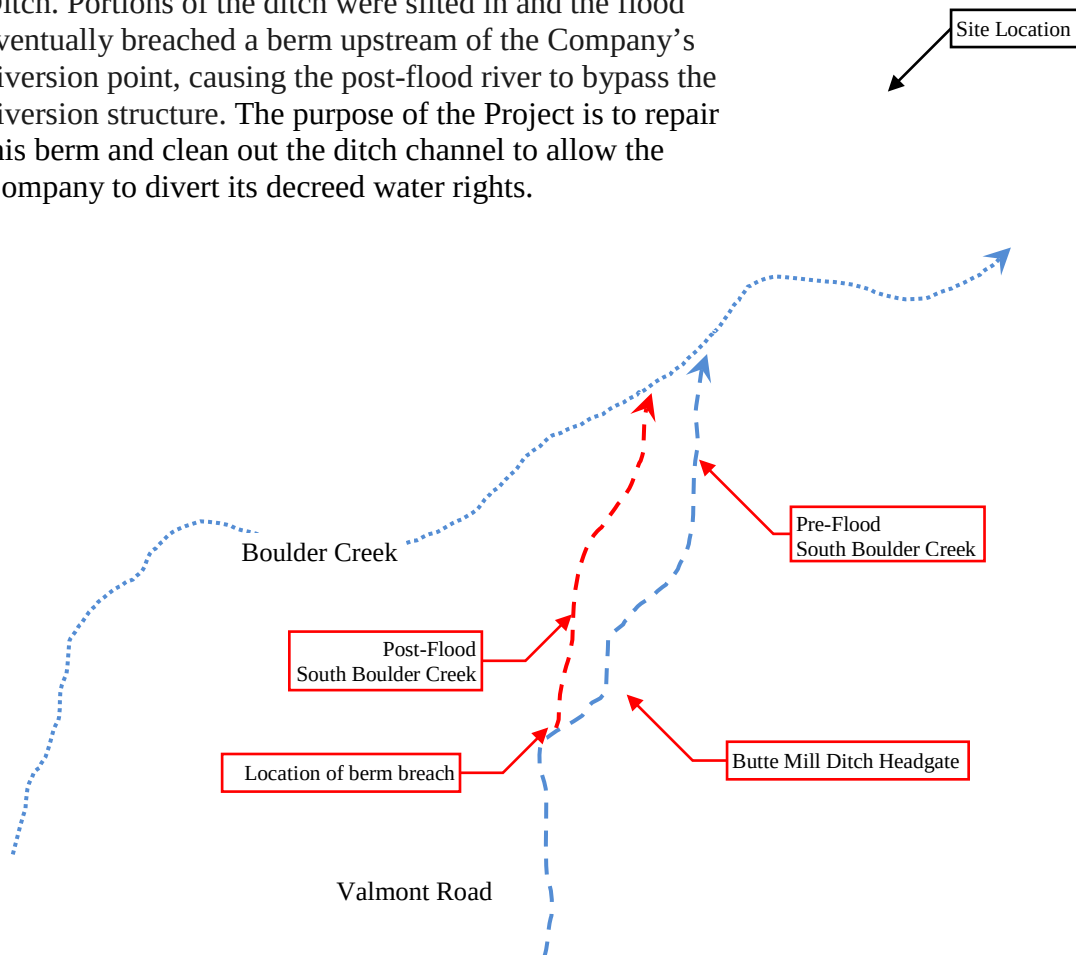


**CWCB Water Project Loan Program
Project Data Sheet**

C150382

Borrower: Butte Irrigating & Milling Company	County: Boulder
Project Name: Emergency Berm Repair	Project Type: Ditch Rehabilitation
Drainage Basin/ District: South Platte / 6	Water Source: Boulder Creek
Total Project Cost: \$275,000	Funding Source: Severance Tax PBF
Type of Borrower: Blended	Average Annual Diversion: 1,177 AF
CWCB Loan: \$277,750 (with 1% service fee)	Interest Rate: 2.30% Term: 30-years (48% Ag, 51% Mid-Muni, 1% Commercial)

During the unprecedented flood of September 2013 in the tributaries to the South Platte River, a significant number of diversion structures and dams along the river corridor were damaged including the Company's Butte Mill Ditch. Portions of the ditch were silted in and the flood eventually breached a berm upstream of the Company's diversion point, causing the post-flood river to bypass the diversion structure. The purpose of the Project is to repair this berm and clean out the ditch channel to allow the Company to divert its decreed water rights.



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

C150377

Borrower: Church Ditch Water Authority

County: Jefferson

Project Name: Leyden Creek Crossing Repair

Project Type: Ditch Rehabilitation

Drainage Basin/ District: South Platte / 7

Water Source: Clear Creek

Total Project Cost: \$600,000

Funding Source: Severance Tax PBF

Type of Borrower: Blended

Average Annual Diversion: 8,355 AF

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

Interest Rate: 2.85% **Term:** 30-years
(6% Ag, 26% Mid, 67% High, <1% Com)

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





Emergency Big Dam Diversion Structure Repair

Consolidated Home Supply Ditch & Reservoir Company

September 2014 Board Meeting

(Loan Increase)

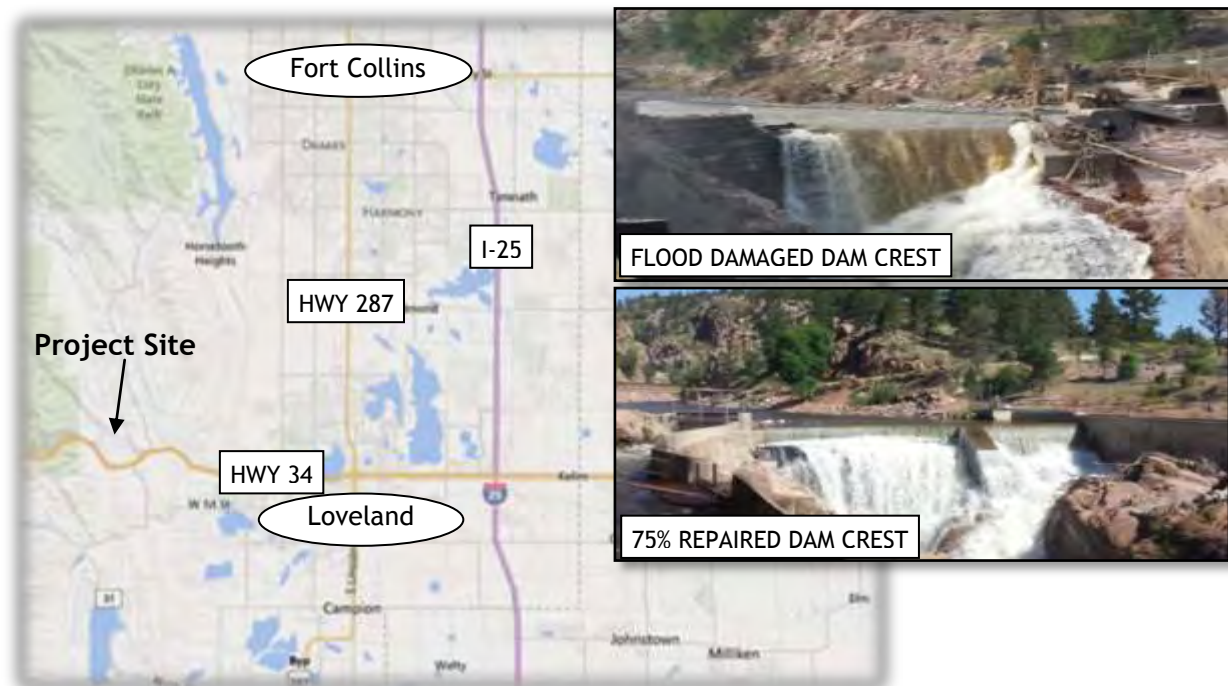
L O A N D E T A I L S	
Project Cost:	\$2,775,000
CWCB Loan (with Service Fee):	\$1,840,000 (15% increase)
Loan Term and Interest Rate:	30 Years @ 1.95%
Funding Source:	Severance Tax Perpetual Base Fund
B O R R O W E R T Y P E	
Agriculture	Municipal Commercial
76%	0% Low - 23% Mid - <1% High <1%
P R O J E C T D E T A I L S	
Project Type:	Diversion Rehabilitation
Average Annual Diversion:	22,000 AF



L O C A T I O N	
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.

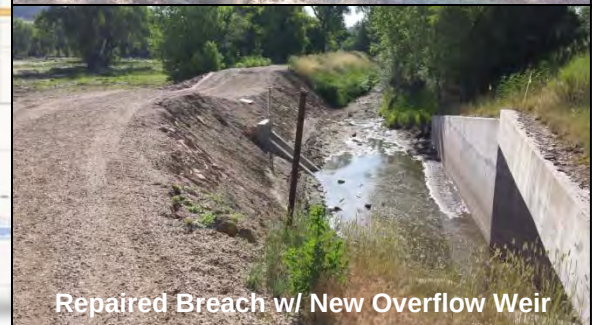
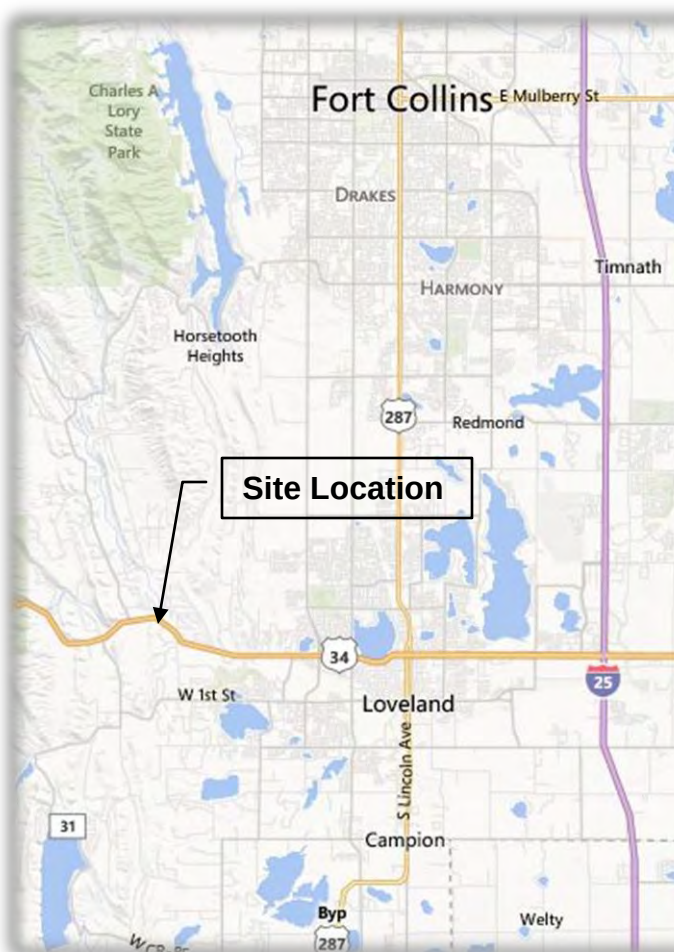


**CWCB Water Project Loan Program
Project Data Sheet
(Increase)**

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.



**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.



Portion of flow is now flowing
into side channel

Boulder Creek

New Boulder Creek Channel

Boulder Creek relocated
at this point

Green Ditch

Existing Green Ditch headgate – Boulder Creek is now
approximately 200 yards away.

**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.

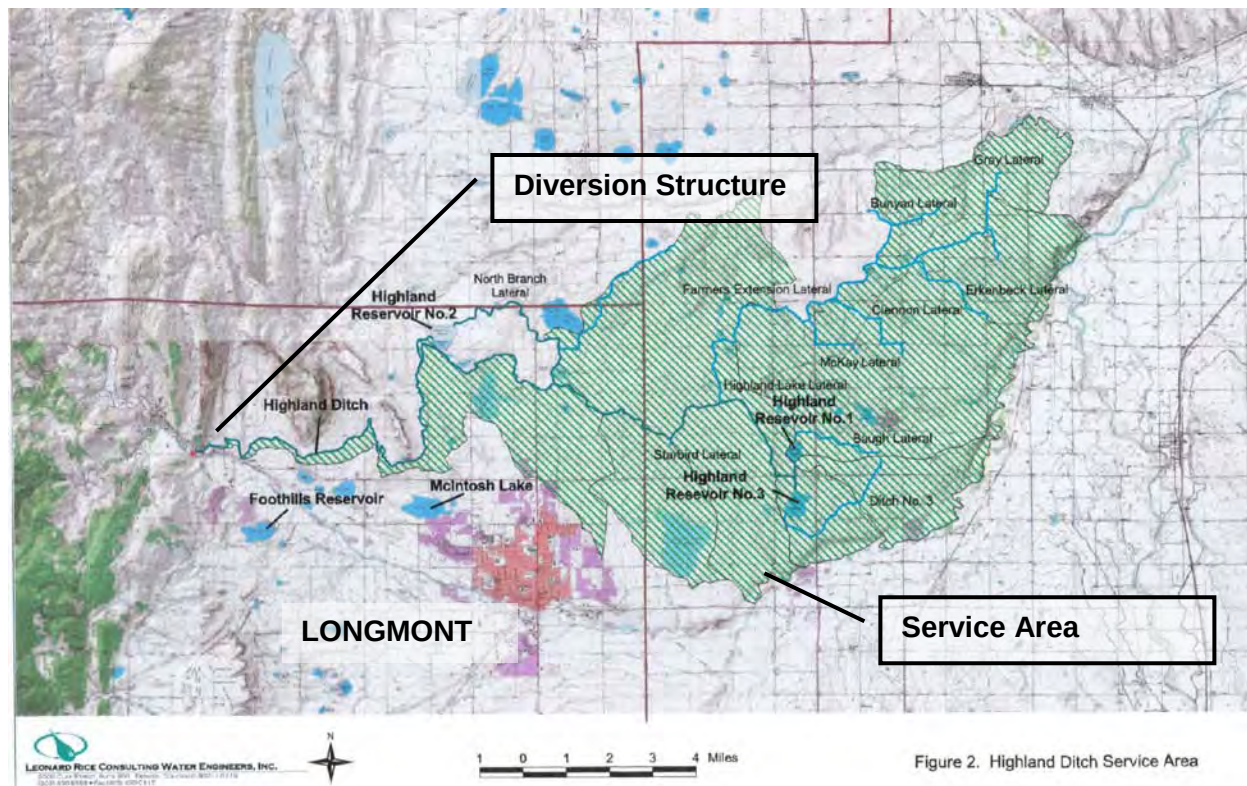
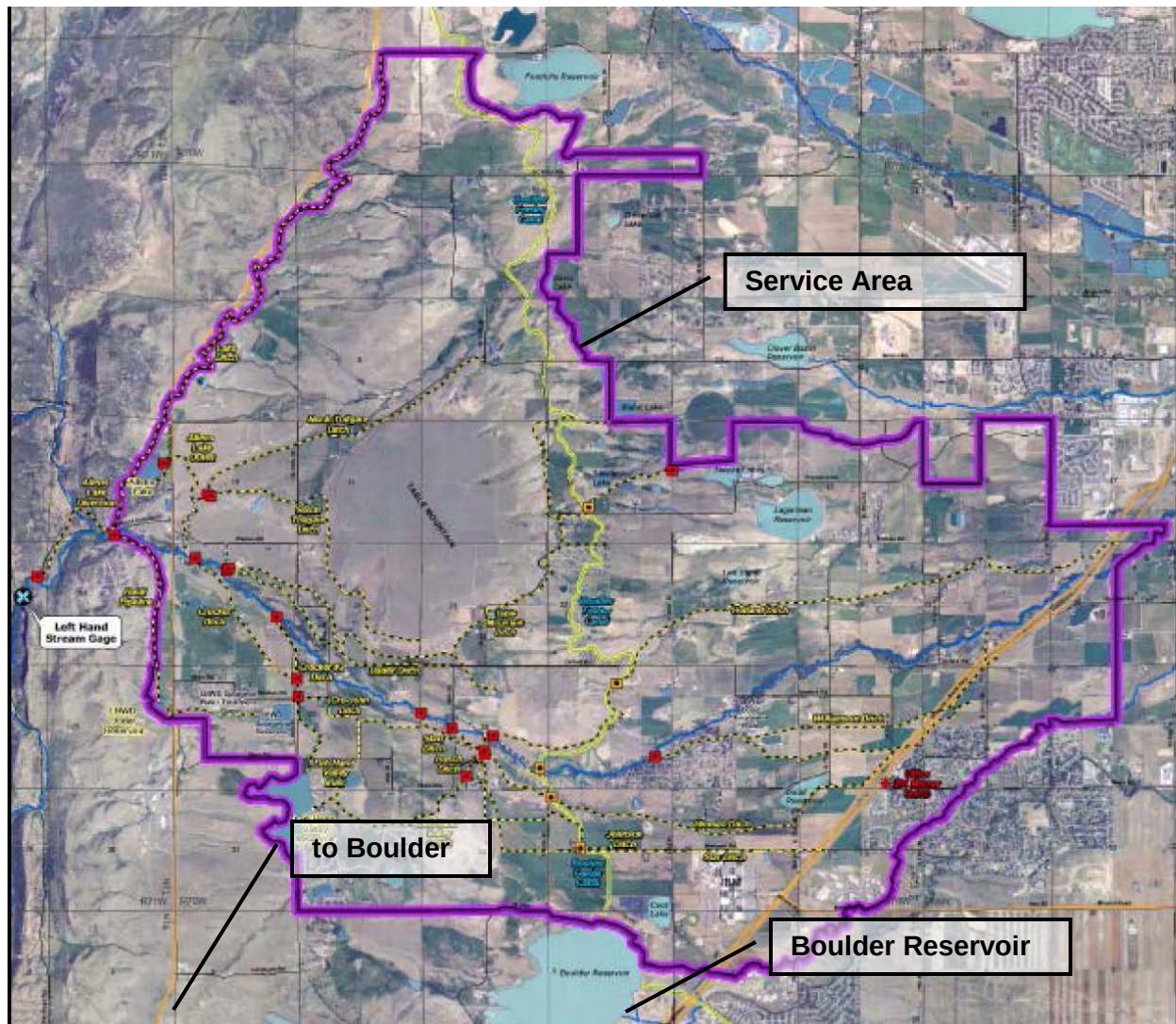


Figure 2. Highland Ditch Service Area

**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 ditches: 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



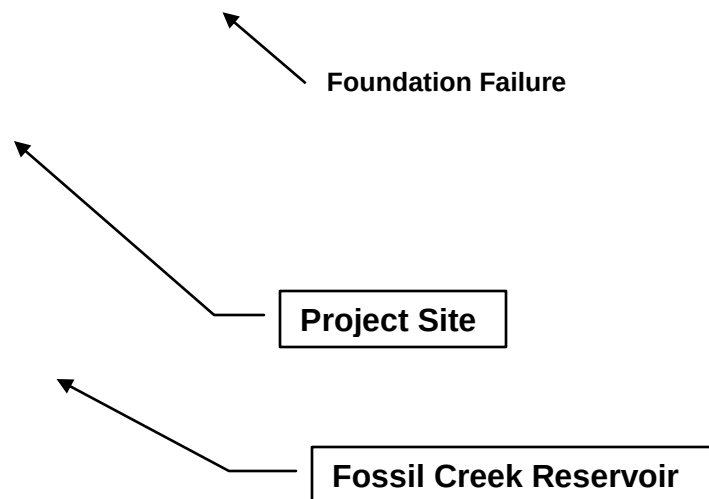
**CWCB Water Project Loan Program
Project Data Sheet**

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.

Right Abutment

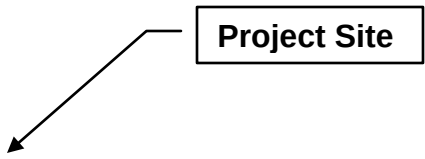


**CWCB Water Project Loan Program
Project Data Sheet**

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.

Lyons


Project Site

Longmont



Destroyed Headgates

**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.

Lyons

Project Site

Longmont

**Diversion dam and
sand gates completely
washed away**



Projects Not Under Contract

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

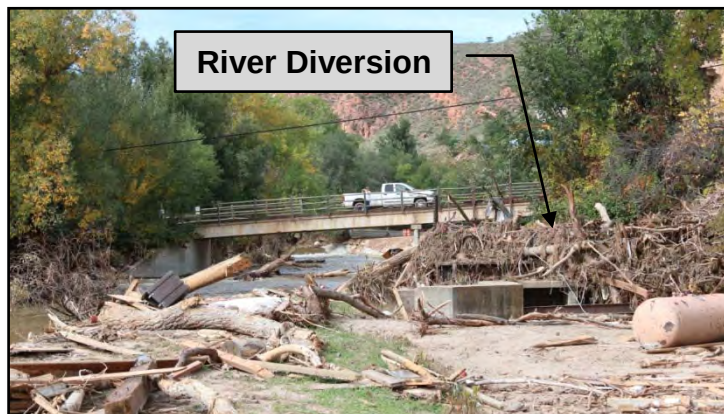
C150398**Borrower:** Louden Irrigating Canal
and Reservoir Company**County:** Larimer**Project Name:** Emergency Diversion Structure
and Ditch Repair**Project Type:** Ditch Rehabilitation**Drainage Basin/ District:** South Platte / 4**Water Source:** Big Thompson River**Total Project Cost:** \$215,000**Funding 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.

Site Location



River Diversion

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

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

County: Boulder

Project Type: Reservoir Rehabilitation

Water Source: St. Vrain Creek

Total Project Cost: \$9,000,000

Funding Source: Severance Tax Perpetual
Base Fund

Type of Borrower: Blended

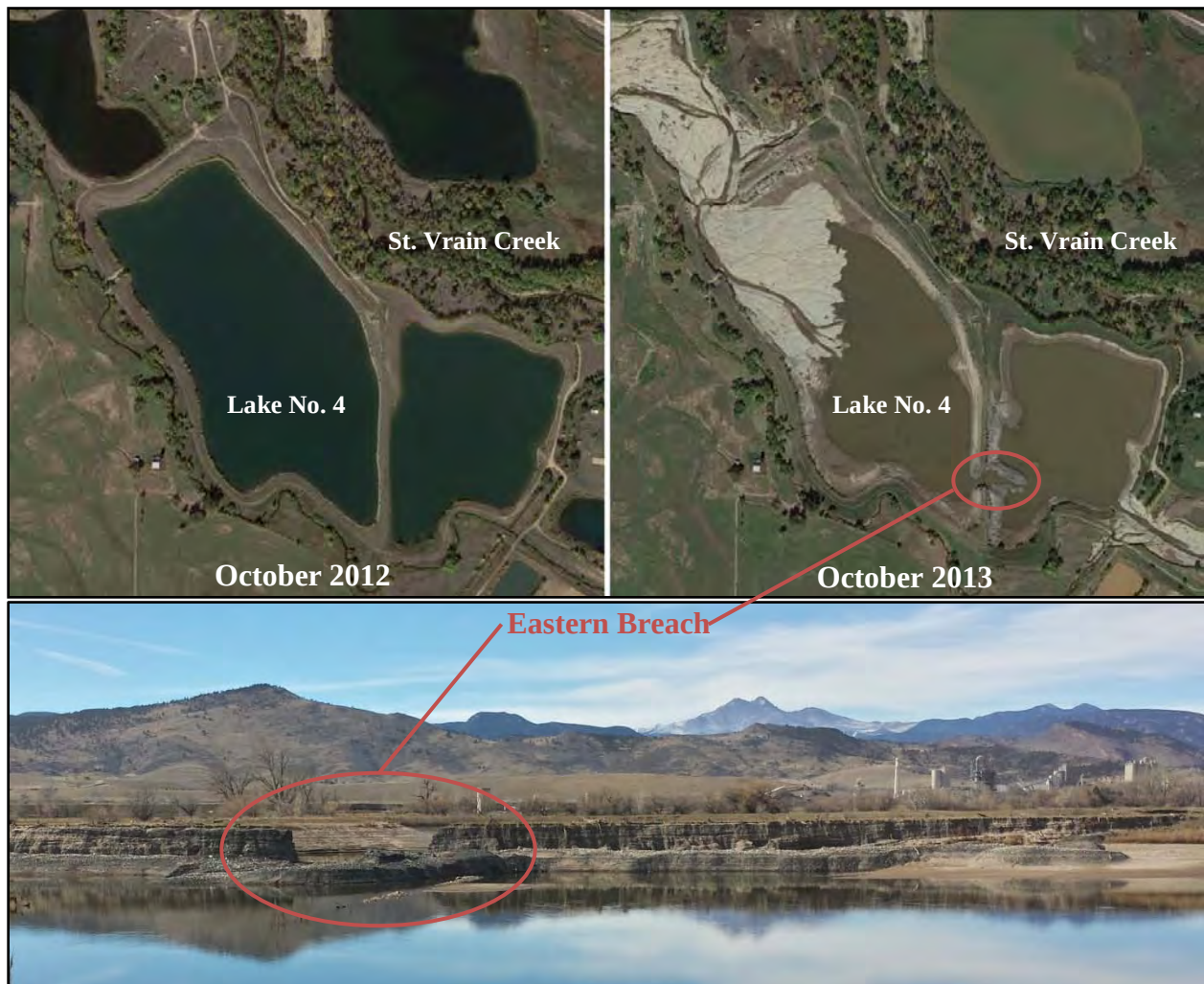
Average Annual Augmentation: 200 AF

Preserved Water Supply Storage: 600 AF

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

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

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



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

Department of Natural Resources

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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**BOARD MEETING:** January 26-27, 2015**AGENDA ITEM:** Directors Report
Design & Construction Status Report

The CWCB Loan Program Substantially Completed thirteen (13) projects in Calander Year 2014 as shown in Table 1. There are currently sixty-four (64) projects authorized to receive loan funding totaling \$321.3 million. There are fifty-two (52) projects currently under contract and in the Design and Construction phase totaling \$168.5 million. There are an additional twenty (20) Emergency Loans approved totaling \$22.4 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	North Delta Irr. Co.	NDIC Tunnel Repair Project	Delta	\$808,000	4/1/14
2	Ordway Feedyard, LLC	Raw Water Line Extension	Crowley	\$2,116,564	4/1/14
3	Henrylyn Irr. District	Prospect Res. Dam Facing	Weld	\$1,824,204	6/1/14(a)
4	Lower Latham Res. Co.	Well Augmentation Project	Weld	\$3,811,573	6/1/14
5	Twenty Two Rd Lateral Co.	Lateral Replacement Project	Mesa	\$517,848	6/1/14
6	Wadley Farms Flg. 3 HOA	Water Rights Purchase	Adams	\$727,200	6/1/14
7	Missouri Heights- Mountain Meadows Irrigation Company	Irrigation Ditch Lining Project	Eagle/ Garfield	\$454,500	7/1/14
8	Boulder & Left Hand Irr. Co.	Tracy Lateral Pipeline	Boulder	\$202,000	7/1/14
9	Fisher Ditch Company	Ditch Infrastructure Project	Denver	\$454,500	7/1/14
10	Petrocco Family, LLP	Water Rights Purchase	Adams/Wel	\$840,825	10/1/14
11	Lamar, City of	Water Transmission Line	Prowers	\$792,850	10/1/14
12	Tri-County Water Cons. Dist.	Ridgway Res. Micro-Hydro Proj	Ouray	\$13,130,000	10/1/14
13	Roxbourough Water & San. District	Raw Water Supply Project	Douglas	\$18,538,550	12/1/14
		Total:		\$44,218,614	

Calander Year 2014 has added or preserved 7,480AF of reservoir storage [(a) 7480AF]



NORTH DELTA IRRIGATION COMPANY NDIC TUNNEL REPAIR PROJECT



Before and after photos of the tunnel's east portal

Project Description

The North Delta Irrigation Company manages a twenty-three mile canal that delivers an average of 17,000 AF of water to its shareholders annually for irrigation of approximately 2,300 acres of land. The canal is an earthen ditch that included three sections of tunnel, the longest of which was a 1,450-foot tunnel through a shale mountainside. A 300-LF portion of the tunnel collapsed, blocking water deliveries to 94% of the headgates along the ditch. The Project consisted of replacing the tunnel with a pipe by reaming the tunnel to clear it of debris, fusing 1,500 LF of 54" HDPE pipe together, and pulling the pipe through the tunnel. In addition, the Company replaced nearly 1,600 LF of open channel ditch with HDPE pipe to maximize the capacity through the tunnel. The project restored the ability to convey water throughout the canal.

Project Data

Sponsor: North Delta Irrigation Company

County: Delta

Water Source: Gunnison River

Substantial Completion: April 1, 2014

Terms of Loan (Contract #C150331): \$808,000 for 30 years @ 3.10%

Design Engineer: West Water Engineering, Grand Junction, CO

Contractor: Petty Construction Company, Inc., Grand Junction, CO (Tunnel)

Beavers Construction Company, Hotchkiss, CO (Ditch Piping)

Project Elements: 1,500 LF of tunnel reaming, Install 1,500 LF of 54" HDPE, Install 1,600 LF of 60" HDPE, Construct 2 concrete collars joining the 60" and 54" pipe, (2) air release manholes, and portal backfill and grouting.

**Ordway Feedyard, LLC
Ordway Feedyard Raw Water Line Extension Project**



Project Description

The Company utilizes the feedyard to feed and tend cattle until they are market ready. It has 20 existing wells that are decreed for irrigation and stock watering. Prior to this project, there was no means to convey water between the Company's ranch and its feedyard. This Project secured a more reliable and affordable water supply by completing an infrastructure network capable of delivering high-quality well water from the ranch to the feedyard to augment its dependence on potable (approximately 14 AF per year) and leased water. The water supply enhancements of the Project were the reduced operational costs and transit and evaporation losses at an estimated rate of 850 AF annually. The economic benefit to Crowley County made it an active participant in the project, contributing cash and WSRA grant funds to assist in funding the Project. Construction occurred in the summer of 2013.

Project Data

Sponsor: Ordway Feedyard, LLC

County: Crowley

Water Source: Arkansas River

Terms of Loan: \$2,116,564.05 for 30 years @ 1.75%

Substantial Completion: April 1, 2014

Design Engineer: Kidd Engineering, Avondale, CO

Contractor: DK Environmental, Garden City, KS

Project Elements: 55,400 linear feet of 16-inch casing pipe, lined with 12-inch HDP, 10 fire hydrants, 1 booster station, and a Supervisory Control and Data (SCADA) System.

**Henrylyn Irrigation District
Prospect Reservoir Dam Facing Project**



Project Description

The Henrylyn Irrigation District was formed in 1907 under the Irrigation District Law of 1905. The District consists of 32,745 acres of irrigated farm land in Weld County. Their service area starts about 2 miles west of Hudson and extends generally east and south along I-76, to about 9 miles east of Keenesburg. Prospect Reservoir is an off-stream reservoir constructed in 1914 and has a Significant Hazard Large (Class 2) Dam with a height of 45 feet, a crest width of 18 feet, and a length of 5,300 lineal feet. The Prospect Reservoir Dam Facing Project will increase the erosion protection and dam stability by replacing a deteriorating concrete face at a 2:1 slope with a riprap face at a 3:1 slope. Construction occurred during the non-irrigation season of 2013/14. Dam Safety issued an Acceptance of Construction on April 17, 2014.

Project Data

Sponsor: Henrylyn Irrigation District

County: Weld

Water Source: South Platte River

Terms of Loan: \$1,824,204.41 for 30 years @ 1.75%
(Original Approval = \$2,967,279.00)

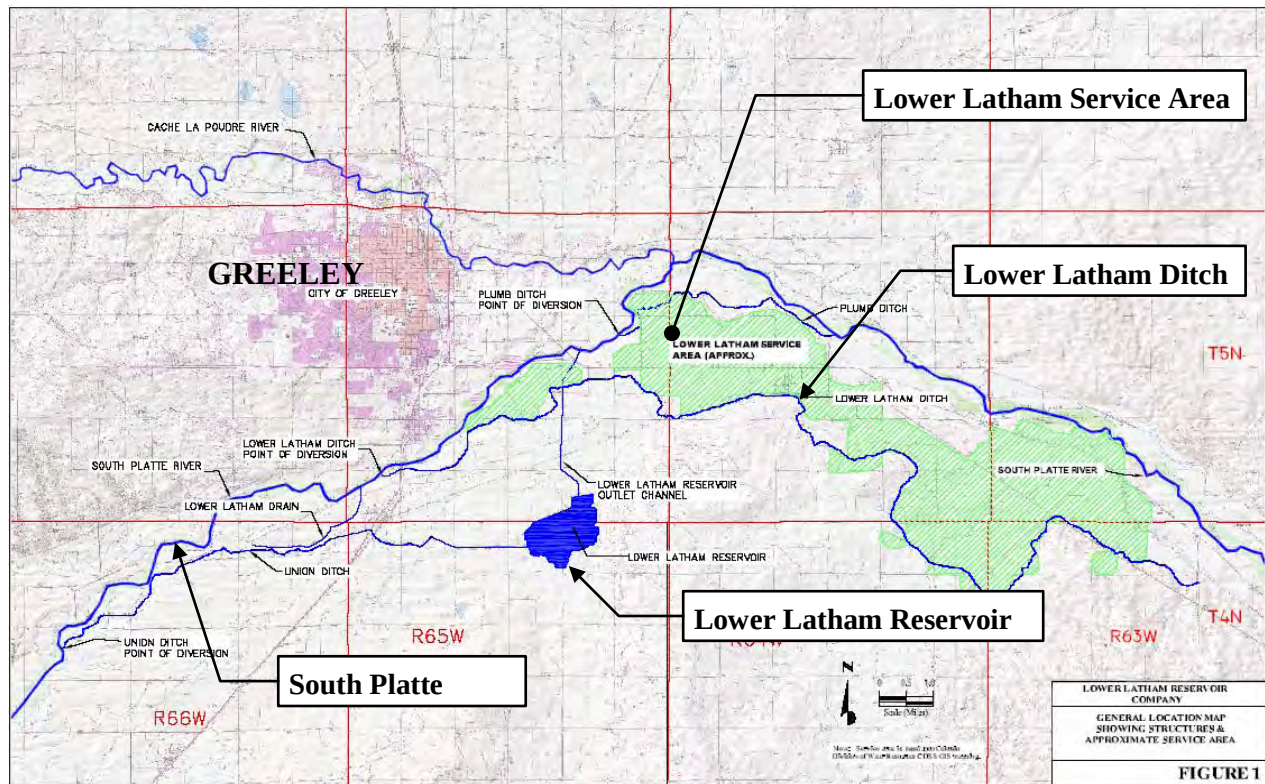
Substantial Completion: June 1, 2014

Design Engineer: Duane Smith, P.E. and L. Clint Brown, P.E.

Contractor: Zak Dirt, Inc.

Project Elements: Reface 2:1 concrete slope with 3:1 riprap slope, outlet conduit modifications

Lower Latham Reservoir Company WELL AUGMENTATION PROJECT (Phase III)



Location Map

Project Description

The Lower Latham Reservoir Company acquired mutual ditch shares for the purpose of providing augmentation water for existing shareholder wells. The Project included constructing groundwater recharge facilities and other system improvements to utilize these shares and shares acquired in Phases I & II. The Company provides augmentation water for 84 wells in Weld County by replacing out-of-priority pumping depletions. The Project included the purchase of five shares of the Lower Latham Ditch a portion of the Klein Farm and the Schmidt Farm for the recharge sites. The Company completed the recharge ponds on the sites in 2010.

Project Data

Sponsor: Lower Latham Reservoir Co **County:** Weld

Water Source: South Platte River

Original Loan Terms: \$3,811,573.00, 30 years @ 2.75%

Substantial Completion: June 1, 2014

Amended Loan Terms: \$2,417,359.17, 30 years @ 2.75%

Engineer: NoCo Engineering, Greeley, CO

Project Elements: Purchase of five shares of the Lower Latham Ditch, a portion of the Klein Farm, a portion of the Schmidt Farm, and construction of recharge ponds on the sites.

**Twenty Two Road Lateral, Inc.
TWENTY TWO LATERAL REPLACEMENT PROJECT**



Project Description

The Lateral Company received a loan to replace the weathered open channel ditch known as Twenty Two Road Lateral with a buried irrigation pipeline increasing efficiency, reducing salt loading and maintenance costs, and alleviating safety concerns. The existing concrete lined lateral has been in place since 1973. Maintenance became a growing concern due to cracks and gaps in the concrete lining. Residential and industrial growth in the vicinity of the ditch increased safety concerns for pedestrian and vehicular traffic due to the Lateral being only a few feet from the edge of the roadway. The Company received \$389,942 in funding assistance from NRCS which was applied to the loan after the Project was complete. The NRCS administers the Colorado River Basin Salinity Control Program by providing construction cost sharing and technical assistance using the USDA's Environmental Quality Incentives Program (EQIP). The NRCS managed the planning, design, and field engineering services for this project.

Project Data

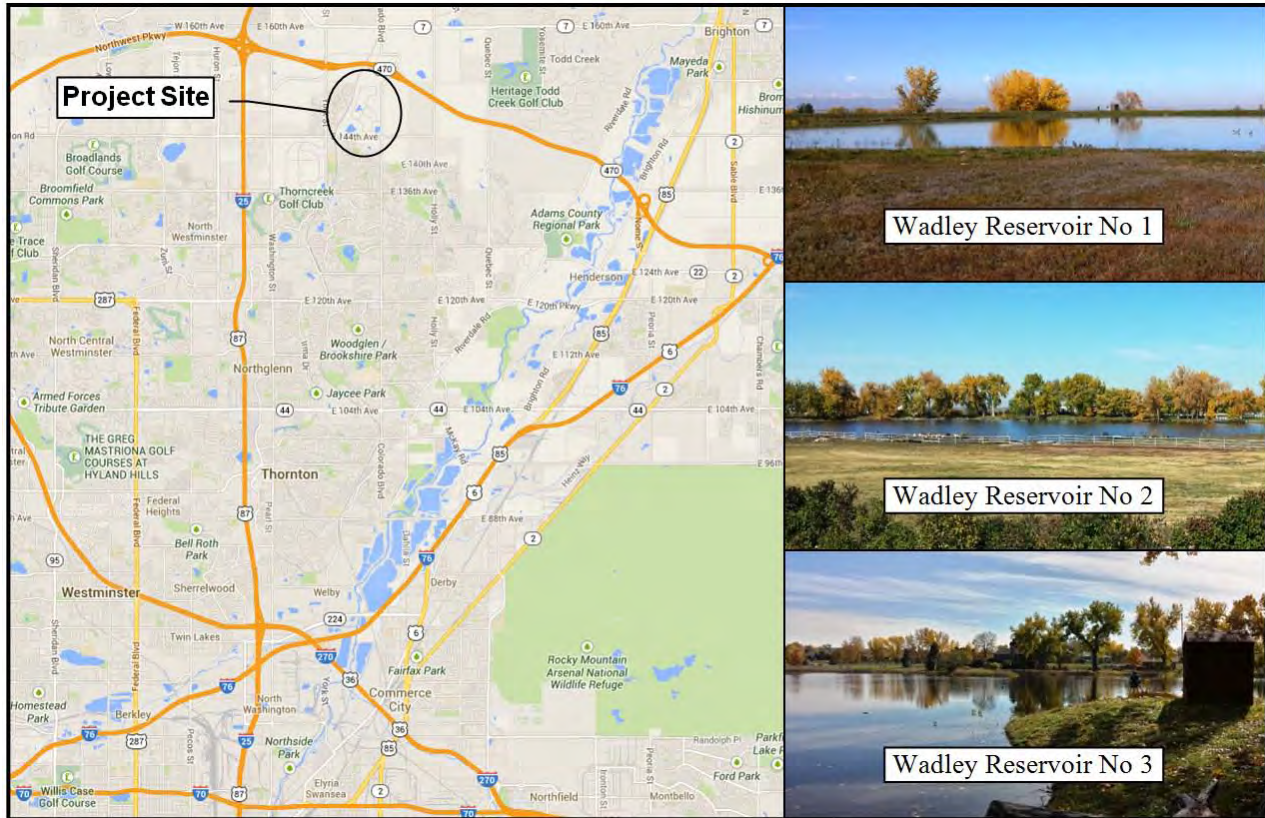
Sponsor: Twenty Two Road Lateral, Inc. **County:** Mesa **Water Source:** Grand Valley Irrigation Co
Terms of Loan: \$517,848 for 30 years @ 2.35% **Substantial Completion:** April 1, 2013
 Amended Terms: \$117,609.02 for 30 years @ 2.35%

Design Engineer: Natural Resources Conservation Service, Grand Junction, CO

Contractor: Professional Pipeline & Concrete Inc.

Project Elements: Removal of 13,000 LF of concrete lined ditch and the installed 16,200 LF of PVC irrigation pipe (18 inch diameter) including flow meters and valves.

Wadley Farms Filing No. 3 Homeowner's Association Water Rights Purchase



Project Description

The Wadley Farms Filing No. 3 Homeowner's Association was incorporated in 1982 and is responsible for providing Wadley Farms Filing No. 3 subdivision with a raw water irrigation and fire protection system. The subdivision is located in unincorporated Adams County near 144th Ave and Colorado Blvd in the north Denver Metropolitan area and has 109 large acre residential lots. The purpose of the Project is to increase the reliability of the Association's irrigation and fire protection raw water system by purchasing two shares of the Farmer's High Line Canal and Reservoir Company to add to the Association's portfolio of three shares of the same company. Water is stored in three storage reservoirs and is delivered through a pressurized underground pipe system to individual lots.

Project Data

Sponsor: Wadley Farms Filing No. 3
Homeowner's Association

County: Adams

Water Source: Clear Creek

Terms of Loan: \$727,200 for 30 years @ 2.75%

Substantial Completion: June 1, 2014

Design Engineer: Bishop-Brogden Associates, Inc.

Contractor: NA

Project Elements: Purchase of two (2) shares of Farmers High Line Canal and Reservoir Company

**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 picture 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%

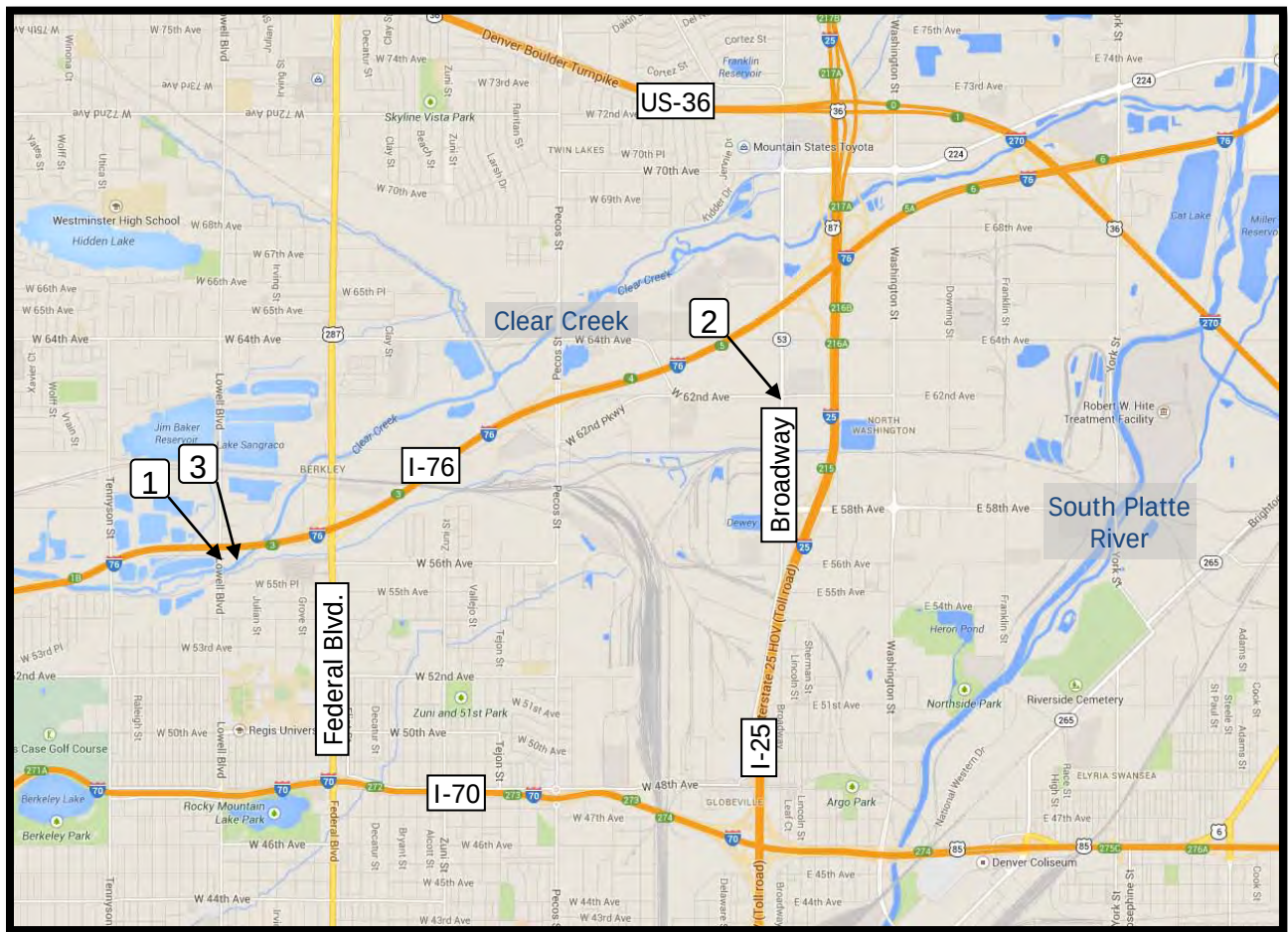
Substantial Completion: July 1, 2014

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%

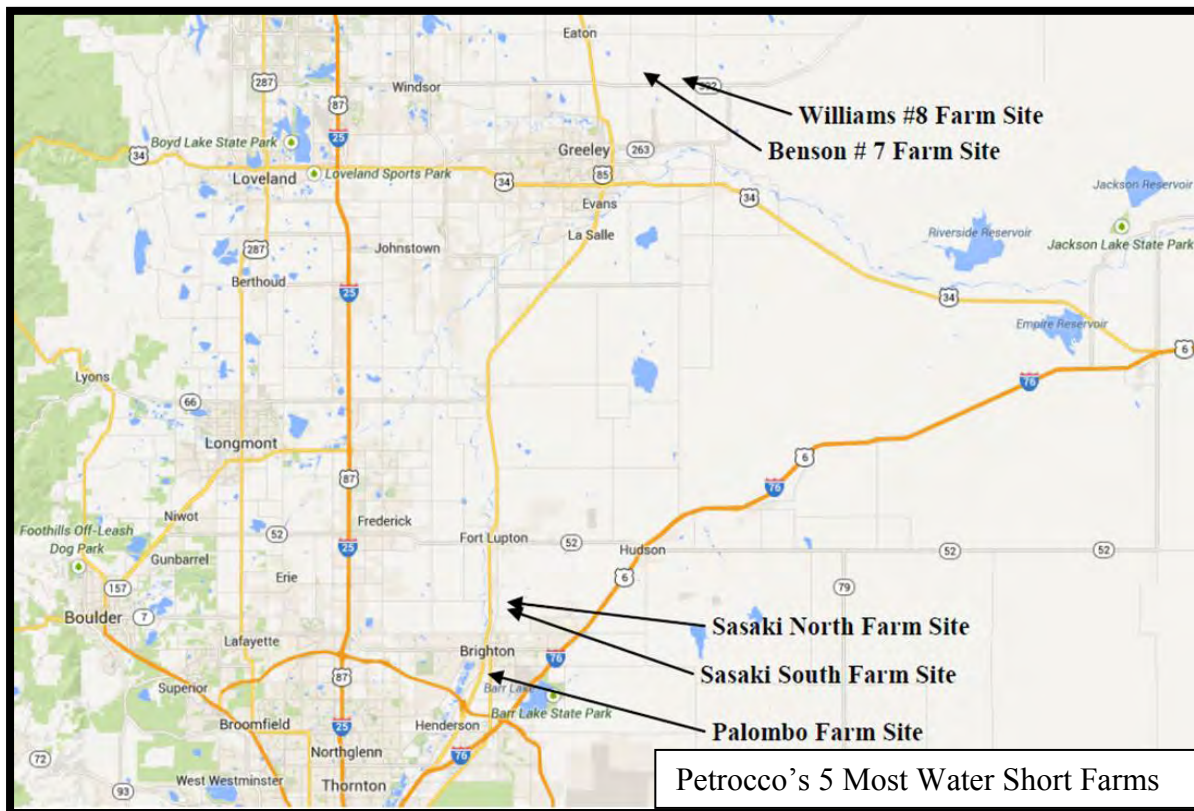
Substantial Completion: July 1, 2014

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 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 in 1933 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.

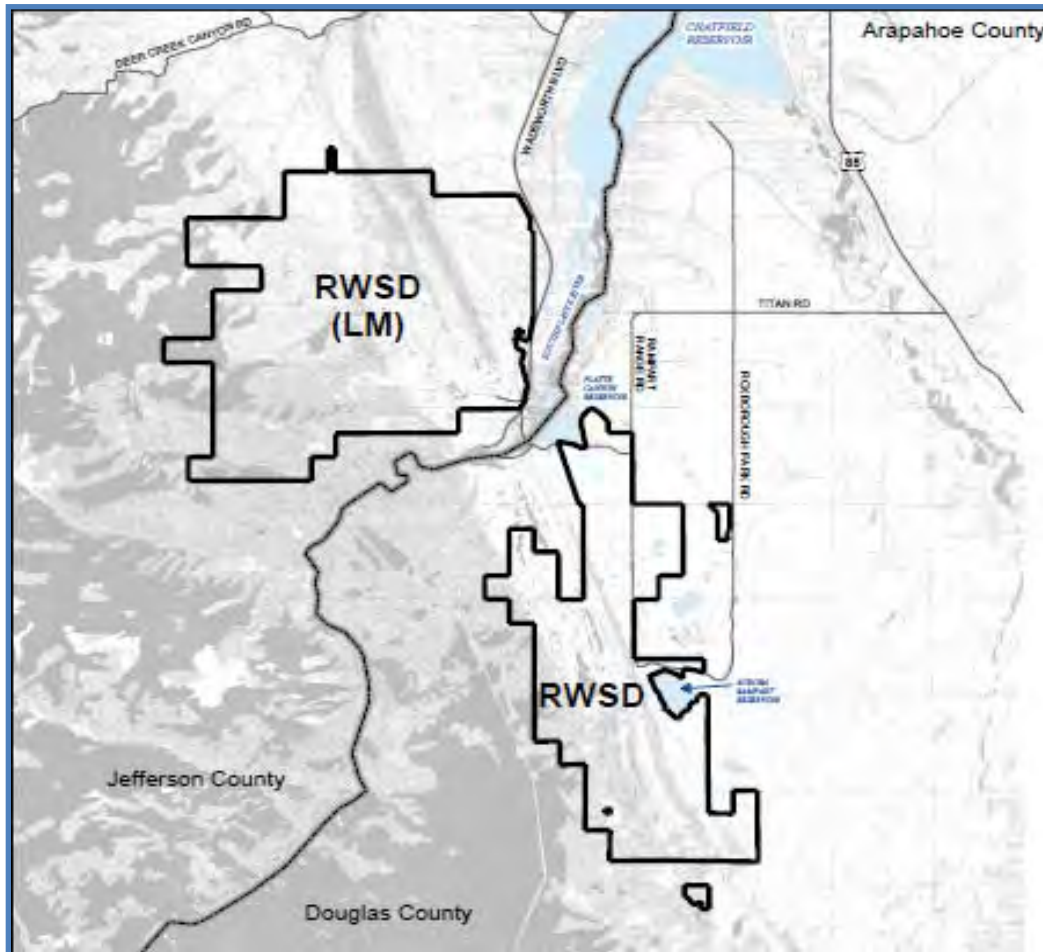
Project Elements: 1,700 cy of concrete, interconnection switchyard, a large and a small turbine and generator.



COLORADO
Colorado Water
Conservation Board
Department of Natural Resources

Raw Water Supply Project
Roxborough Water and Sanitation District,
Water Activity Enterprise
Substantially Complete December 1, 2014

Project Description



P R O J E C T D A T A		
<i>Sponsor:</i> Roxborough Water and Sanitation District, Water Activity Enterprise	<i>County:</i> Douglas, Jefferson	<i>Water Source:</i> South Platte
<i>Type of Loan:</i> Water Acquisition		<i>Board Approval Date:</i> January 28, 2013
<i>Design Engineer:</i> TST Infrastructure LLC		
<i>Contractor:</i> N/A		
<i>Project Elements:</i> 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.		

Projects in Design or Construction										
1	Bellyache Ridge Metro District > Well Replacement Project C150356 (CT15-015)	Eagle	\$169,175	100%	2015 - 2015	0%	AM	Project was bid in June 2014. The District received no bids. Engineer and District are reevaluating the project. Project costs will likely increase. The District is considering drilling a test well to re-evaluate the site.		
2	Bergen Ditch & Reservoir Company > Bergen Reservoir No. 2 Rehabilitation C150344 (CT15-017)	Jefferson	\$2,020,000	99%	2014 - 2015	0%	JH	Final Design is complete and has been submitted to SEO for final approval		
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		
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		
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		
6	Central CO WCD - WAS > Augmentation Water Supply Project C150337 (CT15-060)	Weld/ Adams/ Morgan	\$3,030,000	50%	Apr 13 - Apr 15	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% 70%	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 - Jul 13	99%	KR	Construction is complete and accepted. As-built drawings indicated areas of the dam that were not at the correct elevation. Repair work has begun. Partial fill allowed. SC expected in late 2014.		
10	Eckhardt Farms Inc > Water Rights Purchase C150338 (CT15-051)	Weld	\$1,336,230	N/A	Jan 14 - Jan 15	0%	JH	Borrower purchased ditch company shares with a bridge loan from a local bank. CWCBC 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	95%	Sept. 14 - March 15	0%	JH	NRCS Final design efforts are underway. Design is under review by PE at higher level		
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 (CT15-029)	Logan	\$2,067,470	100%	Fall 14 - Spring 15	10%	DRJ	Demolition of existing structure 75% complete. Sheet piling installation under way. December concrete pour at gate structure first.		

14	Fowler, Town of > Augmentation Pipeline Project C150359 (CT15-054)	Otero	\$277,245	100%	Nov 13 - July 14	0%	DRJ	Bids rec'd greatly exceeded available funding. Seeking add'l grant funding; decision not expected until Jan 2015.
15	Fulton Irrigating Ditch Company > Diversion Structure Rehabilitation Project C150399 (CT15-092)	Adams	\$2,027,070	100%	Fall/Winter 2014	0%	DRJ	Bids rec'd 1.17. Headgates ordered and construction to commence soon.
16	Georgetown, Town of > Outlet Works Modification Project C150321 (CT15-055)	Clear Creek	\$2,976,975	100%	Aug 14 - Feb 15	75%	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)	Wiled	\$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
19	Greeley & Loveland Irrigation Company > Irrigation System Improvements C150362 (CT15-022)	Larimer	\$3,154,230	75%	Summer 14 - Spring 15	25%	JH	Phase 1 Horseshoe complete. Phase 2 Horseshoe to be bid 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	30%	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	Joseph W. Bowles Reservoir Company > Bowles No. 1 Dam Rehabilitation C150290 (CT15-030)	Jefferson	\$1,703,870	100%	Aug 10 - Dec 14	99%	JH	Dam construction project was completed in 2011. Ditch construction completed fall 2013. Minor final construction items completed fall 2014. SC expected April 2015.
23	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.
24	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.
25	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 outleworks construction will be completed in 2015.
26	Lone Cabin Ditch & Reservoir Company > Lone Cabin Dam Rehab. Project C150361 (CT15-059)	Delta	\$252,803	100%	Summer 14 - Fall 14	100%	DRJ	Construction complete. SEO approved. Substantial Completion Feb 1, 2015.
27	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

28	McDonald Ditch Company > Ditch Diversion and Headgate Replacement C150334 (CT15-044)	Rio Grande	\$101,000	100%	Fall 14 - Spring 15	20%	JH	Project Bid October 2014. Construction started December 2014.
29	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.
30	North Poudre Irrigation Co > Reservoir No. 4 Rehabilitation C150378 (CT15-003)	Larimer	\$1,636,200	100%	Fall 14 - Spring 15	10%	JH	Design completed. Wildlife Mitigation began December 2014. Construction to be bid January or February 2015.
31	Overland Ditch and Reservoir Company > Overland Reservoir Rehabilitation C150206 (CT15-034)	Delta	\$1,130,000	50%	Permitting	0%	KR	Project on-hold until until lens can be addressed in enlarged reservoir area.
32	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.
33	Penrose Water District > Water Rights Purchase and Pipeline Installation C150237 (CT15-040)	Fremont	\$9,763,670	100%	Summer 14 - Fall 15	50%	DRJ	Construction under way on pipeline. Contract increase app'd but not yet executed. Ability to pump must be achieved by May 1 2015
34	Pisgah Reservoir and Ditch Company > Mount Pisgah Dam/Wrights Reservoir Rehab C150341 (CT15-027)	Teller	\$549,091	95%	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 February 2015 for a March or April construction start.
35	Prairie Ditch Company > Plaza Phase 3: Prairie Ditch Imp. Project C150400	Rio Grande	\$131,300	0%		0%	JH	
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 Fid 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%	Sep 10 - Sep 16	0%	DRJ	The engineer is re-evaluating design options with support from the SEO. Construction not expected until summer of 2015.
39	Sanchez Ditch and Reservoir Company > Sanchez Reservoir Outlet Rehabilitation Project C150342 (CT15-012)	Costilla	\$1,381,276	100%	Summer 14 - Winter 15	60%	AM	Construction began in Oct 2014. Completion is expected mid-2015.
40	Sanford Canal Company > Sanford Diversion and Headgate Rehabilitation C150401(CT15-091)	Rio Grande	\$101,000	95%	Sept. 14 - March 15	0%	JH	NRCS Final design efforts are underway. Design is under review by PE at higher level
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.
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 Replacement 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.
46	Upper Arkansas Water Conservancy District > Reservoir Rehabilitation C150192 (CT15-052)	Chaffee/ 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	0%	Fall 14 - Spring 15	0%	DRJ	Augmentation land purchase completed and funded. Bridge component is currently on hold pending consideration of a possible larger diversion dam rehab/replacement project with Deuel Snyder ditch company. Site visit occurred 12/17/14.
48	Windsor, Town of > Kyger Reservoir Project C150366 (CT15-057)	Larimer/ Weld	\$4,545,000	20%	Fall 14 - Summer 15	0%	JH	Town to purchased reservoir and water rights in summer 2014. Currently engineering the conveyance structures. Construction to occur in 2015.
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) > Piñery W&S Dist - C150411A (CT15-083)	Douglas/ Arapahoe	\$8,500,000	NA	Fall 14 - Spring 15	40%	DRJ	Purchase Agreement has been executed
50	WISE Project - Phase 1 Infrastructure Project > Cottonwood W&S Dist - C150408B (CT15-106) > Inverness W&S Dist - C150409B (CT15-118) > Parker W&S Dist - C150410B (CT15-108) > Piñery W&S Dist - C150411B (CT15-085)	Douglas/ Arapahoe	\$24,200,000	0%	Spring 15 - Fall 19	0%	DRJ	
51	WISE Project - Phase 2 Infrastructure Project > Cottonwood W&S Dist - C150408C (CT15-105) > Inverness W&S Dist - C150409C (CT15-119) > Parker W&S Dist - C150410C (CT15-109) > Piñery 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) > Piñery W&S Dist - C150411D (CT15-087)	Douglas/ Arapahoe	\$35,070,000	NA	Fall 14 - Spring 23	14%	DRJ	

Projects Under Contract SubTotal = \$168,466,032

Approved Projects - Not Under Contract						
a	Town of Bennett > Wells #3 and #6 Replacement Project	Adams Arapahoe	\$145,400	In Contracting	AM	
b	Chatfield Reallocation 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	
c	Chatfield Reallocation 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 Reallocation 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	East Mesa Water Company > Ditch Piping Project C150360	Pitkin/ Garfield	\$555,500	In Contracting	KR	
f	Las Animas Consolidated Canal Company > Repair and Replacement of the Las Animas Consolidated Canal Spillway Structure	Bent	\$363,782	In Contracting	DRJ	
g	Northern Colorado WCD- Hydropower Enterprise > Granby Hydropower Project C150396	Grand	\$5,135,183	In Contracting	JH	
h	Platte Valley Irrigation Company > Sand Hill Lake Outlet Works Rehabilitation	Weld	\$745,380	In Contracting	JH	
i	San Luis Valley Water Conservancy District > Anaconda Ditch Water Right Acquisition C150348	Alamosa	\$839,000	In Contracting	AM	
j	Southeastern CO Water Conserv. District > Arkansas Valley Conduit C150238	Crowley	\$60,600,000	In Contracting	KR	Pending Federal Appropriation
k	Supply Irrigating Ditch Company > Emergency Supply Irrigating Ditch Repair Project	Boulder	\$324,210	In Contracting	JH	
l	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 Sub Total = \$152,840,363

Grand Total = \$321,306,395

**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

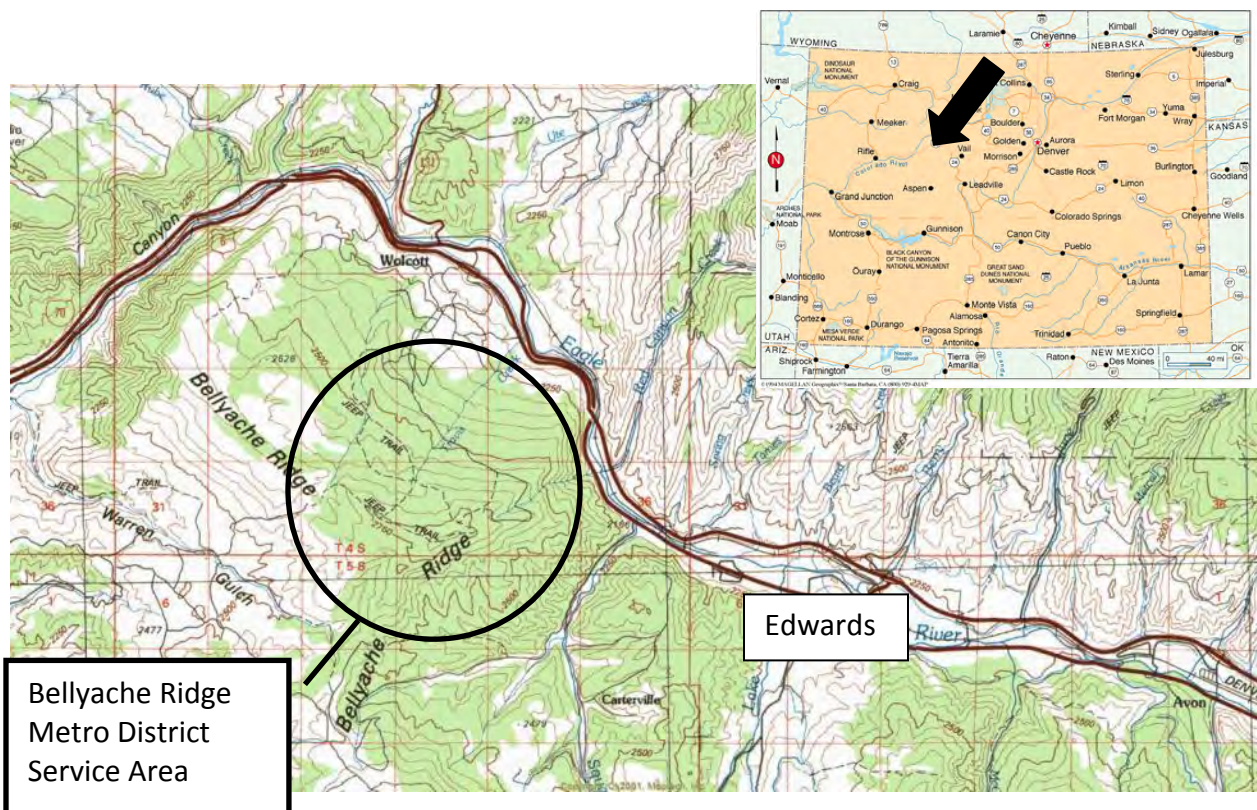
Type of Borrower: Municipal (High)

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.

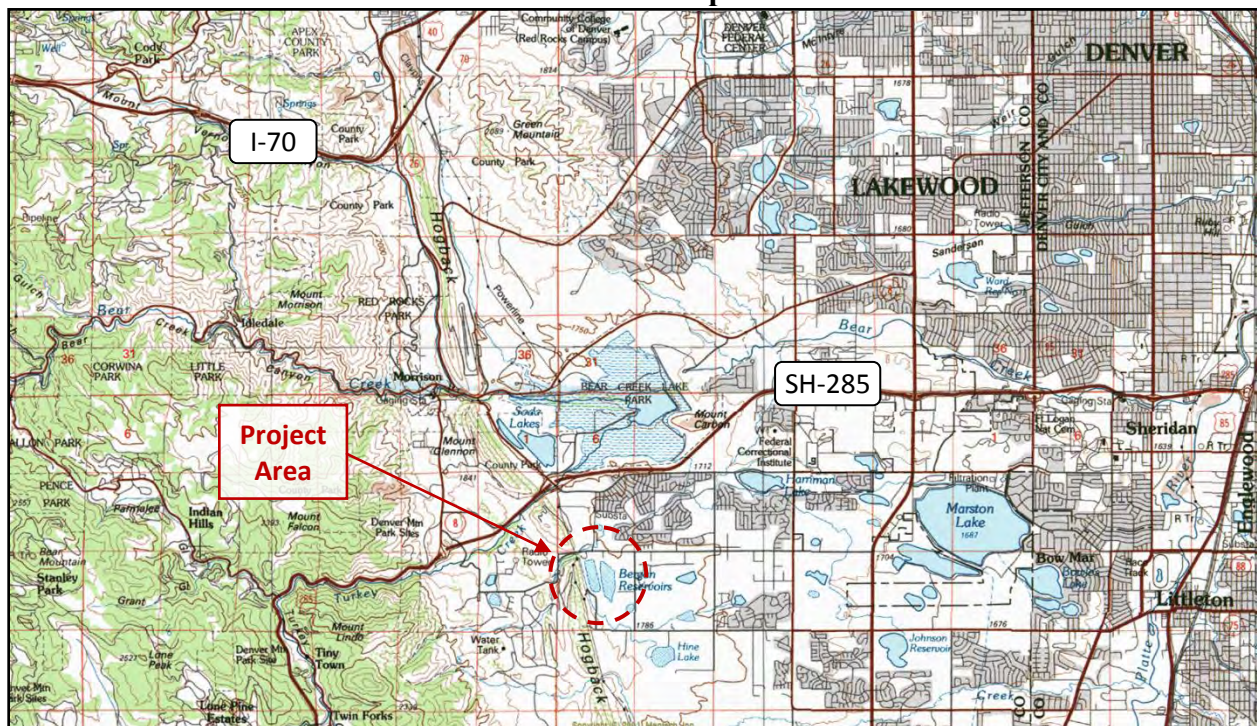


Water Project Loan Program – Project Data Sheet

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.

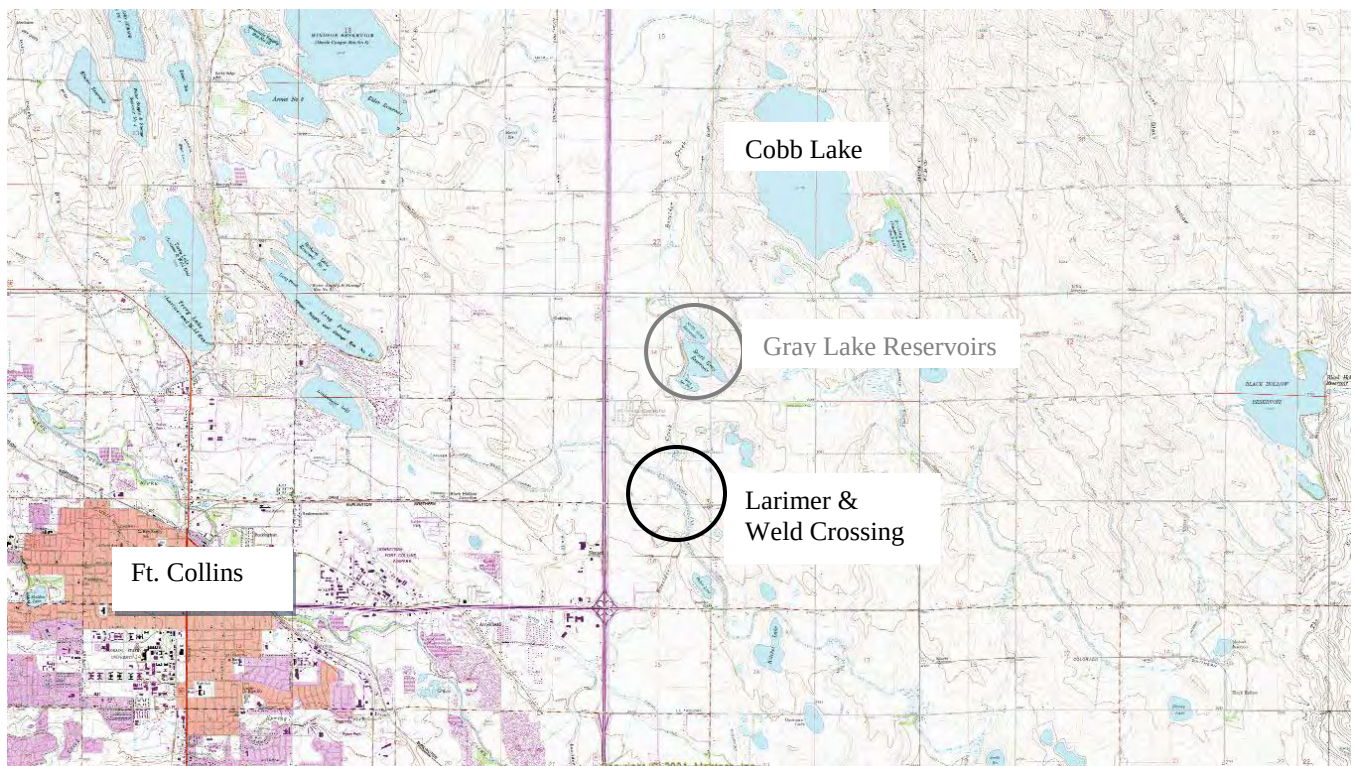
Location Map



CWCB Water Project Loan Program Project Data Sheet

Borrower: Boxelder Basin Regional Stormwater Authority Project Name: Larimer-Weld Canal & Boxelder Creek Crossing Structure Drainage Basin / District: South Platte / 3 Total Project Cost: \$1,139,000 Type of Borrower: Middle Income Municipal CWCB Loan: \$1,010,000 (with 1% service fee)	County: Larimer Project Type: Flood Control Water Source: Boxelder Creek Funding Source: Construction Fund Average Annual Diversion: N/A Interest Rate: 2.75% Term: 15-years (rate reduced from 3.0% for middle income municipal)
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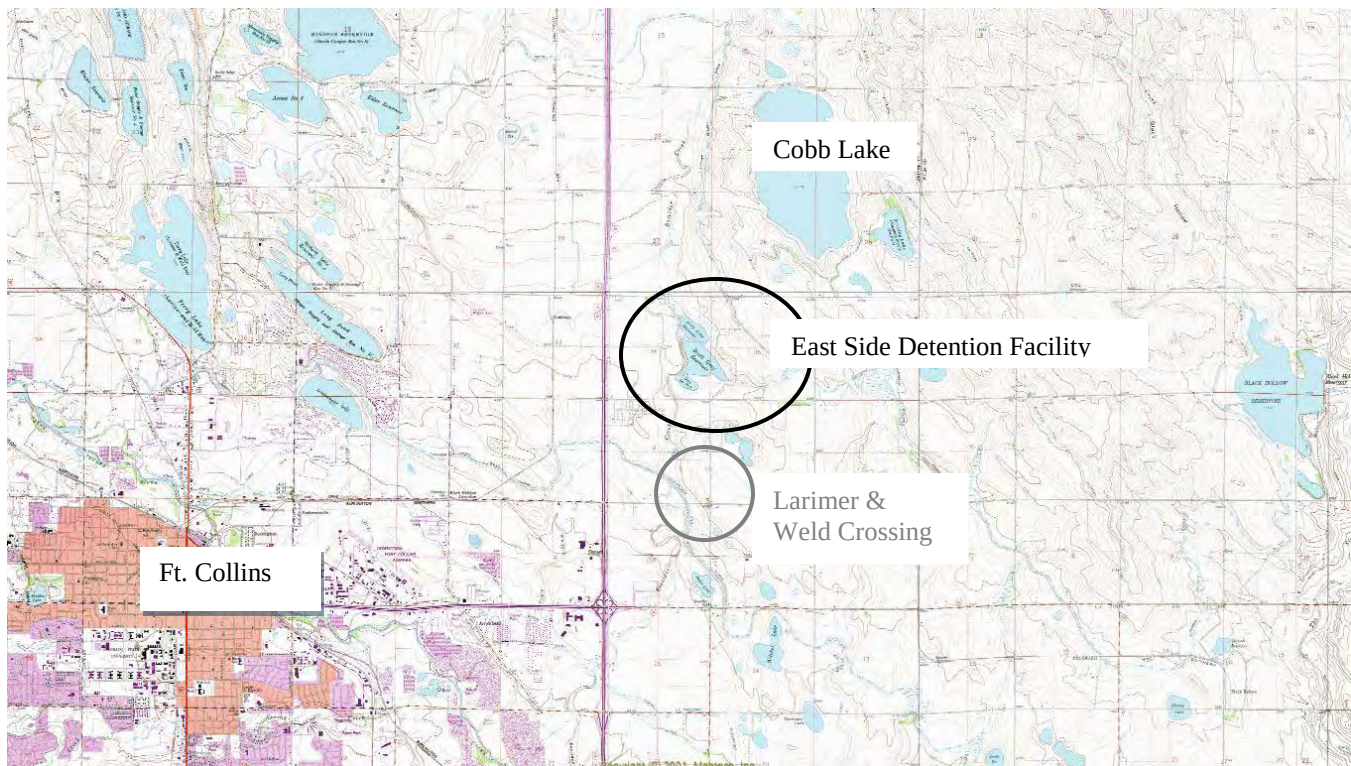
The Boxelder Basin Regional Stormwater Authority was formed in 2008, through an IGA between the City of Fort Collins, Larimer County and the Town of Wellington, to facilitate the construction of regional flood control projects to reduce the threat of flooding and remove areas from the FEMA floodplain 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)

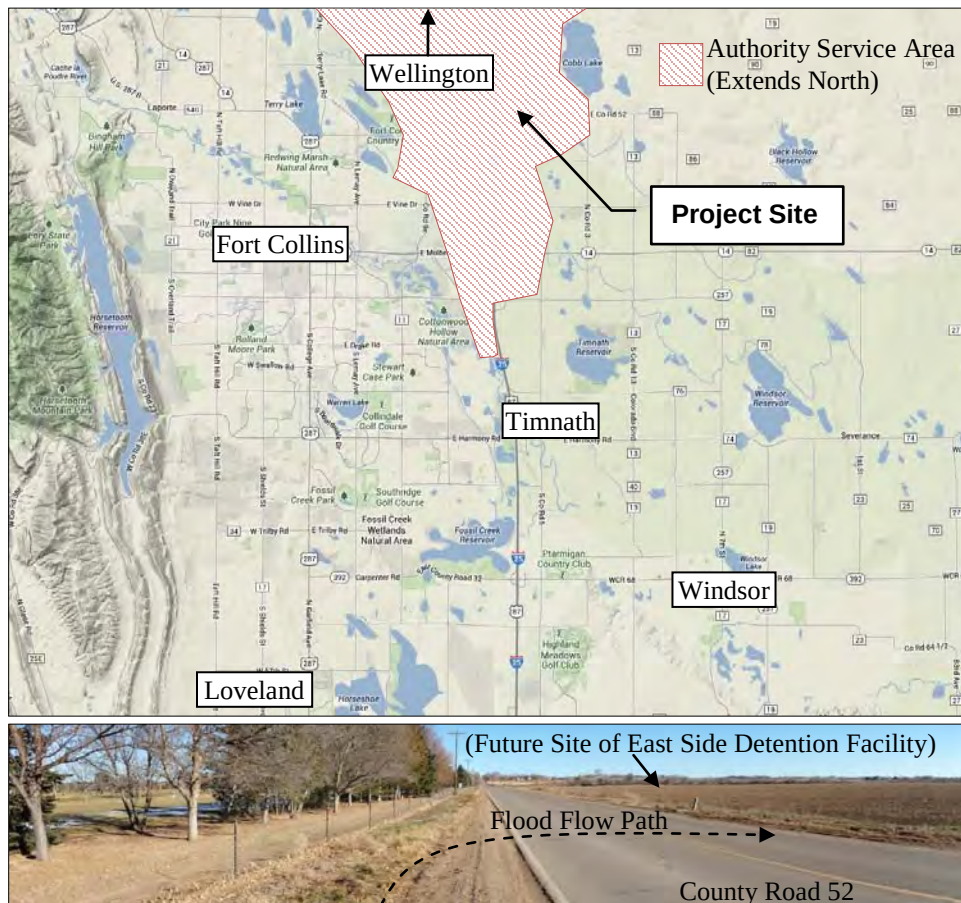
The Boxelder Basin Regional Stormwater Authority was formed in 2008, through an IGA between the City of Fort Collins, Larimer County and the Town of Wellington, to facilitate the construction of regional stormwater improvements to reduce the threat of flooding and remove areas from the FEMA floodplain 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.

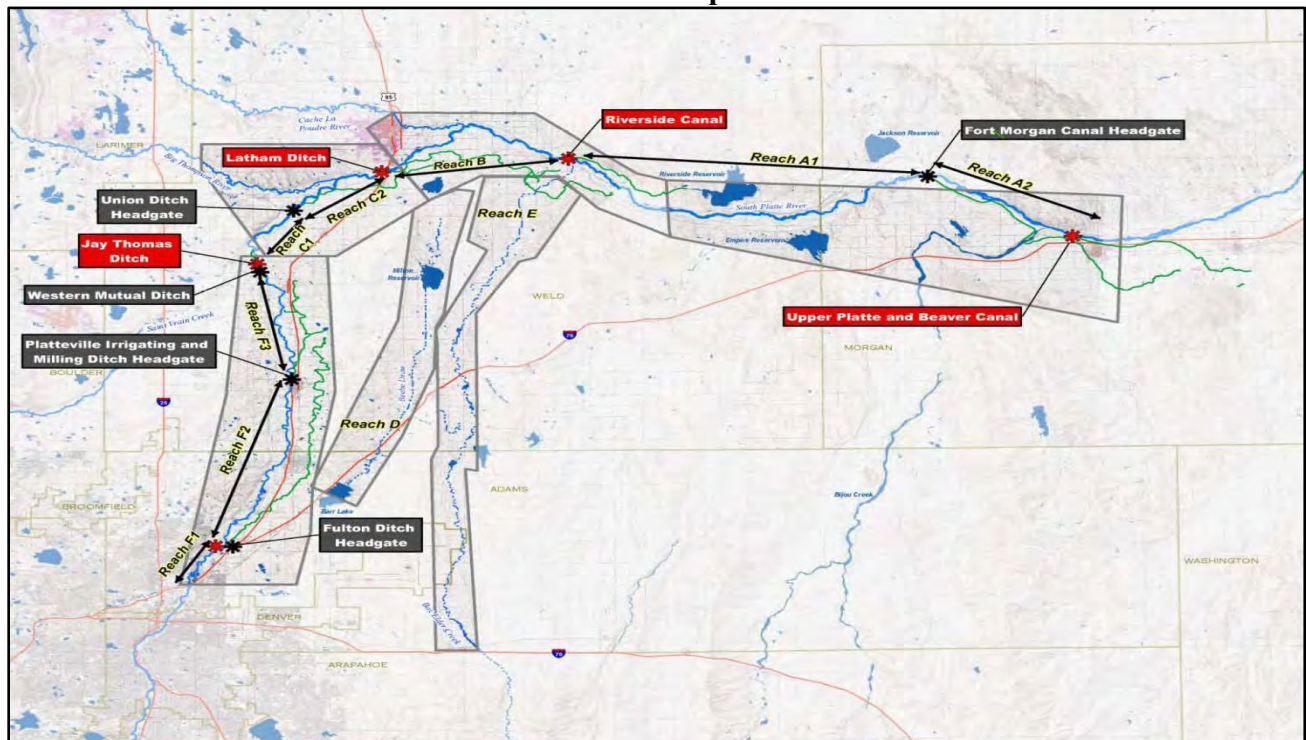


Water Project Loan Program – Project Data Sheet

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.

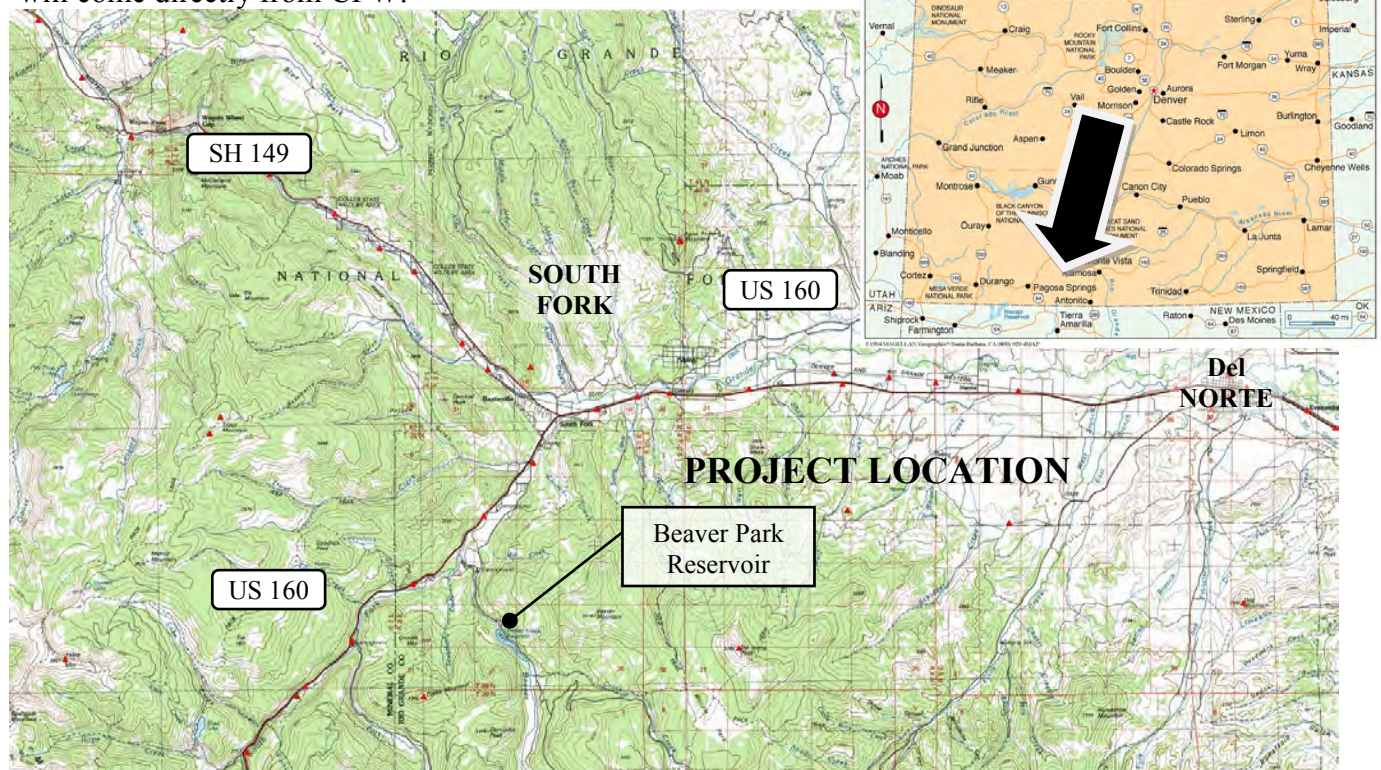
Location Map



CWCW 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.

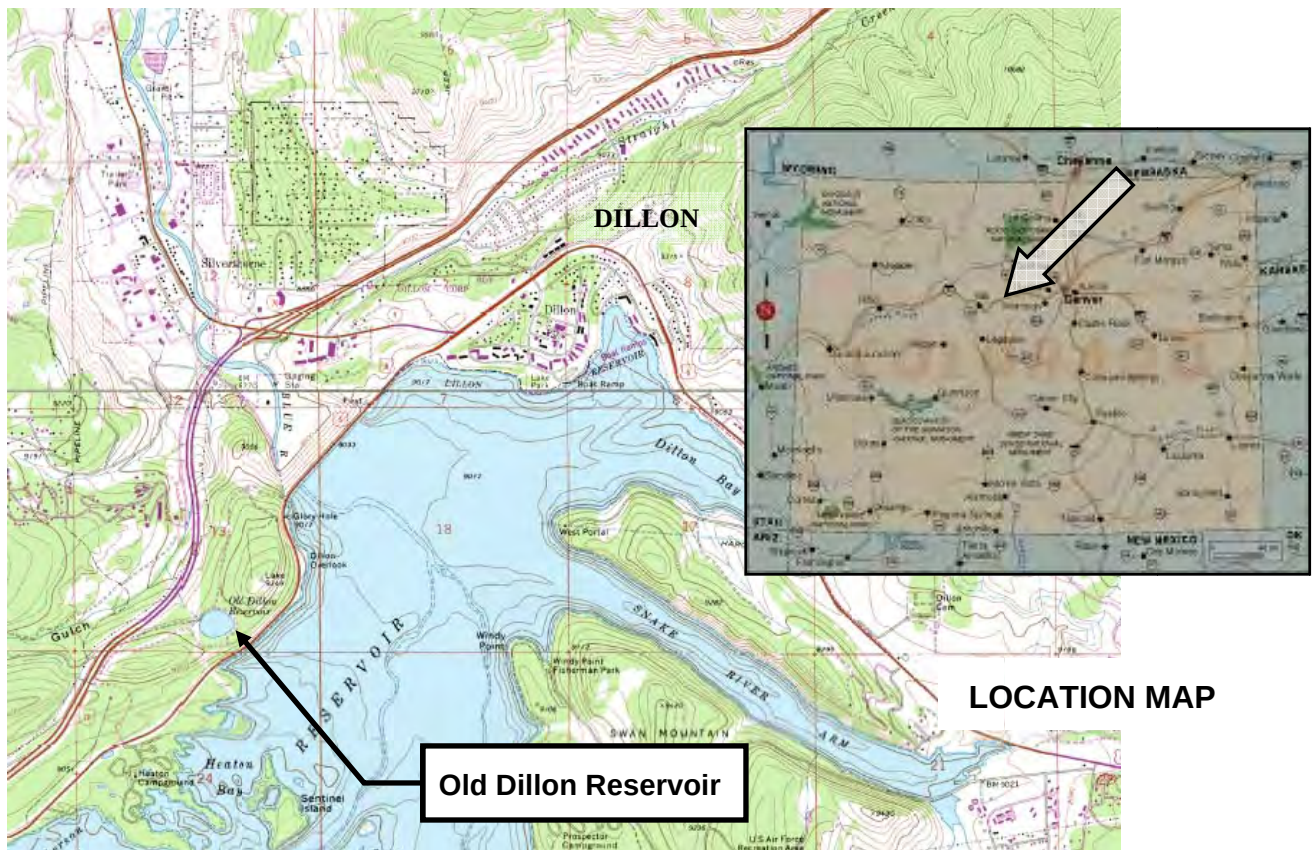
Location Map



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

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.

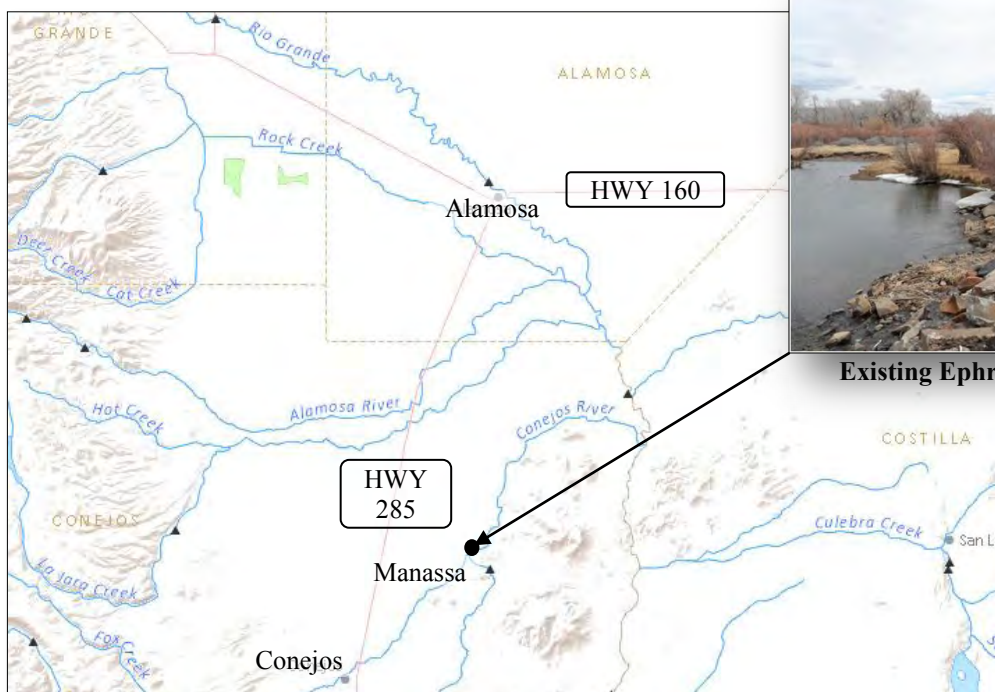


**CWCB Water Project Loan Program
Project Data Sheet**

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

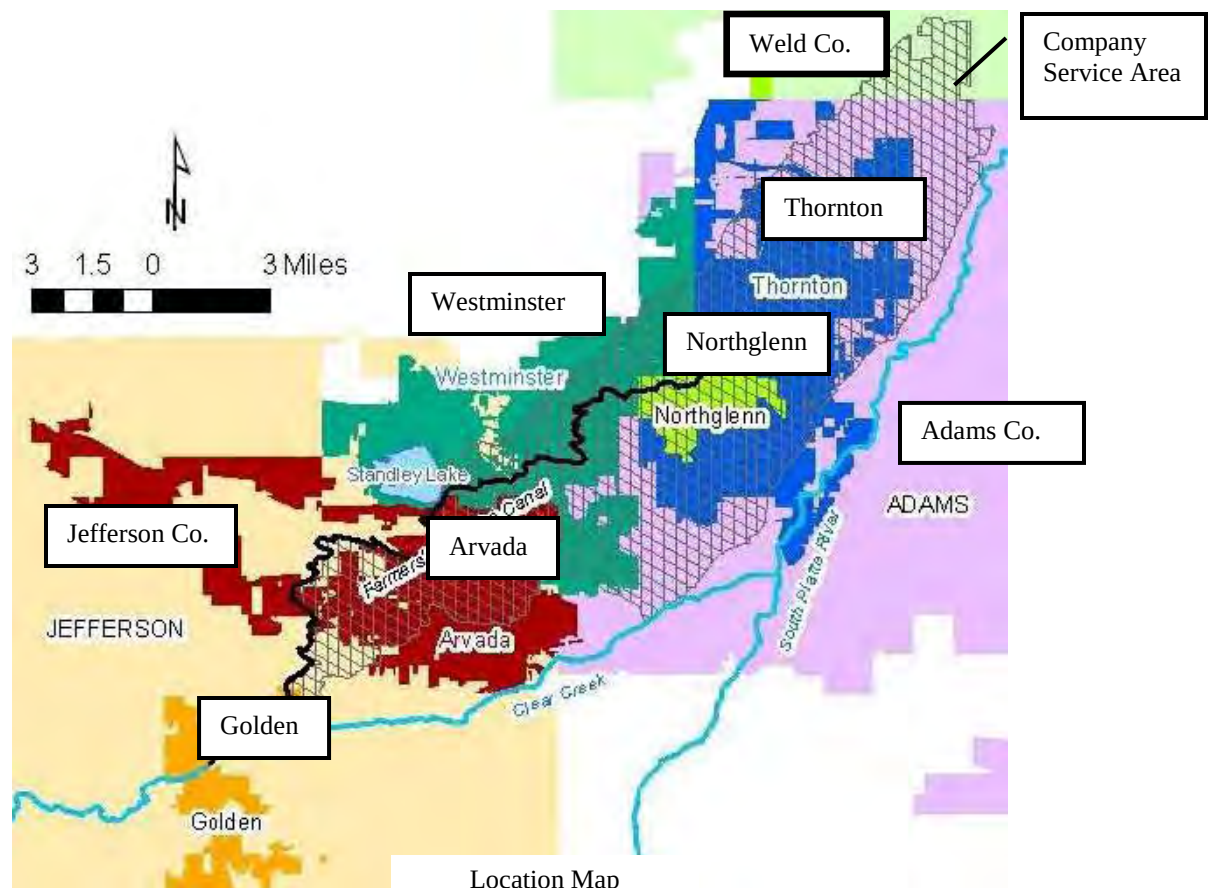
Type of Borrower: Municipal

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.

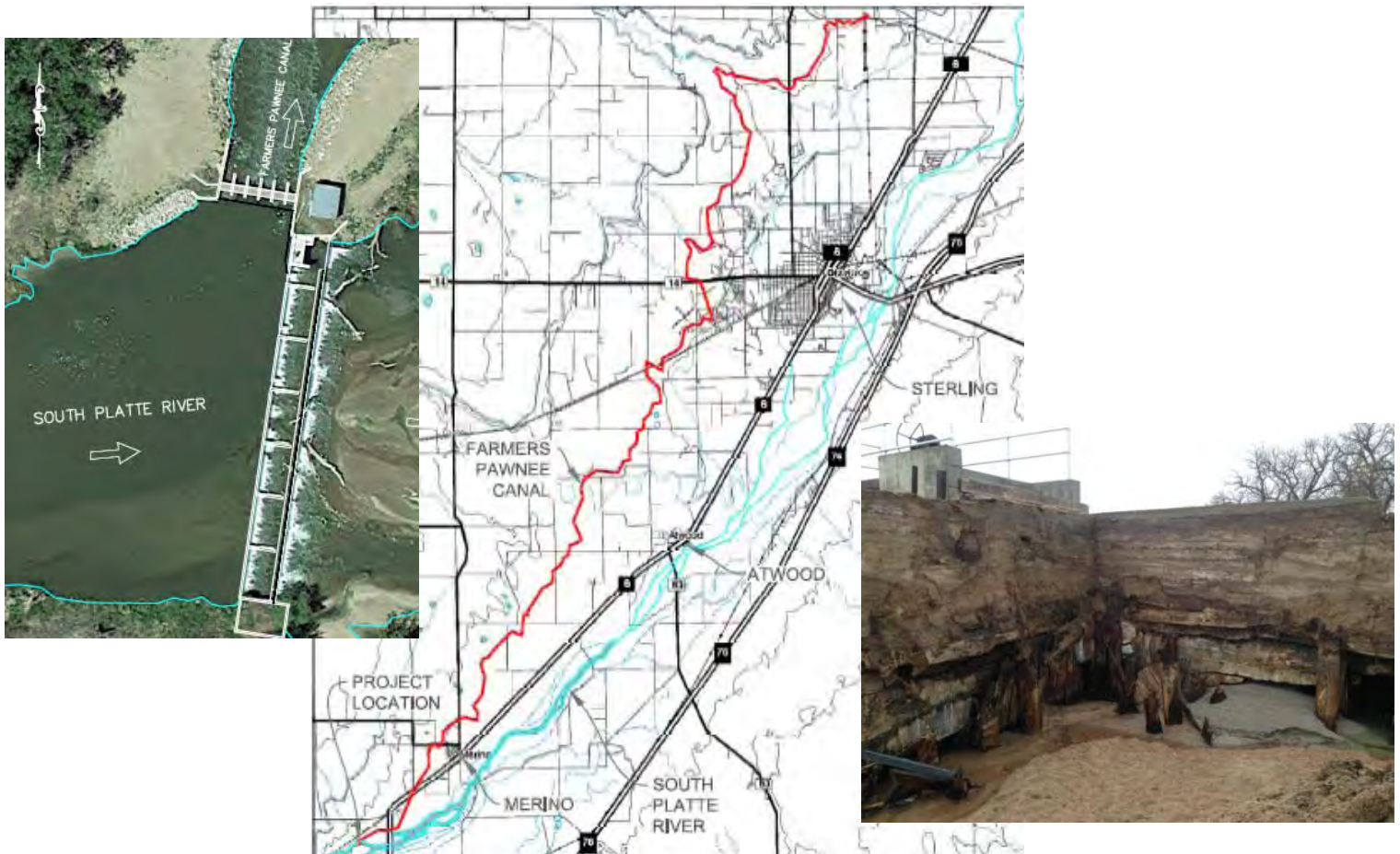


**CWCB Water Project Loan Program
Project Data Sheet**

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

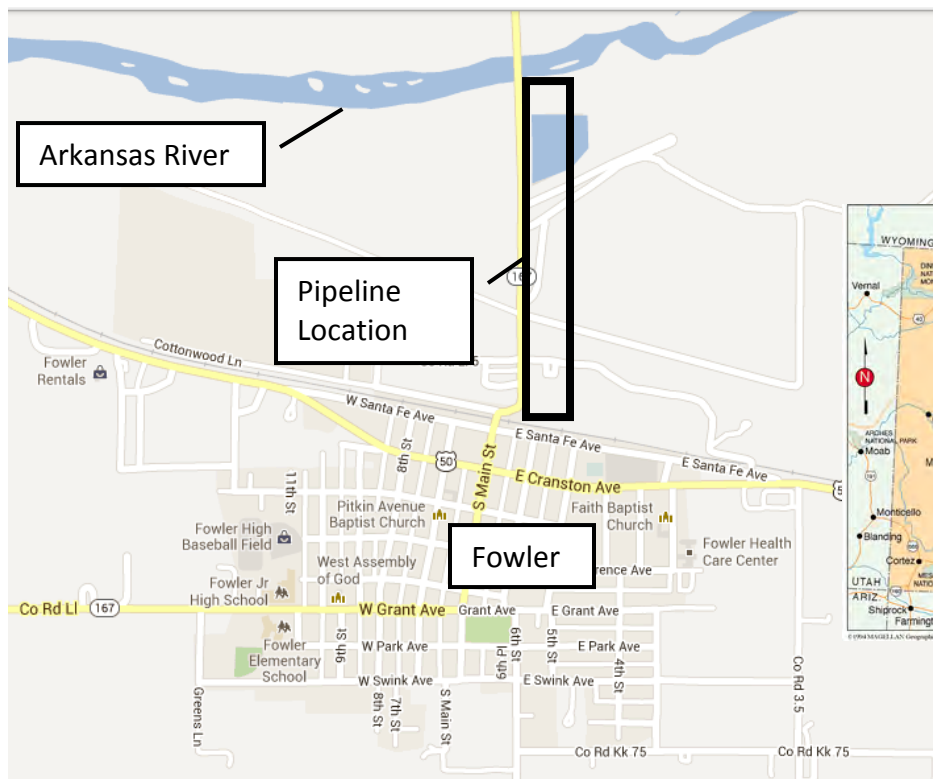
Type of Borrower: Municipal (Low)

Average Annual Diversion: 157 AF

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

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

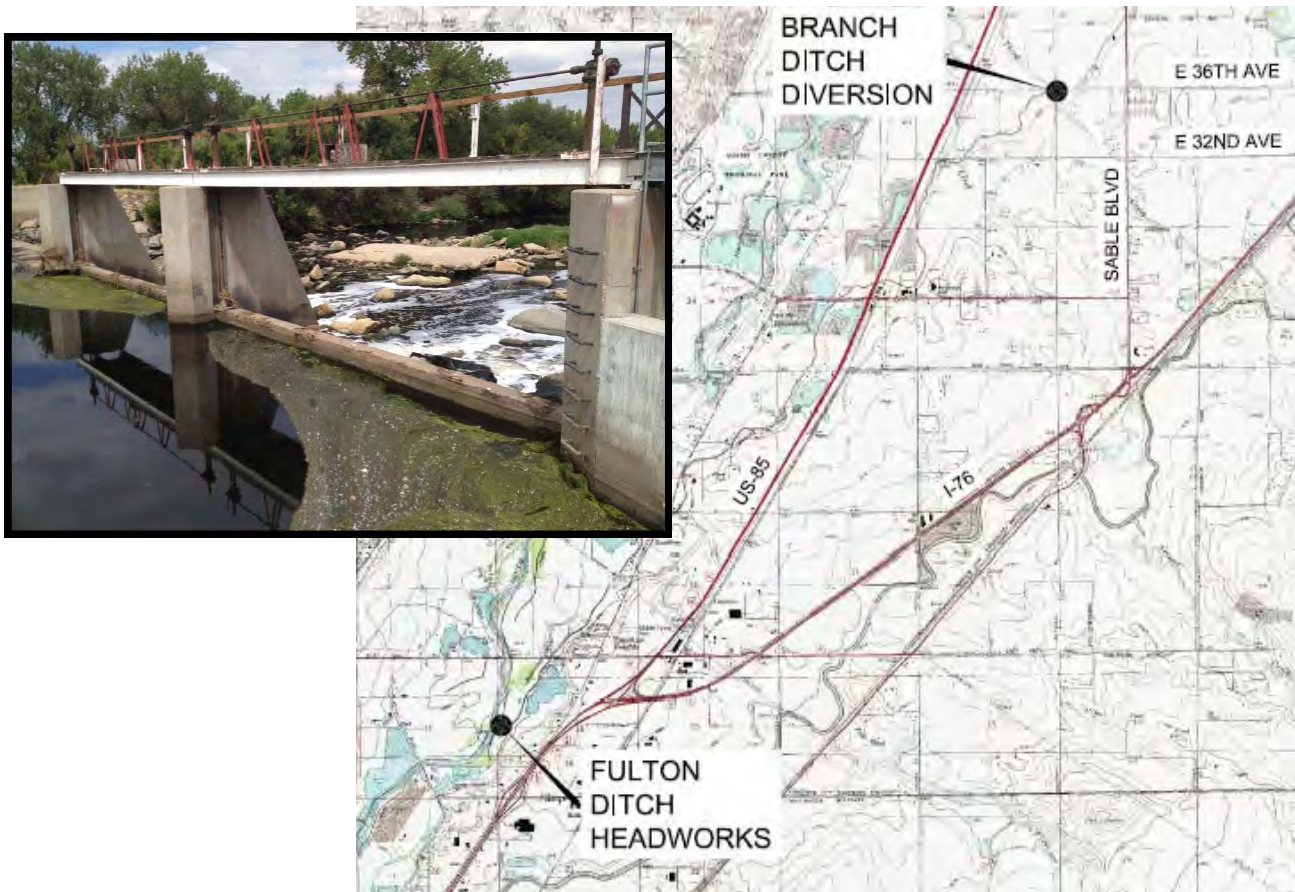
The Town is located in Otero County along Highway 50, approximately 35 miles east of Pueblo. It has approximately 1,185 residents. The Town's water system service area includes the Town and adjacent areas within unincorporated Otero and Crowley Counties for a total of 709 taps. Per a water court mandate, 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

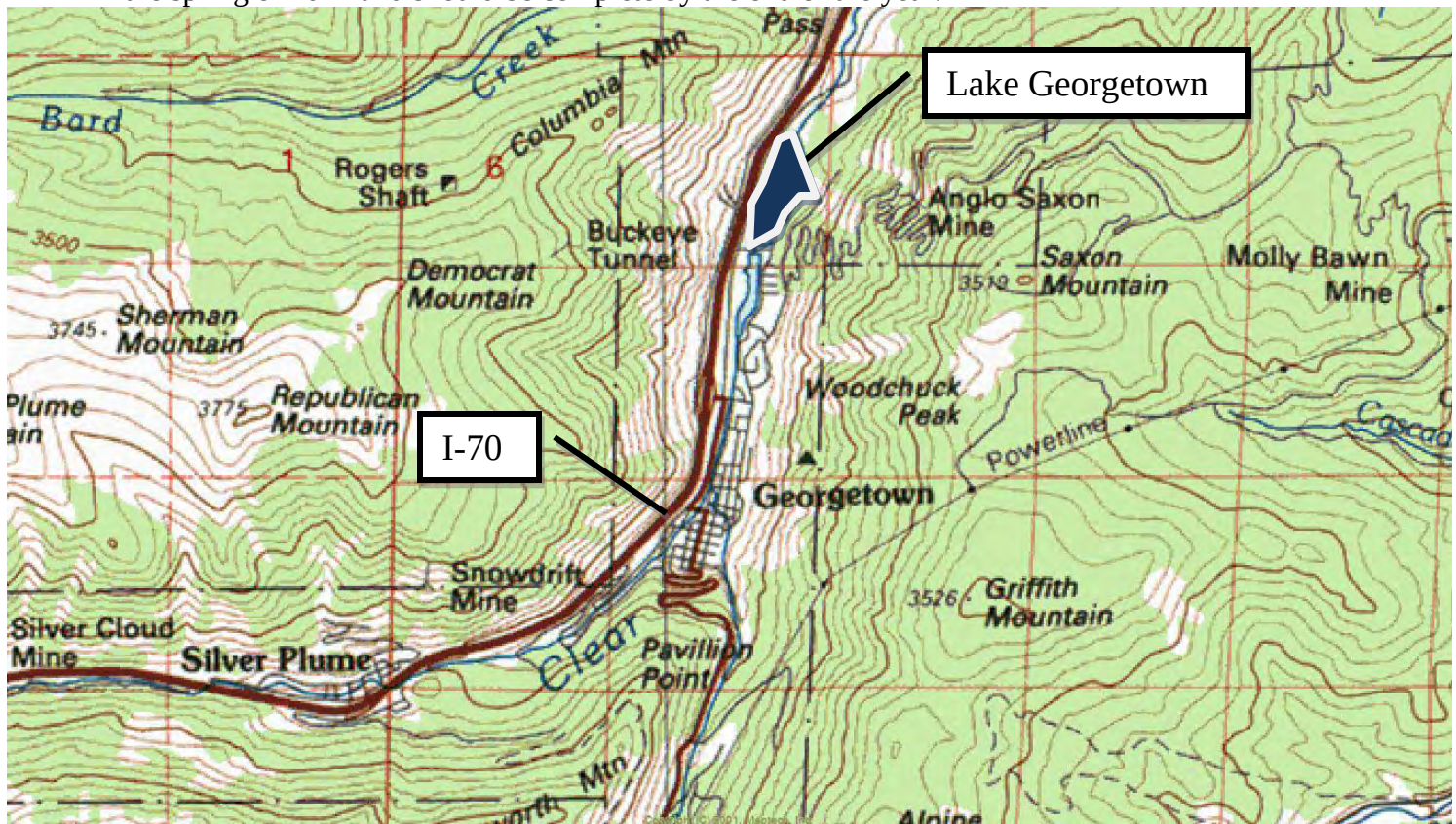
Type of Borrower: Middle-Income Municipal

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.



CWCW Water Project Loan Program Project Data Sheet

Borrower: Grand Mesa Water Conservancy District

County: Delta

Project Name: Peak Reservoir and Blanche Park Reservoir Rehabilitation

Project Type: Reservoir Rehabilitation

Drainage Basin/ District: Gunnison / 40

Water Source: Surface Creek

Total Project Cost: \$640,000

Funding Source: Construction Fund/
WSRA Gunnison Basin Funds

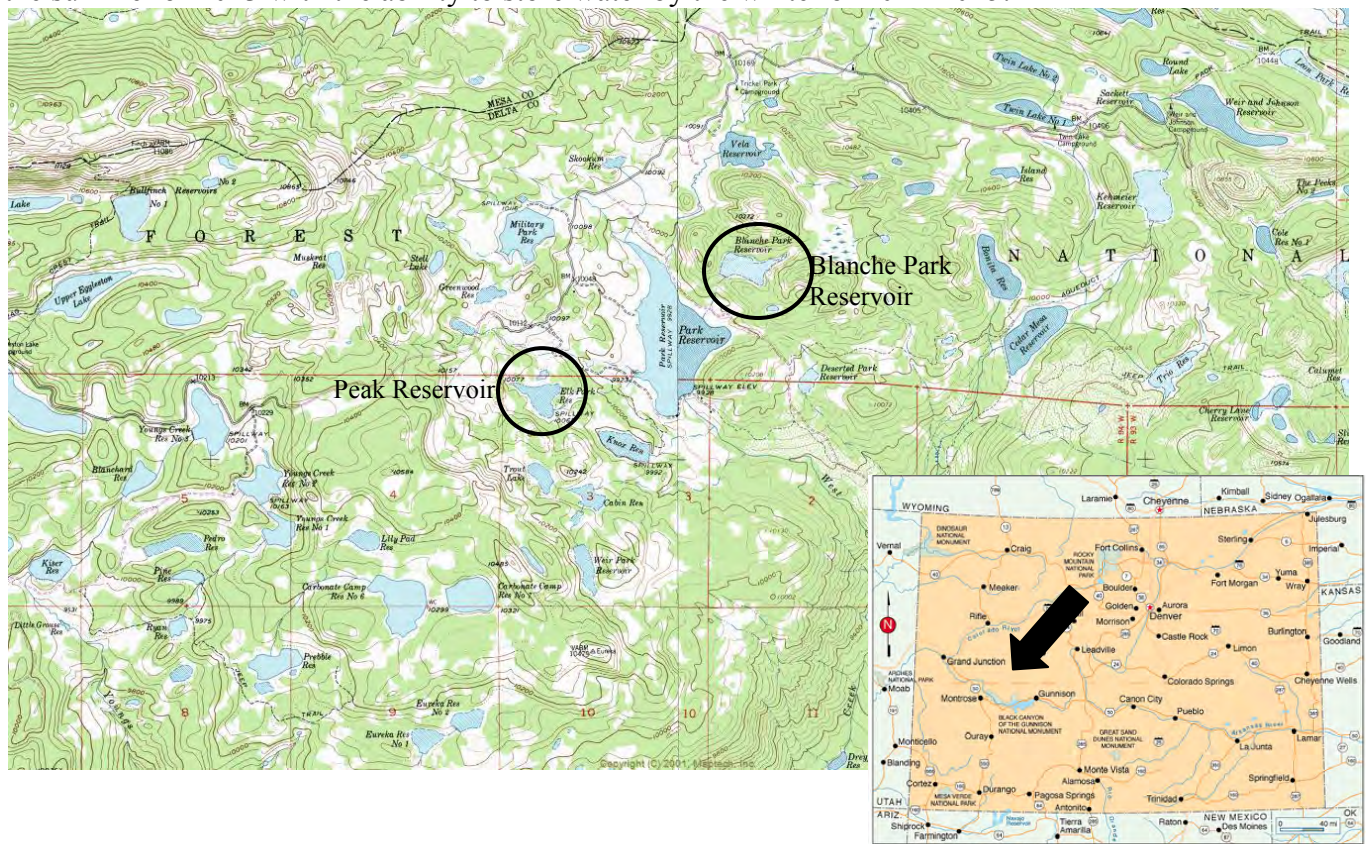
Type of Borrower: Municipal/Agricultural

Average Annual Diversion: 400 AF
Storage Added: 155 AF

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

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

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



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

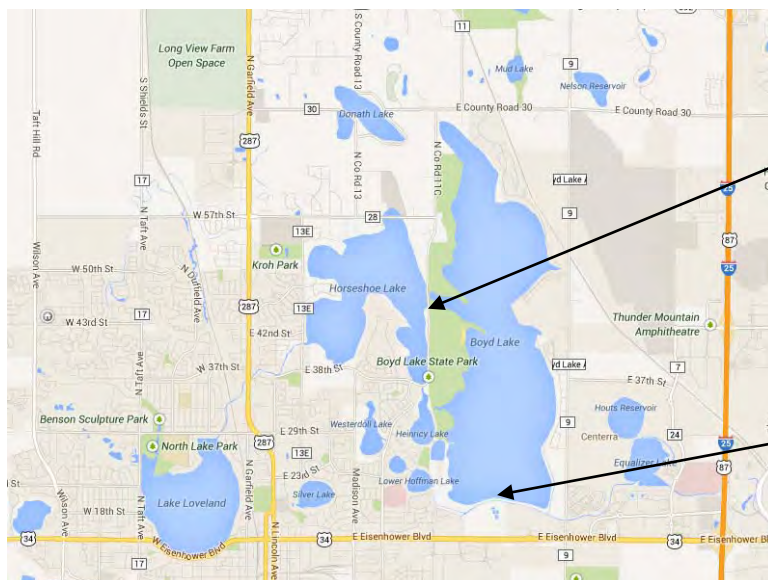
CWCB Loan: \$3,154,230
(with 1% service fee)

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.

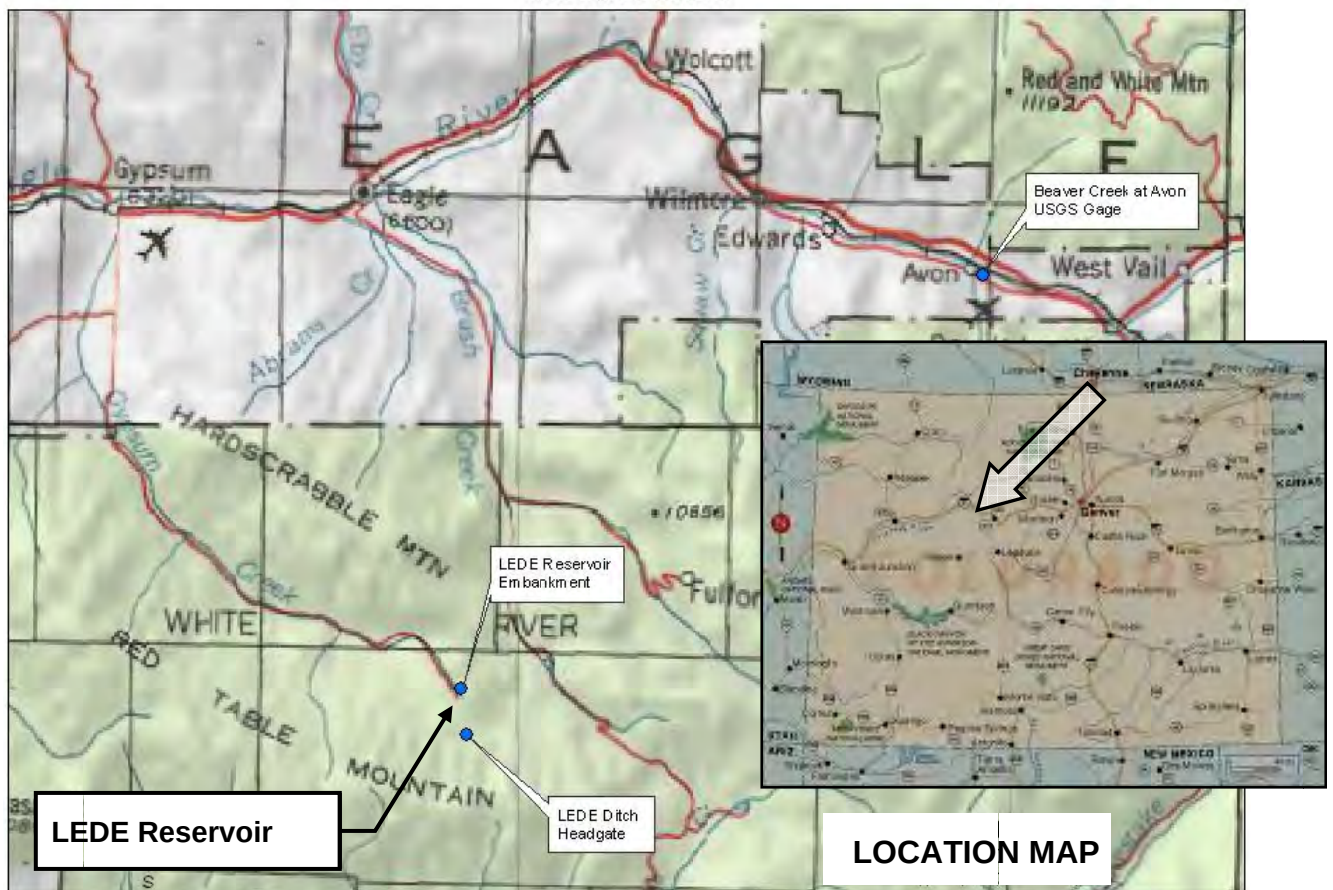


CWCB Construction Loan Program Project Data Sheet

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.

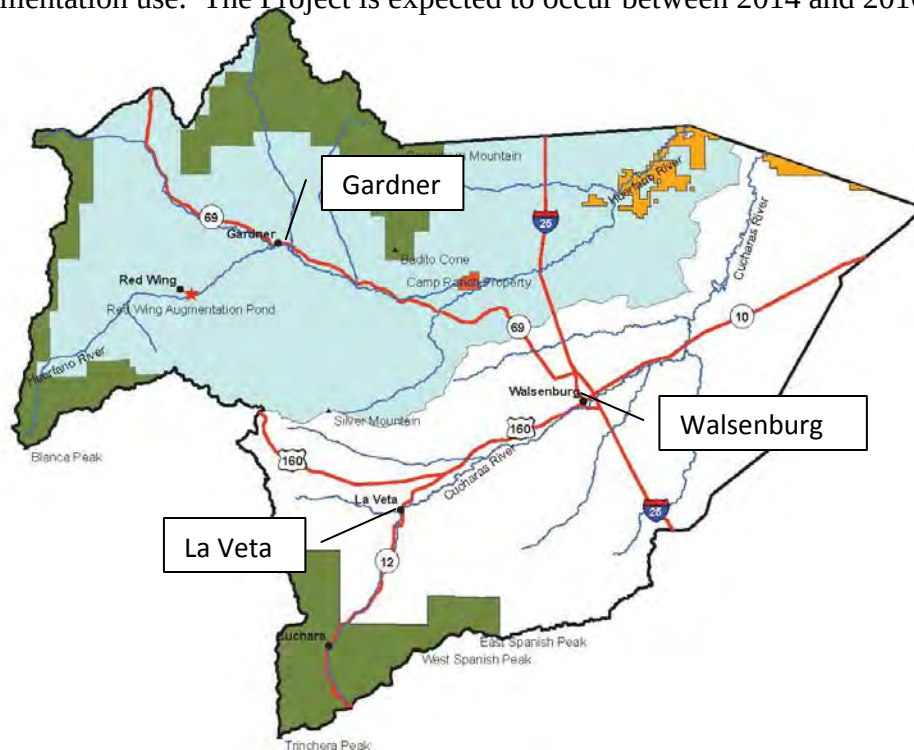
General Locations



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: Joseph W. Bowles Reservoir Company **County:** Jefferson

Project Name: Bowles Reservoir No. 1 Dam Rehab **Project Type:** Reservoir Rehabilitation

Drainage Basin: South Platte

Water Source: Bear Creek

Total Project Cost: \$1,874,000

Funding Sources: Construction Fund

Type of Borrower: Blended Ag & Municipal
& Commercial

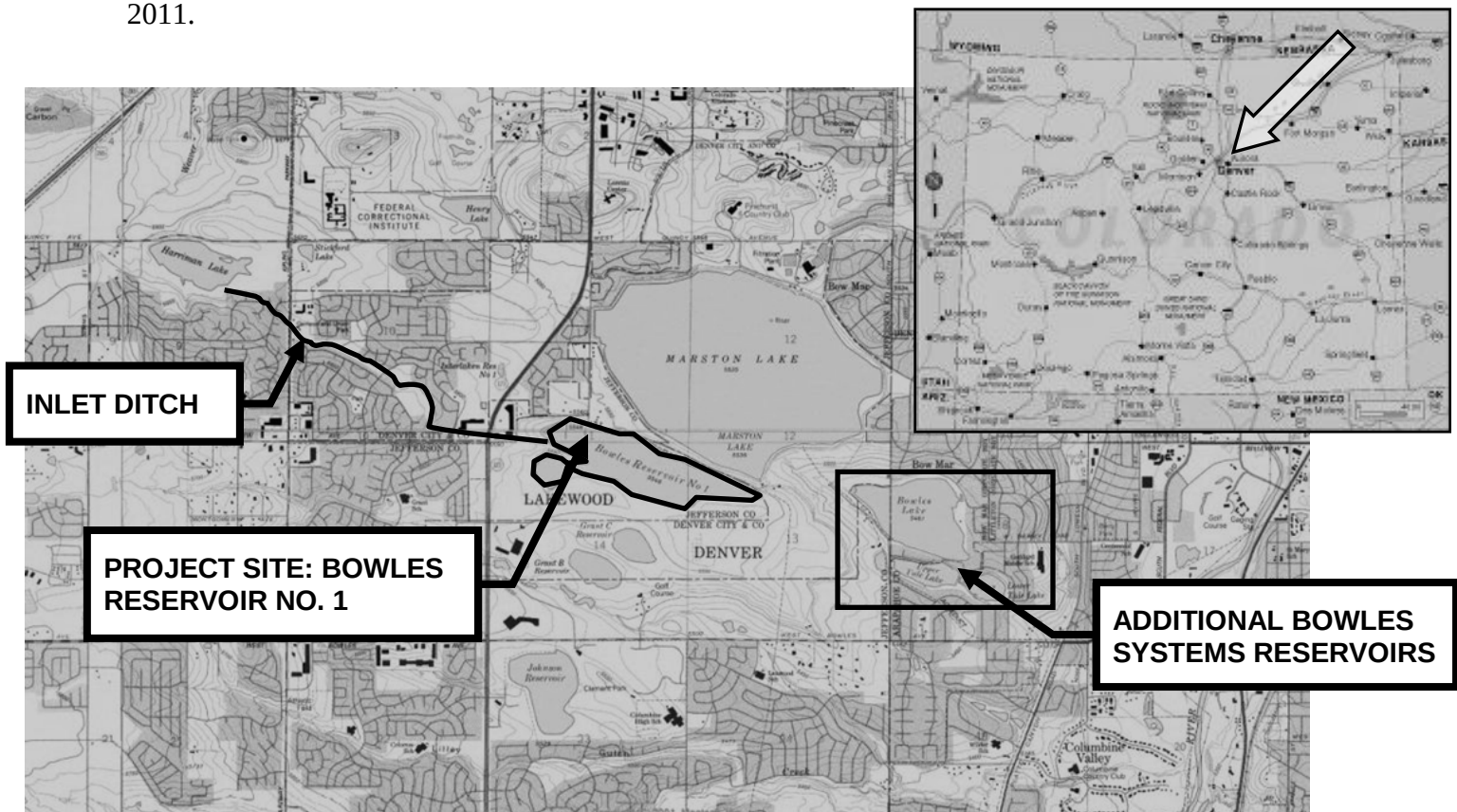
Average Delivery: 900 AF

Loan Amount: \$1,703,870 (Including 1% fee)

Interest Rate: 4.65%

Term: 30 years

The Joseph W. Bowles Reservoir Company (Company) owns and operates Bowles No. 1 Reservoir, located in the southwest metropolitan area of Denver. The Company was formed in 1906 and currently has 50 shareholders who use the water for golf courses, parks, open space, and some individual ranches for irrigation water. The Company is applying for a loan to implement several repairs to correct dam-safety deficiencies and improve the long-term performance of Bowles No. 1 Dam and to rehabilitate the deteriorating reservoir inlet ditch. The dam rehabilitation includes widening the crest, reconstructing the upstream slope, and installing a seepage collection and toe drain system on the downstream slope. Work on the inlet ditch includes removing trees, reconstructing the ditch cross section and alignment, placing slope protection in high erosion areas, and installing a flow control pipe that will provide for discharge of excessive ditch flows into an existing spillway and drainage structure. The Company plans on submitting the final design to the SEO by February 2010 and beginning construction in August 2010 with completion by February 2011.

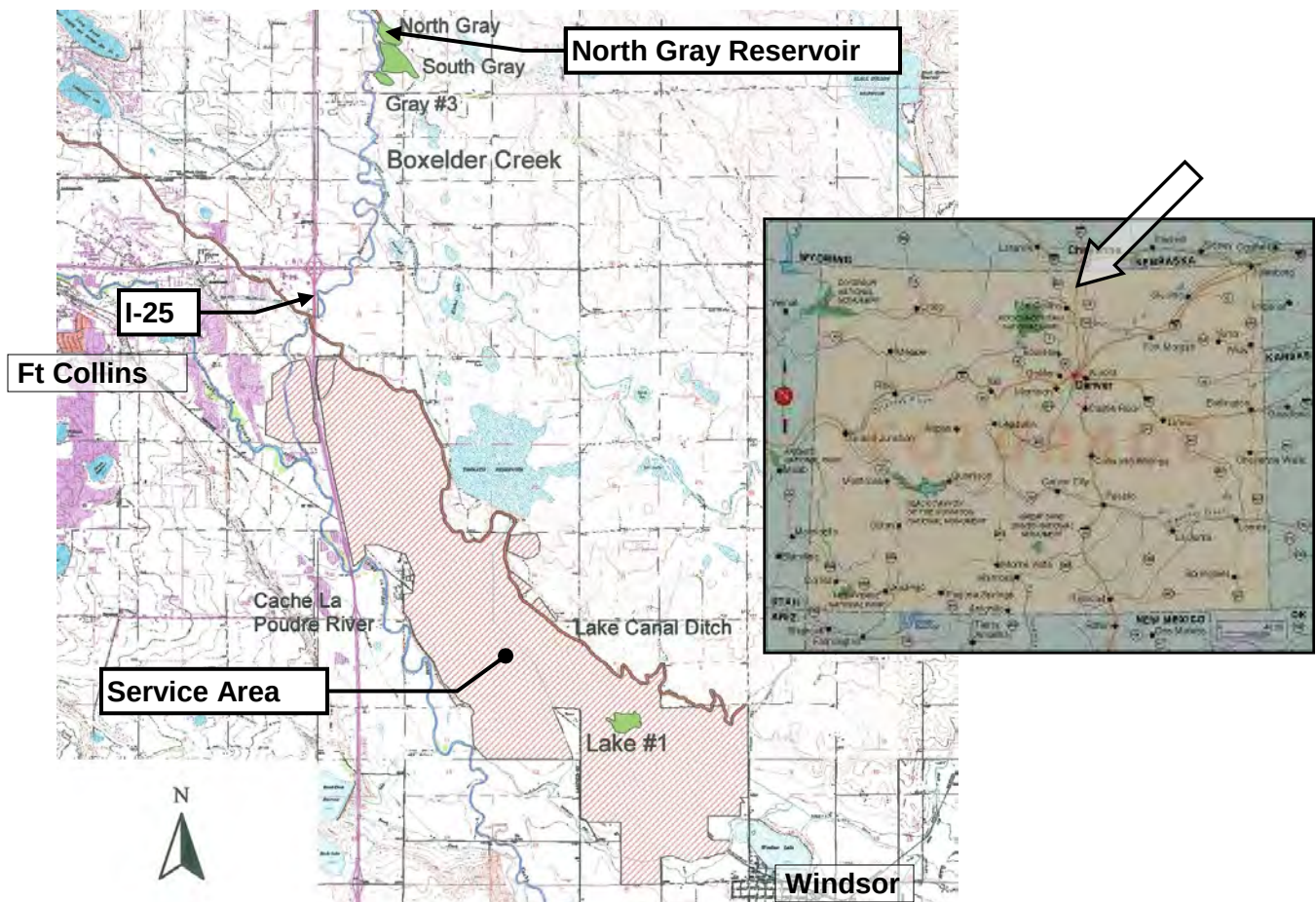


CWCB Construction Loan Program Project Data Sheet

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).



0 0.4 0.8 1.6 2.4
Miles

2009 NAIP aerial imagery provided by
the US Farm Service Agency



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.

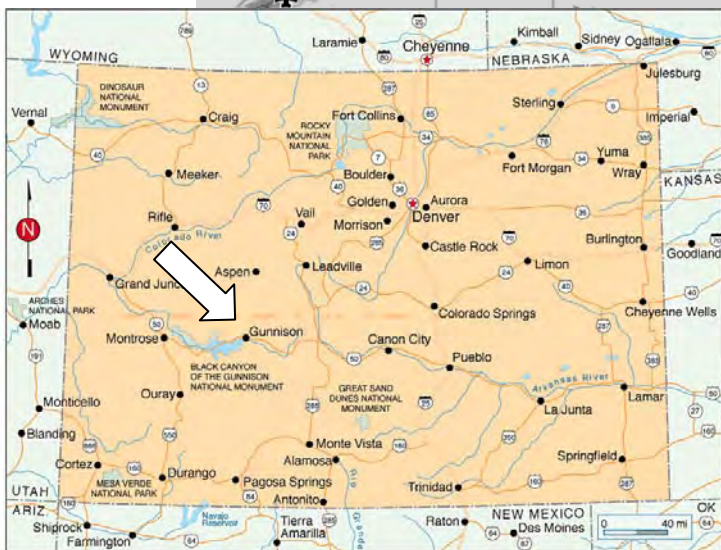
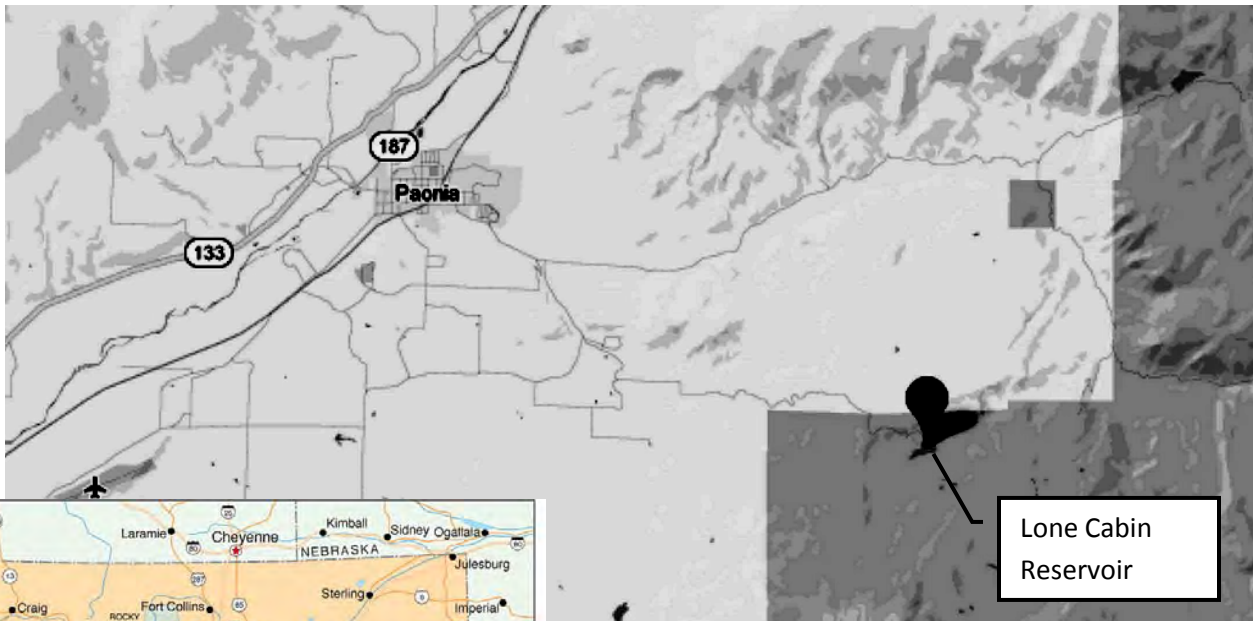
LOCATION MAP

Water Project Loan Program Project Data Sheet

C150361

Borrower:	Lone Cabin Ditch and Reservoir Company	County:	Delta
Project Name:	Lone Cabin Dam Rehabilitation Project	Project Type:	Dam Rehabilitation
Drainage Basin:	Gunnison / District 40	Water Source:	Minnesota Creek
Total Project Cost:	\$334,300	Funding Source:	Construction Fund, WSRG Grant
Type of Borrower:	Agricultural	Avg. Annual Diversion:	950 AF
CWCB Loan:	\$252,800 (inc. 1% Service Fee)	Interest Rate:	1.75% Term: 30yr

The 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; however it is currently restricted by the State Engineer's Office to a storage level 20-feet below the dam crest due to slumping of the downstream face of the dam. The Company hired Buckhorn Geotech to investigate the slump.



Water Project Construction Loan Program-Project Data

Borrower: Mancos Water Conservancy District

Project Name: Mancos Project

Project Type: System Rehabilitation

County: Montezuma **Drainage Basin:** San Juan **Water Source:** West Mancos River

Total Project Cost: \$6,619,550

Funding Sources: Borrower and CWCB

Type of Borrower: Agricultural/Municipal

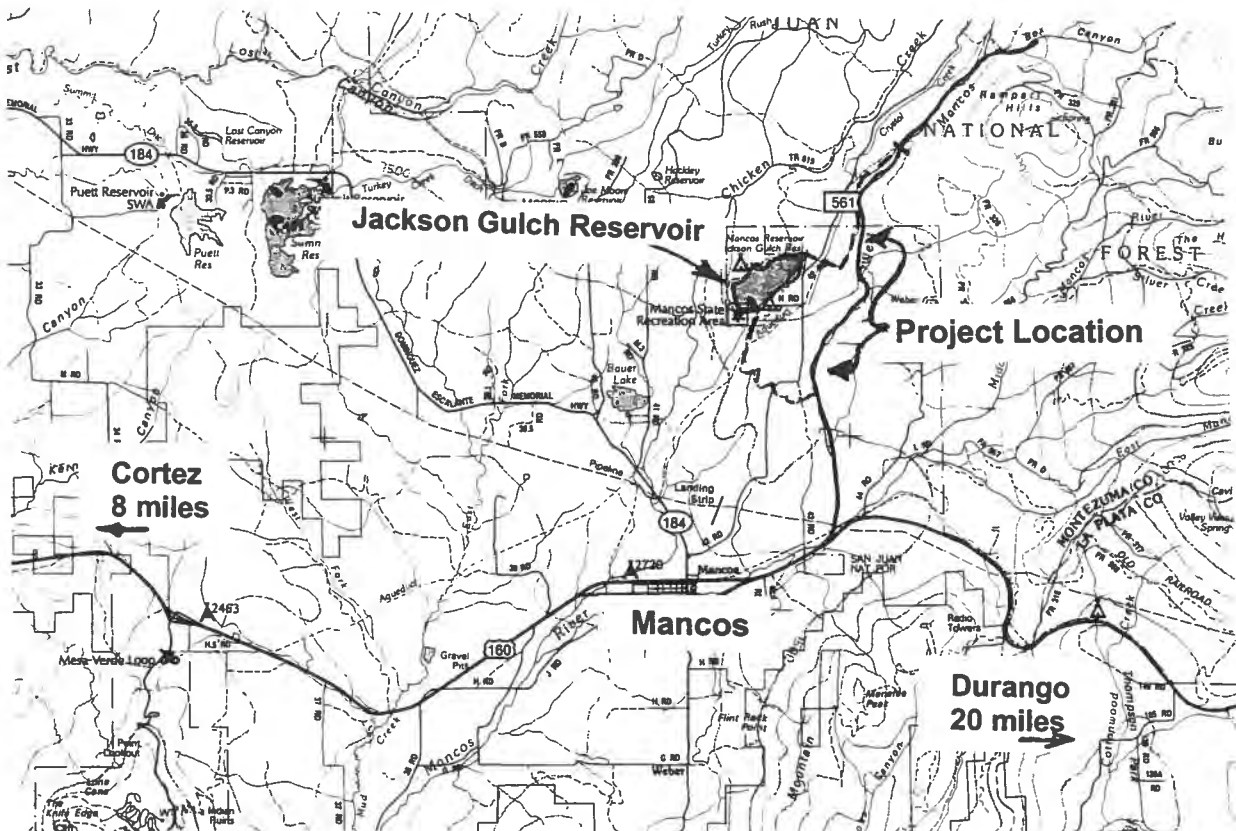
Median Household Income: Low

CWCB Loan: \$5,486,531

Interest Rate: 2.8% **Term:** 30 years

Annual Volume of Water delivered: 9,000 acre-feet

The Mancos Water Conservancy District is located in Montezuma county and supplies supplemental and full service irrigation water to a 13,496-acre service area. District facilities were constructed over 50 years ago, and are in need of rehabilitation. The Mancos Water Conservancy District was formed in 1941 under the Water Conservancy Act of 1937. It has the power to acquire water rights, construct and operate facilities, levy taxes, and issue debt subject to the provisions of TABOR. The District has completed the feasibility study. Project funding will come from a \$5,486,531 loan from the CWCB, and the remainder from the District.



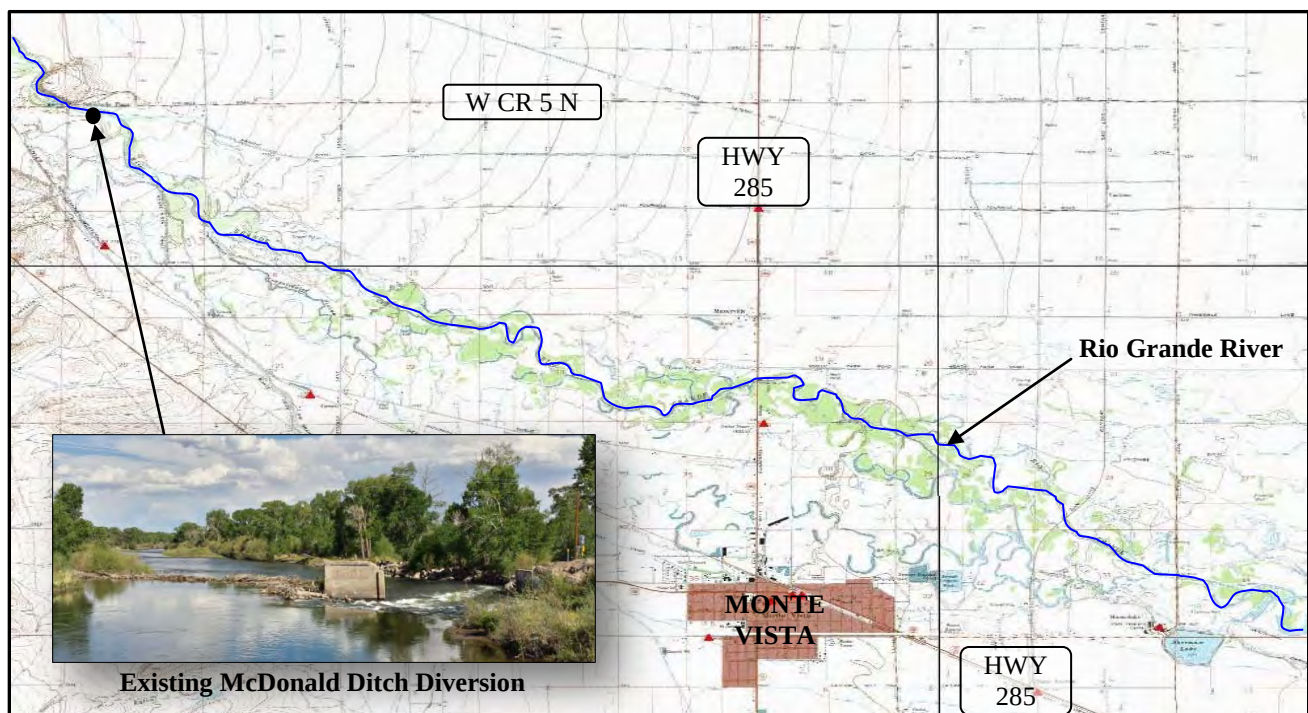
Location Map

**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)

Project Name: Augmentation Water Rights
Acquisition

Drainage Basin: Rio Grande

Total Project Cost: \$1,863,500

Type of Borrower: Low-Income Municipal

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

County: Rio Grande

Project Type: Water Rights Purchase

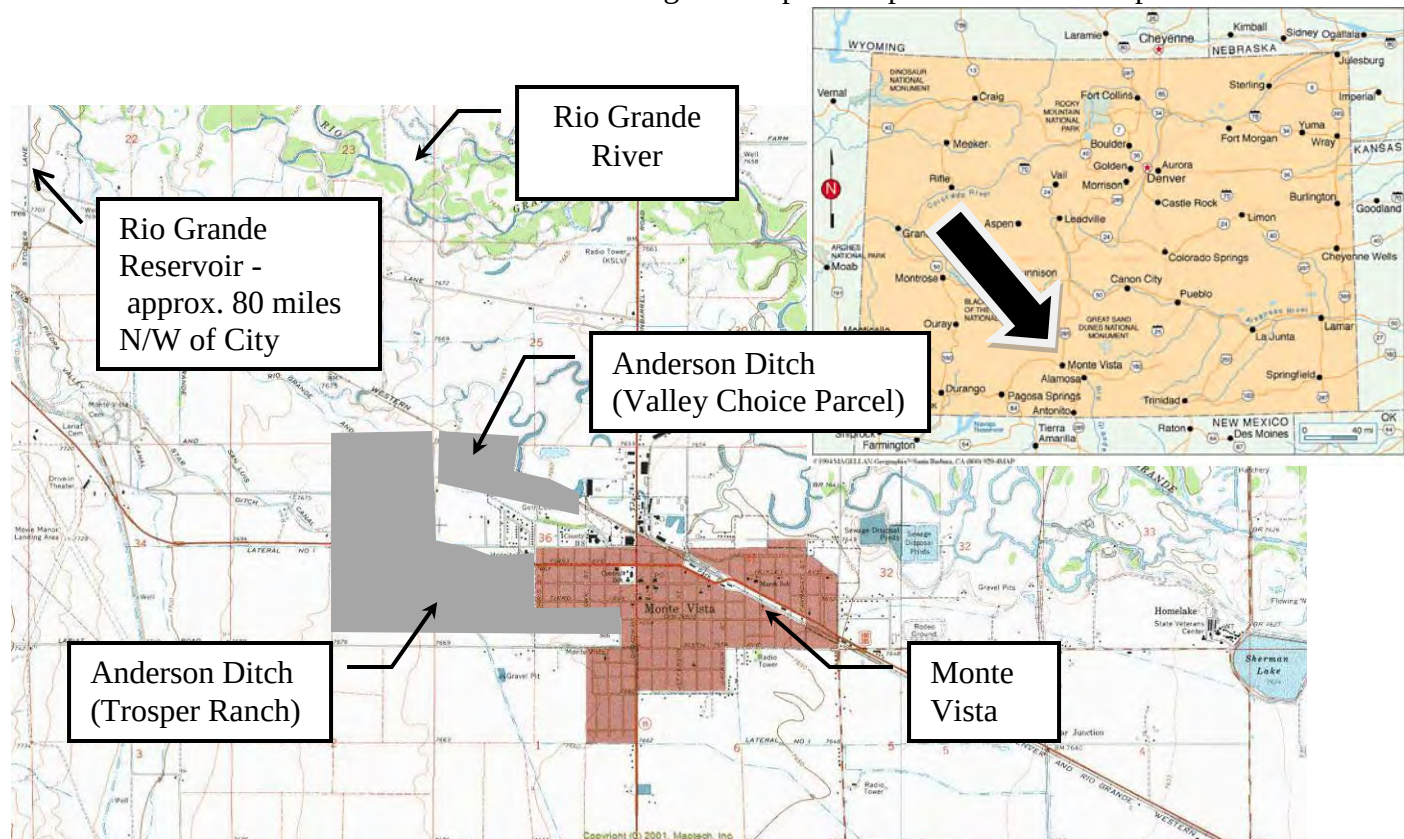
Water Source: Rio Grande River

Funding Source: Construction Fund

Aver. Demand: 1,212 AF/year

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

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



Location Map

**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

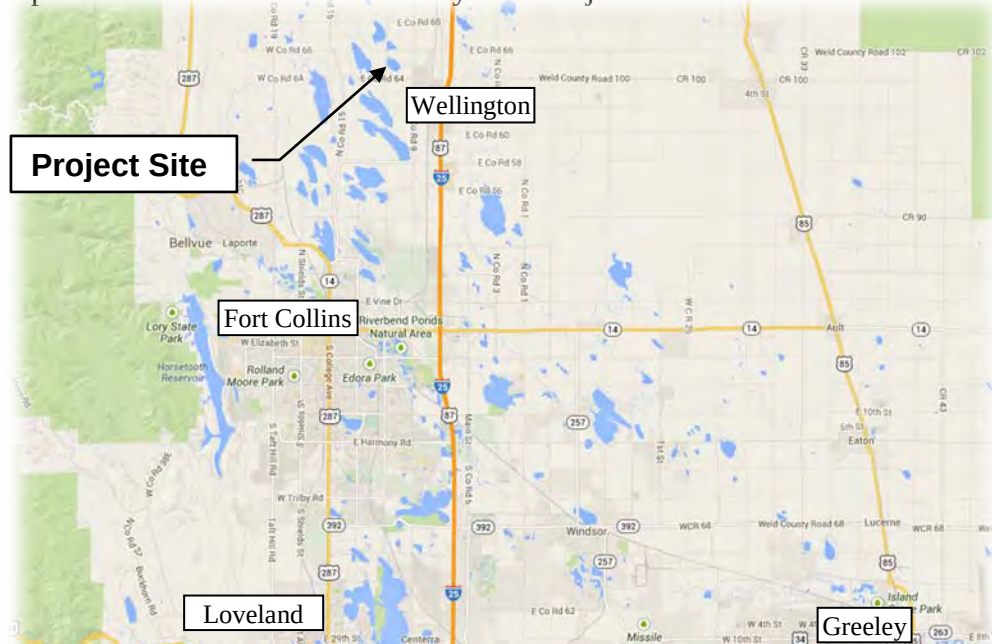
Type of Borrower: Blended

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)

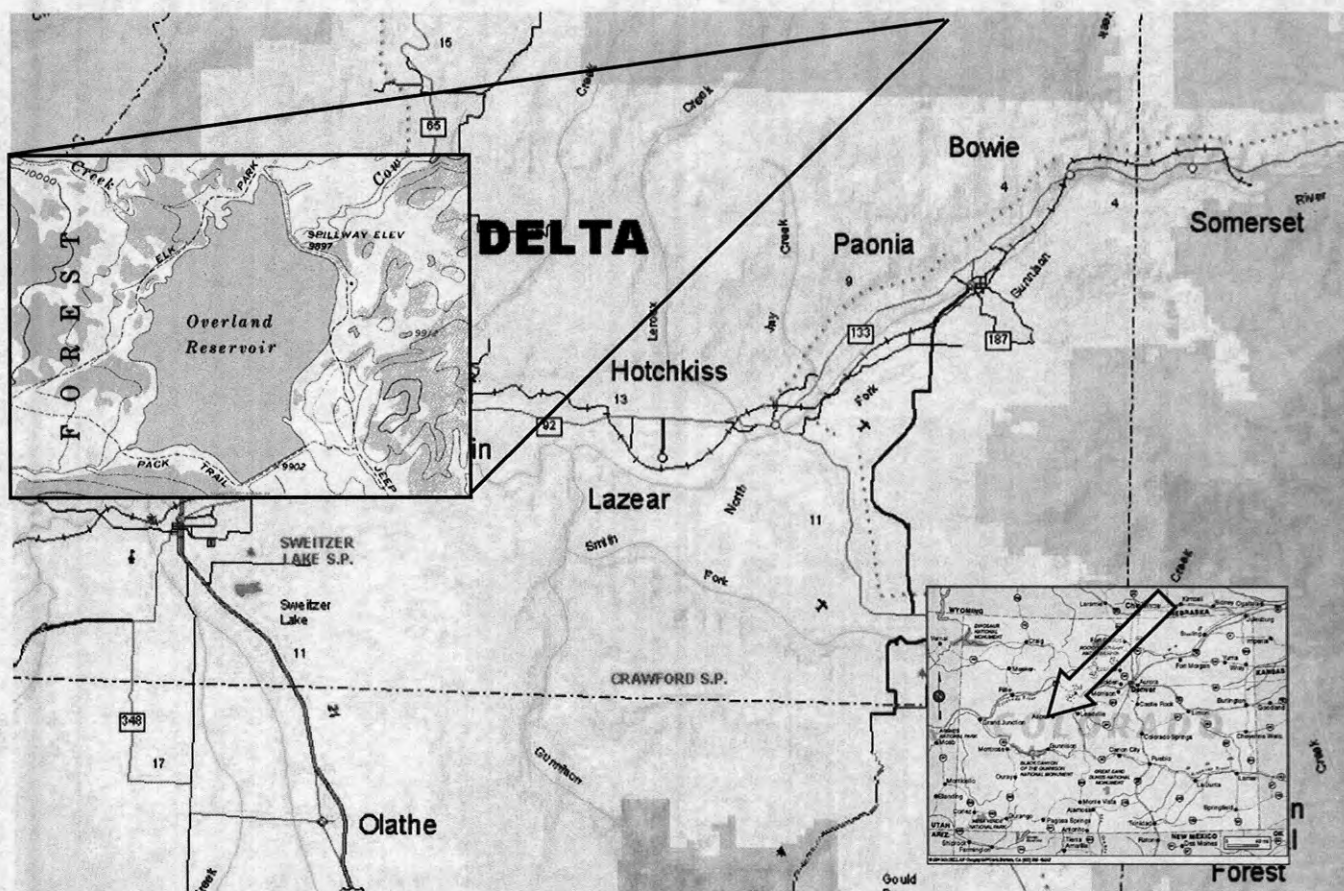
The North Poudre Irrigation Company is a mutual ditch company established in 1901. The Company's office is located in Wellington with a service area of approximately 28,000 irrigated acres of farm land. Reservoir No. 4 is an off stream reservoir constructed in the late 1880s, enlarged in the 1920s, and 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

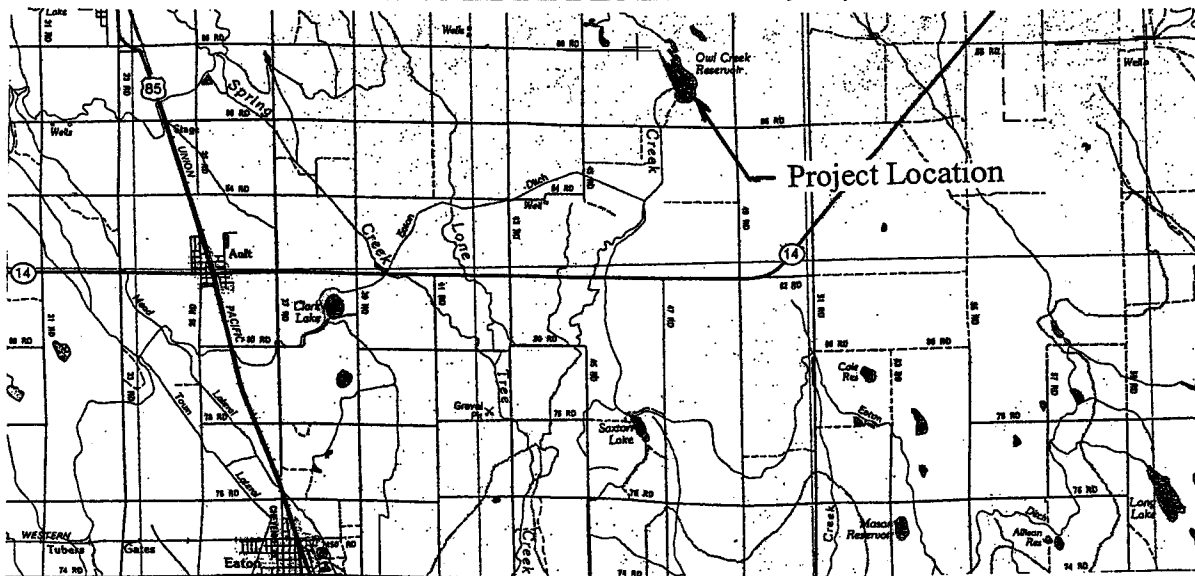
Total Project Cost: \$1,250,000 **Funding Source:** CWCB

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

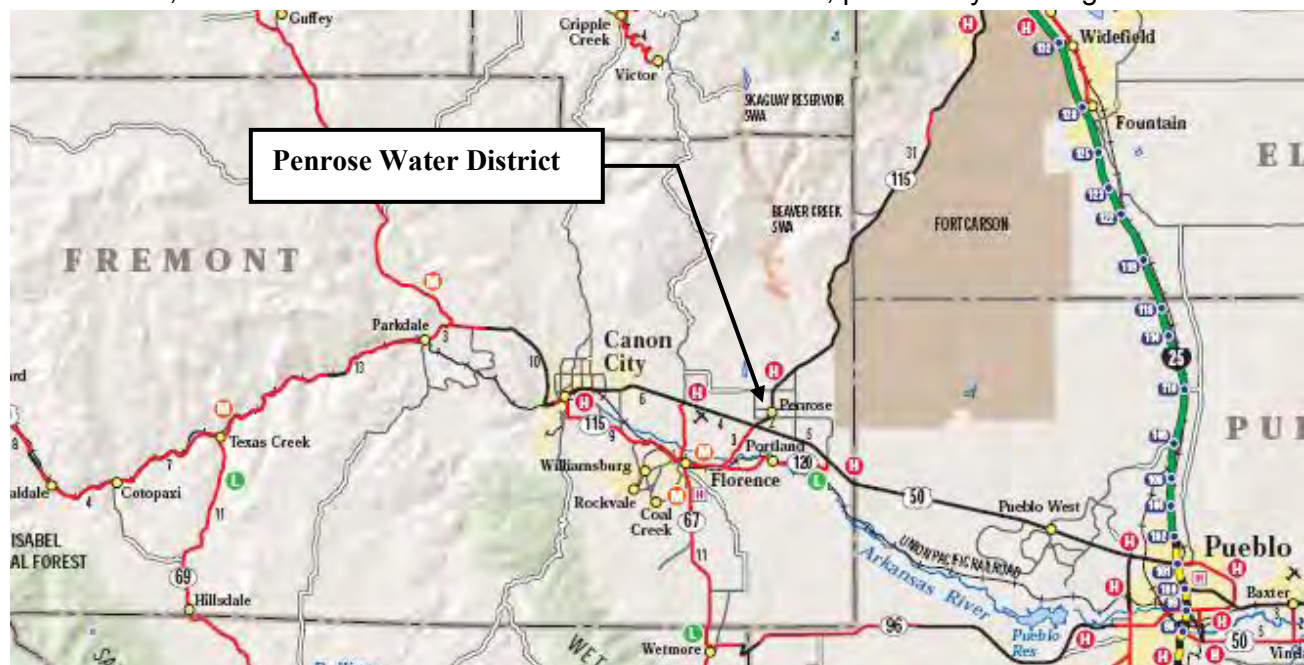
Type of Borrower: Municipal/Low

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

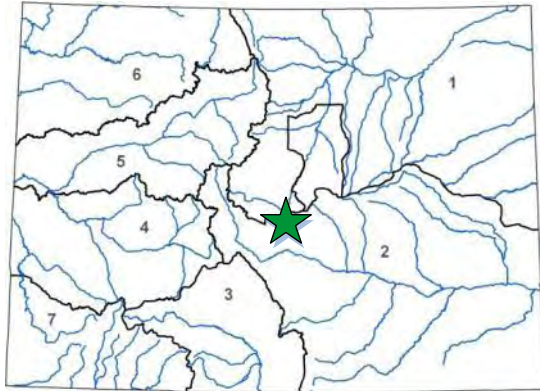
Mt. Pisgah Dam/Wrights Reservoir Outlet Works Rehabilitation

Pisgah Reservoir and Ditch Company

November 2014 Board Meeting

(Loan Increase)

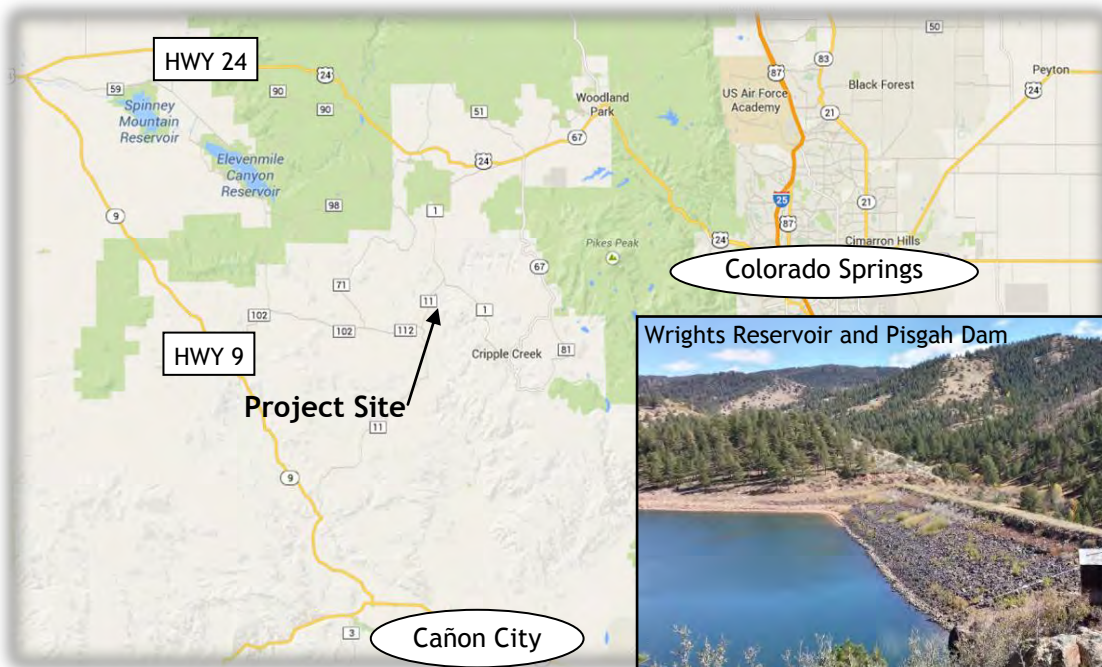
L O A N D E T A I L S	
Project Cost:	\$745,000
CWCB Loan (with Service Fee):	\$549,091
Loan Term and Interest Rate:	30 Years @ 1.75%
Funding Source:	Construction Fund
B O R R O W E R T Y P E	
Agriculture	Municipal Commercial
93%	7% Low - 0% Mid - 0% High 0%
P R O J E C T D E T A I L S	
Project Type:	Reservoir Rehabilitation
Average Annual Diversion:	86,000 AF
Water Supply Storage Preserved:	2,192 AF



L O C A T I O N	
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.



**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.

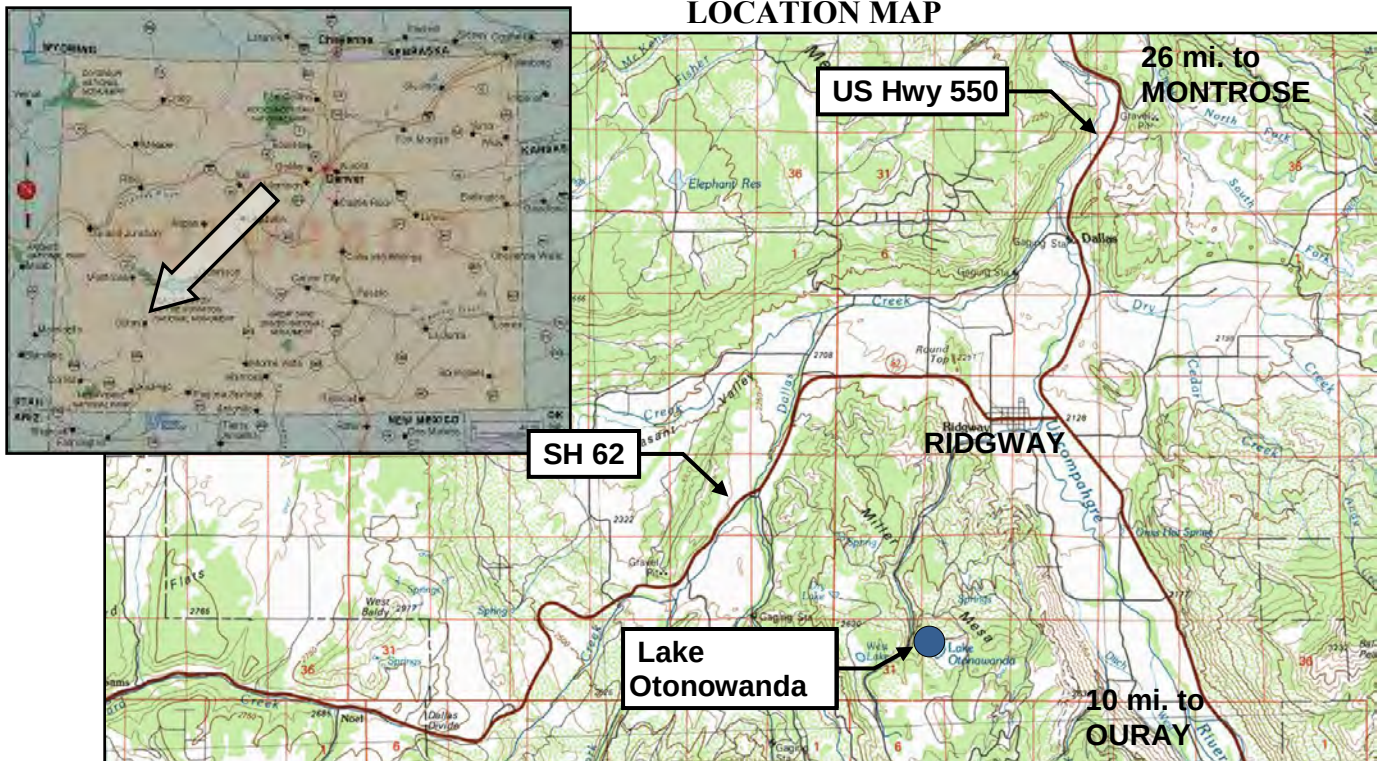


CWCBC Construction Loan Program Project Data Sheet

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 CWCBC 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

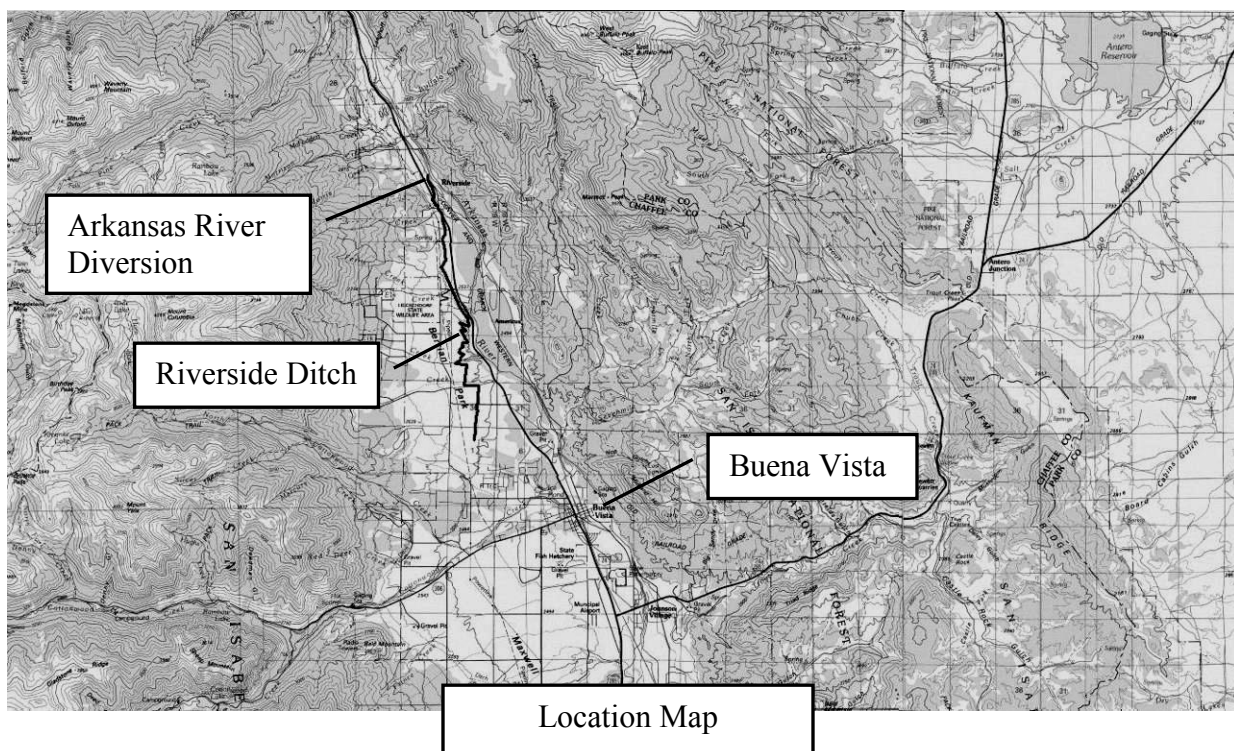
Type of Borrower: Agricultural

Average Diversion: 3,250 acre-feet

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

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

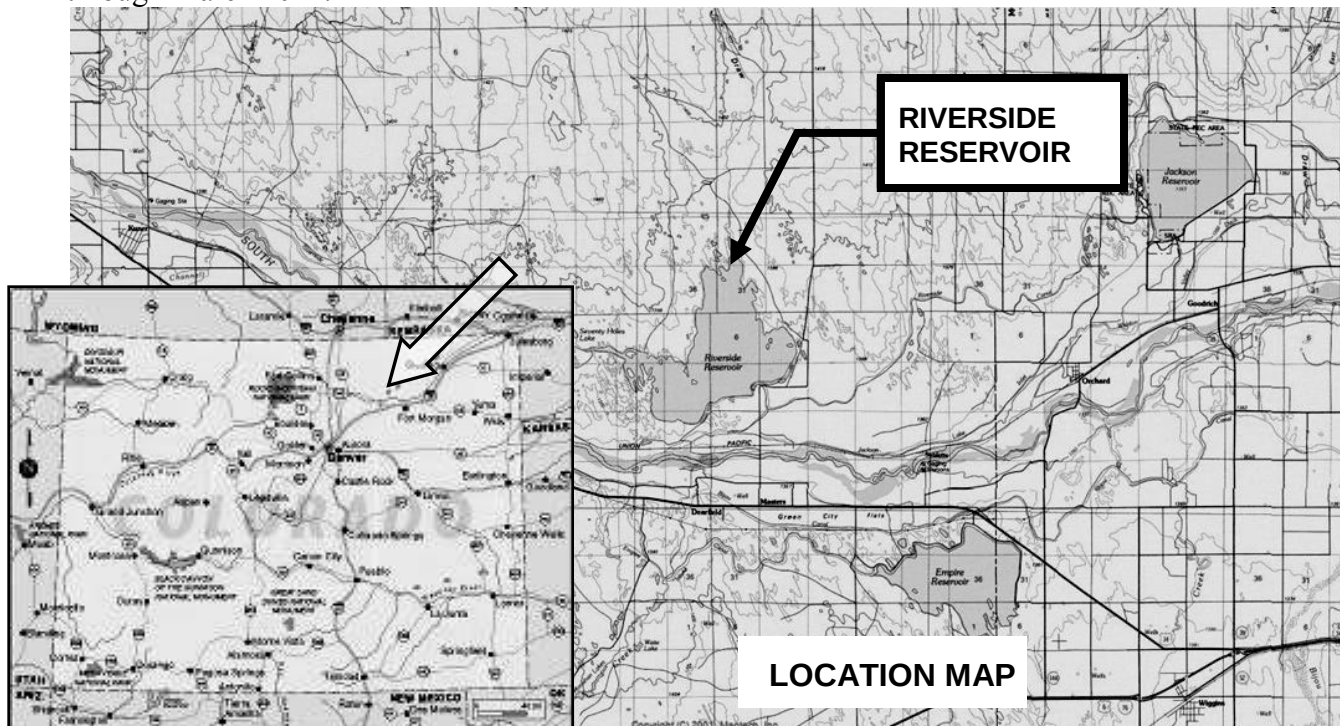
The Riverside Ditch and Allen Extension Company (Company), located near Buena Vista, owns and operates the Riverside Ditch (canal) that provides irrigation water to a 450 acre service area within Chaffee County. A significant portion of the Company's structures along the 125 year old canal are aged and 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.



CWCB Construction Loan Program Project Data Sheet

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

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



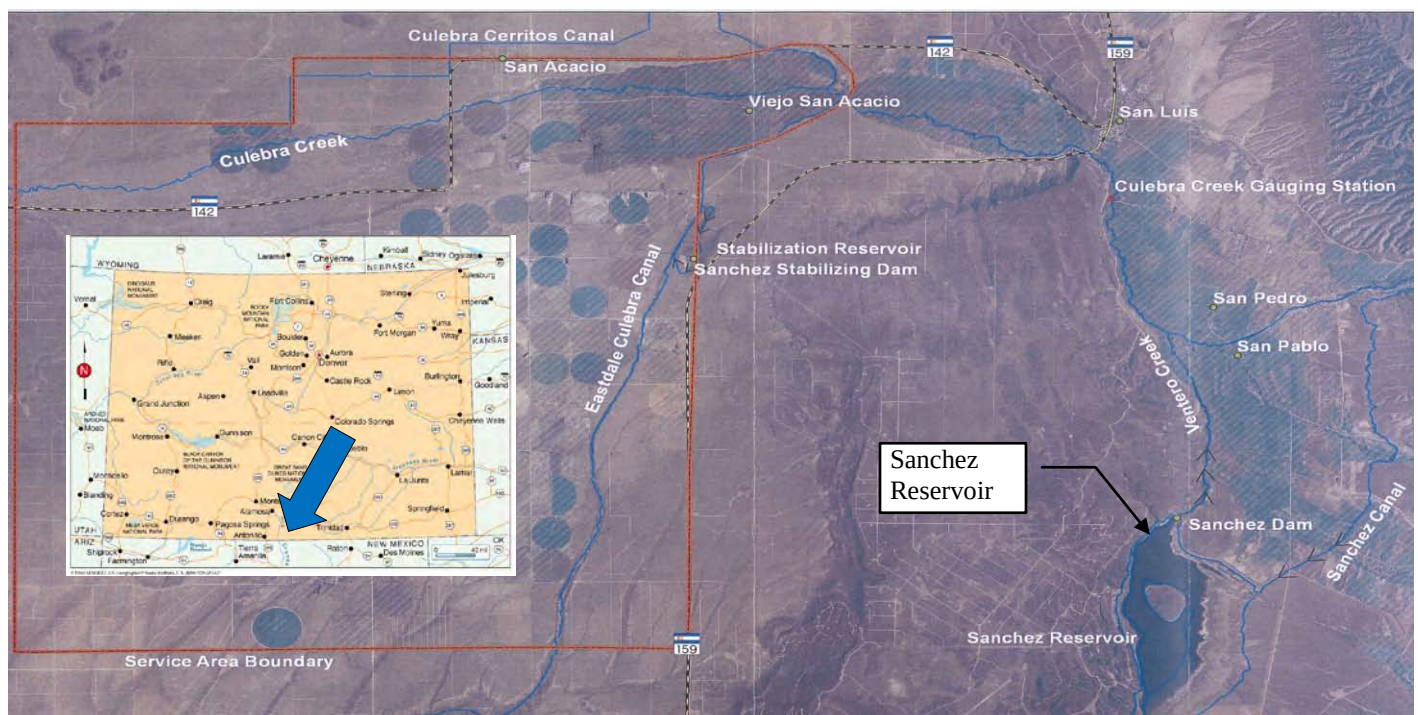
**CWCB Construction Loan Program
Project Data Sheet
(Increase)**

C150342**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.

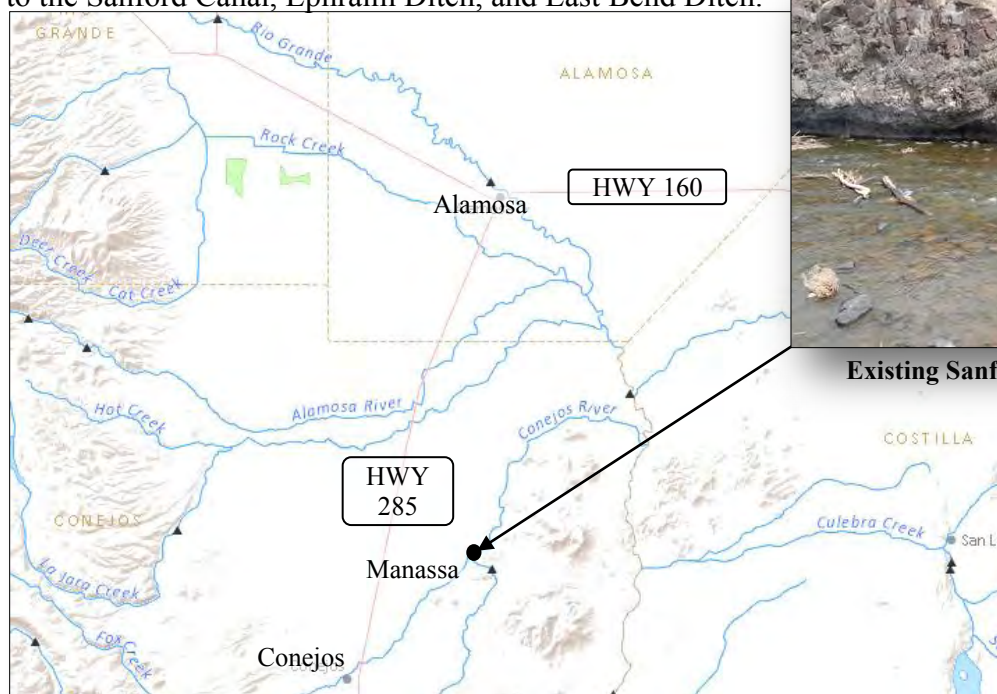


**CWCB Water Project Loan Program
Project Data Sheet**

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.

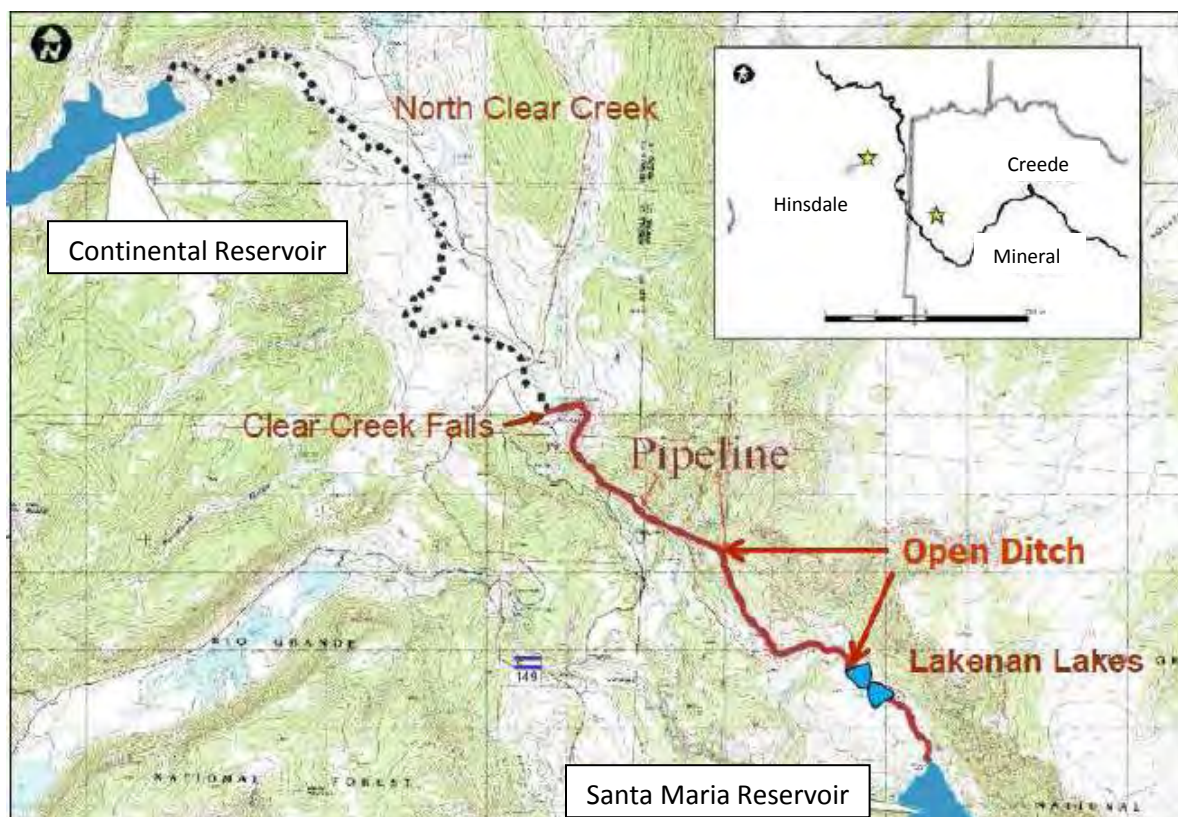
**Existing Sanford Ditch Diversion**

C150350

**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

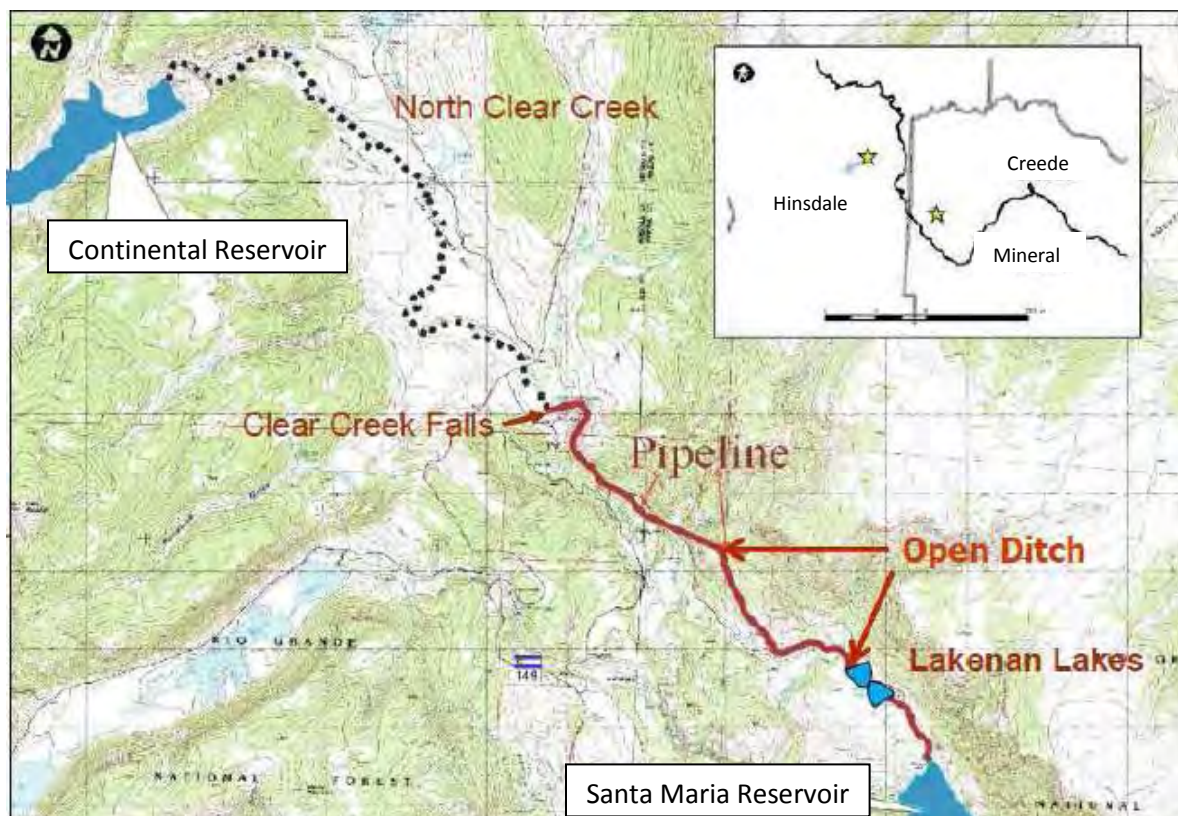
Santa Maria Reservoir Company owns and operates Continental Reservoir (27,000 AF) and Santa Maria Reservoir (43,500 AF), located in the Rio Grande River Basin near Creede, Colorado. Santa Maria and Continental operate in conjunction with each other via a century old conveyance system made up of a pipeline, 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.



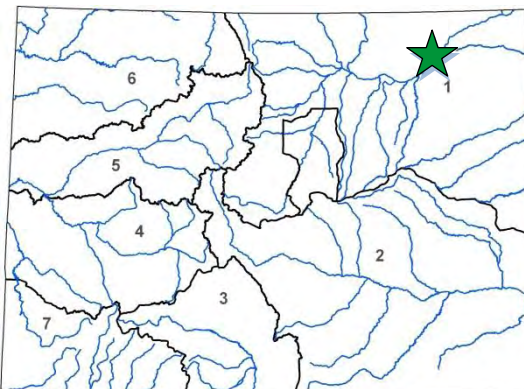


COLORADO
Colorado Water
Conservation Board
Department of Natural Resources

Emergency Sterling Ditch Rehabilitation Project

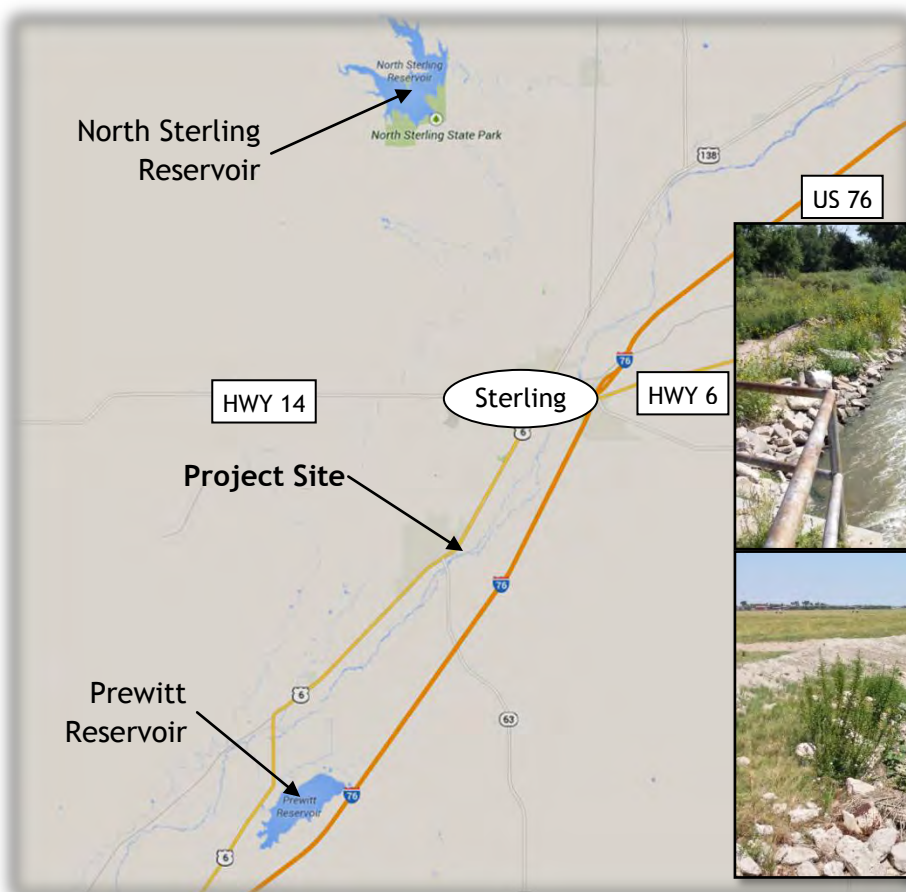
Sterling Irrigation Company
September 2014 Board Meeting

L O A N D E T A I L S	
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
B O R R O W E R T Y P E	
Agriculture	Municipal Commercial
100%	0% Low - 0% Mid - 0% High 0%
P R O J E C T D E T A I L S	
Project Type:	Ditch Rehabilitation
Average Annual Diversion:	21,360 AF



L O C A T I O N	
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

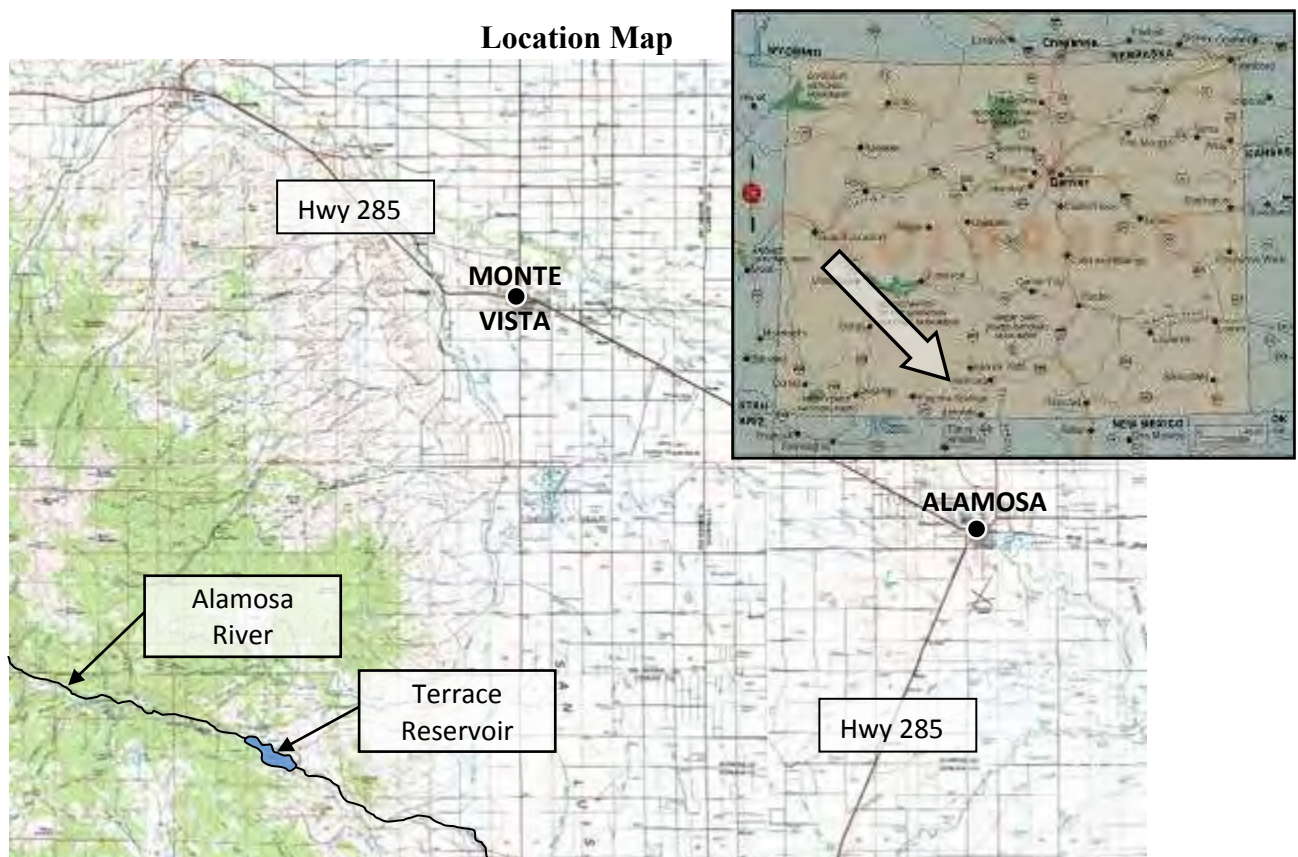
Avg. Annual Delivery: 15,339 AF

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

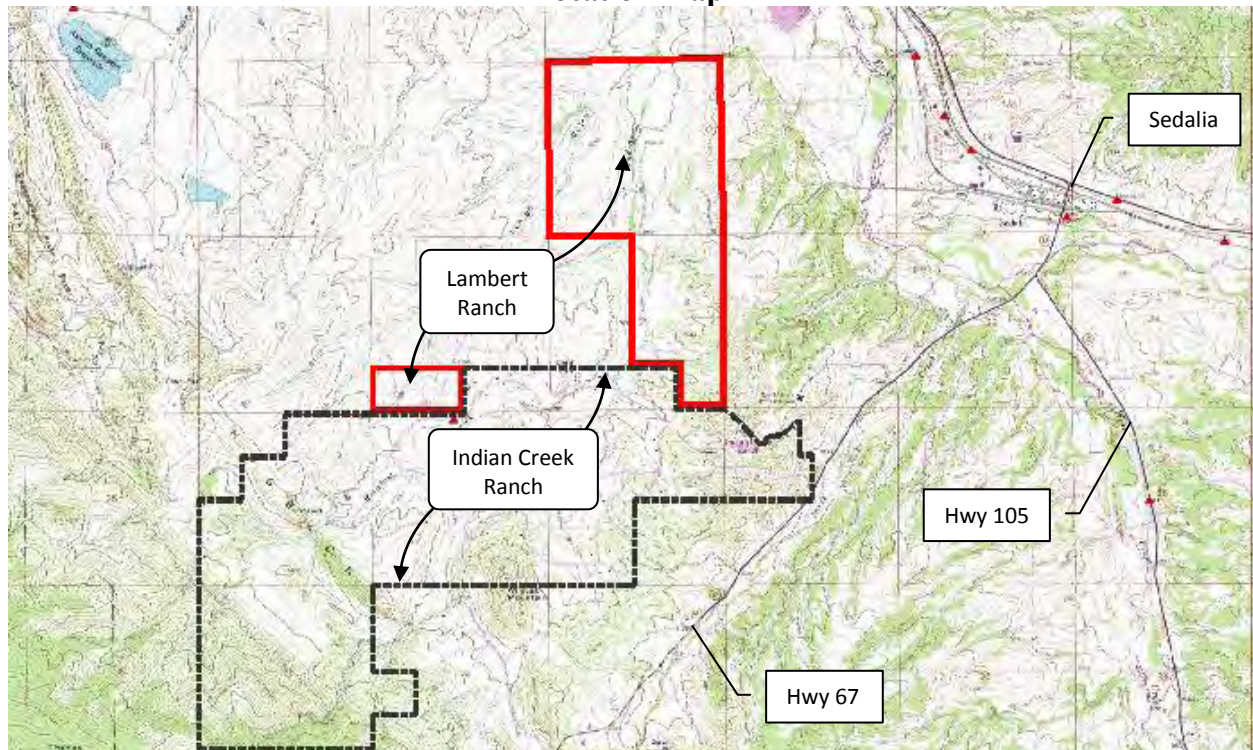
Avg. Annual Delivery: 55 AF

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**

Attachment 11

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

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

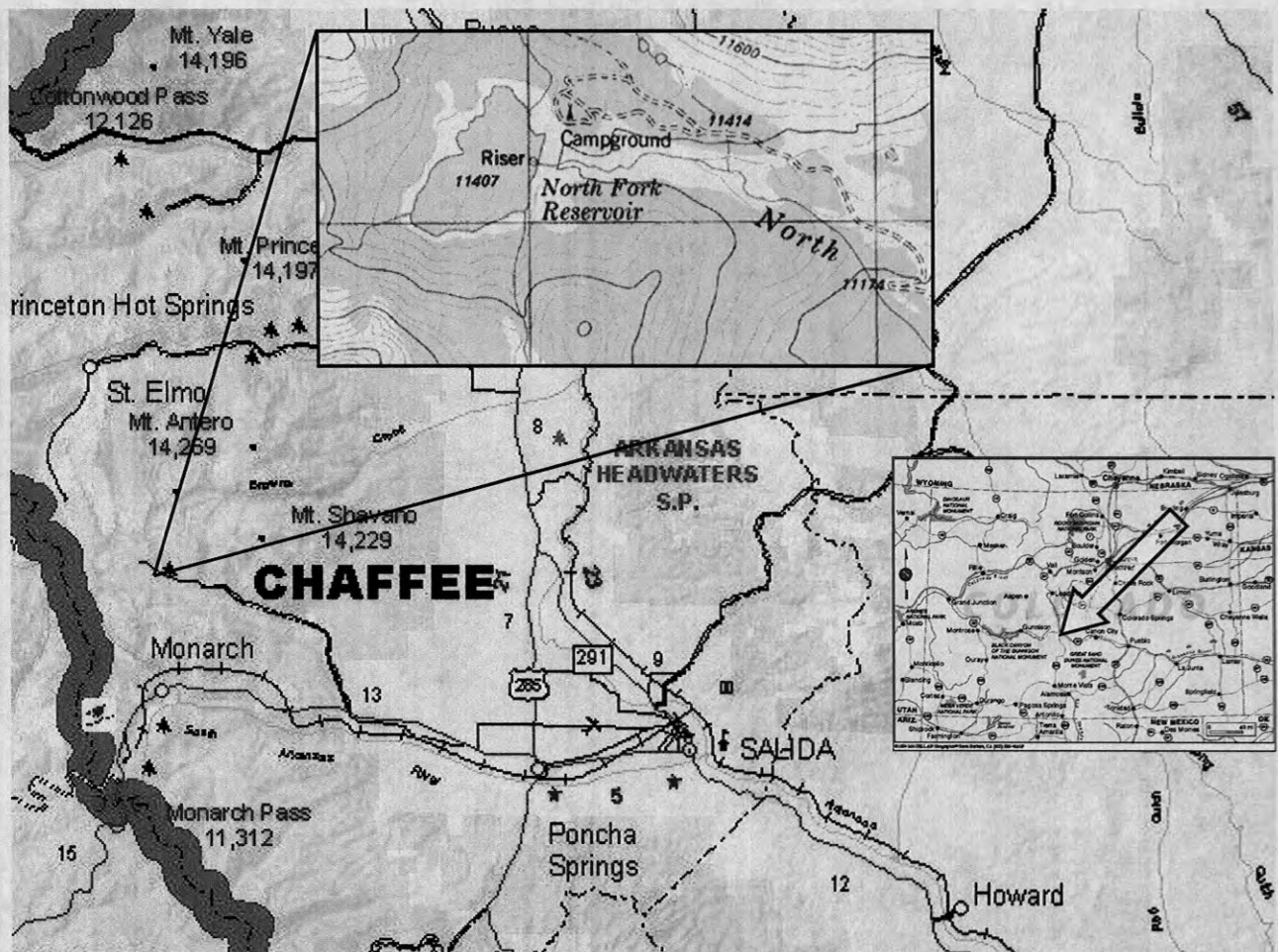
Project Type: Dam and Spillway Modifications **Water Source:** N. Fork of S. Arkansas

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

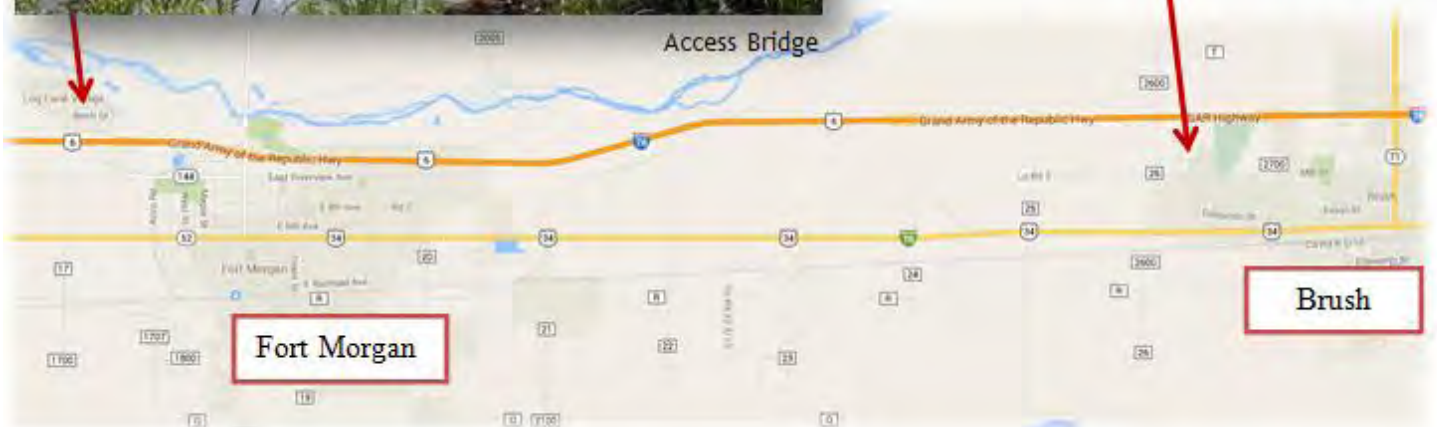
CWCB Water Project Loan Program Project Data Sheet

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.



Augmentation Pond

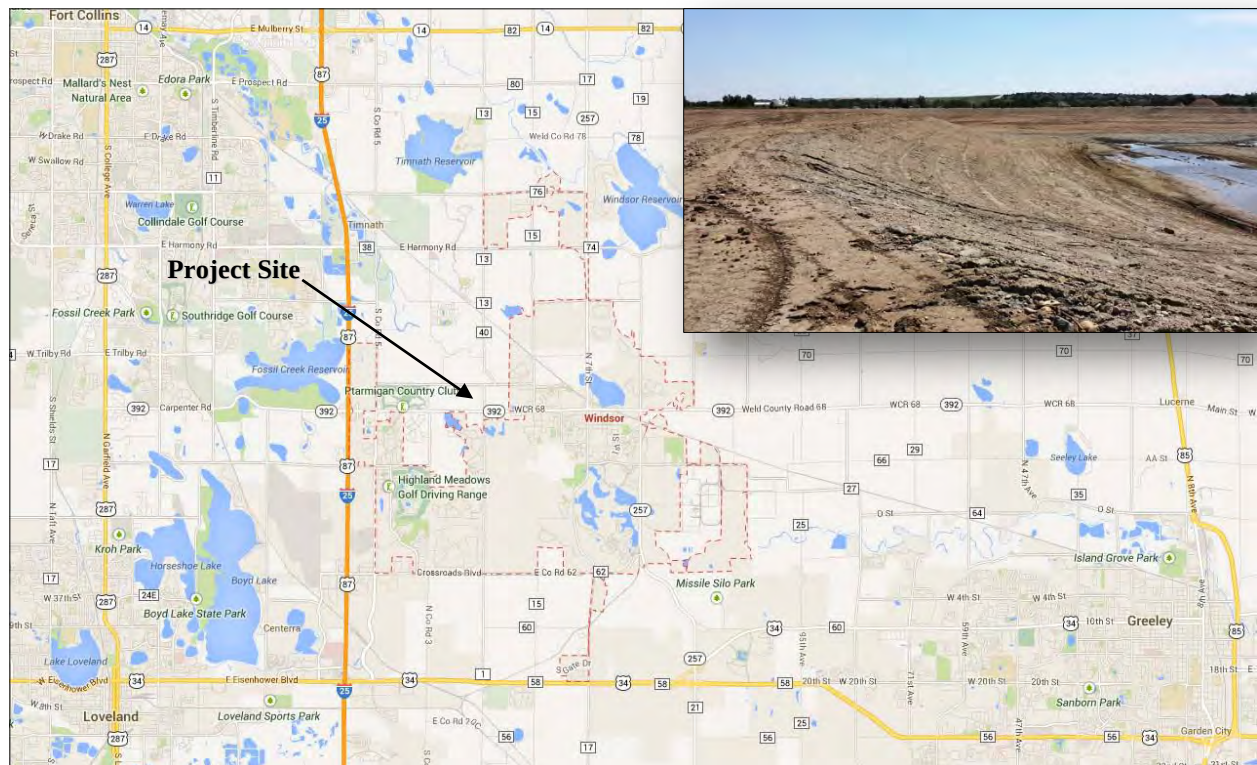


CWCB Water Project Loan Program Project Data Sheet

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.



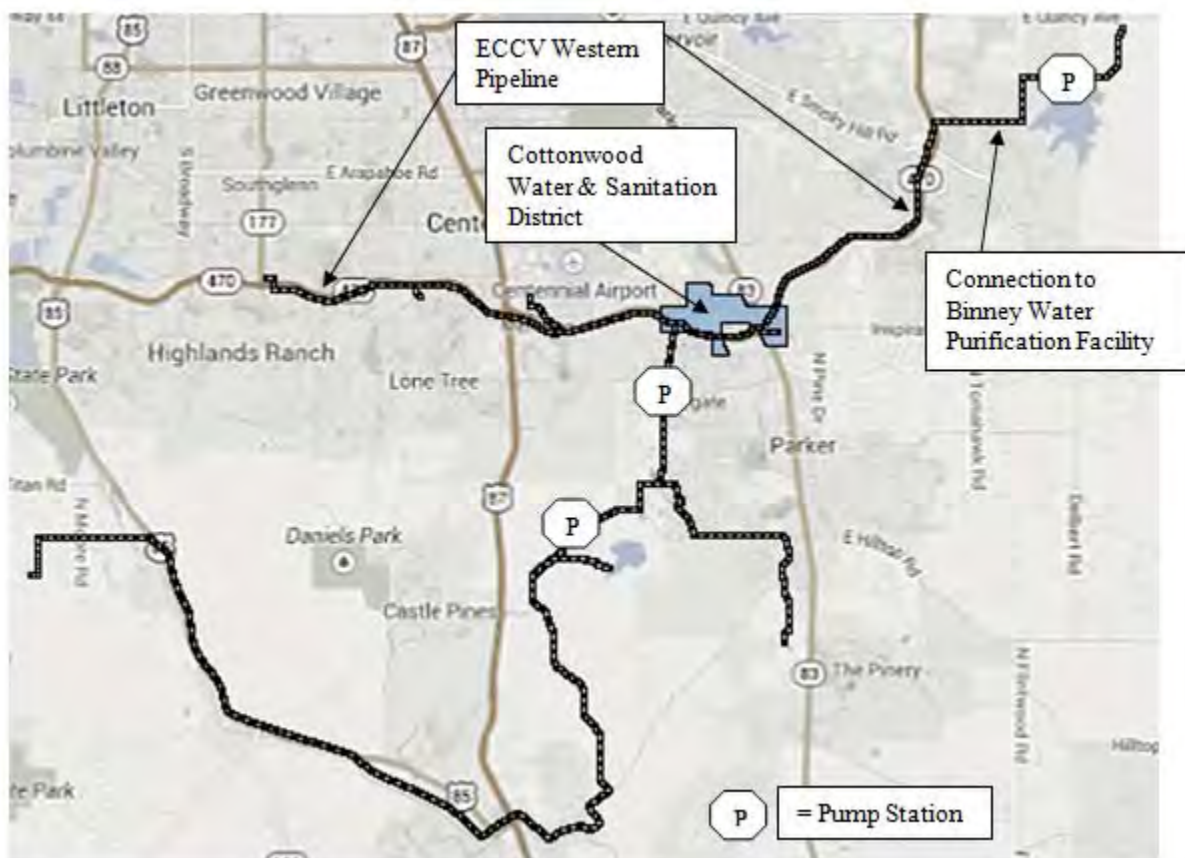
**CWCB Water Project Loan Program
Project Data Sheet**

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.



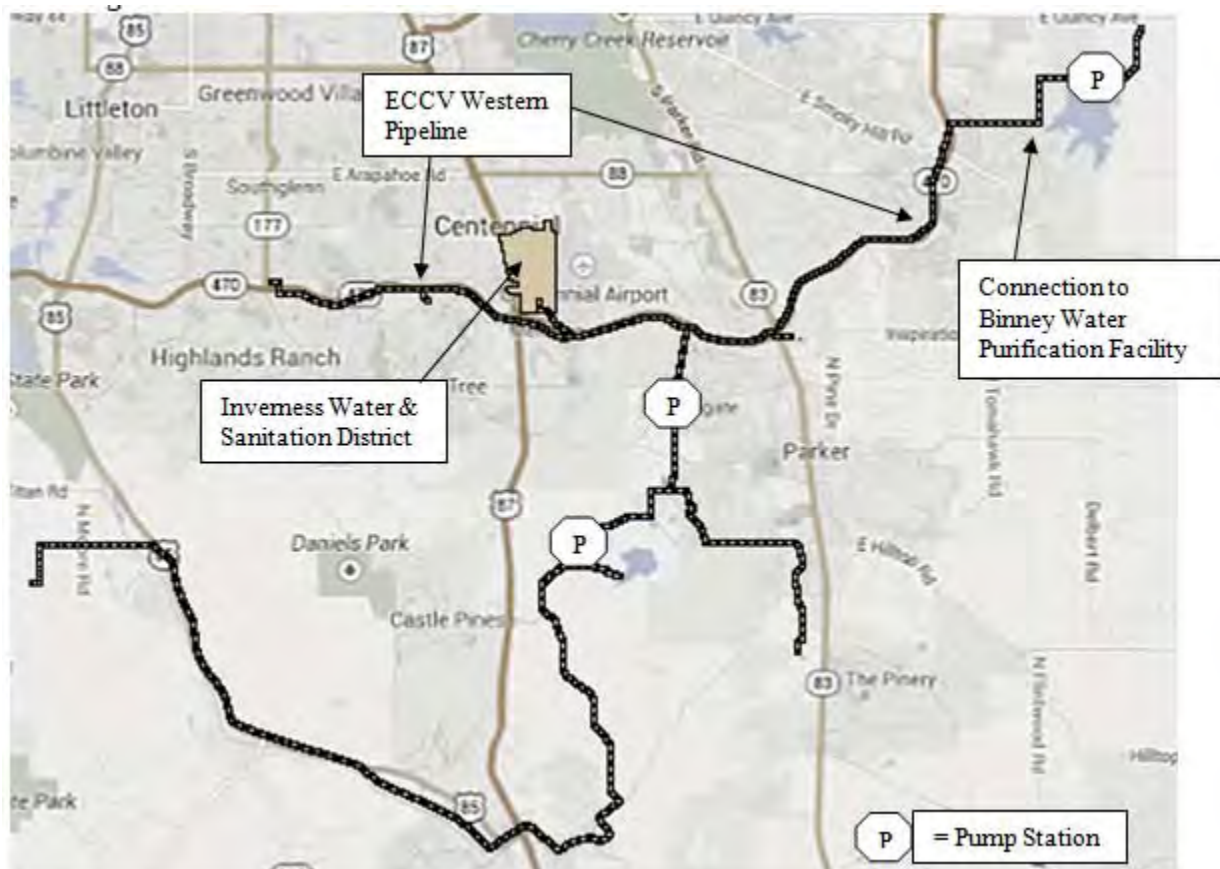
**CWCB Water Project Loan Program
Project Data Sheet**

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**

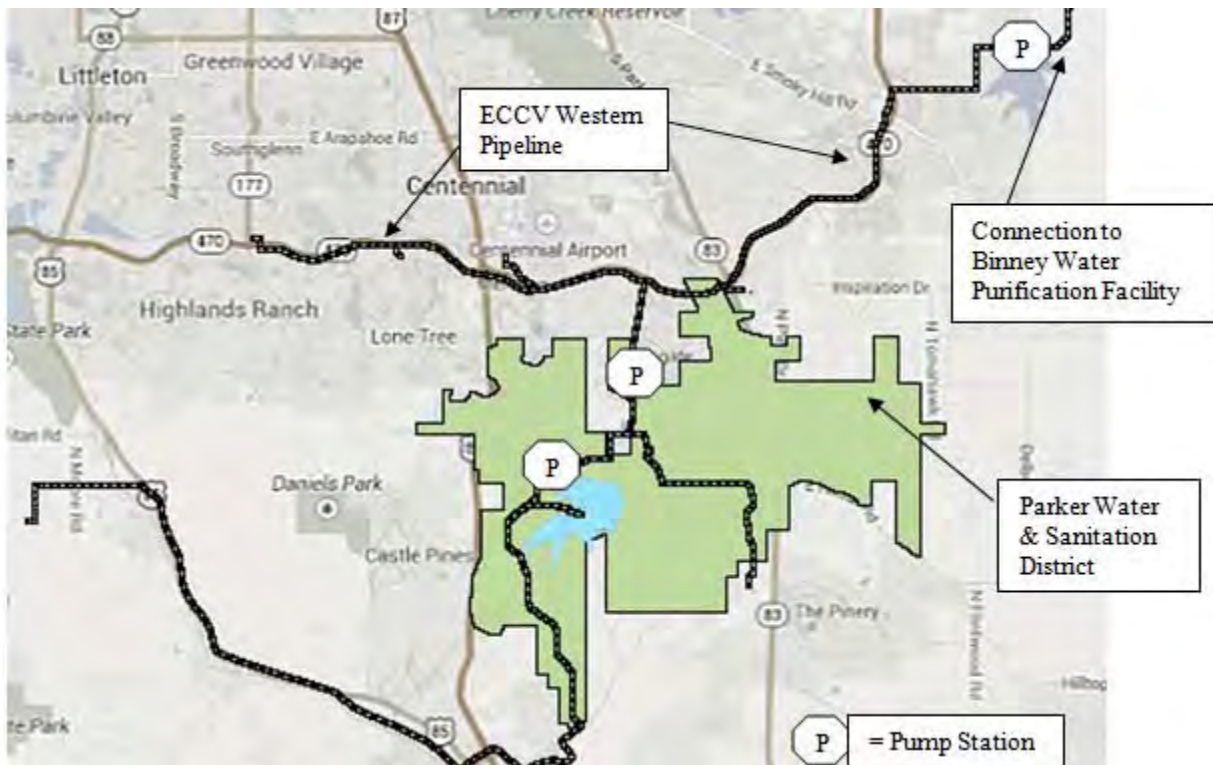
C150410

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**

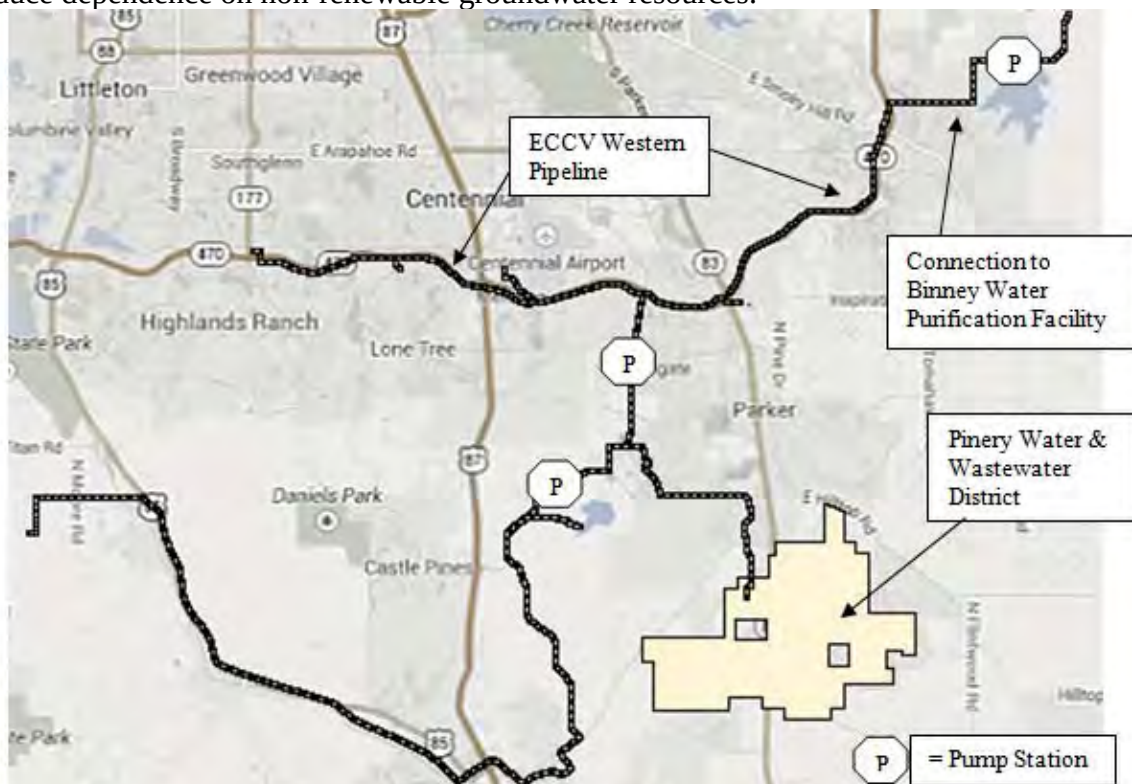
C150411

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 Reuter-Hess Reservoir. At the Parker Water Treatment Plant site a new 16.5 million gallons per day pumping station will be constructed. Downstream of the pumping station 9,000 feet of new 24-inch pipe will be constructed that will allow WISE water to be conveyed to Reuter-Hess Reservoir for storage. In addition, Pinery will construct about 6,200 feet of 12-inch pipeline to deliver water to an existing finished water distribution system pumping station.

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



Projects Not Under Contract



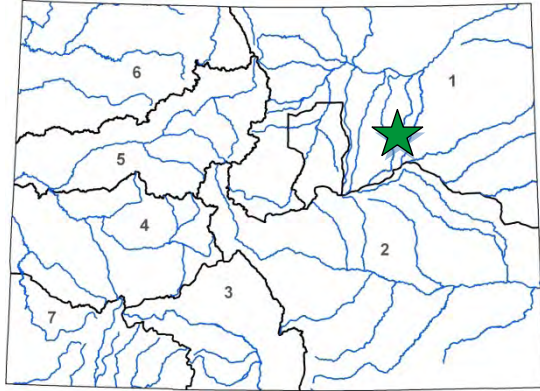
COLORADO
Colorado Water
Conservation Board
Department of Natural Resources

Wells #3 and #6 Replacement Project

Town of Bennett

November 2014 Board Meeting

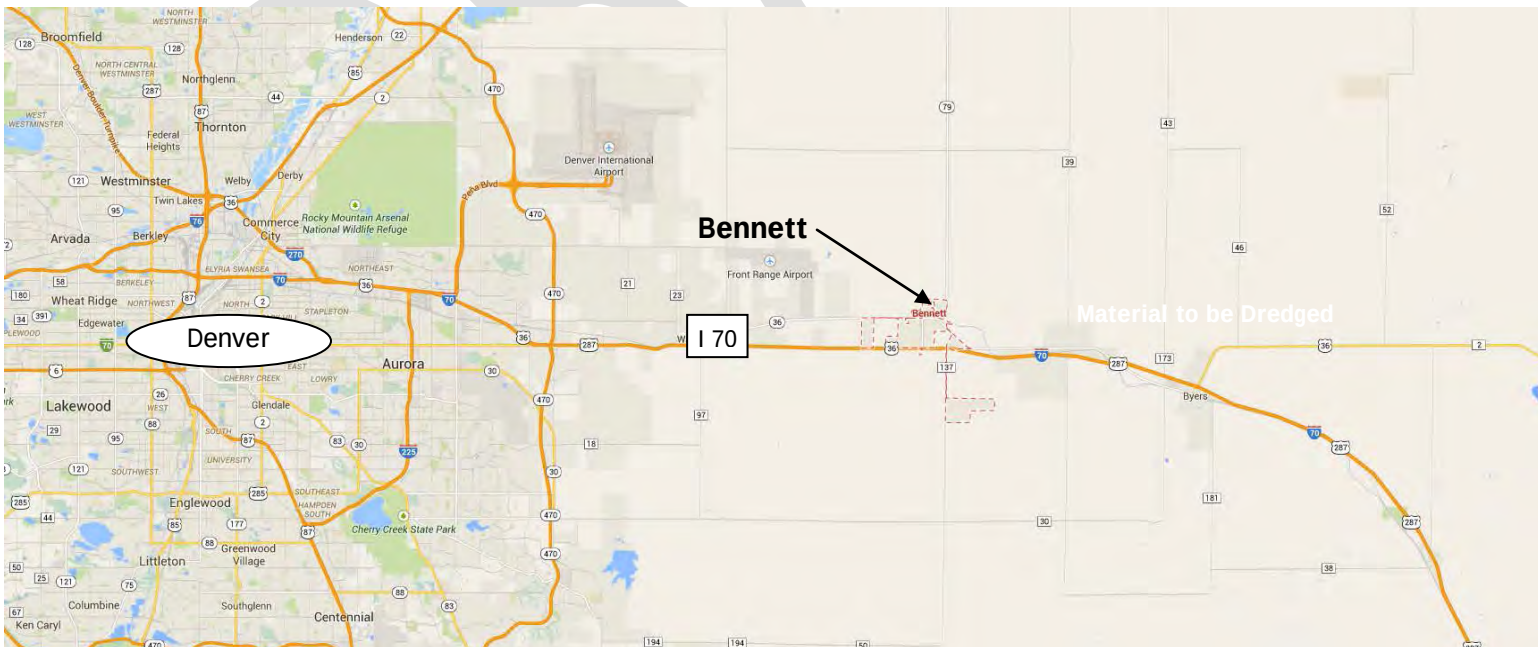
L O A N D E T A I L S	
Project Cost:	\$1,600,000
CWCB Loan (with Service Fee):	\$1,454,400
Loan Term and Interest Rate:	30 Years @ 3.25%
Funding Source:	TBD
B O R R O W E R T Y P E	
Agriculture	Municipal Commercial
0%	0% Low - 100% Mid - 0% High 0%
P R O J E C T D E T A I L S	
Project Type:	Well Drilling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



L O C A T I O N	
County:	Adams & Arapahoe
Water Source:	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 nine 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. The construction schedule is to be determined.

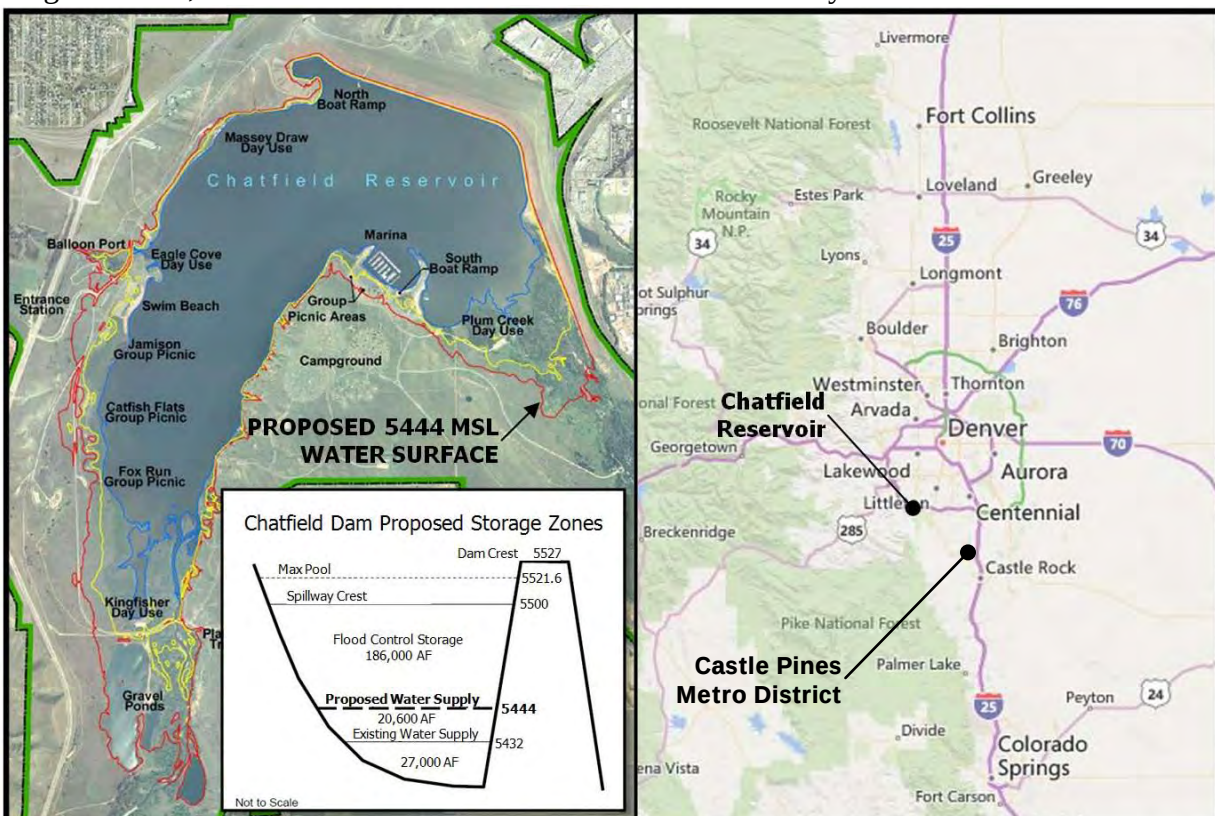


**CWCB Water Project Loan Program
Project Data Sheet**

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

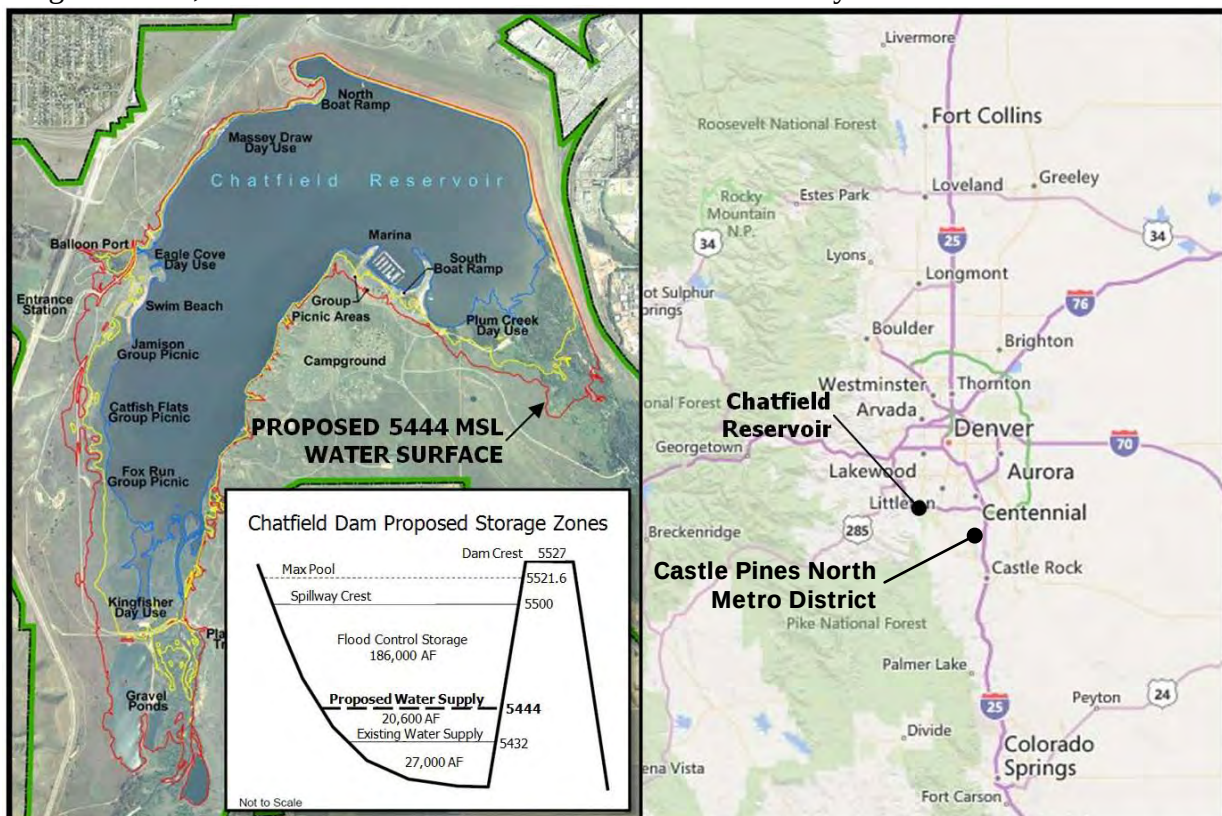
Added Water Supply Storage: 1005.8 AF

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

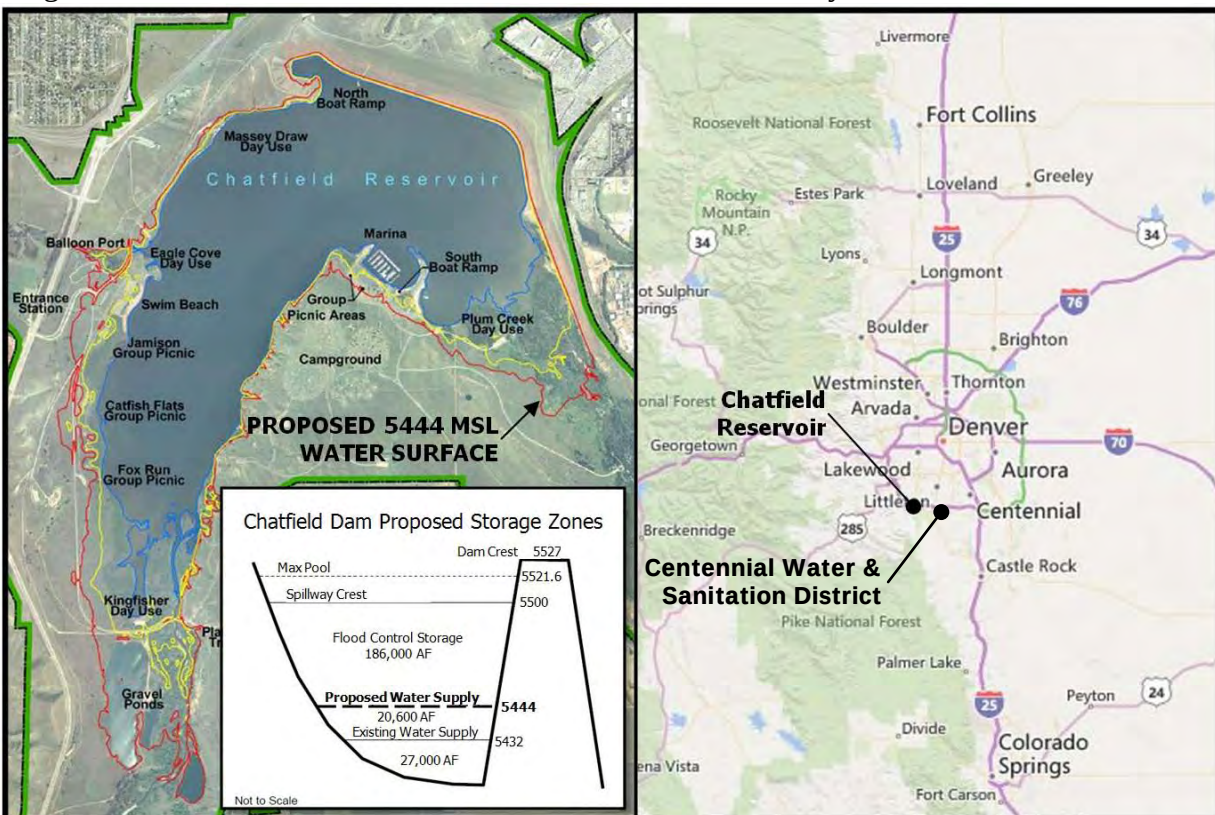
Average Annual Delivery: 17,500 AF

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

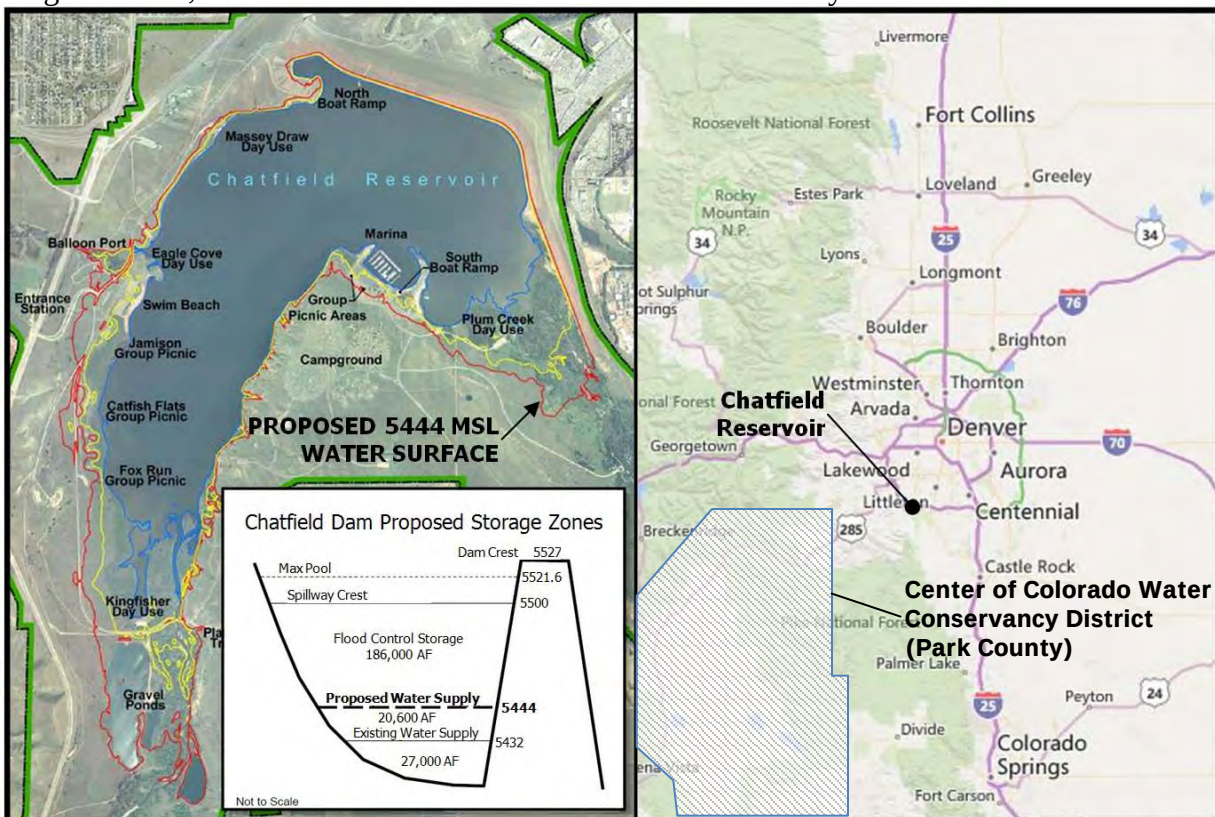
Average Annual Diversion: 700 AF

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

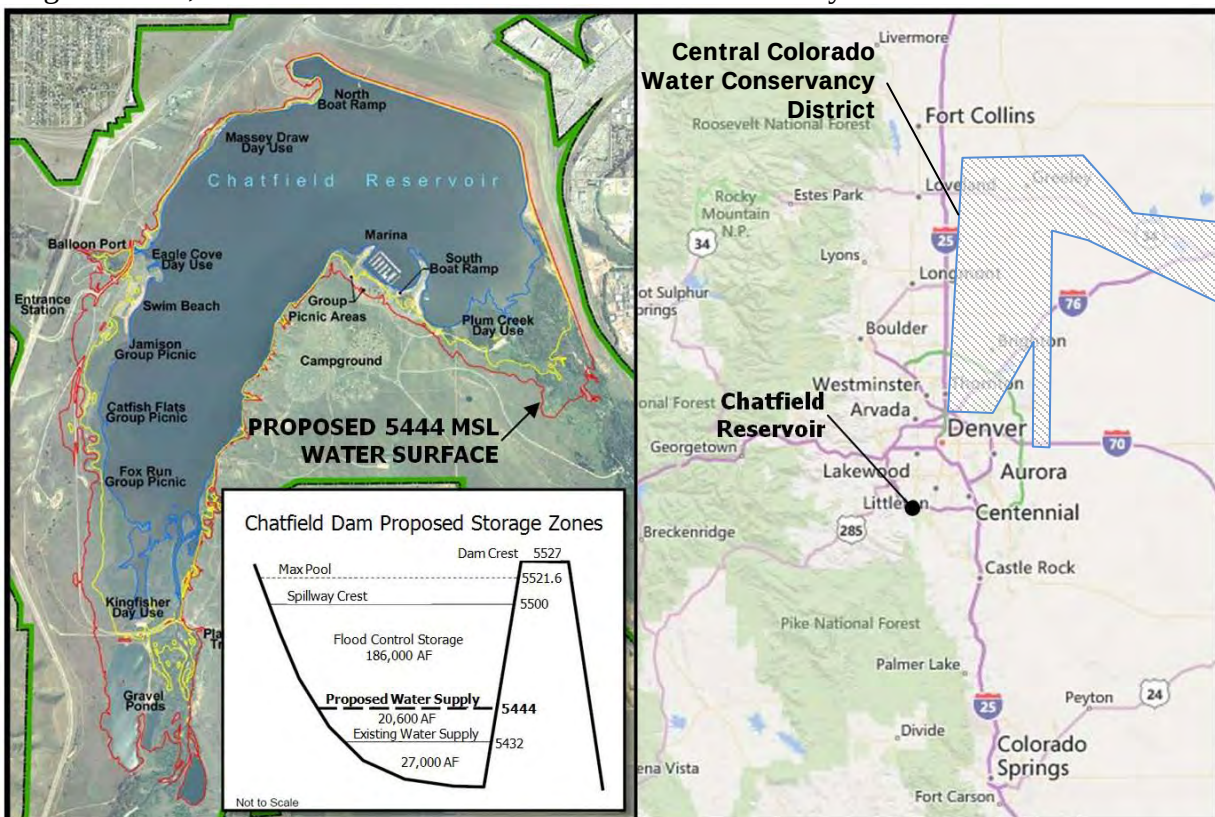
Type of Borrower: Agricultural

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.

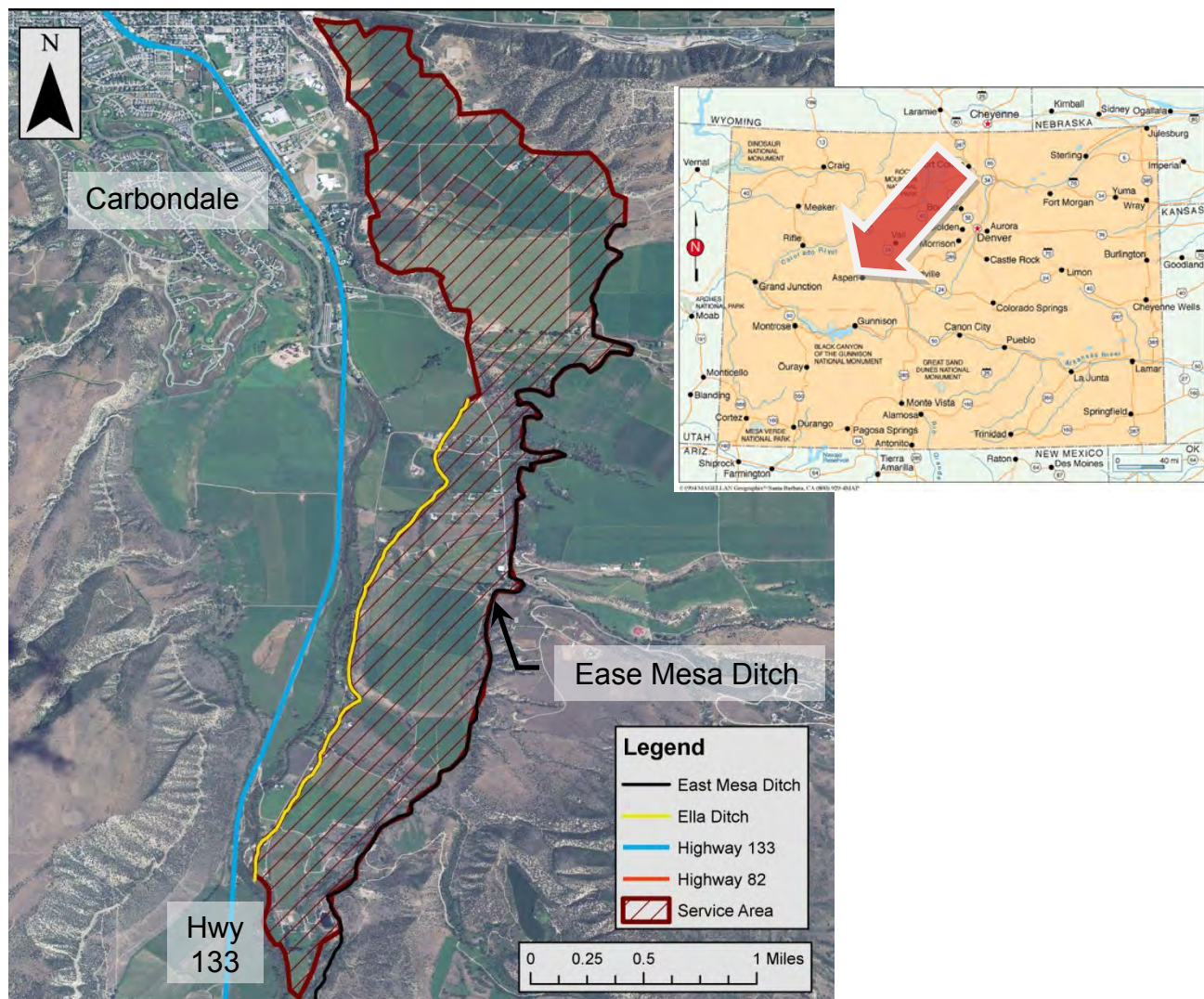
The US Army Corps of Engineers issued the Project's Feasibility Report and Environmental Impact Statement (FR/EIS) in July 2013 and a Record of Decision is expected in 2014. The Selected Alternative recommended in the Final FR/EIS will provide 20,600 acre-feet of storage in Chatfield between the elevations 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.



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.



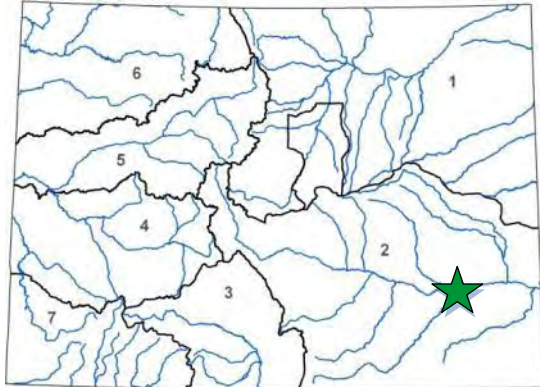


COLORADO
Colorado Water
Conservation Board
Department of Natural Resources

Repair & Replacement of the Las Animas Consolidated Canal Spillway Structure

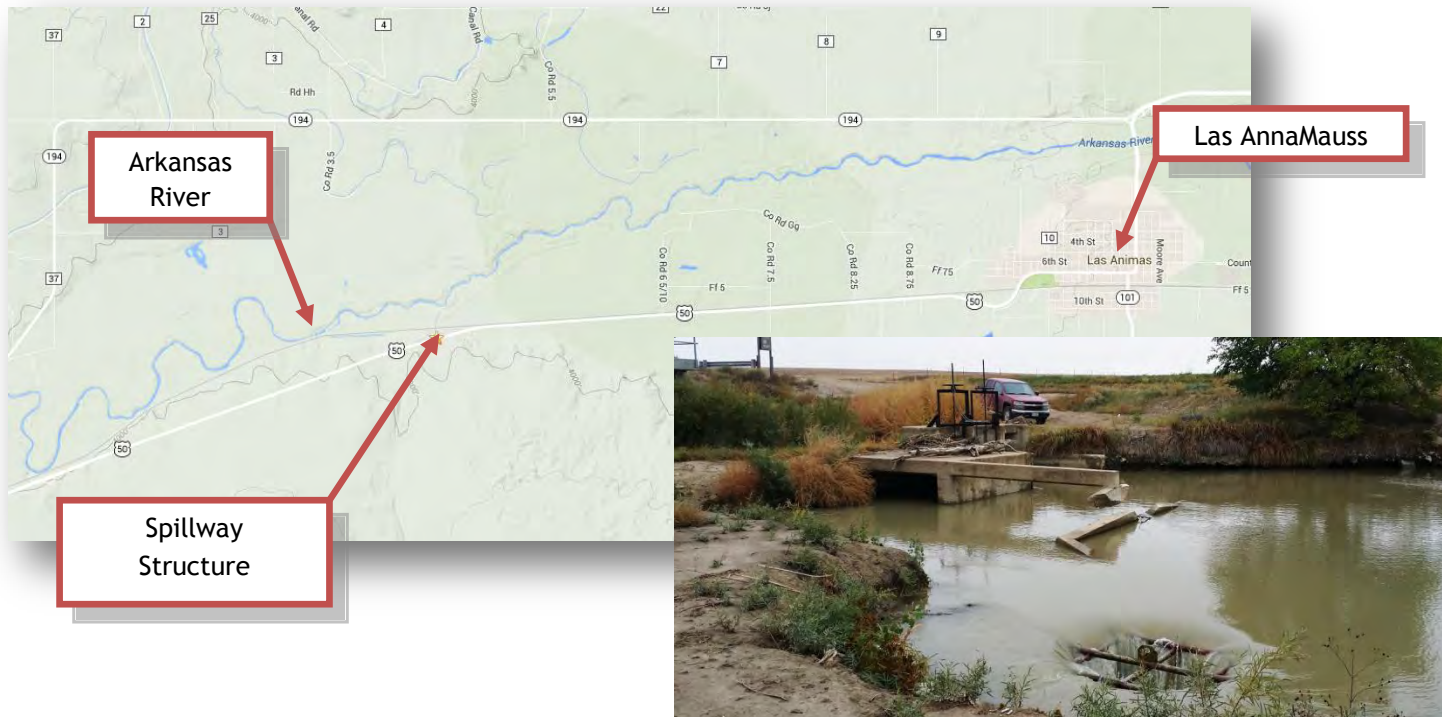
Las Animas Consolidated Canal Company
November 2014 Board Meeting

L O A N D E T A I L S	
Project Cost:	\$ 400,200
CWCB Loan (with Service Fee):	\$ 363,782
Loan Term and Interest Rate:	30 Years @ 5.05%
Funding Source:	
B O R R O W E R T Y P E	
Agriculture	Municipal
23%	0%
	Commercial
	77%
P R O J E C T D E T A I L S	
Project Type:	Spillway Structure Replacement
Average Annual Diversion:	26,000 AF



L O C A T I O N	
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.





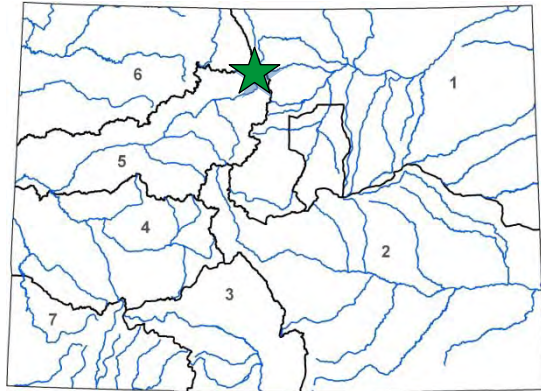
COLORADO
Colorado Water
Conservation Board
Department of Natural Resources

Granby Hydropower Project

Northern Colorado Water Conservancy District

November 2014 Board Meeting

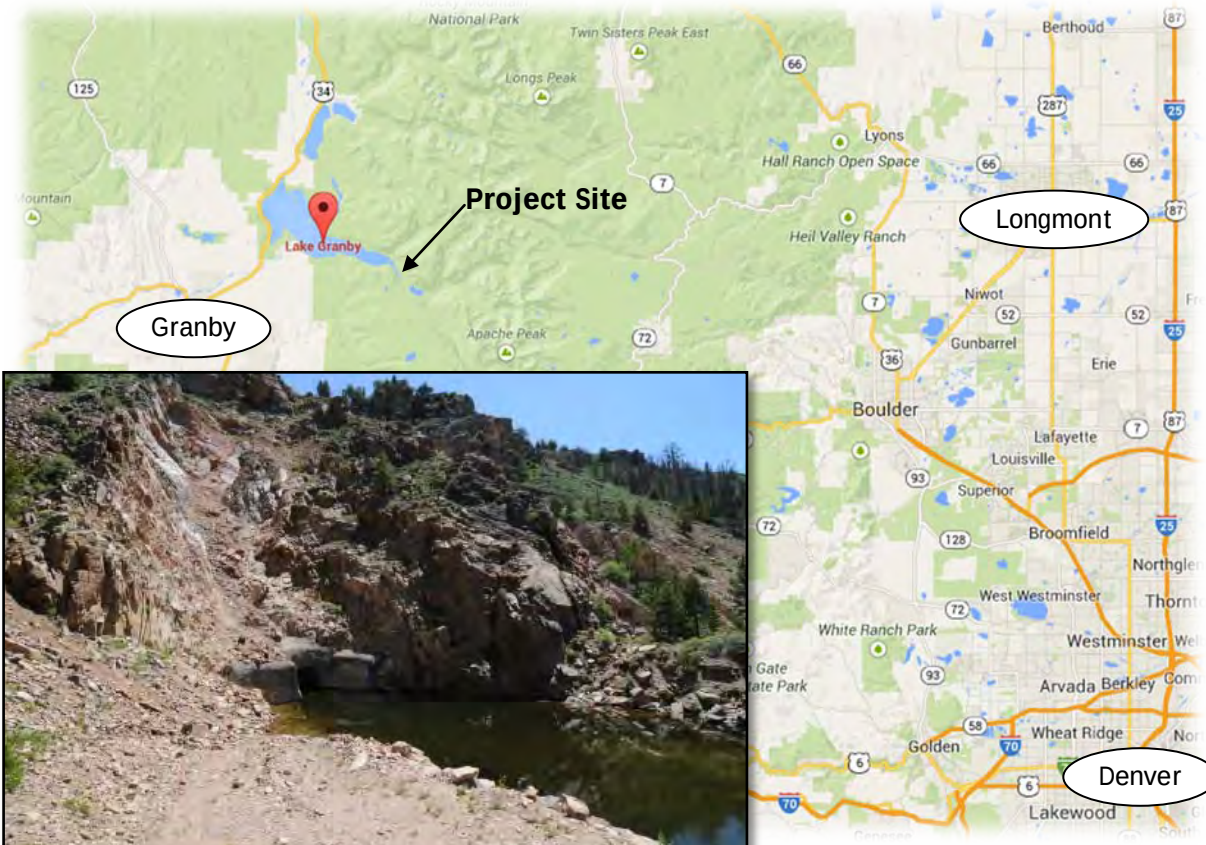
L O A N D E T A I L S	
Project Cost:	\$5,669,340
CWCB Loan (with Service Fee):	\$5,135,183
Loan Term and Interest Rate:	30 Years @ 2.0 %
Funding Source:	Severance Tax Perpetual Base Fund
B O R R O W E R T Y P E	
Hydropower	
P R O J E C T D E T A I L S	
Project Type:	Hydroelectric
Average Annual Power Production:	4.9M KWh



L O C A T I O N	
County:	Grand
Water Source:	Colorado River
Drainage Basin:	Colorado
Division:	5 District: 51

Northern Water Hydropower Water Activity Enterprise a government-business owned by the Northern Colorado Water Conservancy District is applying for a loan for the construction of the Granby Hydropower Project. The Project is located at the existing Colorado - Big Thompson Project Granby Dam and will utilize the existing releases to the Colorado River without changing the flow regime.

The hydro station will use the minimum streamflow obligations and a portion of additional releases to generate power through a 1.2-megawatt facility. The Project is being performed under the U.S. Bureau of Reclamation's Lease of Power Privilege (LOPP) process. Power generated will be purchased by Mountain Parks Electric, Inc. per a 30-year Power Purchase Agreement (PPA). The anticipated Project schedule is to finalize the LOPP and PPA by end of 2014. Construction will occur in the summer/fall of 2015 and is expected to be operational by the summer of 2016.



Lake Granby Tunnel Outlet

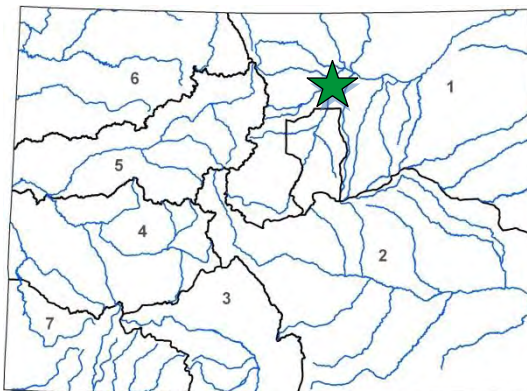


COLORADO
Colorado Water
Conservation Board
Department of Natural Resources

Sand Hill Lake Outlet Works Rehabilitation

Platte Valley Irrigation Company
November 2014 Board Meeting

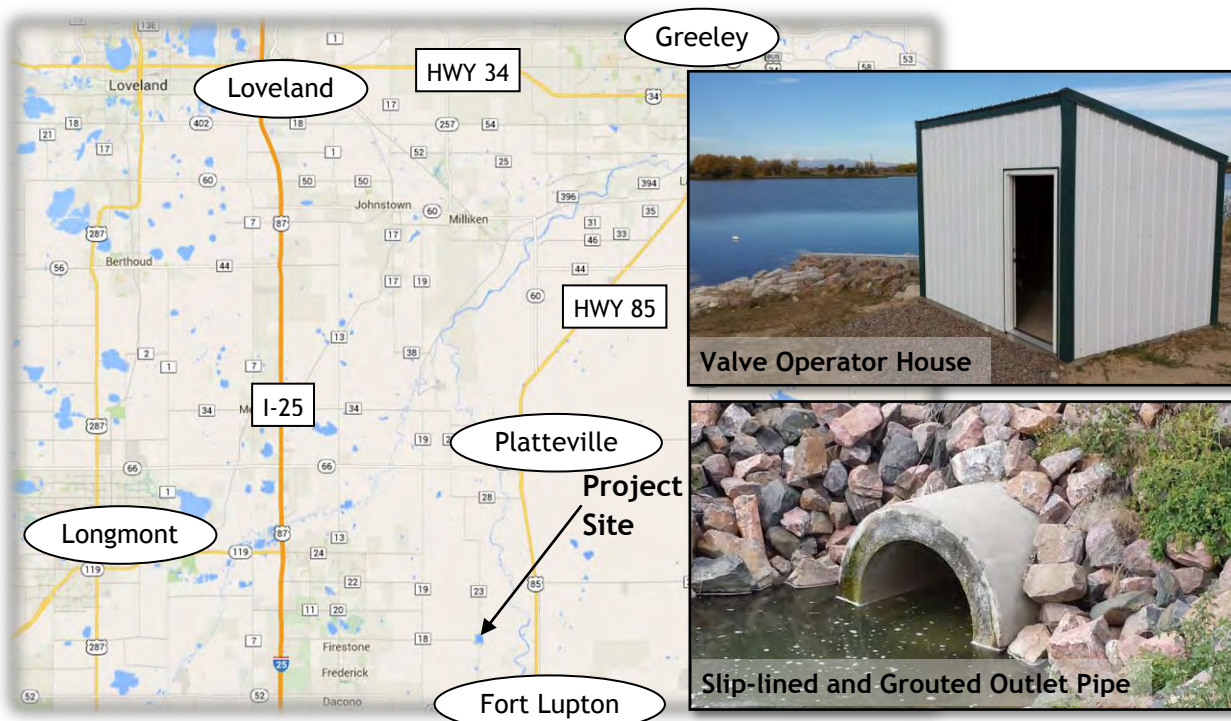
L O A N D E T A I L S	
Project Cost:	\$820,000
CWCB Loan (with Service Fee):	\$745,380
Loan Term and Interest Rate:	30 Years @ 2.0%
Funding Source:	Severance Tax Perpetual Base Fund
B O R R O W E R T Y P E	
Agriculture	Municipal Commercial
100%	0% Low - 0% Mid - 0% High 0%
P R O J E C T D E T A I L S	
Project Type:	Reservoir Rehabilitation
Average Annual Diversion:	27,900 AF
Restored Water Supply Storage:	400 AF



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

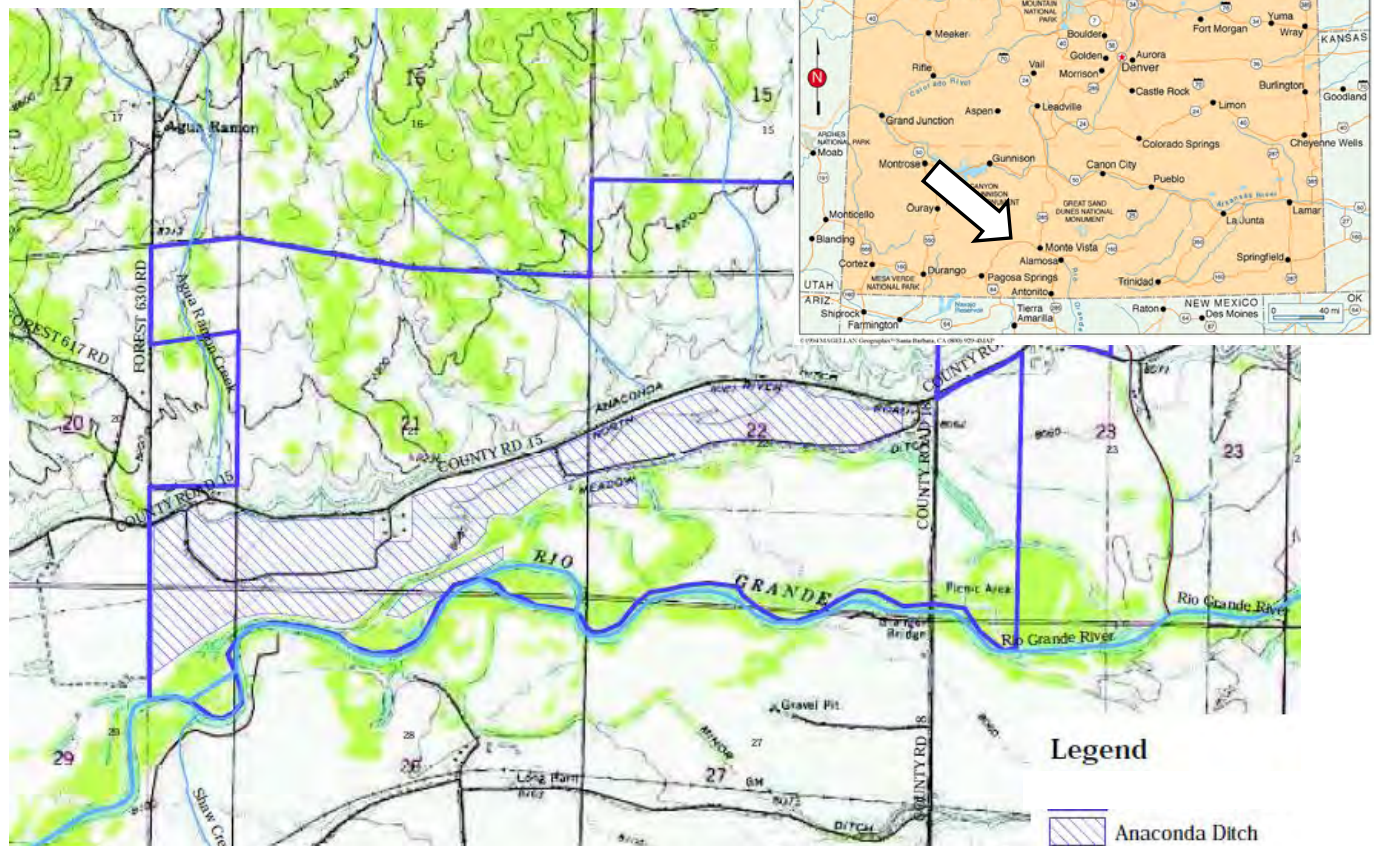
The Platte Valley Irrigation Company provides raw water for the irrigation of approximately 14,800 acres of agricultural land extending from Platteville to approximately 28 miles east along Highway 85.

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.



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

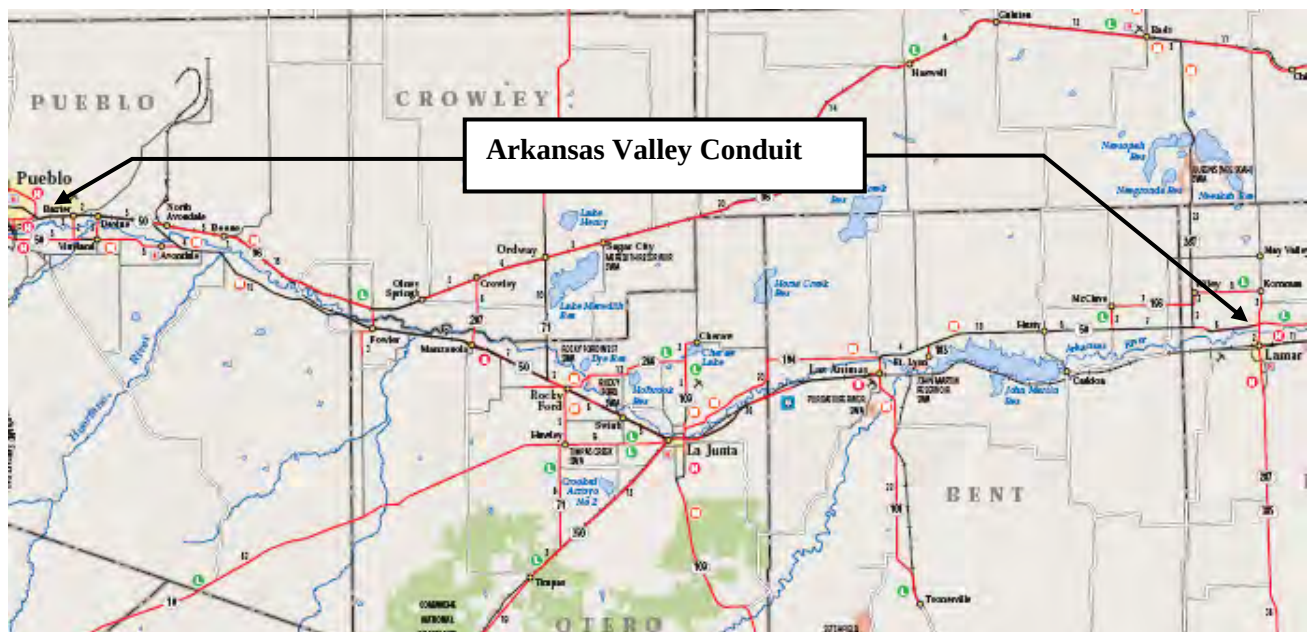
The San Luis Valley Water Conservancy District (District) operates an augmentation program servicing portions of Rio Grande, Alamosa, Saguache, Hinsdale and Mineral Counties. The augmentation program was developed to offset river depletions from wells serving residential and commercial uses in the area. 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

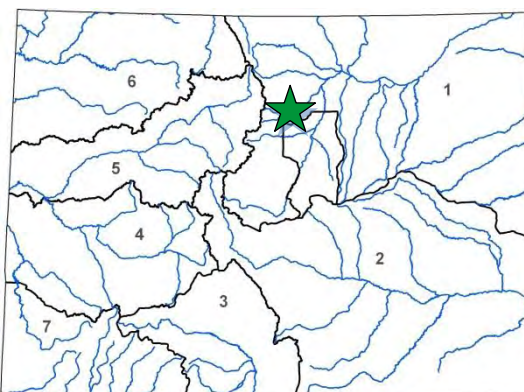


COLORADO
Colorado Water
Conservation Board
Department of Natural Resources

Emergency Supply Irrigating Ditch Repair Project

Supply Irrigating Ditch Company
November 2014 Board Meeting

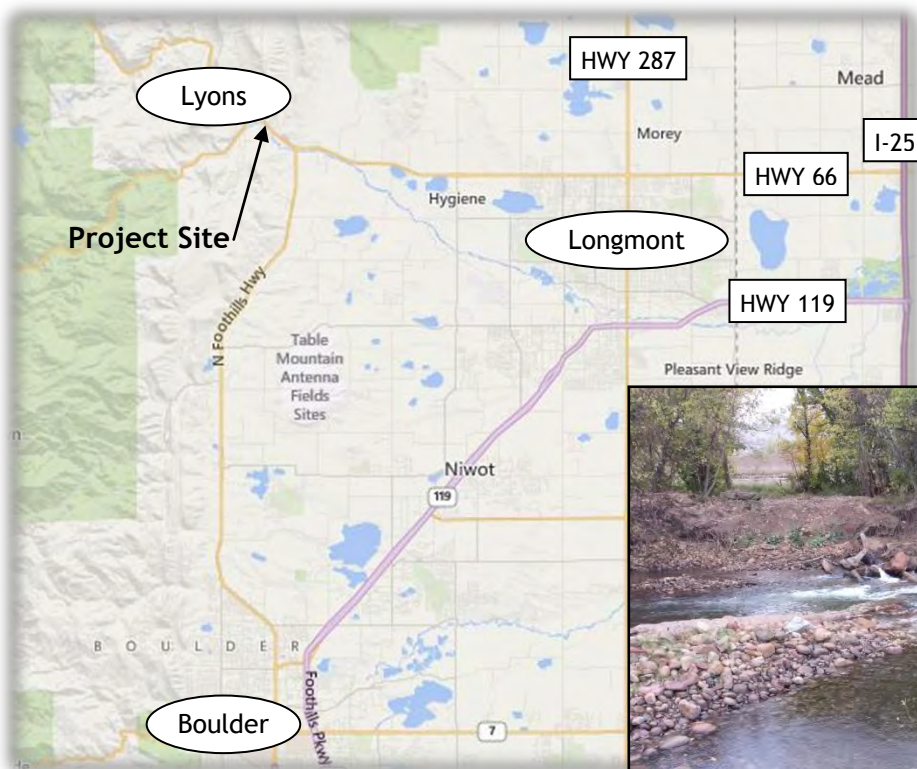
L O A N D E T A I L S	
Project Cost:	\$321,000
CWCB Loan (with Service Fee):	\$324,210
Loan Term and Interest Rate:	27 Years @ 2.25%
Funding Source:	Severance Tax Perpetual Base Fund
B O R R O W E R T Y P E	
Agriculture	Municipal Commercial
86%	0% Low - 5% Mid - 7% High 2%
P R O J E C T D E T A I L S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



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

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

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





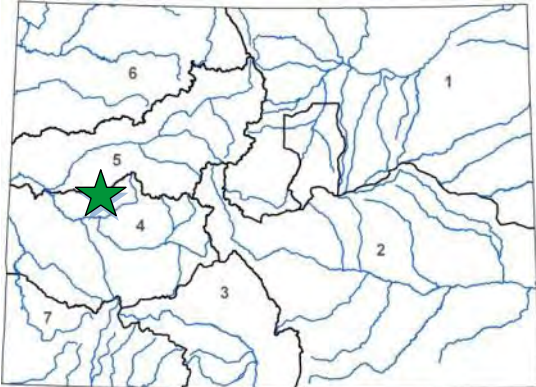
COLORADO
Colorado Water
Conservation Board
Department of Natural Resources

West Reservoir And Ditch Outlet Repair Project

West Reservoir and Ditch Company

November 2014 Board Meeting

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



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

The West Reservoir and Ditch Company operates West Reservoir No. 1, providing water seven miles eastward via Wakefield Ditch to Wakefield Mesa. The water is available for livestock as it traverses east Oak Mesa, and irrigates approximately 600 acres of hay and pasture. The current landowners use the Oak Mesa Reservoir and Ditch water for spring irrigation, and, when those flows are exhausted, use the West Reservoir flows for mid-summer to fall irrigation. The West Reservoir was improved in the early 1950s, but is now under a storage restriction order from the Office of the State Engineer due to deterioration of the outlet pipe. This project will include a low-level outlet sized to meet SEO release requirements, an outlet stilling basin structure downstream of the dam for energy dissipation, and an intake structure for a manually-operated slide gate and trash racks. Construction is scheduled for Spring of 2015.

West Reservoir
No. 1



**WATER PROJECT CONSTRUCTION LOAN PROGRAM
LOAN REPAYMENT DELINQUENCY REPORT
LOAN FINANCIAL ACTIVITY REPORT
JANUARY 2015**

LOAN REPAYMENT DELINQUENCY

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

Repayments due for the first six months of Fiscal Year 2015 totaled 141. There were three 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 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 \$17.3 M for this year. Funds disbursed relative to new project loans totaled \$33.9 M for this year. Net activity resulted in \$16.6 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 \$5.2 M in receivables and \$30.4 M in disbursements for a total net activity of \$25.2 M disbursed over received. The STPBF consists of \$12.1 M in receivables and \$3.5 M in disbursements for a total net activity of \$8.6 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	\$ 22,821,166	\$ (22,216,194)
December 2014	\$ 447,297	\$ 439,188	\$ 886,485	\$ 258,605	\$ 627,880
January 2015	\$ -	\$ -	\$ -	\$ -	\$ -
February 2015	\$ -	\$ -	\$ -	\$ -	\$ -
March 2015	\$ -	\$ -	\$ -	\$ -	\$ -
April 2015	\$ -	\$ -	\$ -	\$ -	\$ -
May 2015	\$ -	\$ -	\$ -	\$ -	\$ -
June 2015	\$ -	\$ -	\$ -	\$ -	\$ -
FY 2015 Totals	\$ 2,218,413	\$ 3,028,116	\$ 5,246,529	\$ 30,475,454	\$ (25,228,924)

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	\$ -	\$ -	\$ -	\$ -	\$ -
February 2015	\$ -	\$ -	\$ -	\$ -	\$ -
March 2015	\$ -	\$ -	\$ -	\$ -	\$ -
April 2015	\$ -	\$ -	\$ -	\$ -	\$ -
May 2015	\$ -	\$ -	\$ -	\$ -	\$ -
June 2015	\$ -	\$ -	\$ -	\$ -	\$ -
FY 2015 Totals	\$ 9,859,527	\$ 2,210,161	\$ 12,069,688	\$ 3,452,077	\$ 8,617,611
GRAND TOTALS	\$ 12,077,940	\$ 5,238,278	\$ 17,316,218	\$ 33,927,531	\$ (16,611,313)



THE SECRETARY OF THE INTERIOR
WASHINGTON

MEMORANDUM

To: Members and Alternates
Glen Canyon Dam Adaptive Management Work Group

From: Secretary *Sally Jewell* JAN 05 2015

Subject: Secretarial Designee – Glen Canyon Dam Adaptive Management Work Group

The Grand Canyon is one of the Nation's – and the world's – treasures. Glen Canyon Dam is a critical Federal facility on the Colorado River, and its operation is necessary for the orderly and efficient management of the Colorado River. Balancing the needs of Grand Canyon protection with the purposes and benefits of Glen Canyon Dam is a challenging and important priority for the Department of the Interior (Department). I believe that it is essential that the Department continues to have timely, constructive input and recommendations on our management activities related to the operation of Glen Canyon Dam and the Grand Canyon. I value the hard work and consensus-building function of the Glen Canyon Adaptive Management Work Group (AMWG).

Ms. Anne Castle served as the Secretary's designee to the AMWG for over 5 years. With Anne's recent retirement from Federal service, I appreciate the effective job that she did and the intensity and drive she carried with her in meeting the Work Group's goals as my AMWG designee.

With Anne's departure, I have asked Ms. Jennifer Gimbel to succeed Anne as my designee to the AMWG. Jennifer is uniquely qualified to serve in this position. Jennifer formerly served as the Director of the Colorado Water Conservation Board. She worked on Colorado River issues for nearly 30 years. Ms. Gimbel first worked for the Wyoming Attorney General and then for the Colorado Attorney General on water, natural resource, and environmental issues. She has been involved with the AMWG since 2008.

The AMWG is a Federal Advisory Committee established to advise me of the effects of Glen Canyon Dam operations and other management actions. Pursuant to the charter that I approved on August 22, 2013 and filed with the General Services Administration and Congress on August 23, 2013, effective immediately, I hereby appoint Ms. Jennifer Gimbel as the Designated Federal Officer and my designee for the AMWG, as provided in the Federal Advisory Committee Act (Sec. 10, Pub. L. 92-463), replacing former Assistant Secretary Anne Castle. In particular, as the Department's "designee" on the AMWG, Ms. Gimbel will be responsible for timely dissemination and consideration by the Department of formal recommendations and other related input from the AMWG. Ms. Gimbel will also serve as the primary spokesperson to convey my decisions and views, as appropriate, to the AMWG.

In addition, in light of the recent retirement of Mr. Larry Walkoviak, effective immediately, I hereby designate the Regional Director (or Acting Regional Director) to serve as the Department's Permanent Alternate Designated Federal Officer for the AMWG. In the absence of, or as directed by, Ms. Gimbel, the Regional Director is hereby authorized to carry out all duties and responsibilities of the Designated Federal Officer.

The responsibilities of the Designated Federal Officer and the Department's Permanent Alternate include:

- orienting new committee members;
- scheduling meetings, preparing meeting agendas;
- ensuring public participation;
- attending all meetings of the AMWG, chairing the meetings, and adjourning the meetings when it is in the public interest;
- maintaining the records, reports, transcripts, minutes, appendices, working papers, drafts, studies, agendas, or other documents which are made available for public inspection and copying as a single location in the agency until the advisory Committee ceases to exist;
- maintaining detailed minutes; and
- maintaining records of costs.

It is my intention that the daily responsibilities for carrying out the primary administrative and routine functions identified above will continue to be carried out by the Upper Colorado Regional Office of the Bureau of Reclamation.

RESOLUTION
of the
UPPER COLORADO RIVER COMMISSION
December 10, 2014

Regarding Development of an Emergency Upper Basin Drought Contingency Plan

WHEREAS, the Upper Colorado River Commission (Commission) was created by the Upper Colorado River Basin Compact (Compact) between the States of Arizona, Colorado, New Mexico, Utah and Wyoming on October 11, 1948, and consented to by Congress by the Act of April 6, 1949 (63 Stat. 31, Chapter 48);

WHEREAS, Article VIII of the Compact empowers the Commission to perform certain functions including, but not limited to:

- i. Engaging in cooperative studies of water supplies of the Colorado River and its tributaries;
- ii. Collecting, analyzing, correlating, preserving and reporting on data as to the stream flows, storage, and diversion of water from the Colorado River and its tributaries;
- iii. Making findings as to the quantity of water of the Upper Colorado River System used each year in the Upper Colorado River Basin and in each Upper Basin State;
- iv. Making findings on the quantity of water deliveries at Lee Ferry during each water year;
- v. Making findings as to the necessity for and the extent of the curtailment of use required, if any; and
- vi. Performing all functions required by the Compact and doing all things necessary, proper and convenient in the performance of its duties either independently or in cooperation with any state or federal agency;

WHEREAS, the Colorado River Storage Project Act (CRSP Act) and the Colorado River Basin Project Act authorized the Secretary of the Interior to construct and operate initial units consisting of Glen Canyon, Flaming Gorge, Curecanti (Aspinall), and Navajo, to, among other things, allow Colorado, New Mexico, Utah and Wyoming (collectively, the "Upper Division states") to utilize their share of the Colorado River and meet their obligations at Lee Ferry under the Colorado River Compact;

WHEREAS, Lake Powell serves as the primary storage facility for the Upper Division states to ensure ongoing compliance with the Colorado River Compact without curtailment of annual consumptive uses in the Upper Basin;

WHEREAS, the period 2000 to 2014 constituted the most severe 15 year drought in the long history of recordkeeping for the Colorado River Basin, leading to marked fluctuations in water elevations and low storage at Lake Powell and contributing to sustained decreases in water elevations and storage at Lake Mead;

WHEREAS, the seven (7) Colorado River Basin states met with the Secretary of the Interior in June 2013 to discuss the status of the Colorado River reservoir system and initiate a process for investigating mitigation actions that might be taken in response to drought;

WHEREAS, the Upper Division states, through the Commission, have been working in parallel with the Lower Division states (Arizona, California, and Nevada) and in conjunction with the Department of the Interior to explore, develop and implement drought contingency options to avoid reaching critical reservoir elevations at either Lake Powell or Lake Mead;

WHEREAS, hydropower generated from Lake Powell provides stability for the Western Power Interconnection and funding for operation and maintenance of the primary CRSP Act units and for environmental and development programs throughout the Upper Basin;

WHEREAS, if water elevations at Lake Powell reach minimum power pool levels, water supply and development for consumptive and non-consumptive uses in the Upper Basin and power supply options for the Western Area Power grid could be compromised; and

WHEREAS, the Commission desires to be prepared to mitigate the adverse effects of severe drought in the event that such extreme conditions continue to persist into the future.

NOW, THEREFORE, BE IT RESOLVED that, considering the recitals outlined above, the Commission intends to work expeditiously in tandem with the Lower Division states and the Department of the Interior to develop an Emergency Upper Basin Drought Contingency Plan for purposes of prudent water management consistent with the Colorado River and Upper Colorado River Basin Compacts;

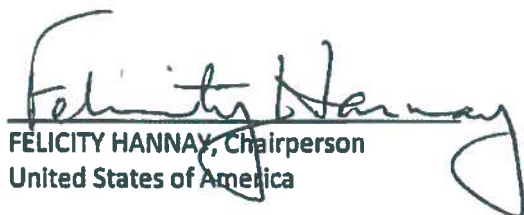
BE IT FURTHER RESOLVED that as part of the Emergency Upper Basin Drought Contingency Planning process, the Commission commits to:

- i. Employ best efforts to expand both the geographical and temporal extent of weather modification programs within the Upper Division states to help boost snow accumulation and system water in the Upper Colorado River Basin. In furtherance of this effort, Colorado, Wyoming and Utah have and will continue working to try to secure additional funds to continue and expand weather modification programs to enhance runoff through weather modification in appropriate areas.
- ii. Develop and finalize a uniform plan to extend and coordinate operations of the initial units authorized under the CRSP Act to:
 - a. Help avoid or mitigate Impacts from Lake Powell reaching the critical, minimum power pool elevation;
 - b. Reduce any long-term risk of impairing annual consumptive uses due to compact curtailments in the Upper Basin; and
 - c. Recover storage in the CRSP units as quickly as practicable consistent with the Colorado River and Upper Colorado River Basin Compacts as well as other applicable state and federal laws.

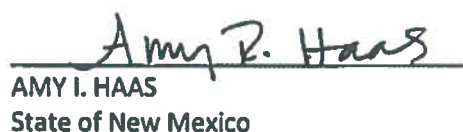
To further this effort, the Commission's engineering and legal committees will continue to work with the Federal Government and interested stakeholders to identify strategies and mechanisms for extending operations at the initial CRSP units in a manner consistent with existing technical understandings and legal constraints ; and

- iii. Explore the feasibility of developing and employing temporary, voluntary, compensated demand management program(s) within the Upper Basin in a manner that helps reduce consumptive uses, if and when needed, to protect against impacts from Lake Powell reaching critical elevations and to help ensure ongoing compliance with the Colorado River Compact without impairing the right to exercise any existing water rights in the future. To inform this investigation, the Commission will, among other things:
- Consider basin wide approaches such as the 2012 Colorado River Basin Supply and Demand Study and its Next Steps Process;
 - Support pilot programs such as those contemplated under the July 30, 2014 System Conservation Agreement; and
 - Support intrastate efforts to explore demand management mechanisms within each of the Upper Division states.

BE IT FURTHER RESOLVED that the Commission hereby directs its staff to work in an expeditious manner with the Upper Division states' respective engineering and legal advisers to finalize each element of the final Emergency Upper Basin Contingency Plan for Commission review and approval before the need for such plan to be implemented arises.


 FELICITY HANNAY, Chairperson
 United States of America


 ERIC L. MILLIS
 State of Utah


 AMY I. HAAS
 State of New Mexico


 JOHN H. McCLOW
 State of Colorado


 PATRICK T. TYRRELL
 State of Wyoming

COPY

MEMORANDUM OF UNDERSTANDING AMONG
THE UNITED STATES OF AMERICA, THROUGH THE
DEPARTMENT OF THE INTERIOR,
BUREAU OF RECLAMATION,
THE CENTRAL ARIZONA WATER CONSERVATION DISTRICT,
THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA,
THE SOUTHERN NEVADA WATER AUTHORITY,
THE ARIZONA DEPARTMENT OF WATER RESOURCES,
THE COLORADO RIVER BOARD OF CALIFORNIA
AND
THE COLORADO RIVER COMMISSION OF NEVADA
FOR PILOT DROUGHT RESPONSE ACTIONS

I. PARTICIPANTS

This Memorandum of Understanding, (hereinafter referred to as "MOU"), is made and entered into this 10th day of December 2014 ("Effective Date"), by and between the UNITED STATES OF AMERICA ("United States") represented by the Secretary of the Interior ("Secretary") acting through the Bureau of Reclamation ("Reclamation"), the CENTRAL ARIZONA WATER CONSERVATION DISTRICT, a multi-county water conservation district duly organized and existing under the laws of the State of Arizona ("CAWCD"), THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA, a regional public water district duly organized under California law ("MWD"), and the SOUTHERN NEVADA WATER AUTHORITY, a political subdivision of the State of Nevada ("SNWA", and together with CAWCD and MWD, the "Municipal Water Agencies"). The ARIZONA DEPARTMENT OF WATER RESOURCES, an agency of the State of Arizona acting pursuant to A.R.S. Section 45-107 ("ADWR"), the COLORADO RIVER BOARD OF CALIFORNIA, an agency created under California Water Code Sections 12500-12541 ("CRB"), and the COLORADO RIVER COMMISSION OF NEVADA, an agency of the State of Nevada under NRS Sections 538.041 to 538.251 ("CRCN"), are participants to this MOU for purposes of Sections II., III.E, IV, and V. Additional entities that may be of assistance in implementing drought response actions

contemplated by this MOU may be added from time to time in the manner set forth in Section IV.B.

II. RECITALS

A. WHEREAS, in December 2007, the Secretary executed the Colorado River Interim Guidelines for Lower Basin Shortages and the Coordinated Operations for Lake Powell and Lake Mead (“2007 Guidelines”) for implementing the Criteria for Coordinated Long-Range Operation of Colorado River Reservoirs Pursuant to the Colorado River Basin Project Act;

B. WHEREAS, the Colorado River System suffers from the effects of a drought that began 15 years ago, leading to substantially decreased water elevation levels in both Lakes Mead and Powell;

C. WHEREAS, Colorado River System modeling projections show increasing near-term risk that water elevations in both Lakes Mead and Powell could decline to levels that would not only trigger shortage conditions in Lake Mead operations as set forth in the 2007 Guidelines, but could also impact the ability to draw or benefit from water in the lakes, including severely impacting hydropower resources;

D. WHEREAS, in December 2012, Reclamation and the seven Colorado River Basin States completed the Colorado River Basin Water Supply and Demand Study (“Basin Study”), with the purpose of defining future imbalances in water supply and demand in the Colorado River System through the year 2060, and developing and analyzing options and strategies to resolve those imbalances. The Basin Study concludes that without further proactive actions, there may be a long-term potentially significant imbalance in future water supply and demand. Options to address these imbalances include, without limitation, augmentation of the system and increased agricultural and municipal water conservation;

E. WHEREAS, water agencies in the Colorado River Basin provide water to over 30 million residents in the United States, meeting basic human needs and sustaining vital economic functions regionally and nationally. Based on their many shared interests, the Municipal Water Agencies and other agencies within the Colorado River Basin have worked together for over 20 years on initiatives to develop water supplies, manage demand through conservation, and operate facilities to use Colorado River System water for the benefit of multiple interests;

F. WHEREAS, all CAWCD municipal customers supplied by the Central Arizona Project, including Phoenix and Tucson, have been successful in reducing per capita consumption by making significant investments in conservation, reuse, and infrastructure. The City of Phoenix has reduced water use by 35 percent since 1980, while approximately 97 percent of the City of Scottsdale's reclaimed water is reused for turf irrigation or recharge efforts. CAWCD municipal customers remain committed to expand these investments;

G. WHEREAS, in MWD's service area, southern California urban agencies have funded a wide variety of agricultural and urban conservation measures that have allowed the State of California to reduce its use of Colorado River water by 20 percent since 2002. In addition, through investments in water conservation and local supply management, including recycling, urban southern California imports less water today than it did 20 years ago, despite a significant increase in the region's population. MWD remains committed to expand these efforts;

H. WHEREAS, through significant investment in a variety of aggressive conservation measures, SNWA's annual consumptive use of water from the Colorado River decreased by nearly 100,000 acre-feet between 2002 and 2013, despite a population increase of 480,000 people over that same period. This equates to a reduction of approximately 30 percent in southern Nevada's gallons per capita per day demand. Southern Nevada currently reclaims

nearly all of its wastewater, either through Colorado River return flow credits or direct reuse. SNWA remains committed to expand these efforts;

I. WHEREAS, the Municipal Water Agencies and Reclamation provided funding for design and construction of the Warren H. Brock (Drop 2) Reservoir that saves approximately 70,000 acre-feet of water annually; provided funding for a pilot project for operation of the Yuma Desalting Plant from May 2010 to March 2011, which conserved over 30,000 acre-feet; and agreed to contribute capital for the pilot program of water infrastructure improvements in Mexico to conserve water, in exchange for 124,000 acre-feet of water;

J. WHEREAS, MWD and SNWA have used Extraordinary Conservation, Imported, and Tributary Conservation Intentionally Created Surplus (“ICS”) programs to fund conservation programs resulting in a total of more than one-half million acre-feet of conserved water stored in Lake Mead at the beginning of 2014;

K. WHEREAS, the United States acting through Reclamation, the Municipal Water Agencies, and Denver Water, separate and apart from this MOU, entered into an agreement for a Pilot Program for Funding the Creation of Colorado River System Water Through Voluntary Water Conservation and Reductions in Use dated July 30, 2014 (“System Conservation Pilot”) in an effort to examine the efficacy of basin-wide solutions to the increasing near-term risk that Lakes Powell and Mead could continue to decline. For the first time, the parties in the System Conservation Pilot committed to spending up to \$11,000,000 during the next two years to develop water for the system rather than any individual user. Reclamation and the Municipal Water Agencies recognize that measures in addition to those contemplated by the System Conservation Pilot are needed in both the short and long term;

L. WHEREAS, in addition to the actions identified above, the States of California, Arizona, and Nevada (the “Lower Division States”) and a number of water users located in those states (together with the Lower Division States, the “Lower Division States and Water Users”)

have worked cooperatively with the Secretary and Reclamation since 2013 to identify approaches and additional voluntary proactive measures that federal, state and local entities can take in a coordinated fashion to plan for and respond to drought and address long-term supply and demand sustainability in the Lower Basin;

M. WHEREAS, a fundamental component of Lower Basin drought contingency planning is voluntary development of additional quantities of water stored in Colorado River reservoirs, in particular Lake Mead, necessary to reduce the risk of Lake Mead reaching critical reservoir elevations (“Protection Volume(s)”). From those cooperative discussions, the Lower Division States and Water Users identified the goal of developing between 1.5 and 3.0 million acre-feet of Protection Volume between 2014 and 2019. Protection Volumes could be generated, for example, through new or expanded programs to create ICS (as such term is defined in the 2007 Guidelines), reductions in water use, reductions in off-stream storage of Colorado River water, or other actions that result in increased Lake Mead elevations; and

N. WHEREAS, Reclamation, the Municipal Water Agencies, ADWR, CRB, and CRCN desire pursuant to the terms of this MOU to work among the Lower Division States and Water Users to reduce the risks associated with the ongoing historic drought in the Colorado River Basin.

THEREFORE, mindful of the circumstances outlined in these Recitals, Reclamation, the Municipal Water Agencies, ADWR, CRB, and CRCN express their mutual understanding as follows:

III. PILOT DROUGHT RESPONSE ACTIONS

A. PURPOSE

Reclamation and the Municipal Water Agencies desire to take initial steps between 2014 and 2017 towards generating additional water in Lake Mead to reduce the risk of reaching

critical reservoir elevations in a manner consistent with the Law of the River including, but not limited to, the Consolidated Decree in *Arizona v. California*, 547 U.S. 150 (2006) and the 2007 Guidelines.

B. PROTECTION VOLUMES

i. Working together, Reclamation and the Municipal Water Agencies will use their best efforts to create Protection Volumes between 2014 and 2017, as set forth in more detail in this MOU. Some methods of creating Protection Volumes may already be in use, but the creation of Protection Volumes may involve expansion, additions or changes to existing methods or programs, as appropriate.

ii. SNWA will use best efforts to create 45,000 acre-feet of Protection Volume between 2014 and 2017. SNWA may use a combination of the following to create Protection Volumes: restarting Coyote Spring Valley groundwater deliveries to Lake Mead, recovery of banked groundwater in Arizona or Nevada, additional leases or purchases of Muddy or Virgin River water rights, and reductions in off-stream storage of Colorado River water.

iii. CAWCD will use best efforts to create 345,000 acre-feet of Protection Volume between 2014 and 2017. CAWCD may intentionally create system water and anticipates using creation of Extraordinary Conservation ICS to create Protection Volumes.

iv. MWD will use best efforts to create 300,000 acre-feet of Protection Volume between 2014 and 2017 for the dual purpose of providing short-term drought relief in California and reducing the likelihood of Lake Mead reaching critical reservoir elevations. MWD may fund conservation projects to create or defer delivery of ICS water to create Protection Volumes. To meet these Protection Volumes, MWD will need flexibility during low reservoir conditions.

v. Reclamation will use best efforts to create 50,000 acre-feet of Protection Volume between 2014 and 2017 that will be dedicated as system water. Reclamation is

anticipated to use a combination of the following to create Protection Volumes: efficiency improvements, operational improvements, and creation of system water.

vi. Reclamation and the Municipal Water Agencies will consult on the suitability and appropriateness of adding additional mechanisms to create Protection Volumes, if and when such mechanisms are identified.

C. MISCELLANEOUS PROTECTION VOLUME TERMS

Water generated through the initial funding of \$11 million for the System Conservation Pilot will not be counted towards Reclamation's and the Municipal Water Agencies' Protection Volumes; provided, however, Reclamation and the Municipal Water Agencies may agree that upon any expansion of the System Conservation Pilot, water generated through such expansion may be counted towards Reclamation's and the Municipal Water Agencies' Protection Volumes in any proportion agreed upon by Reclamation and the Municipal Water Agencies.

D. IDENTIFICATION AND TRACKING OF PROTECTION VOLUMES

Reclamation and the Municipal Water Agencies will work together to identify and track achievement of Protection Volume goals set forth in Section III.B of this MOU, and will consult at least annually to discuss actions taken under this MOU.

E. FURTHER ASSURANCES

Reclamation, the Municipal Water Agencies, ADWR, CRB, and CRCN will cooperate with the others, and with any additional participants that are included in the MOU pursuant to Section IV.B, as appropriate, to implement voluntary actions undertaken to create Protection Volumes. From time to time, and when requested, Reclamation and the Municipal Water Agencies will share information about the identification and tracking of Protection Volumes with the Lower Division States and Water Users and the Upper Division States. Reclamation and the Municipal Water Agencies will consult at least annually with ADWR, CRB, and CRCN to discuss actions taken under this MOU.

F. URGENT NEEDS

If any Municipal Water Agency is faced with operating conditions that have the potential to adversely affect its ability to meet Direct Delivery Domestic Use needs, as defined in the 2007 Guidelines, a consultation will be initiated as requested by any Municipal Water Agency to discuss ways to address such potential impacts.

IV. FURTHER ACTIONS AND ASSISTANCE OF OTHER ENTITIES

A. CONSULTATION

Reclamation, the Municipal Water Agencies, ADWR, CRB, and CRCN recognize that voluntary actions by other entities from each of the Lower Division States will be essential to implement and build on the voluntary actions identified in this MOU. In addition to consulting with each other, Reclamation, the Municipal Water Agencies, ADWR, CRB, and CRCN agree to seek the participation of additional entities within the Lower Division States at the times and for the purposes set forth below:

i. Implementation of Additional Drought Response Actions: After gaining experience related to the successes and challenges associated with voluntary actions to create Protection Volumes, Reclamation, the Municipal Water Agencies, ADWR, CRB, and CRCN agree to initiate consultation not later than August 2016 with the specific objective of developing additional Protection Volumes, by extending, revising or adding to the activities implemented in this MOU.

ii. Planning to Address Long Term Sustainability: Voluntary actions identified in Section III.B of this MOU represent and contain elements of both drought response and sustainability actions. Notwithstanding the importance of implementing these voluntary actions, Reclamation, the Municipal Water Agencies, ADWR, CRB, and CRCN recognize that additional actions among Reclamation and the Lower Division States and Water Users will be

needed to address the existing water supply and demand imbalance and long-term sustainability of the Colorado River system within the Lower Basin, and will necessarily include additional flexibility for water users during low reservoir conditions. It is with this recognition that Reclamation, the Municipal Water Agencies, ADWR, CRB, and CRCN commit, throughout the term of this MOU, to continued and increased focus on identifying and addressing these concerns and will discuss the progress of discussions related to the prioritization, funding and implementation for such additional actions during the August 2016 consultation process with the goal of implementing additional actions prior to 2020. In addition to these consultations, Reclamation will work to plan and implement actions to replace, recover and reduce system losses from the Colorado River System.

iii. Initiating Further Drought Response Actions: In any year that Lake Mead is projected, based on the Minimum Probable forecast contained in the April 24-Month Study, to be at or below 1,060 feet on December 31st of that year, Reclamation will request that the Lower Division States and Water Users immediately reinstitute consultations with the specific objective of identifying additional actions to significantly reduce the potential of reaching Lake Mead elevation 1,020 feet and initiating actions to begin to achieve that objective by December 31st of that year.

iv. Revisiting Necessity for Drought Response Actions: In any year that Lake Mead is projected, based on the Most Probable forecast contained in the April 24-Month Study, to be above 1,105 feet on December 31st of that year, Reclamation will reinstitute consultations, with the specific objective of revisiting whether it is appropriate to continue, revise, or terminate ongoing drought response actions.

B. ADDITIONAL PARTICIPANTS

Reclamation, the Municipal Water Agencies, ADWR, CRB, and CRCN acknowledge that other entities may be of assistance from time to time in the generation of Protection Volumes

contemplated hereunder, and agree that such entities may upon approval of Reclamation, the Municipal Water Agencies, ADWR, CRB, and CRCN which approval shall not be unreasonably withheld, become participants in this MOU for purposes of activities set forth in Section III.E, this Section IV, and Section V; provided, however, the addition of such entities shall not materially alter the terms of this MOU.

V. GENERAL PROVISIONS

A. This MOU will become effective upon the date set forth in Article I of this MOU (the Effective Date) and will remain in effect until December 31, 2019 (“Term”).

B. Nothing in this MOU is intended to or shall be construed to limit or affect in any way the authority or legal responsibilities of any participant. Nothing in this MOU binds any participant to perform beyond their respective authorities.

C. Nothing in this MOU may be construed to obligate Reclamation, the United States, any Municipal Water Agency, ADWR, CRB, or CRCN to any current or future expenditure of resources in advance of the availability of appropriations. Nor does this MOU obligate Reclamation, any Municipal Water Agency, ADWR, CRB, or CRCN to spend funds on any particular project or purpose, even if funds are available.

D. The mission requirements, funding, personnel, and other priorities of the participants may affect their ability to undertake actions to achieve the goals identified in this MOU.

E. Specific activities that involve the transfer of money, services, or property between Reclamation and another participant are not contemplated under the scope of this MOU. To the extent that any such activities are subsequently considered between or among any of the participants, execution of separate agreements or contracts will be required.

F. Nothing in this MOU is intended to or shall be construed to restrict the participants from participating in similar activities or arrangements with other public or private agencies, organizations, or individuals.

G. This MOU is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity by any person or entity against any participant, including a participant's Departments, Agencies, entities, officers, employees, or agents.

H. Any information furnished between the participants under this MOU may be subject to the Freedom of Information Act, 5 U.S.C. § 552, et seq. (FOIA) and respective state authorities. Reclamation and the other participants agree to consult each other regarding any such relevant requests and prior to releasing potentially privileged or exempt documents.

I. This MOU is subject, as applicable, to the laws of the United States of America.

J. All cooperative work under the provisions of this MOU will be accomplished without discrimination against any employee because of race, sex, creed, color, national origin, or any other legally protected class as identified in Federal or applicable state law.

K. This MOU shall remain in effect for an initial term as set forth in this MOU and may be renewed if the participants agree.

L. Each participant in this MOU will consult with the other participants in a timely manner to ensure coordination prior to release of any written statements intended for widespread publication that refer to this MOU.

M. Nothing in this MOU may be interpreted to imply that a participant endorses any product, service, or policy of the other participants, except as specifically set forth in this MOU. No participant will take any action or make any statement that suggests or implies such type of endorsements.

N. No participant in this MOU will be considered to have waived any policy, administrative or legal right hereunder.

O. This MOU may be amended, modified, or supplemented only by the written, signed agreement of the participants.

P. No Member of or Delegate to the Congress, or Resident Commissioner, or official of CAWCD, MWD, SNWA, ADWR, CRB, or CRCN or any Elector or Electors may benefit from this MOU other than as a water user or landowner in the same manner as other water users or landowners.

Q. No participant in this MOU intends for this MOU to confer any benefit upon any person or entity not a signatory to this MOU, whether as a third-party beneficiary or otherwise.

R. This MOU may be executed in counterparts, each of which will be an original and all of which, together, constitute only one MOU.

S. POINTS OF CONTACT

To the extent that written notices and/or requests are undertaken under the terms of this MOU, the participants may be contacted at the following addresses:

RECLAMATION:

Regional Director
Lower Colorado Region
Attention: LC-1000
500 Fir Street
Boulder City, NV 89005

CAWCD:

Central Arizona Water Conservation District
23636 North 7th Street
Phoenix, AZ 85024-3801
Attn: General Manager

MWD:

The Metropolitan Water District of Southern California
P.O. Box 54153
Los Angeles, CA 90054-0153
Attn: General Manager

SNWA:

Southern Nevada Water Authority
1001 South Valley View Boulevard, MS #485
Las Vegas, NV 89153
Attn: General Manager

ADWR:

Arizona Department of Water Resources
3550 North Central Avenue
Phoenix, AZ 85012
Attn: Director

CRB:

Colorado River Board of California
770 Fairmont Avenue, Suite 100
Glendale, CA 91203-1068
Attn: Executive Director

CRCN:

Colorado River Commission of Nevada
555 E. Washington Avenue, Suite 3100
Las Vegas, NV 89101
Attn: Executive Director

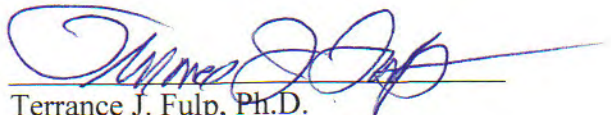
A participant may change its address by giving the other participants notice of the change in writing.

IN WITNESS WHEREOF, the participants hereto have executed this MOU on the day and year first written above.

Approved as to legal sufficiency:

THE UNITED STATES OF AMERICA

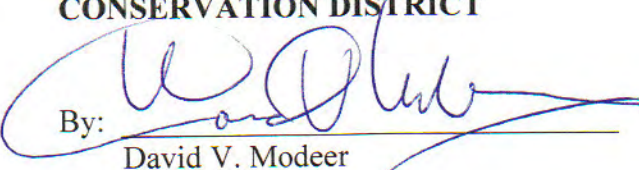
By: 
Robert Snow
Attorney-Advisor

By: 
Terrance J. Fulp, Ph.D.
Lower Colorado Regional Director
Bureau of Reclamation

Approved as to form:

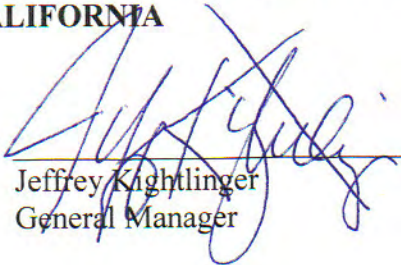
By: 
for Jay M. Johnson
General Counsel

**CENTRAL ARIZONA WATER
CONSERVATION DISTRICT**

By: 
David V. Modeer
General Manager

Approved as to form:

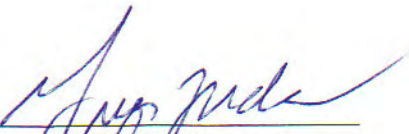
**THE METROPOLITAN WATER
DISTRICT OF SOUTHERN
CALIFORNIA**

By: 

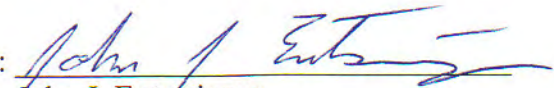
Jeffrey Knightlinger
General Manager

Approved as to form:

**SOUTHERN NEVADA WATER
AUTHORITY**

By: 

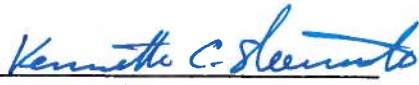
Gregory J. Walch
General Counsel

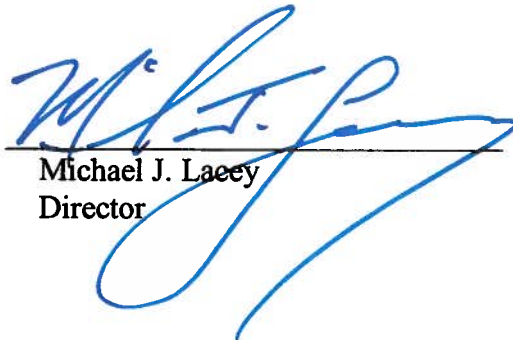
By: 

John J. Entsminger
General Manager

Approved as to form:

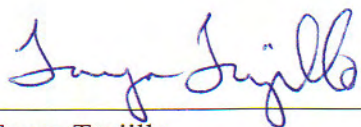
**ARIZONA DEPARTMENT OF WATER
RESOURCES**

By: 
Kenneth C. Slowinski
Chief Counsel

By: 
Michael J. Lacey
Director

Approved as to form:

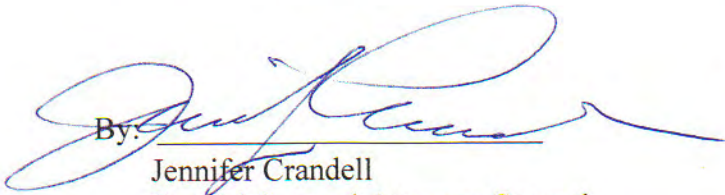
**COLORADO RIVER BOARD OF
CALIFORNIA**

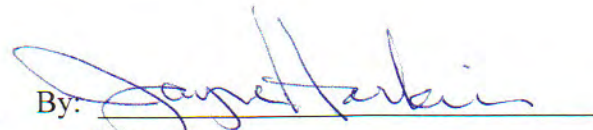
By: 

Tanya Trujillo
Executive Director

Approved as to form:

**COLORADO RIVER COMMISSION
OF NEVADA**

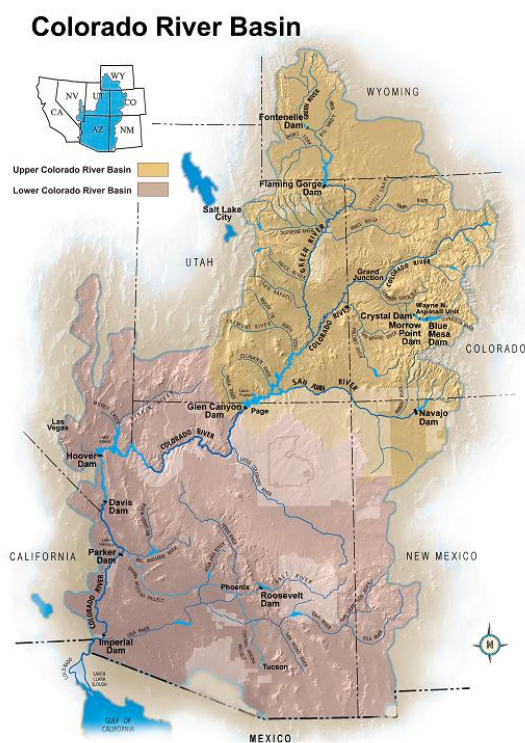
By: 
Jennifer Crandell
Special Counsel Attorney General

By: 
Jayne Harkins
Executive Director

RECLAMATION

Managing Water in the West

Annual Operating Plan for Colorado River Reservoirs 2015



U.S. Department of the Interior
Bureau of Reclamation



THE SECRETARY OF THE INTERIOR
WASHINGTON

DEC 24 2014

The Honorable John Hickenlooper
Governor of Colorado
Denver, Colorado 80203

Dear Governor Hickenlooper:

Enclosed is the Annual Operating Plan (AOP) for Colorado River System Reservoirs for 2015. The AOP contains the projected plan of operation of Colorado River reservoirs based on the most probable runoff conditions. The plan of operation reflects use of the reservoirs for all purposes consistent with the Criteria for Coordinated Long-Range Operation of Colorado River Reservoirs pursuant to the Colorado River Basin Project Act of September 30, 1968. The AOP for 2015 implements applicable provisions of the Colorado River Interim Guidelines for Lower Basin Shortages and the Coordinated Operations for Lake Powell and Lake Mead (2007 Interim Guidelines).

The AOP for 2015 was prepared by the Bureau of Reclamation in consultation with: the seven Colorado River Basin States Governors' representatives; the Upper Colorado River Commission; Native American tribes; appropriate Federal agencies; representatives of the academic and scientific communities, environmental organizations, and the recreation industry; water delivery contractors; contractors for the purchase of Federal power; others interested in Colorado River operations; and the general public, through the Colorado River Management Work Group (Work Group). The Work Group held meetings on May 28, July 31, and September 4, 2014.

The water year release from Lake Powell in the 2015 water year is projected to be 9.00 million acre-feet (maf) (11,100 million cubic meters [mcm]). Given the hydrologic variability of the Colorado River System and based on actual 2015 water year operations, the projected water year release from Lake Powell in 2015 could be in the estimated range of 8.23 maf (10,150 mcm) to 11.63 maf (14,350 mcm) or greater.

Water deliveries in the Lower Basin during calendar year 2015 will be limited to 7.5 maf (9,250 mcm) plus or minus any credits for Intentionally Created Surplus (ICS). The 2007 Interim Guidelines adopted the ICS mechanism that, among other things, encourages the efficient use and management of Colorado River water in the Lower Basin. The ICS credits may be created and delivered in 2015 pursuant to the 2007 Interim Guidelines and appropriate delivery and forbearance agreements.

A volume of up to 1.500 maf (1,850 mcm) of water will be scheduled for delivery to Mexico during calendar year 2015 in accordance with Article 15 of the 1944 United States-Mexico Water Treaty and Minutes No. 242 and 314 (as it may be extended) of the International Boundary and Water Commission (IBWC). In accordance with IBWC Minute No. 319, Mexico may defer delivery of water pursuant to Sections III.1 and III.4 or take delivery of additional water pursuant to Section III.4.

Inflow to Lake Powell has been below average in 12 of the past 15 water years (2000-2014). This 15-year period is the lowest in over 100 years of record keeping on the Colorado River. Accordingly, all water users in the Colorado River Basin are encouraged to prudently manage the use of available supplies.

The Department of the Interior continues to closely monitor water supply conditions in the Colorado River Basin and looks forward to continuing to work with your representatives and other interested stakeholders regarding the management of this vital river system.

Sincerely,



Sally Jewell

Enclosure

Identical Letters Sent To:

The Honorable Joseph R. Biden, Jr.
President of the Senate
Washington, DC 20510

The Honorable John Boehner
Speaker of the House of Representatives
Washington, DC 20515

The Honorable Janice Brewer
Governor of Arizona
Phoenix, AZ 85007

The Honorable Brian Sandoval
Governor of Nevada
Carson City, NV 89701

The Honorable Susana Martinez
Governor of New Mexico
Santa Fe, NM 87501

The Honorable Gary Herbert
Governor of Utah
Salt Lake City, UT 84114

The Honorable Jerry Brown
Governor of California
Sacramento, CA 95814

The Honorable Matt Mead
Governor of Wyoming
Cheyenne, WY 82002

(cont.) Identical Letters Sent To:

Colonel Kimberly M. Colloton
 District Commander
 U.S. Army Corps of Engineers
 Los Angeles District
 915 Wilshire Blvd
 Los Angeles, CA 90017

Ms. Gina McCarthy
 Administrator
 Environmental Protection Agency
 Office of the Administrator, 1101A
 1200 Pennsylvania Avenue, NW
 Washington, DC 20460

cc: Ms. Jayne Harkins, P.E.
 Executive Director
 Colorado River Commission of Nevada
 555 East Washington Avenue, Suite 3100
 Las Vegas, NV 89101

Mr. Michael Lacey
 Director
 Arizona Department of Water Resources
 3550 North Central Avenue
 Phoenix, AZ 85012

Mr. Eric Millis
 Director
 Utah Division of Water Resources
 P.O. Box 146201
 Salt Lake City, UT 84114

Mr. James Eklund
 Director
 Colorado Water Conservation Board
 1313 Sherman Street, Suite 721
 Denver, CO 80203

Mr. Edward Drusina
 Commissioner, U.S. Section
 International Boundary and Water and
 Boundary Commission
 4171 North Mesa, Suite C-100
 El Paso, TX 79902

Mr. Mark Gabriel
 Administrator
 Western Area Power Administration
 P.O. Box 281213
 Lakewood, CO 80228

Mr. Tom Blaine, P.E.
 State Engineer
 Office of the State Engineer
 P.O. Box 25102
 Santa Fe, NM 87504

Ms. Tanya M. Trujillo
 Executive Director
 Colorado River Board of California
 770 Fairmont Avenue, Suite 100
 Glendale, CA 91203

Mr. Patrick T. Tyrrell
 State Engineer
 State of Wyoming
 Herschler Building, 4th Floor East
 Cheyenne, WY 82002

Mr. Don Ostler
 Executive Director
 Upper Colorado River Commission
 355 South 400 East
 Salt Lake City, UT 84111

TABLE OF CONTENTS

INTRODUCTION	1
Background	1
Authority	2
Purpose	3
Summary	4
Upper Basin Delivery	4
Lower Basin Delivery	4
1944 United States-Mexico Water Treaty Delivery	5
2014 HYDROLOGY SUMMARY AND RESERVOIR STATUS	6
2015 WATER SUPPLY ASSUMPTIONS	9
SUMMARY OF RESERVOIR OPERATIONS IN 2014 AND PROJECTED 2015	
RESERVOIR OPERATIONS	11
Fontenelle Reservoir	12
Flaming Gorge Reservoir	12
Blue Mesa, Morrow Point, and Crystal Reservoirs (Aspinall Unit)	14
Navajo Reservoir	15
Lake Powell	17
2015 Operating Tier and Projected Operations for Glen Canyon Dam	17
Lake Mead	20
Lakes Mohave and Havasu	21
Bill Williams River	22
Senator Wash and Laguna Reservoirs	22
Imperial Dam	23
Gila River Flows	23
Warren H. Brock Reservoir	23
Yuma Desalting Plant	24
Off-stream Storage Agreements	24
System Conservation	24
Intentionally Created Surplus	25
Extraordinary Conservation ICS	26
System Efficiency ICS	26
Tributary Conservation ICS	26
Imported ICS	26
Delivery of Water to Mexico	26
2015 DETERMINATIONS	29
Upper Basin Reservoirs	29
Lower Basin Reservoirs	30
1944 United States-Mexico Water Treaty	32
DISCLAIMER	33
ACRONYMS AND ABBREVIATIONS	34

LIST OF TABLES

Table 1. Reservoir Conditions on October 1, 2014 (English Units)	8
Table 2. Reservoir Conditions on October 1, 2014 (Metric Units)	8
Table 3. Projected Unregulated Inflow into Lake Powell for Water Year 2015 (English Units)	10
Table 4. Projected Unregulated Inflow into Lake Powell for Water Year 2015 (Metric Units)	10

INTRODUCTION

Background

Each year's Annual Operating Plan (AOP) for Colorado River Reservoirs reports on both the past operations of the Colorado River reservoirs for the completed year as well as projected operations and releases from these reservoirs for the current (i.e., upcoming) year. Accordingly, this 2015 AOP reports on 2014 operations as well as projected operations for 2015. In recent years, additional operational rules, guidelines, and decisions have been put into place for Colorado River reservoirs including the 1996 Glen Canyon Dam Record of Decision¹ (ROD), the 1997 Operating Criteria for Glen Canyon Dam,² the 1999 Off-stream Storage of Colorado River Water Rule (43 CFR Part 414),³ the 2001 Interim Surplus Guidelines⁴ addressing operation of Hoover Dam, the 2006 Flaming Gorge Dam ROD,⁵ the 2006 Navajo Dam ROD⁶ to implement recommended flows for endangered fish, the 2007 Interim Guidelines for the operations of Lake Powell and Lake Mead,⁷ the 2012 Aspinall ROD,⁸ and numerous environmental assessments addressing experimental releases from Glen Canyon Dam. Each AOP incorporates these rules, guidelines, and decisions and implements the criteria contained in the applicable decision document or documents. Thus, the AOP makes projections and reports on how the Bureau of Reclamation (Reclamation) will implement these decisions in response to changing water supply conditions as they unfold during the upcoming year, when conditions become known. Congress has charged the Secretary of the Interior (Secretary) with stewardship and responsibility for a wide range of natural, cultural, recreational, and tribal resources within the Colorado River Basin. The Secretary has the authority to operate and maintain Reclamation facilities within the Colorado River Basin addressed in this AOP to help manage these resources and accomplish their protection and enhancement in a manner fully consistent with applicable provisions of

¹ ROD for the Operation of Glen Canyon Dam, October 9, 1996. Available online at: http://www.usbr.gov/uc/rm/amp/pdfs/sp_appndxG_ROD.pdf.

² Operating Criteria for Glen Canyon Dam (62 *Federal Register* 9447, March 3, 1997).

³ Off-stream Storage of Colorado River Water; Development and Release of Intentionally Created Unused Apportionment in the Lower Division States: Final Rule (43 CFR Part 414; 64 *Federal Register* 59006, November 1, 1999). Available online at: <http://www.usbr.gov/lc/region/g4000/contracts/FinalRule43cfr414.pdf>.

⁴ ROD for the Colorado River Interim Surplus Guidelines, January 16, 2001 (67 *Federal Register* 7772, January 25, 2001). Available online at: http://www.usbr.gov/lc/region/g4000/surplus/surplus_rod_final.pdf.

⁵ ROD for the Operation of Flaming Gorge Dam, February 16, 2006. Available online at: <http://www.usbr.gov/uc/envdocs/rod/fgFEIS/final-ROD-15feb06.pdf>.

⁶ ROD for Navajo Reservoir Operations, Navajo Unit – San Juan River, New Mexico, Colorado, Utah, July 31, 2006. Available online at: <http://www.usbr.gov/uc/envdocs/eis/navajo/pdfs/NavWaterOpsROD2006.pdf>.

⁷ ROD for Colorado River Interim Guidelines for Lower Basin Shortages and the Coordinated Operations for Lake Powell and Lake Mead (73 *Federal Register* 19873, April 11, 2008). The ROD adopting the 2007 Interim Guidelines was signed by the Secretary on December 13, 2007. Available online at: <http://www.usbr.gov/lc/region/programs/strategies/RecordofDecision.pdf>.

⁸ ROD for the Aspinall Unit Operations, Final Environmental Impact Statement, April 2012. Available online at: <http://www.usbr.gov/uc/envdocs/eis/AspinallEIS/ROD.pdf>.

Federal law including the Law of the River, and other project-specific operational limitations.

The Secretary recognized in the 2007 Interim Guidelines that the AOP serves to integrate numerous federal policies affecting reservoir operations: *"The AOP is used to memorialize operational decisions that are made pursuant to individual federal actions (e.g., ISG [the 2001 Interim Surplus Guidelines], 1996 Glen Canyon Dam ROD, this [2007 Interim Guidelines] ROD). Thus, the AOP serves as a single, integrated reference document required by section 602(b) of the CRBPA of 1968 [Colorado River Basin Project Act of September 30, 1968 (Public Law 90-537)] regarding past and anticipated operations."*

Authority

This 2015 AOP was developed in accordance with the processes set forth in: Section 602 of the CRBPA; the Criteria for Coordinated Long-Range Operation of Colorado River Reservoirs Pursuant to the Colorado River Basin Project Act of September 30, 1968 (P. L. 90-537) (Operating Criteria), as amended, promulgated by the Secretary; and Section 1804(c)(3) of the Grand Canyon Protection Act of 1992 (P. L. 102-575).

Section 602(b) of the CRBPA requires the Secretary to prepare and *"transmit to the Congress and to the Governors of the Colorado River Basin States a report describing the actual operation under the adopted criteria [i.e., the Operating Criteria] for the preceding compact water year and the projected operation for the current year."*

This AOP has been developed consistent with: the Operating Criteria; applicable Federal laws; the Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande, the Treaty Between the United States of America and Mexico, signed February 3, 1944 (1944 United States-Mexico Water Treaty); interstate compacts; court decrees; the Colorado River Water Delivery Agreement;⁹ the 2007 Interim Guidelines; and other documents relating to the use of the waters of the Colorado River, which are commonly and collectively known as the "Law of the River."

The 2015 AOP was prepared by Reclamation on behalf of the Secretary, working with other Interior agencies and the Western Area Power Administration (Western). Reclamation consulted with: the seven Colorado River Basin States Governors' representatives; the Upper Colorado River Commission; Native American tribes; other appropriate Federal agencies; representatives of academic and scientific communities; environmental organizations; the recreation industry; water delivery contractors; contractors for the purchase of Federal power; others interested in Colorado River operations; and the general public through the Colorado River Management Work Group.

⁹ Colorado River Water Delivery Agreement: Federal Quantification Settlement Agreement for Purposes of Section 5(B) of Interim Surplus Guidelines, October 10, 2003 (69 *Federal Register* 12202, March 15, 2004). Available online at: <http://www.usbr.gov/lc/region/g4000/crwda/crwda.pdf>.

Article I(2) of the Operating Criteria allows for revision of the projected plan of operation to reflect current hydrologic conditions with notification to the Congress and the Governors of the Colorado River Basin States of any changes by June of each year. The process for revision of the AOP is further described in Section 7.C of the 2007 Interim Guidelines. Any revision to the final AOP may occur only through the AOP consultation process as required by applicable Federal law.

Purpose

The purpose of the AOP is to illustrate the potential range of reservoir operations that might be expected in the upcoming water year, and to determine or address: (1) the quantity of water considered necessary to be in storage in the Upper Basin reservoirs as of September 30, 2015, pursuant to Section 602(a) of the CRBPA; (2) water available for delivery pursuant to the 1944 United States-Mexico Water Treaty and Minutes No. 242,¹⁰ 314¹¹ (as it may be extended), and 319¹² of the International Boundary and Water Commission, United States and Mexico (IBWC); (3) whether the reasonable consumptive use requirements of mainstream users in the Lower Division States will be met under a “Normal,” “Surplus,” or “Shortage” Condition as outlined in Article III of the Operating Criteria and as implemented by the 2007 Interim Guidelines; and (4) whether water apportioned to, but unused by one or more Lower Division States, exists and can be used to satisfy beneficial consumptive use requests of mainstream users in other Lower Division States as provided in the Consolidated Decree of the Supreme Court of the United States in *Arizona v. California*, 547 U.S. 150 (2006) (Consolidated Decree).

Consistent with the above determinations and in accordance with other applicable provisions of the Law of the River, the AOP was developed with “appropriate consideration of the uses of the reservoirs for all purposes, including flood control, river regulation, beneficial consumptive uses, power production, water quality control, recreation, enhancement of fish and wildlife, and other environmental factors” (Operating Criteria, Article I(2)).

Since the hydrologic conditions of the Colorado River Basin can never be completely known in advance, the AOP presents projected operations resulting from three different hydrologic scenarios: the minimum probable, most probable, and maximum probable reservoir inflow conditions. Projected reservoir operations are modified during the water year as runoff forecasts are adjusted to reflect existing snowpack, basin storage, flow conditions, and as changes occur in projected water deliveries.

¹⁰ Minute No. 242, Permanent and Definitive Solution to the International Problem of the Salinity of the Colorado River dated August 30, 1973. Available online at: <http://www.ibwc.gov/Files/Minutes/Min242.pdf>.

¹¹ Minute No. 314, Extension of the Temporary Emergency Delivery of Colorado River Water for use in Tijuana, Baja California dated November 14, 2008. Available online at: http://www.ibwc.state.gov/Files/Minutes/Minute_314.pdf.

¹² Minute No. 319, Interim International Cooperative Measures in the Colorado River Basin Through 2017 and Extension of Minute 318 Cooperative Measures to Address the Continued Effects of the April 2010 Earthquake in the Mexicali Valley, Baja California dated November 20, 2012. Available online at: http://www.ibwc.gov/Files/Minutes/Minute_319.pdf.

Summary

Upper Basin Delivery. Taking into account (1) the existing water storage conditions in the basin, (2) the August 2014 24-Month Study¹³ projection of the most probable near-term water supply conditions in the basin, and (3) Section 6.B of the 2007 Interim Guidelines, the Upper Elevation Balancing Tier will govern the operation of Lake Powell for water year 2015. The August 2014 24-Month Study of the most probable inflow scenario projects the water year 2015 release from Glen Canyon Dam to be 9.00 million acre-feet (maf) (11,100 million cubic meters [mcm]). Given the hydrologic variability of the Colorado River System and based on actual 2014 water year operations, the projected water year release from Lake Powell in 2015 is likely to be in the estimated range of 8.23 maf (10,150 mcm) to 11.63 maf (14,350 mcm) or greater.

For further information about the variability of projected inflow into Lake Powell, see the 2015 Water Supply Assumptions section and the Lake Powell section under the Summary of Reservoir Operations in 2014 and Projected 2015 Reservoir Operations, and Tables 3 and 4.

Lower Basin Delivery. Taking into account (1) the existing water storage conditions in the basin, (2) the most probable near-term water supply conditions in the basin, and (3) Section 2.B.5 of the 2007 Interim Guidelines, the Intentionally Created Surplus (ICS) Surplus Condition will govern the operation of Lake Mead for calendar year 2015 in accordance with Article III(3)(b) of the Operating Criteria and Article II(B)(2) of the Consolidated Decree.

No unused apportionment for calendar year 2015 is anticipated. If any unused apportionment becomes available after adoption of this AOP, Reclamation, on behalf of the Secretary, may allocate any such available unused apportionment for calendar year 2015. Any such allocation shall be made in accordance with Article II(B)(6) of the Consolidated Decree and the Lower Colorado Region Policy for Apportioned but Unused Water¹⁴ (Unused Water Policy).

Colorado River water may be stored off-stream pursuant to individual Storage and Interstate Release Agreements (SIRAs) and 43 CFR Part 414 within the Lower Division States. The Secretary shall make Intentionally Created Unused Apportionment (ICUA) available to contractors in Arizona, California, or Nevada pursuant to individual SIRAs and 43 CFR Part 414.

¹³ The 24-Month Study refers to the operational study conducted by Reclamation to project future reservoir operations. The most recent 24-Month Study report is available on Reclamation's Water Operations websites and is updated each month. Available online at: <http://www.usbr.gov/uc/water/crsp/studies/index.html> and <http://www.usbr.gov/lc/region/g4000/24mo/index.html>.

¹⁴ Lower Colorado Region Policy for Apportioned but Unused Water, February 11, 2010. Available online at: <http://www.usbr.gov/lc/region/g4000/UnusedWaterPolicy.pdf>.

The Inadvertent Overrun and Payback Policy (IOPP), which became effective January 1, 2004, will be in effect during calendar year 2015.¹⁵

Conserved Colorado River water is anticipated to be added to system reservoirs pursuant to system conservation agreements in calendar year 2015.

The 2007 Interim Guidelines adopted the ICS mechanism that among other things encourages the efficient use and management of Colorado River water in the Lower Basin. ICS may be created and delivered in calendar year 2015 pursuant to the 2007 Interim Guidelines and appropriate delivery and forbearance agreements.

1944 United States-Mexico Water Treaty Delivery. A volume of 1.500 maf (1,850 mcm) of water will be available to be scheduled for delivery to Mexico during calendar year 2015 in accordance with Article 15 of the 1944 United States-Mexico Water Treaty and Minutes No. 242 and 314 (as it may be extended) of the IBWC. In accordance with IBWC Minute No. 319, Mexico may defer delivery of water pursuant to Sections III.1 and III.4 or take delivery of additional water pursuant to Section III.4.

¹⁵ Record of Decision for Implementation Agreement, Inadvertent Overrun and Payback Policy, and Related Federal Actions, Final Environmental Impact Statement, October 10, 2003 (69 *Federal Register* 12202, March 15, 2004). Available online at: http://www.usbr.gov/lc/region/g4000/crwda/crwda_rod.pdf.

2014 HYDROLOGY SUMMARY AND RESERVOIR STATUS

Near to above average stream flows were observed throughout much of the Colorado River Basin during water year 2014. Unregulated¹⁶ inflow to Lake Powell in water year 2014 was 10.38 maf (12,800 mcm), or 96 percent of the 30-year average¹⁷ which is 10.83 maf (13,360 mcm). Unregulated inflow to Flaming Gorge, Blue Mesa, and Navajo Reservoirs was 116, 120, and 65 percent of average, respectively.

Precipitation in the Upper Colorado River Basin was above average¹⁸ throughout most of water year 2014. On September 30, 2014, the cumulative precipitation for the Upper Colorado River Basin for water year 2014 was 107 percent of average.

Snowpack conditions trended near to above average¹⁹ across much of the Colorado River Basin throughout the snow accumulation season, with the exception of the San Juan River Basin which trended below average. The basin-wide snow water equivalent measured 112 percent of average on April 1, 2014. Total seasonal accumulation peaked at approximately 111 percent of average on April 8, 2014. On April 1, 2014, the snow water equivalents for the Green River, Upper Colorado River headwaters, and San Juan River Basins were 141, 136, and 68 percent of average, respectively.

During the 2014 spring runoff period, inflows to Lake Powell peaked on June 5, 2014 at approximately 64,000 cubic feet per second (cfs) (1,810 cubic meters per second [cms]). The April through July unregulated inflow volume for Lake Powell was 6.92 maf (8,540 mcm) which was 97 percent of average.

Lower Basin tributary inflows above Lake Mead were below average for water year 2014. Tributary inflow from the Little Colorado River for water year 2014 totaled 0.033 maf (41 mcm), or 23 percent of the long-term average.²⁰ Tributary inflow from the Virgin River for water year 2014 totaled 0.108 maf (133 mcm), or 61 percent of the long-term average.

Tributary inflows in the Lower Colorado River Basin below Hoover Dam were below average during water year 2014. Total tributary inflow for water year 2014 from the Bill

¹⁶ Unregulated inflow adjusts for the effects of operations at upstream reservoirs. It is computed by adding the change in storage and the evaporation losses from upstream reservoirs to the observed inflow. Unregulated inflow is used because it provides an inflow time series that is not biased by upstream reservoir operations.

¹⁷ Inflow statistics throughout this document will be compared to the mean of the 30-year period 1981-2010, unless otherwise noted.

¹⁸ Precipitation statistics throughout this document are provided by the National Weather Service's Colorado Basin River Forecast Center and are based on the mean for the 30-year period 1981-2010, unless otherwise noted.

¹⁹ Snowpack and snow water equivalent statistics throughout this document are provided by the Natural Resources Conservation Service and are based on the median for the 30-year period 1981-2010, unless otherwise noted.

²⁰ The basis for the long-term average of tributary inflows in the Lower Basin is natural flow data from 1981 to 2010. Additional information regarding natural flows may be found at <http://www.usbr.gov/lc/region/g4000/NaturalFlow/current.html>.

Williams River was 0.015 maf (19 mcm), or 16 percent of the long-term average, and total tributary inflow from the Gila River was 0.006 maf (7.4 mcm).²¹

The Colorado River total system storage experienced a net increase of 0.112 maf (140 mcm) in water year 2014. Reservoir storage in Lake Powell increased during water year 2014 by 1.35 maf (1,670 mcm). Reservoir storage in Lake Mead decreased during water year 2014 by 2.24 maf (2,760 mcm). At the beginning of water year 2014 (October 1, 2013), Colorado River total system storage was 50 percent of capacity. As of September 30, 2014, total system storage was 50 percent of capacity.

Tables 1 and 2 list the October 1, 2014, reservoir vacant space, live storage, water elevation, percent of capacity, change in storage, and change in water elevation during water year 2014.

²¹ Tributary inflow from the Gila River to the mainstream is very sporadic. These flows occur very seldom and when they do they are typically of high magnitude.

Table 1. Reservoir Conditions on October 1, 2014 (English Units)

Reservoir	Vacant Space	Live Storage	Water Elevation	Percent of Capacity	Change in Storage*	Change in Elevation*
	(maf)	(maf)	(ft)	(%)	(maf)	(ft)
Fontenelle	0.031	0.314	6502.1	91	0.081	11.2
Flaming Gorge	0.466	3.28	6,028.3	88	0.466	13.0
Blue Mesa	0.230	0.599	7,492.3	72	0.251	36.0
Navajo	0.614	1.08	6,037.0	64	0.147	14.7
Lake Powell	12.0	12.3	3,605.5	51	1.35	14.3
Lake Mead	16.0	10.1	1,081.3	39	-2.24	-25.6
Lake Mohave	0.108	1.65	641.0	94	0.032	0.8
Lake Havasu	0.037	0.583	448.2	94	0.023	1.2
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Totals	29.5	30.0		50	0.112	

* From October 1, 2013, to September 30, 2014.

Table 2. Reservoir Conditions on October 1, 2014 (Metric Units)

Reservoir	Vacant Space	Live Storage	Water Elevation	Percent of Capacity	Change in Storage*	Change in Elevation*
	(mcm)	(mcm)	(m)	(%)	(mcm)	(m)
Fontenelle	38.3	387	1,981.8	91	99.9	3.4
Flaming Gorge	574	4,050	1,837.4	88	575	4.0
Blue Mesa	283	739	2,283.6	72	309	11.0
Navajo	758	1,330	1,840.1	64	182	4.5
Lake Powell	14,800	15,200	1,099.0	51	1,670	4.4
Lake Mead	19,400	12,500	329.6	39	-2,760	-7.8
Lake Mohave	133	2,100	195.4	94	39.4	0.2
Lake Havasu	45.3	719	136.6	94	28.3	0.4
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Totals	36,100	37,000		51	140	

* From October 1, 2013, to September 30, 2014.

2015 WATER SUPPLY ASSUMPTIONS

For 2015 operations, three reservoir unregulated inflow scenarios were developed and analyzed: minimum probable, most probable, and maximum probable.

There is considerable uncertainty associated with streamflow forecasts and projections of reservoir operations made a year in advance. The National Weather Service's Colorado Basin River Forecast Center (CBRFC) forecasts the inflow for the minimum probable (90 percent exceedance), most probable (50 percent exceedance), and maximum probable (10 percent exceedance) inflow scenarios for 2015 using an Ensemble Streamflow Prediction model. Based upon the August CBRFC forecast, the range of unregulated inflows is projected to be as follows:

- The forecasted minimum probable unregulated inflow to Lake Powell in water year 2015 is 6.50 maf (8,020 mcm), or 60 percent of average.
- The forecasted most probable unregulated inflow to Lake Powell in water year 2015 is 9.72 maf (11,990 mcm), or 90 percent of average.
- The forecasted maximum probable unregulated inflow to Lake Powell in water year 2015 is 17.0 maf (20,970 mcm), or 157 percent of average.

Projected unregulated inflow volumes into Lake Powell for specific time periods for these three forecasted inflow scenarios are shown in Tables 3 and 4.

Inflows to the mainstream from Lake Powell to Lake Mead, Lake Mead to Lake Mohave, Lake Mohave to Lake Havasu, and below Lake Havasu are projected using historic data over the five-year period of January 2009 through December 2013, inclusive. These five years of historic data are representative of the most recent hydrologic conditions in the Lower Basin. The most probable side inflows into each reach are estimated as the arithmetic mean of the five-year record. The maximum probable and minimum probable projections for each reach are the 10 percent and 90 percent exceedance values, respectively, of the five-year record. For the reach from Lake Powell to Lake Mead, the minimum probable inflow during water year 2015 is 0.635 maf (783 mcm), the most probable inflow is 0.861 maf (1,060 mcm), and the maximum probable inflow is 1.09 maf (1,340 mcm).

The projected monthly volumes of inflow were input into the 24-Month Study and used to project potential reservoir operations for 2015. Starting with the projected October 1, 2014, reservoir storage conditions, the projected monthly releases for each reservoir were adjusted until release and storage levels best accomplished project purposes and applicable operational objectives.

For the latest monthly projections for the major reservoirs in the Colorado River system, please see the most recent 24-Month Study report available on these Reclamation websites:

<http://www.usbr.gov/uc/water/crsp/studies/index.html>, or
<http://www.usbr.gov/lc/region/g4000/24mo/index.html>.

**Table 3. Projected Unregulated Inflow into Lake Powell for Water Year 2015
(English Units)²²**

Time Period	Minimum Probable (maf)	Most Probable (maf)	Maximum Probable (maf)
10/14 – 12/14	1.31	1.20	1.50
1/15 – 3/15	1.41	1.27	1.76
4/15 – 7/15	3.39	6.50	12.2
8/15 – 9/15	0.395	0.750	1.50
10/15 – 12/15	1.11	1.28	1.73
WY 2015	6.50	9.72	17.0
CY 2015	6.31	9.80	17.2

**Table 4. Projected Unregulated Inflow into Lake Powell for Water Year 2015
(Metric Units)**

Time Period	Minimum Probable (mcm)	Most Probable (mcm)	Maximum Probable (mcm)
10/14 – 12/14	1,620	1,480	1,850
1/15 – 3/15	1,740	1,570	2,170
4/15 – 7/15	4,180	8,020	15,050
8/15 – 9/15	487	925	1,850
10/15 – 12/15	1,370	1,580	2,130
WY 2015	8,020	11,990	20,970
CY 2015	7,780	12,090	21,220

²² All values in Tables 3 and 4 are projected inflows based upon the August CBRFC forecast with the exception of the values for 10/15-12/15. The values for 10/15-12/15 are based upon average unregulated inflow from 1981-2010. The calendar year totals in Tables 3 and 4 also reflect average values for the 10/15-12/15 time period.

SUMMARY OF RESERVOIR OPERATIONS IN 2014 AND PROJECTED 2015 RESERVOIR OPERATIONS

The operation of the Colorado River reservoirs has affected some aquatic and riparian resources. Controlled releases from dams have modified temperature, sediment load, and flow patterns, resulting in increased productivity of some riparian and non-native aquatic resources and the development of economically significant sport fisheries. However, these same releases have detrimental effects on endangered and other native species. Operating strategies designed to protect and enhance aquatic and riparian resources have been established after appropriate National Environmental Policy Act (NEPA) compliance at several locations in the Colorado River Basin.

In the Upper Basin, public stakeholder work groups have been established at Fontenelle Dam, Flaming Gorge Dam, the Aspinall Unit, and Navajo Dam. These work groups provide a public forum for dissemination of information regarding ongoing and projected reservoir operations throughout the year and allow stakeholders the opportunity to provide information and feedback with respect to ongoing reservoir operations. Additionally, the Glen Canyon Dam Adaptive Management Work Group (AMWG)²³ was established in 1997 as a chartered committee under the Federal Advisory Committee Act of 1972 (Public Law 92-463).

Modifications to projected operations are routinely made based on changes in forecasted conditions or other relevant factors. Within the parameters set forth in the Law of the River and consistent with the Upper Colorado River Endangered Fish Recovery Program (Upper Colorado Recovery Program),²⁴ the San Juan River Basin Recovery Implementation Program (San Juan Recovery Program),²⁵ Section 7 consultations under the Endangered Species Act, and other downstream concerns, modifications to projected monthly operations may be based on other factors in addition to changes in streamflow forecasts. Decisions on spring peak releases and downstream habitat target flows may be made midway through the runoff season. Reclamation will conduct meetings with Recovery Program participants, the U.S. Fish and Wildlife Service (Service), other Federal agencies, representatives of the Basin States, and with public stakeholder work groups to facilitate the discussions necessary to finalize site-specific projected operations.

The following paragraphs discuss reservoir operations in 2014 and the range of probable projected 2015 operations of each of the reservoirs with respect to applicable provisions of compacts, the Consolidated Decree, statutes, regulations, contracts, and instream flow needs for maintaining or improving aquatic and riparian resources where appropriate.

²³ Information on the AMWG can be found at www.usbr.gov/uc/rm/amp.

²⁴ Information on the Upper Colorado Recovery Program can be found at <http://coloradoriverrecovery.org>.

²⁵ Information on the San Juan Recovery Program can be found at www.fws.gov/southwest/sjrip.

Fontenelle Reservoir

Fontenelle Reservoir began water year 2014 with 0.233 maf (287 mcm) in storage, which is 67 percent of full capacity and corresponds to an elevation of 6,490.87 feet (1,978.42 meters). Hydrologic conditions in the Upper Green River Basin were above average in water year 2014. Snowpack development tracked above average and, with late season storms, melt began later than average with the peak snow water equivalent reaching 162 percent of seasonal median on April 8, 2014. The April forecast for the April through July inflow to Fontenelle Reservoir was 1.21 maf (1,490 mcm), or 167 percent of average. The actual observed inflow during the April to July season was 1.05 maf (1,300 mcm), or 145 percent of average.

Fontenelle Reservoir filled in water year 2014. The reservoir elevation peaked at 6,506.15 feet (1,983.07 meters) on July 24, 2014, which was 0.15 feet (0.07 meters) above the spillway crest. Releases were made through the spillway in order to flush out accumulated debris in the spillway stilling pool. Inflow peaked at 10,987 cfs (310.9 cms) on June 2, 2014. In response to the high inflow, reservoir releases were increased during the summer months to balance downstream water resources and power production, while also allowing for filling the reservoir to maintain sufficient water in storage for use through the fall and winter months. Releases peaked at 8,000 cfs (226.4 cms) during June and were reduced to 1,275 cfs (36.1 cms) in August.

Based on the August 2014 24-Month Study, the most probable April through July inflow scenario for Fontenelle Reservoir during water year 2015 is 0.700 maf (863 mcm), or 97 percent of average. This volume far exceeds the 0.345 maf (426 mcm) storage capacity of Fontenelle Reservoir. For this reason, the most probable and maximum probable inflow scenarios would require releases during the spring that exceed the capacity of the powerplant to avoid uncontrolled spills from the reservoir. It is very likely that Fontenelle Reservoir will fill during water year 2015. In order to minimize high spring releases and to maximize downstream water resources and power production, the reservoir will most likely be drawn down to about elevation 6,468.00 feet (1,971.45 meters) by early April 2015, which is 5.00 feet (1.52 meters) above the minimum operating level for power generation, and corresponds to a volume of 0.111 maf (137 mcm) of live storage.

Flaming Gorge Reservoir

Flaming Gorge Reservoir showed an overall increase in storage during water year 2014. The reservoir began water year 2014 with 2.82 maf (3,480 mcm) of live storage, which is 80 percent of live capacity and corresponds to an elevation of 6,015.33 feet (1,833.47 meters). Inflow to Flaming Gorge Reservoir during water year 2014 was above average. Unregulated inflow in water year 2014 was 1.69 maf (2,080 mcm), which is 116 percent of average. The reservoir elevation at the end of the water year (September 30, 2014) was 6,028.31 feet (1,837.43 meters) corresponding to a volume of 3.28 maf (4,050 mcm). The end of water year reservoir elevation was 11.69 feet (3.6 meters) below the full pool

elevation (6,040.00 feet [1,840.99 meters]) which corresponded to an available storage space of 0.466 maf (574 mcm).

Flaming Gorge Dam operations in 2014 were in compliance with the 2006 Flaming Gorge ROD. Reclamation convened the Flaming Gorge Technical Working Group (FGTWG) comprised of the Service, Western, and Reclamation personnel. The FGTWG proposed Reclamation manage releases to the Green River to meet the commitments of the ROD and, to the extent possible, meet the experimental design parameters outlined in the Upper Colorado River Endangered Fish Recovery Program (Recovery Program) Larval Trigger Study Plan (LTSP).²⁶ In response to the LTSP parameters, Flaming Gorge releases were increased to powerplant capacity of 4,600 cfs (130 cms) on May 30, 2014. Larvae were detected on May 28, 2014 and releases were further increased to combined powerplant and bypass capacity on June 6, 2014 (approximately 8,600 cfs [243 cms]) for a total of nine days at bypass capacity. Yampa River flows at the Deerlodge gage peaked at 16,500 cfs (467 cms) on June 1, 2014 and were on the descending limb of the hydrograph during the LTSP. Deerlodge flows were less than or equal to 12,000 cfs (340 cms) when Flaming Gorge releases were at bypass capacity in support of the LTSP.

The hydrologic conditions during spring 2014 consisted of above average snow accumulation with late season storms increasing snowpack and shifting runoff to later in the season. Yampa River spring peak flows were above average. The ROD hydrologic classification for the Upper Green was average. Yampa River conditions began in the moderately wet category and decreased to average. Releases from Flaming Gorge Dam remained at an average daily release of 830 cfs (23.5 cms) through May 29, 2014, when releases were increased to meet the LTSP request. After releases for the LTSP concluded, releases were decreased to base flow releases of 1,675 cfs (47.4 cms). Flows at Jensen met or exceeded targets in Reach 2 for the ROD Flow Recommendation of one-day peak duration at 18,600 cfs (526 cms) and the LTSP average (above median) target of 18,600 cfs (526.4 cms) for a total of 4 days, all of which occurred during larval drift.

Consistent with the ROD, considering information provided to the FGTWG, average hydrologic conditions and in response to the request of the Service, Reclamation operated Flaming Gorge Dam to produce flows at 40 percent above Reach 2 average daily base flows in the Green River during the summer of 2014. The ROD base flow period hydrologic classification was average as of August 2014. Daily base flows fluctuated during the summer to meet 2,400 cfs (67.9 cms) on the Green River at Jensen, Utah through September 30, 2014.

During water year 2015, Flaming Gorge Dam will continue to be operated in accordance with the ROD. Under the most probable inflow scenario, winter base flow releases are projected to be in the average classification range between 800 cfs (22.6 cms) and 2,200 cfs (62.3 cms). Daily base flows will likely fluctuate during the winter in response to hydropower needs during December through February and meet the average-year reservoir

²⁶ The LTSP's primary objective is to determine the effects of timing of Flaming Gorge spring release on razorback sucker larvae in the reach below the confluence of the Green and Yampa Rivers. The LTSP Report is available online at: <http://www.usbr.gov/uc/water/crsp/wg/fg/twg/twgSummaries.html>.

upper level drawdown elevation target of 6,027.00 feet (1,837.03 meters) by May 1, 2015. A spring peak release is projected to occur sometime in May or June 2015, and will be timed to coincide with either the peak flows of the Yampa River or emergence of razorback sucker larvae. Reclamation is considering long-term implementation strategies for the Recovery Program LTSP.

The Recovery Program, in coordination with Reclamation, the Service, and Western, will continue conducting studies associated with floodplain inundation. Such studies may result in alternatives for meeting flow and temperature recommendations at lower peak flow levels where feasible.²⁷

Blue Mesa, Morrow Point, and Crystal Reservoirs (Aspinall Unit)

Blue Mesa Reservoir experienced an overall increase in storage in water year 2014. At the beginning of water year 2014 (October 1, 2013), the elevation of Blue Mesa was 7,456.24 feet (2,272.66 meters), and the storage content was 0.348 maf (429 mcm), which was 42 percent of capacity.

Above average snowpack conditions prevailed in the Gunnison River Basin during water year 2014. Snow measurement sites in the basin reported above average seasonal snow water equivalent levels throughout the winter and into the spring of 2014. On April 1, 2014, the snow water equivalent for the Gunnison River Basin was 107 percent of average.

The April forecast for the April through July unregulated inflow above Blue Mesa was 0.850 maf (1,050 mcm) which was 126 percent of average. The actual April through July unregulated inflow into Blue Mesa Reservoir in 2014 was 0.849 maf (1,050 mcm), which was 126 percent of average.

The release rate from Crystal Dam was approximately 310 cfs (8.8 cms) from October 31, 2013 through February 19, 2014, when it was increased by about 90 cfs (2.5 cms). On March 27, 2014, releases from Crystal Dam were increased for operation of Gunnison Tunnel. Releases through the Black Canyon were approximately 450 cfs (12.7 cms). Releases from the Aspinall Unit pursuant to the ROD reached over 9,000 cfs (255 cms) for 5 days and over 7,000 cfs (198 cms) for 21 days. Flows under the ROD operations equaled or exceeded the flow rates in the Black Canyon Water Right Decree.²⁸ Flows through the Black Canyon and Gunnison River Gorge averaged approximately 880 cfs (24.9 cms) over the July through August period.

During water year 2014, the peak elevation of Blue Mesa Reservoir occurred on June 6, 2014, at an elevation of 7,505.06 feet (2,287.54 meters), which was 14.34 feet (4.37 meters)

²⁷ Flow and Temperature Recommendations for Endangered Fishes in the Green River Downstream of Flaming Gorge Dam, September 2000. Available online at: http://ulpeis.anl.gov/documents/dpeis/references/pdfs/Muth_et_al_2000.pdf.

²⁸ Decree quantifying the Federal Reserved Water Right for Black Canyon of the Gunnison National Park (State of Colorado District Court, Water Division Four, Case Number 01CW05), signed on January 8, 2009.

below full pool. Storage in Blue Mesa Reservoir increased during water year 2014 by 0.251 maf (309 mcm) and ended the water year at 0.599 maf (739 mcm) which was 72 percent of capacity. Total unregulated inflow into Blue Mesa Reservoir for water year 2014 was 1.15 maf (1,420 mcm) and this was 120 percent of average.

On May 3, 2012, Reclamation signed a ROD for the operation of the Aspinall Unit. For water year 2015, the Aspinall Unit will be operated in accordance with the 2012 ROD, including required consultations, while maintaining and continuing to meet the Congressionally authorized purposes.

The projected most probable unregulated inflow for water year 2015 into Blue Mesa Reservoir is 0.910 maf (1122 mcm), or 95 percent of average. The reservoir is expected to decrease to a seasonal low elevation of 7,477.63 feet (2,279.18 meters) by October 31, 2014. The peak elevation is expected to be approximately 7,516.4 feet (2,291 meters) near the end of July 2015. By the end of water year 2015, Blue Mesa Reservoir is expected to be at elevation 7,502.77 feet (2,286.8 meters), with a storage of 0.684 maf (844 mcm), or 82 percent of capacity.

Navajo Reservoir

Navajo Reservoir experienced an overall increase in storage in water year 2014. At the beginning of the 2014 water year, Navajo Reservoir was at an elevation of 6,022.28 feet (1,835.59 meters) which was 55 percent of live capacity and corresponded to a live storage content of 0.933 maf (1,150 mcm). Snowpack conditions in the San Juan River Basin were persistently below average during the winter months. On April 1, 2014, the snow water equivalent in the San Juan River Basin above Navajo Reservoir was 68 percent of the seasonal average for the basin.

Inflow to Navajo Reservoir in water year 2014 was below average. Water year 2014 modified unregulated inflow²⁹ to Navajo Reservoir was 0.696 maf (859 mcm), or 65 percent of average. The April through July modified unregulated inflow into Navajo Reservoir in water year 2014 was 0.428 maf (528 mcm), or 58 percent of average.

Navajo Reservoir reached a peak water surface elevation of 6,047.05 feet (1,843.14 meters) on June 15, 2014, which was 37.95 feet (11.57 meters) below full pool. The water surface elevation at Navajo Reservoir on September 30, 2014, was 6,036.99 feet (1,840.07 meters), with a reservoir storage volume of 1.08 maf (1,330 mcm) or 64 percent of capacity.

The San Juan Flow Recommendations,³⁰ completed by the San Juan Recovery Program in May 1999, provide flow recommendations that promote the recovery of the endangered Colorado River pikeminnow and razorback sucker, maintain important habitat for these two

²⁹ Modified Unregulated inflow into Navajo Reservoir is equivalent to unregulated inflow adjusted for trans-basin diversion through the San Juan-Chama Project.

³⁰ Flow Recommendations for the San Juan River, May 1999. Available online at: http://www.fws.gov/southwest/sjrip/pdf/DOC_Flow_recommendations_San_Juan_River.pdf.

species as well as the other native species, and provide information for the evaluation of continued water development in the basin. The flow recommendations are scheduled to be reviewed by the San Juan Recovery Program in fiscal year 2015.

In 2006, Reclamation completed a NEPA process on the implementation of operations at Navajo Dam. The ROD³¹ for the Navajo Reservoir Operations Final EIS (Navajo Reservoir ROD) was signed by the Regional Director of Reclamation's Upper Colorado Region on July 31, 2006.

Navajo Reservoir was operated in compliance with the Navajo Reservoir ROD in 2014, including the San Juan Recovery Program Flow Recommendations target base flows. The San Juan Flow Recommendations also recommended conducting a one-week spring peak release in 2014 under the most probable inflow conditions. However, Reclamation, in consultation with the San Juan Recovery Program, decided not to conduct a 2014 spring peak release in an effort to recover reservoir storage.

In 2012, a four-year agreement on recommendations for San Juan River operations and administration was developed among major users to limit their water use in years 2013-2016, to the rates and volumes indicated in the agreement.³² The agreement includes limitations on diversions for 2013-2016, criteria for determining a shortage, and shortage-sharing requirements in the event of a water supply shortfall, including sharing of shortages between the water users and the flows for endangered fish habitat.

During water year 2015, Navajo Reservoir will be operated in accordance with the Navajo Reservoir ROD. Navajo Reservoir storage levels are expected to be below average in 2015 under the most probable inflow forecast. Base releases from the reservoir will likely range from 250 cfs (7.10 cms) to 500 cfs (14.2 cms) through the winter. Under the most probable April through July modified unregulated inflow forecast of 0.631 maf (779 mcm) in 2015, a one-week spring peak release would be recommended in the San Juan Recovery Program's Flow Recommendations. The reservoir is projected to reach a peak elevation of 6,057.25 feet (1,846.25 meters) in May 2015. The reservoir is projected to reach a minimum elevation of 6,038.57 feet (1,840.56 meters) in February 2015.

Under the minimum probable 2015 April through July inflow forecast of 0.266 maf (328 mcm), there will not be a spring peak release made during the spring of 2015. Under the maximum probable 2015 April through July inflow forecast of 1.04 maf (1,283 mcm), a full spring peak release will be recommended as described in the San Juan Flow Recommendations.

³¹ Record of Decision for the Navajo Reservoir Operations, Navajo Unit –San Juan River, New Mexico, Colorado, Utah Final Environmental Impact Statement. Available online at: <http://www.usbr.gov/uc/envdocs/eis/navajo/pdfs/NavWaterOpsROD2006.pdf>.

³² Recommendations for San Juan River Operations and Administration for 2013-2016, July 2, 2012. Available online at: http://www.fws.gov/southwest/sjrip/DR_SS03.cfm.

Lake Powell

Reservoir storage in Lake Powell increased during water year 2014. On October 1, 2013, the beginning of water year 2014, reservoir storage in Lake Powell was 45 percent of capacity at elevation 3,591.25 feet (1,094.61 meters), with 10.93 maf (13,480 mcm) in storage. On September 30, 2014, the reservoir storage in Lake Powell was 12.29 maf (15,200 mcm) at 51 percent of full capacity, resulting in a net gain during water year 2014 of 1.35 maf (1,670 mcm). The unregulated inflow to Lake Powell during water year 2014 was near average at 96 percent of average. Lake Powell ended the water year on September 30, 2014, at elevation 3,605.53 feet (1,098.97 meters).

The August 2013 24-Month Study was run to project the January 1, 2014, elevations of Lake Powell and Lake Mead and determine the water year 2014 operating tier for Lake Powell. Using the most probable inflow scenario, and with an 8.23 maf annual release pattern for Lake Powell, the January 1, 2014, reservoir elevations of Lake Powell and Lake Mead were projected to be 3,573.69 feet (1,089.26 meters) and 1,107.39 feet (337.53 meters), respectively. Given these projections, the annual release volume from Lake Powell during water year 2014 was 7.48 maf (9,230 mcm), consistent with the Mid-Elevation Release Tier (Section 6.C of the 2007 Interim Guidelines).

The April through July unregulated inflow to Lake Powell in water year 2014 was 6.92 maf (8,540 mcm) which was 97 percent of average. Lake Powell reached a peak elevation for water year 2014 of 3,609.68 feet (1,100.23 meters) on July 11, 2014, which was 90.32 feet (27.53 meters) below full pool. This peak elevation corresponds to a live storage content of 12.70 maf (15,670 mcm).

The second experimental release under the 2012 High-Flow Experimental Protocol (Protocol)³³ was conducted during November 2013. Reclamation made releases at the maximum available capacity (37,000 cfs [1,050 cms]) during the experiment which began on November 11 and ended on November 16, 2013. Approximately 0.143 maf (176 mcm) was bypassed during the experiment. The total annual release from Glen Canyon Dam in water year 2014 did not change as a result of the High Flow Experiment.

The ten-year total flow of the Colorado River at Lee Ferry³⁴ for water years 2005 through 2014 is 89.52 maf (110,420 mcm). This total is computed as the sum of the flow of the Colorado River at Lees Ferry, Arizona, and the Paria River at Lees Ferry, Arizona, surface water discharge stations which are operated and maintained by the United States Geological Survey.

2015 Operating Tier and Projected Operations for Glen Canyon Dam. The January 1, 2015, reservoir elevations of Lake Powell and Lake Mead are projected under the most probable inflow scenario to be 3,596.62 feet (1,096.25 meters) and 1,083.37 feet (330.21

³³ Finding of No Significant Impact for the Environmental Assessment for Development and Implementation of a Protocol for High-Flow Experimental Releases from Glen Canyon Dam, Arizona through 2020. Available online at: <http://www.usbr.gov/uc/envdocs/ea/gc/HFEPProtocol/index.html>.

³⁴ A point in the mainstream of the Colorado River one mile below the mouth of the Paria River.

meters), respectively, based on the August 2014 24-Month Study. Given these projections, the operating tier and annual release volume from Lake Powell during water year 2015 will be consistent with the Upper Elevation Balancing Tier (Section 6.B of the 2007 Interim Guidelines) and under Section 6.B.1, the annual release would be 8.23 maf (10,150 mcm). The Upper Elevation Balancing Tier, however, does provide for the possibility of adjustments to operation of Lake Powell based on the projected end of water year conditions of Lake Powell and Lake Mead from the April 24-Month Study.

If the April 2015 24-Month Study, with a water year release volume of 8.23 maf (10,150 maf) projects the September 30, 2015, Lake Powell elevation to be greater than 3,649.00 feet (1,112.22 meters), operations will be adjusted and the Equalization Tier will govern the operation of Lake Powell for the remainder of the water year consistent with Section 6.B.3. If this condition occurs, and an adjustment is made, the water year release volume will likely be greater than 8.23 maf (10,150 mcm) and will be determined based on the Equalization Tier as described in Section 6.A of the 2007 Interim Guidelines.

If the April 2015 24-Month Study, with a water year release volume of 8.23 maf (10,150 mcm) projects the September 30, 2015, Lake Mead elevation to be below 1,075.00 feet (327.66 meters), and the September 30, 2015, Lake Powell elevation to be at or above 3,575.00 feet (1,089.66 meters), the Secretary shall balance the contents of Lake Mead and Lake Powell, but shall release not more than 9.00 maf (11,100 mcm) and not less than 8.23 maf (10,150 mcm) from Lake Powell in water year 2015 consistent with Section 6.B.4 of the 2007 Interim Guidelines.

Under the minimum probable inflow scenario, the August 2014 24-Month Study, with a projected water year release volume of 8.23 maf (10,150 mcm) in water year 2015, projects the elevation of Lake Powell on September 30, 2015, would be 3,585.99 feet (1,093.01 meters). This elevation is below the Equalization Level for water year 2015 of 3,649.00 feet (1,112.22 meters). Based on this projection, an April adjustment to balancing is projected to occur under the minimum probable inflow scenario and the water year release for 2015 is projected to be 9.00 maf (10,150 mcm). The end of water year elevation and storage of Lake Powell is projected to be 3,577.82 feet (1,090.52 meters) and 9.75 maf (12,030 mcm), respectively based on the minimum probable inflow scenario.

Under the most probable inflow scenario, the August 2014 24-Month Study, with a projected water year release volume of 8.23 maf (10,150 mcm) in water year 2015, projects the elevations of Lake Powell and Lake Mead on September 30, 2015, would be 3,610.00 feet (1,100.33 meters) and 1,065.01 feet (324.62 meters), respectively. Based on these projections, under the most probable inflow scenario, an April adjustment to balancing is projected to occur during water year 2015. Consistent with Section 6.B.4, the 2015 water year release volume projected under the most probable inflow scenario is 9.00 maf (10,150 mcm) and the end of water year elevation and storage of Lake Powell is projected to be 3,602.84 feet (1,098.15 meters) and 12.02 maf (14,830 mcm), respectively.

Under the maximum probable inflow scenario, the August 2014 24-Month Study, with a projected water year release volume of 8.23 maf (10,150 mcm) in water year 2015, projects

the elevation of Lake Powell on September 30, 2015, would be 3,663.32 feet (1,116.58 meters). This elevation is above the Equalization Level for water year 2015. For this reason, under the maximum probable inflow scenario, an April adjustment to equalization is projected to occur such that the Equalization Tier would govern the operation of Lake Powell for the remainder of water year 2015 consistent with Section 6.B.3 of the 2007 Interim Guidelines. The 2015 water year release volume to achieve Equalization under the maximum probable inflow scenario is 11.63 maf (14,350 mcm) and the end of water year elevation and storage of Lake Powell is projected to be 3,638.39 feet (1,108.98 meters) and 15.81 maf (19,500 mcm), respectively.

In 2015, scheduled maintenance activities at Glen Canyon Dam powerplant will require that one or more of the eight generating units periodically be offline. Coordination between Reclamation offices in Salt Lake City, Utah, and Page, Arizona, and Western will take place in the scheduling of maintenance activities to minimize impacts to operations throughout the water year including experimental releases.

Because of less than full storage conditions in Lake Powell resulting from drought in the Colorado River Basin, releases from Glen Canyon Dam for dam safety purposes are highly unlikely in 2015. If implemented, releases greater than powerplant capacity would be made consistent with the 1956 Colorado River Storage Project Act, the CRBPA, and to the extent practicable, the recommendations made pursuant to the Grand Canyon Protection Act of 1992. Reservoir releases in excess of powerplant capacity required for dam safety purposes during high reservoir conditions may be used to accomplish the objectives of the beach/habitat-building flow according to the terms contained in the 1996 Glen Canyon Dam ROD and as published in the 1997 Glen Canyon Dam Operating Criteria (*Federal Register*, Volume 62, No. 41, March 3, 1997).

Releases from Lake Powell in water year 2015 will continue to reflect consideration of the uses and purposes identified in the authorizing legislation for Glen Canyon Dam. Releases will reflect criteria based on the findings, conclusions, and recommendations made in the 1996 Glen Canyon Dam ROD for the Glen Canyon Dam Final Environmental Impact Statement (GCDFEIS) (required by the Grand Canyon Protection Act of 1992) and other Secretarial decisions.

Monthly releases are updated to be consistent with annual volumes determined pursuant to the 2007 Interim Guidelines. Monthly releases for 2015 will also be consistent with the GCDFEIS/ROD.

For the latest monthly projections for Lake Powell, please see the most recent 24-Month Study report available on Reclamation's Upper Colorado Region Water Operations website:

<http://www.usbr.gov/uc/water/crsp/studies/index.html>.

Daily and hourly releases in 2015 will be made according to the parameters of the 1996 Glen Canyon Dam ROD for the GCDFEIS and the 1997 Glen Canyon Dam Operating Criteria. These parameters set the maximum and minimum flows and ramp rates within

which the releases must be made. Exceptions to these parameters may be made during power system emergencies, during experimental releases, or for purposes of humanitarian search and rescue.

The Department of the Interior is conducting planning for high-flow experimental releases from Glen Canyon Dam in November 2014 and March-April 2015 in accordance with the Protocol.

Lake Mead

For calendar year 2014, the ICS Surplus Condition was the criterion governing the operation of Lake Mead in accordance with Article III(3)(b) of the Operating Criteria, Article II(B)(2) of the Consolidated Decree, and Section 2.B.5 of the 2007 Interim Guidelines. Delivery of water to Mexico was scheduled in accordance with Article 15 of the 1944 United States-Mexico Treaty and Minutes No. 242 and 319 of the IBWC.

Lake Mead began water year 2014 on October 1, 2013, at elevation 1,106.92 feet (337.39 meters), with 12.36 maf (15,250 mcm) in storage, which is 47 percent of the conservation capacity³⁵ of 26.12 maf (32,220 mcm). Lake Mead increased to elevation 1,108.75 feet (337.95 meters) by the end of January 2014. After January 2014, Lake Mead declined during water year 2014 to elevation 1,081.33 feet (329.59 meters) with 10.12 maf (12,480 mcm) in storage (39 percent of capacity) on September 30, 2014.

The total release from Lake Mead through Hoover Dam during water year 2014 was 9.76 maf (12,040 mcm). The total release from Lake Mead through Hoover Dam during calendar year 2014 is projected to be 9.66 maf (11,920 mcm).

The total inflow into Lake Mead is a combination of water released from Glen Canyon Dam plus inflows in the reach between Glen Canyon and Hoover Dams. In water year 2014, inflow into Lake Mead was 8.16 maf (10,070 mcm), consisting of 7.48 maf (9,230 mcm) of water released from Glen Canyon Dam and 0.675 maf (833 mcm) of inflows between Glen Canyon and Hoover Dams. For water year 2015, under the most probable inflow scenario, total inflow into Lake Mead is anticipated to be 9.86 maf (12,160 mcm).

Under the most probable inflow scenario during 2015, the elevation of Lake Mead is projected to decrease to 1,069.54 feet (326.00 meters), with 9.16 maf (11,300 mcm) in storage, at the end of June 2015. At the end of water year 2015, Lake Mead's elevation is projected to be 1,074.06 feet (327.37 meters), with 9.53 maf (11,760 mcm) in storage, and is projected to increase to 1,078.01 feet (328.58 meters) with 9.85 maf (12,150 mcm) at the end of calendar year 2015.

³⁵ Conservation capacity is the amount of space available for water storage between Lake Mead's water surface elevations 895 feet (272.8 meters) and 1,219.6 feet (371.7 meters), the start of the exclusive flood control space as defined in the Field Working Agreement Between Department of the Interior, Bureau of Reclamation and Department of the Army, Corps of Engineers for Flood Control of Hoover Dam and Lake Mead, Colorado River, Nevada-Arizona, February 8, 1984.

Based on the August 2014 24-Month Study, Lake Mead's elevation on January 1, 2015, is projected to be 1,083.37 feet (330.21 meters). In accordance with Section 2.B.5 of the 2007 Interim Guidelines, the ICS Surplus Condition will govern the releases and diversions from Lake Mead in calendar year 2015. Releases from Lake Mead through Hoover Dam for water year and calendar year 2015 are anticipated to be approximately the same as 2014 releases.

For the latest monthly projections for Lake Mead, please see the most recent 24-Month Study report available on Reclamation's Lower Colorado Region Water Operations website:

<http://www.usbr.gov/lc/region/g4000/24mo/index.html>.

Lakes Mohave and Havasu

Lake Mohave started water year 2014 at an elevation of 640.23 feet (195.14 meters) with 1.62 maf (2,000 mcm) in storage. The water level of Lake Mohave was regulated between elevation 636.95 feet (194.14 meters) and 644.01 feet (196.29 meters) during the water year, ending at an elevation of 641.03 feet (195.39 meters), with 1.65 maf (2,040 mcm) in storage. During water year 2014, 9.40 maf (11,600 mcm) was released from Davis Dam. The calendar year 2014 total release is projected to be 9.34 maf (11,520 mcm).

For water and calendar years 2015, Davis Dam is projected to release approximately the same amount of water as in 2014, and the water level in Lake Mohave will be regulated between an elevation of approximately 633 feet (193 meters) and 645 feet (197 meters).

Lake Havasu started water year 2014 at an elevation of 446.96 feet (136.23 meters) with 0.560 maf (691 mcm) in storage. The water level of Lake Havasu was regulated between elevation 445.37 feet (135.75 meters) and 448.48 feet (136.70 meters) during the water year, ending at an elevation of 448.17 feet (136.60 meters), with 0.583 maf (719 mcm) in storage. During water year 2014, 6.50 maf (8,010 mcm) was released from Parker Dam. The calendar year 2014 total release is projected to be 6.49 maf (8,010 mcm).

For water and calendar years 2015, Parker Dam is expected to release approximately the same amount of water as in 2014, and the water level in Lake Havasu will be regulated between an elevation of approximately 446 feet (136 meters) and 450 feet (137 meters).

Lakes Mohave and Havasu are scheduled to be drawn down in the late summer and fall months to provide storage space for local storm runoff and will be filled in the winter to meet higher summer water needs. This drawdown also corresponds with normal maintenance at both Davis and Parker powerplants scheduled for September through March.

Bill Williams River

Abnormally dry to severe drought conditions persisted in western Arizona, including the Bill Williams River watershed, during water year 2014. Tributary inflows into Alamo Lake were below average during water year 2014 and water released by the U.S. Army Corps of Engineers (USACE) from Alamo Dam totaled 0.015 maf (19 mcm) for water year 2014, approximately 16 percent of the long-term average.

Due to below average tributary inflows during water year 2014, Alamo Lake storage decreased by 0.007 maf (8.6 mcm) from October 1, 2013, to September 30, 2014. During this period, Alamo Lake decreased from elevation 1,093.10 feet (333.18 meters) to elevation 1,090.18 feet (332.26 meters). In water year 2014, average daily releases from Alamo Lake ranged from 10 to 25 cfs (0.28 to 0.71 cms).

Senator Wash and Laguna Reservoirs

Senator Wash Reservoir is an off-stream regulating storage facility below Parker Dam (approximately 142 river miles downstream) and has a storage capacity of 0.014 maf (17.3 mcm) at full pool elevation of 251.0 feet (76.5 meters). The reservoir is used to store excess flows from the river caused by water user cutbacks, side wash inflows due to rain, and other factors. Stored waters are utilized to meet the water demands in Arizona and California and the delivery obligation to Mexico.

Since 1992, elevation restrictions have been in place on Senator Wash Reservoir due to potential piping and liquefaction of foundation and embankment materials at West Squaw Lake Dike and Senator Wash Dam. Currently, Senator Wash Reservoir is restricted to an elevation of 240.0 feet (73.2 meters) with 0.009 maf (11.1 mcm) of storage, a loss of about 0.005 maf (6.2 mcm) of storage from its original capacity. Senator Wash Reservoir elevation must not exceed an elevation of 238.0 feet (72.5 meters) for more than 10 consecutive days. This reservoir restriction is expected to continue in 2015.

Laguna Reservoir is a regulating storage facility located approximately five river miles downstream of Imperial Dam and is primarily used to capture sluicing flows from Imperial Dam. The storage capability of Laguna Reservoir has diminished from about 1,500 acre-feet (1.85 mcm) to approximately 400 acre-feet (0.493 mcm) due to sediment accumulation and vegetation growth. Sediment accumulation in the reservoir has occurred primarily due to flood releases that occurred in 1983 and 1984, and flood control or space building releases that occurred between 1985 and 1988 and from 1997 through 1999.

Sediment removal at Laguna Reservoir has begun so that operational sluicing can be reestablished. The Laguna Basin Dredging project will dredge approximately 2.25 million cubic yards (1.72 mcm) of sediment, reestablishing 140 acres (0.57 square kilometers) of open water. As of September 2014, approximately 0.557 million cubic yards (0.425 mcm) of material have been removed. All dredged material will be disposed of in a designated area adjacent to the project site. The project incorporates the use of both land-based and

waterborne heavy equipment. The project permit was obtained from the USACE in May 2013 and is valid through May 2016.

Imperial Dam

Imperial Dam is the last diversion dam on the Colorado River for United States water users. From the head works at Imperial Dam, water is diverted into the All-American Canal for use in the United States and Mexico on the California side of the dam, and into the Gila Gravity Main Canal on the Arizona side of the dam. These diversions supply all the irrigation districts in the Yuma area, in Wellton-Mohawk, in the Imperial and Coachella Valleys, and through Siphon Drop and Pilot Knob, to the Northerly International Boundary (NIB) for diversion at Morelos Dam to the Mexicali Valley in Mexico. The diversions also supply much of the domestic water needs in the Yuma area. Flows arriving at Imperial Dam for calendar year 2014 are projected to be 5.35 maf (6,600 mcm). The flows arriving at Imperial Dam for calendar year 2015 are projected to be 5.45 maf (6,720 mcm).

Gila River Flows

During water year 2014, there was below average snowfall in the Gila River Basin, including the Salt and Verde River watersheds. The Salt River Project did not release water from its system in excess of diversion requirements at Granite Reef Diversion Dam; therefore, no water reached or was released from Painted Rock Dam by the USACE in water year 2014.

Warren H. Brock Reservoir

The Warren H. Brock (Brock) Reservoir is located near the All-American Canal in Imperial County, California. Construction of the reservoir began in 2008 and was completed in the summer of 2010 with commissioning in September. The first filling and drainage test began in September 2010 and was completed in November 2010. In February 2011, Reclamation began operating the reservoir with the Imperial Irrigation District (IID) under an interim operating agreement. On July 5, 2012, Reclamation and IID entered into a long-term operations and maintenance agreement for Brock Reservoir.

The purpose of the 0.008 maf (9.9 mcm) Brock Reservoir is to reduce nonstorable flows and to enhance beneficial use of Colorado River water within the United States. The reservoir reduces the impact of loss of water storage at Senator Wash due to operational restrictions and provides additional regulatory storage, allowing for more efficient management of water below Parker Dam.

Yuma Desalting Plant

The Yuma Desalting Plant (YDP) was authorized in 1974 under the Colorado River Basin Salinity Control Act (Public Law 93-320) which authorized the federal government to construct the YDP to desalt the drainage flows from the Wellton-Mohawk Division of the Gila Project. This would allow the treated water to be delivered to Mexico as part of its 1944 United States-Mexico Water Treaty allotment. The United States has met salinity requirements established in IBWC Minute No. 242 primarily through use of a canal to bypass Wellton-Mohawk drain water to the Ciénega de Santa Clara (Ciénega), a wetland of open water, vegetation, and mudflats within a Biosphere Reserve in Mexico. In calendar year 2014, the amount of water discharged from the Wellton-Mohawk Division through the bypass canal is anticipated to be 0.110 maf (136 mcm), measured at the Southerly International Boundary (SIB), at an approximate concentration of total dissolved solids of 2,700 parts per million (ppm).

Off-stream Storage Agreements

Colorado River water may be stored off-stream pursuant to individual SIRAs and 43 CFR Part 414 within the Lower Division States. The Secretary shall make ICUA available to contractors in Arizona, California, or Nevada pursuant to individual SIRAs and 43 CFR Part 414. The Southern Nevada Water Authority (SNWA) may propose to make unused Nevada basic apportionment available for storage by the Metropolitan Water District of Southern California (MWD) and/or Arizona Water Banking Authority (AWBA) in calendar years 2014 and 2015.^{36,37}

System Conservation

System conservation agreements allow water users to participate in voluntary programs to conserve a portion of their approved annual consumptive use of Colorado River water. The water conserved would be stored and retained in Lake Powell and Lake Mead for the benefit of the entire Colorado River system.

In 2013, a pilot fallowing program agreement was executed between the Central Arizona Water Conservation District (CAWCD), through the Central Arizona Groundwater Replenishment District (CAGRD), and the Yuma Mesa Irrigation and Drainage District

³⁶ Storage and Interstate Release Agreement among The United States of America, acting through the Secretary of the Interior; The Metropolitan Water District of Southern California; the Southern Nevada Water Authority; and the Colorado River Commission of Nevada, October 21, 2004. Available online at: http://www.usbr.gov/lc/region/g4000/contracts/SNWA_MWDSIRAFinal.pdf.

³⁷ Storage and Interstate Release Agreement among The United States of America, acting through the Secretary of the Interior; The Arizona Water Banking Authority; the Southern Nevada Water Authority; and the Colorado River Commission of Nevada, December 18, 2002. Available online at: <http://www.usbr.gov/lc/region/g4000/contracts/SIRAFinal.pdf>.

(YMIDD) (Pilot Following Program).³⁸ The Pilot Following Program is being conducted in two 3-year phases (2014 to 2016; 2017 to 2019). CAWCD and YMIDD proposed that the water conserved in the first phase would remain in Lake Mead as system water. Approximately 0.009 maf (11 mcm) will be conserved in both 2014 and 2015 under this program.

In 2014, a funding agreement for system conservation was executed among Reclamation, CAWCD, MWD, Denver Water (DW), and SNWA (SC Funding Agreement).³⁹ The SC Funding Agreement establishes a pilot program for funding the creation of Colorado River system water through voluntary water conservation actions and reductions in water use beginning in 2015 and continuing through 2016. All water conserved as a result of the pilot program would be for the sole purpose of adding to storage levels in Lake Powell and Lake Mead to benefit the Colorado River system. The program's current funding, from both Federal appropriations and contributions by the non-Federal signatories to the SC Funding Agreement, totals \$11 million. The SC Funding Agreement requires that a minimum of \$2.75 million be spent on conservation projects in the Upper Basin. Other entities may also contribute funding by providing money through a party to the SC Funding Agreement.

Intentionally Created Surplus

The 2007 Interim Guidelines included the adoption of the ICS mechanism that, among other things, encourages the efficient use and management of Colorado River water in the Lower Basin. ICS may be created through several types of activities that include improvements in system efficiency, extraordinary conservation, tributary conservation, and the importation of non-Colorado River System water into the Colorado River mainstream over the course of a calendar year. Several implementing agreements⁴⁰ were executed concurrent with the issuance of the ROD for the 2007 Interim Guidelines. ICS credits may be created and delivered in calendar years 2014 and 2015 pursuant to the 2007 Interim Guidelines and the implementing agreements. ICS balances by state, user, and type of ICS may be found in the

³⁸ Yuma Mesa Irrigation and Drainage District and Central Arizona Water Conservation District Pilot Following and Forbearance Agreement, dated September 12, 2013.

³⁹ Agreement Among the United States of America, through the Department of the Interior, Bureau of Reclamation, the Central Arizona Water Conservation District, the Metropolitan Water District of Southern California, Denver Water, and the Southern Nevada Water Authority, for a Pilot Program for Funding the Creation of Colorado River System Water through Voluntary Water Conservation and Reductions in Use, dated July 30, 2014. Available online at: <http://www.usbr.gov/newsroom/docs/2014-07-30-Executed-Pilot-SCP-Funding-Agreement.pdf>.

⁴⁰ Delivery Agreement between the United States and IID; Delivery Agreement between the United States and MWD; Delivery Agreement between the United States, SNWA and the Colorado River Commission of Nevada (CRCN); Lower Colorado River Basin Intentionally Created Surplus Forbearance Agreement among the Arizona Department of Water Resources, SNWA, CRCN, the Palo Verde Irrigation District (PVID), IID, Coachella Valley Water District (CVWD), MWD, and the City of Needles; and the California Agreement for the Creation and Delivery of Extraordinary Conservation Intentionally Created Surplus among the PVID, IID, CVWD, MWD, and the City of Needles. These agreements are available online at: <http://www.usbr.gov/lc/region/programs/strategies/documents.html>.

annual Colorado River Accounting and Water Use Report, Arizona, California, and Nevada.⁴¹

Extraordinary Conservation ICS. IID has approved plans to create up to 0.025 maf (31 mcm) of Extraordinary Conservation ICS in 2014 and 2015. MWD has approved plans to create up to 0.200 maf (247 mcm) of Extraordinary Conservation ICS in 2014 and 2015. Contractors with available Extraordinary Conservation ICS may request delivery of ICS credits in 2014 and 2015.

System Efficiency ICS. When the Brock reservoir project was funded, CAWCD, MWD, and SNWA received System Efficiency ICS credits in exchange for funding. In 2014 and 2015, MWD and SNWA may request an annual delivery of up to 0.025 maf (31 mcm) and 0.040 maf (49 mcm) of those System Efficiency ICS credits, respectively. When the YDP Pilot Run was conducted, CAWCD, MWD, and SNWA received System Efficiency ICS credits in exchange for funding. Approximately 0.030 maf (37 mcm) of System Efficiency ICS credits from the YDP Pilot Run were created in 2010 and 2011. MWD and SNWA may request delivery of these System Efficiency ICS credits in proportion to their capital contributions in 2014 or a subsequent year. Under the funding arrangements for Brock Reservoir and the YDP Pilot Run, CAWCD has agreed not to request delivery of System Efficiency ICS credits in 2014 and 2015.

Tributary Conservation ICS. SNWA has approved plans to create up to 0.037 maf (46 mcm) of Tributary Conservation ICS in 2014 and 2015. Any Tributary Conservation ICS not delivered for use by SNWA in the calendar year created will, at the beginning of the following year, be converted to Extraordinary Conservation ICS pursuant to the 2007 Interim Guidelines.

Imported ICS. SNWA has approved plans to create up to 0.009 maf (11 mcm) of Imported ICS in 2014 and 2015. Any Imported ICS not delivered for use by SNWA in the calendar year created will, at the beginning of the following year, be converted to Extraordinary Conservation ICS pursuant to the 2007 Interim Guidelines.

Delivery of Water to Mexico

Delivery to Mexico pursuant to the 1944 United States-Mexico Water Treaty, and IBWC Minute No. 319, is anticipated to be approximately 1.549 maf (1,910 mcm) in calendar year 2014, reflecting an anticipated downward adjustment of approximately 0.056 maf (69 mcm) and a pulse flow delivery of approximately 0.105 maf (130 mcm) in accordance with IBWC Minute No. 319. Balances of water deferred by Mexico in previous years may be found in the annual Colorado River Accounting and Water Use Report, Arizona, California, and Nevada.⁴² Excess flows arriving at the NIB are anticipated to be 0.040 maf (49 mcm) in calendar year 2014. Excess flows result from a combination of factors, including heavy rain

⁴¹ Available online at: <http://www.usbr.gov/lc/region/g4000/wtracct.html>.

⁴² Available online at: <http://www.usbr.gov/lc/region/g4000/wtracct.html>.

from winter storms, water ordered but not delivered to United States users downstream of Parker Dam, inflows into the Colorado River below Parker Dam, and spills from irrigation facilities below Imperial Dam.

Of the scheduled delivery to Mexico in calendar year 2014, approximately 1.409 maf (1,740 mcm) is projected to be delivered at NIB and approximately 0.140 maf (173 mcm) is projected to be delivered at SIB. No water is anticipated to be delivered to Tijuana, Baja California in calendar year 2014.⁴³

Pursuant to Section III.6.e.i of IBWC Minute No. 319, a pulse flow of approximately 0.105 maf (130 mcm) was delivered to Mexico from March 23 through May 18, 2014 to benefit the riparian ecosystem. Consistent with the Minute, the source of water to implement this flow was from water deferred under Section III.1 of IBWC Minute No. 319. Implementation of the pulse flow also involved a monitoring component conducted by scientists and experts from the United States and Mexico to determine the environmental benefits of the pulse flow and the overall performance of the pilot project.

Of the total delivery at SIB projected in calendar year 2014, approximately 0.116 maf (143 mcm) is projected to be delivered from the Yuma Project Main Drain and approximately 0.024 maf (30 mcm) is expected to be delivered by the Protective and Regulatory Pumping Unit (Minute No. 242 wells).

Pursuant to the 1944 United States-Mexico Water Treaty, a volume of 1.500 maf (1,850 mcm) will be available to be scheduled for delivery to Mexico in calendar year 2015. In accordance with IBWC Minute No. 319, Mexico may defer delivery of water pursuant to Sections III.1 and III.4 or take delivery of additional water pursuant to Section III.4. Following execution and approval of an extension to IBWC Minute No. 314 and an amendment to the Emergency Delivery Agreement,⁴⁴ IBWC may request water to be delivered for Tijuana through MWD, the San Diego County Water Authority, and the Otay Water District's respective distribution system facilities in California. Approximately 0.140 maf (173 mcm) is projected to be delivered at SIB and the remainder of the water to be scheduled for delivery to Mexico in 2015 will be delivered at NIB.

Drainage flows to the Colorado River from the Yuma Mesa Conduit and South Gila Drain Pump Outlet Channels are projected to be 0.017 maf (21 mcm) and 0.023 maf (28 mcm), respectively, for calendar year 2014. This water is available for delivery at NIB in satisfaction of the 1944 United States-Mexico Water Treaty. Reclamation holds a permit⁴⁵ from the Arizona Department of Water Resources (ADWR) to pump an additional 0.025 maf (30.8 mcm) of groundwater annually for water delivery to Mexico to replace water

⁴³ IBWC Minute No. 314 and the Emergency Delivery Agreement expired on November 9, 2013; therefore, a new minute and an amendment to the Emergency Delivery Agreement are required to extend the temporary emergency delivery of Colorado River water for use in Tijuana.

⁴⁴ Amendment No. 1 to Agreement for Temporary Emergency Delivery of a Portion of the Mexican Treaty Waters of the Colorado River to the International Boundary in the Vicinity of Tijuana, Baja California, Mexico, and for the Operation of Facilities in the United States, dated November 26, 2008.

⁴⁵ ADWR Transport Permit Number 30-001 entitled Permit to Transport Groundwater Withdrawn from the Yuma Groundwater Basin, March 1, 2007.

bypassed to the Ciénega through the bypass canal. Salinity conditions have not allowed for increased pumping and Reclamation will continue to monitor and evaluate conditions under the permit in the future.

As stated in Minute No. 242, the maximum allowable salinity differential is 145 ppm by the United States' measurement or count and 151 ppm by the Mexican count. The salinity differential for calendar year 2014 is projected to be 140 ppm by the United States' count.

Mexico has identified four critical months, October through January, regarding improving the quality of water delivered at SIB. As a matter of comity, the United States has agreed to reduce the salinity of water delivered at SIB during this period. To accomplish the reduction in salinity, the United States constructed a diversion channel to bypass up to 0.008 maf (9.9 mcm) of Yuma Valley drainage water during the four critical months identified by Mexico. This water will be replaced by better quality water from the Minute No. 242 well field to reduce the salinity at SIB. Reclamation anticipates bypassing approximately 0.001 maf (1.2 mcm) in calendar year 2014 to the diversion channel for salinity control and up to 0.008 maf (9.9 mcm) in calendar year 2015.

2015 DETERMINATIONS

The AOP provides projections regarding reservoir storage and release conditions during the upcoming year, based upon Congressionally mandated and authorized storage, release, and delivery criteria and determinations. After meeting these criteria and determinations, specific reservoir releases may be modified within these requirements as forecasted inflows change in response to climatic variability and to provide additional benefits coincident to the projects' multiple purposes.

Upper Basin Reservoirs

Section 602(a) of the CRBPA provides for the storage of Colorado River water in Upper Basin reservoirs and the release of water from Lake Powell that the Secretary finds reasonably necessary to assure deliveries to comply with Articles III(c), III(d), and III(e) of the 1922 Colorado River Compact without impairment to the annual consumptive use in the Upper Basin. The Operating Criteria provide that the annual plan of operation shall include a determination of the quantity of water considered necessary to be in Upper Basin storage at the end of the water year after taking into consideration all relevant factors including historic streamflows, the most critical period of record, the probabilities of water supply, and estimated future depletions. Water not required to be so stored will be released from Lake Powell:

- to the extent it can be reasonably applied in the States of the Lower Division to the uses specified in Article III(e) of the 1922 Colorado River Compact, but these releases will not be made when the active storage in Lake Powell is less than the active storage in Lake Mead;
- to maintain, as nearly as practicable, active storage in Lake Mead equal to the active storage in Lake Powell; and
- to avoid anticipated spills from Lake Powell.

Taking into consideration all relevant factors required by Section 602(a)(3) of the CRBPA and the Operating Criteria, it is determined that the active storage in Upper Basin reservoirs projected for September 30, 2015, under the most probable inflow scenario would be below the threshold required under Section 602(a) of the CRBPA.

Taking into account (1) the existing water storage conditions in the basin, (2) the August 2014 24-Month Study projection of the most probable near-term water supply conditions in the basin, and (3) Section 6.B of the 2007 Interim Guidelines, the Upper Elevation Balancing Tier will govern the operation of Lake Powell for water year 2015. The August 2014 24-Month Study of the most probable inflow scenario projects the water year 2015 release from Glen Canyon Dam to be 9.00 maf (11,100 mcm). Given the hydrologic variability of the Colorado River System and based on actual 2014 water year operations,

the projected water year release from Lake Powell in 2015 could be in the estimated range of 8.23 maf (10,150 mcm) to 11.63 maf (14,350 mcm) or greater.

Lower Basin Reservoirs

Pursuant to Article III of the Operating Criteria and consistent with the Consolidated Decree, water shall be released or pumped from Lake Mead to meet the following requirements:

- (a) 1944 United States-Mexico Water Treaty obligations;
- (b) Reasonable beneficial consumptive use requirements of mainstream users in the Lower Division States;
- (c) Net river losses;
- (d) Net reservoir losses;
- (e) Regulatory wastes; and
- (f) Flood control.

The Operating Criteria provide that after the commencement of delivery of mainstream water by means of the Central Arizona Project, the Secretary will determine the extent to which the reasonable beneficial consumptive use requirements of mainstream users are met in the Lower Division States. Reasonable beneficial consumptive use requirements are met depending on whether a Normal, Surplus, or Shortage Condition has been determined. The Normal Condition is defined as annual pumping and release from Lake Mead sufficient to satisfy 7.500 maf (9,250 mcm) of consumptive use in accordance with Article III(3)(a) of the Operating Criteria and Article II(B)(1) of the Consolidated Decree. The Surplus Condition is defined as annual pumping and release from Lake Mead sufficient to satisfy in excess of 7.500 maf (9,250 mcm) of consumptive use in accordance with Article III(3)(b) of the Operating Criteria and Article II(B)(2) of the Consolidated Decree. An ICS Surplus Condition is defined as a year in which Lake Mead's elevation is projected to be above elevation 1,075.0 feet (327.7 meters) on January 1, a Flood Control Surplus has not been determined, and delivery of ICS has been requested. The Secretary may determine an ICS Surplus Condition in lieu of a Normal Condition or in addition to other operating conditions that are based solely on the elevation of Lake Mead. The Shortage Condition is defined as annual pumping and release from Lake Mead insufficient to satisfy 7.500 maf (9,250 mcm) of consumptive use in accordance with Article III(3)(c) of the Operating Criteria and Article II(B)(3) of the Consolidated Decree.

The 2007 Interim Guidelines are being utilized in calendar year 2015 and serve to implement the narrative provisions of Article III(3)(a), Article III(3)(b), and Article III(3)(c) of the Operating Criteria and Article II(B)(1), Article II(B)(2), and Article II(B)(3) of the Consolidated Decree for the period through 2026. The 2007 Interim Guidelines will be used annually by the Secretary to determine the quantity of water available for use within the Lower Division States.

Consistent with the 2007 Interim Guidelines, the August 2014 24-Month Study was used to forecast the system storage as of January 1, 2015. Based on a projected January 1, 2015, Lake Mead elevation of 1,083.37 feet (330.21 meters) and consistent with Section 2.B.5 of the 2007 Interim Guidelines, the ICS Surplus Condition will govern releases for use in the states of Arizona, Nevada, and California during calendar year 2015 in accordance with Article III(3)(b) of the Operating Criteria and Article II(B)(2) of the Consolidated Decree. Water deliveries in the Lower Basin during calendar year 2015 will be limited to 7.500 maf (9,250 mcm) plus or minus any credits for ICS.

Article II(B)(6) of the Consolidated Decree allows the Secretary to allocate water that is apportioned to one Lower Division State but is for any reason unused in that state to another Lower Division State. This determination is made for one year only, and no rights to recurrent use of the water accrue to the state that receives the allocated water. No unused apportionment for calendar year 2015 is anticipated. If any unused apportionment becomes available after adoption of this AOP, Reclamation, on behalf of the Secretary, shall allocate any such available unused apportionment for calendar year 2015 in accordance with Article II(B)(6) of the Consolidated Decree and the Unused Water Policy.

Water may be stored off-stream pursuant to individual SIRAs and 43 CFR Part 414 within the Lower Division States. The Secretary shall make ICUA available to contractors in Arizona, California, or Nevada pursuant to individual SIRAs and 43 CFR Part 414. SNWA may propose to make unused Nevada basic apportionment available for storage by MWD and/or AWBA in calendar year 2015.

The IOPP, which became effective January 1, 2004, will be in effect during calendar year 2015. In calendar year 2015, Arizona paybacks are projected to be 0.0003 maf (0.4 mcm). Payback balances by state and user may be found in the annual Colorado River Accounting and Water Use Report, Arizona, California, and Nevada.⁴⁶

In calendar year 2015, conserved Colorado River water is anticipated to be added to system reservoirs pursuant to the SC Funding Agreement and the CAGR/DMIDD Pilot Program.

The 2007 Interim Guidelines included the adoption of the ICS mechanism that among other things encourages the efficient use and management of Colorado River water in the Lower Basin. The ICS Surplus Condition will govern Lower Basin operations in calendar year 2015 and ICS credits will be created and delivered pursuant to the 2007 Interim Guidelines and appropriate delivery and forbearance agreements.

Given the limitation of available supply and recent low inflow amounts within the Colorado River Basin, the Secretary, through Reclamation, will continue to review Lower Basin operations to assure that all deliveries and diversions of mainstream water are in strict accordance with the Consolidated Decree, applicable statutes, contracts, rules, and agreements.

⁴⁶ Available online at: <http://www.usbr.gov/lc/region/g4000/wtracct.html>.

As provided in Section 7.C of the 2007 Interim Guidelines, the Secretary may undertake a mid-year review to consider revisions of the current AOP. For Lake Mead, the Secretary shall revise the determination in any mid-year review for the current year only to allow for additional deliveries from Lake Mead pursuant to Section 7.C of the 2007 Interim Guidelines.

1944 United States-Mexico Water Treaty

Under the minimum probable, most probable, and maximum probable inflow scenarios, water in excess of that required to supply uses in the United States and the guaranteed quantity of 1.500 maf (1,850 mcm) allotted to Mexico will not be available, subject to any increased amounts delivered consistent with Section III.4 of IBWC Minute No. 319. Vacant storage space in mainstream reservoirs is substantially greater than that required by flood control regulations. Therefore, a volume of 1.500 maf (1,850 mcm) of water will be available to be scheduled for delivery to Mexico during calendar year 2015 subject to and in accordance with Article 15 of the 1944 United States-Mexico Water Treaty and Minutes No. 242 and 314 (as it may be extended) of the IBWC. In accordance with IBWC Minute No. 319, Mexico may defer delivery of water pursuant to Sections III.1 and III.4 or take delivery of additional water pursuant to Section III.4.

Calendar year schedules of the monthly deliveries of Colorado River water are formulated by the Mexican Section of the IBWC and presented to the United States Section before the beginning of each calendar year. Pursuant to the 1944 United States-Mexico Water Treaty, the monthly quantity prescribed by those schedules may be increased or decreased by not more than 20 percent of the monthly quantity, upon 30-day notice in advance to the United States Section. Any change in a monthly quantity is offset in another month so that the total delivery for the calendar year is unchanged, subject to the provisions of the 1944 United States-Mexico Water Treaty and IBWC Minute No. 319 (which contains specific provisions regarding adjustment of delivery schedules).

DISCLAIMER

Nothing in this AOP is intended to interpret the provisions of the Colorado River Compact (45 Stat. 1057); the Upper Colorado River Basin Compact (63 Stat. 31); the Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande, Treaty Between the United States of America and Mexico (Treaty Series 994, 59 Stat. 1219); the United States/Mexico agreement in Minute No. 242 of August 30, 1973, (Treaty Series 7708; 24 UST 1968) or Minute No. 314 of November 26, 2008 (as it may be extended), or Minute No. 319 of November 20, 2012; the Consolidated Decree entered by the Supreme Court of the United States in *Arizona v. California* (547 U.S. 150 (2006)); the Boulder Canyon Project Act (45 Stat. 1057; 43 U.S.C. 617); the Boulder Canyon Project Adjustment Act (54 Stat. 774; 43 U.S.C. 618a); the Colorado River Storage Project Act (70 Stat. 105; 43 U.S.C. 620); the Colorado River Basin Project Act (82 Stat. 885; 43 U.S.C. 1501); the Colorado River Basin Salinity Control Act (88 Stat. 266; 43 U.S.C. 1951); the Hoover Power Plant Act of 1984 (98 Stat. 1333); the Hoover Power Allocation Act of 2011 (125 Stat. 777); the Colorado River Floodway Protection Act (100 Stat. 1129; 43 U.S.C. 1600); the Grand Canyon Protection Act of 1992 (Title XVIII of Public Law 102-575, 106 Stat. 4669); or the Decree Quantifying the Federal Reserved Right for Black Canyon of the Gunnison National Park (Case No. 01CW05, District Court, Colorado Water Division No. 4, 2008).

ACRONYMS AND ABBREVIATIONS

ADWR	Arizona Department of Water Resources
AMP	Glen Canyon Dam Adaptive Management Program
AMWG	Glen Canyon Dam Adaptive Management Work Group
AOP	Annual Operating Plan
AWBA	Arizona Water Banking Authority
CAGRD	Central Arizona Groundwater Replenishment District
CAWCD	Central Arizona Water Conservation District
CBRFC	National Weather Service's Colorado Basin River Forecast Center
CFR	Code of Federal Regulations
cfs	cubic feet per second
cms	cubic meters per second
CRBPA	Colorado River Basin Project Act of 1968
CRCN	Colorado River Commission of Nevada
CVWD	Coachella Valley Water District
DW	Denver Water
EIS	Environmental Impact Statement
FGTWG	Flaming Gorge Technical Work Group
FONSI	Finding of No Significant Impact
GCDFEIS	Glen Canyon Dam Final Environmental Impact Statement of 1996
IBWC	International Boundary and Water Commission, United States and Mexico
ICS	Intentionally Created Surplus
ICUA	Intentionally Created Unused Apportionment
IID	Imperial Irrigation District
IOPP	Inadvertent Overrun and Payback Policy
LTSP	Larval Trigger Study Plan
maf	million acre-feet
mcm	million cubic meters
MWD	The Metropolitan Water District of Southern California
NEPA	National Environmental Policy Act of 1969, as amended
NIB	Northerly International Boundary
P. L.	Public Law
ppm	parts per million
PVID	Palo Verde Irrigation District
Reclamation	United States Bureau of Reclamation
ROD	Record of Decision
Secretary	Secretary of the United States Department of the Interior
Service	United States Fish and Wildlife Service
SIB	Southerly International Boundary
SIRA	Storage and Interstate Release Agreement
SNWA	Southern Nevada Water Authority
USACE	United States Army Corps of Engineers
Western	Western Area Power Administration
YDP	Yuma Desalting Plant
YMIDD	Yuma Mesa Irrigation and Drainage District



COLORADO

Department of Natural Resources

Executive Director's Office
1313 Sherman Street, Room 718
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January 12, 2015

Public Comments Processing
Attn: FWS-R8-ES-2013-0011
U.S. Fish and Wildlife Service Headquarters
MS: BPHC
5275 Leesburg Pike
Falls Church, VA 22041-3803

RE: Colorado Department of Natural Resources Supplemental Comments Regarding the Designation of Critical Habitat for the Western Distinct Population Segment of the Yellow-billed Cuckoo

The Colorado Department of Natural Resources filed comments on October 14, 2014 regarding the proposed designation of critical habitat for the western distinct population segment of the yellow-billed cuckoo (*Coccyzus americanus*) (YBC). This letter supplements the October 2014 comments.

First, we reiterate our position that designation of critical habitat in Colorado for this species is not appropriate, for the reasons explained in our October letter. With this position in mind, we would like to raise additional concerns about specific units proposed in Colorado. These concerns pertain to existing and new water diversions in river systems in Colorado that are already governed by recovery programs currently being implemented pursuant to the Endangered Species Act (ESA).

Section 4(b)(2) directs FWS to take into account "any relevant impact" of specifying a particular area as critical habitat. FWS may exclude any area from critical habitat if the benefits of exclusion outweigh the benefits of including the area. 16 U.S.C. § 1533(b)(2). We believe that some of the proposed Colorado units of YBC critical habitat should be excluded because they are already covered by various programmatic biological opinions addressing concerns about hydrology, flows, and surface diversions of the rivers in question.

The Upper Colorado River Basin is home to four species of fish that have been listed as endangered under Section 4 of the ESA: the Colorado pikeminnow, humpback chub, razorback sucker, and bonytail. See <http://www.coloradoriverrecovery.org/general-information/general-information.html>, the website of the Upper Colorado River Endangered Fish Recovery Program. As part of the recovery plan for these species, the Bureau of



Reclamation (Bureau), in partnership with the states of Wyoming, Utah and Colorado and water users, prepared operational plans for three river systems that contain proposed Colorado critical habitat units for the YBC. Partners in the recovery program cooperatively manage water resources in accordance with state water law, individual water rights, interstate compacts, and relevant federal laws to support recovery of the fish species. These management regimes are complex, and include coordinated water releases from upstream reservoirs, participation in reservoir enlargements, efficiency improvements to irrigation systems, and reoperation of federal dams and reservoirs. These management regimes were developed as part of the reasonable and prudent alternatives for continued and new water diversions in the relevant basins. One of the plans, governing operation of the Aspinall Unit on the Gunnison River, as well as a new project on the Uncompahgre River, was particularly complex, taking roughly ten years to negotiate and finalize.

Before the new recovery-oriented management plans could be adopted, the ESA required the Bureau to engage in consultation with the U.S. Fish and Wildlife Service (FWS). FWS prepared programmatic biological opinions (PBOs) for each of three river systems. Copies of the PBOs are available at <http://www.coloradoriverrecovery.org/documents-publications/section-7-consultation/section-7-consultation.html>. The PBOs jointly provide ESA compliance for ongoing and new water diversions in relevant areas of the Yampa, Colorado, and Gunnison rivers.

In all of the proposed Colorado units of critical habitat, identified threats include altered hydrology resulting from surface diversions and groundwater withdrawals. 79 Fed. Reg. 48548, 48559 (Aug. 15, 2014). Special management considerations recommended include management of hydrology to mimic natural flows and floodplain processes. To the extent that management of hydrology is a principal tool for protecting the proposed YBC Colorado units from adverse modification, units covered by the PBOs are already operating under plans that provide for a hydrology regime that is more likely to mimic natural flows. Accordingly, these units should be excluded from critical habitat designation, or alternatively, should be made subject to the existing PBOs.

Specific Units

CO-3, CO-4 and CO-5

These three units - on the North Fork of the Gunnison River, the Uncompahgre, and the mainstem Gunnison River just upstream of Blue Mesa Reservoir, all lie within the area covered by the Gunnison River Basin PBO (Dec. 4, 2009) (Gunnison PBO) at pp. 5-6, available at <http://www.coloradoriverrecovery.org/documents-publications/section-7-consultation/GUPBO.pdf>). These stretches of river were scrutinized during FWS's preparation of a PBO for modifications to the operation of the Wayne N. Aspinall unit on the Gunnison River, as well as for new water projects on the Uncompahgre and Dolores Rivers. During preparation of the Gunnison PBO, the Bureau of Reclamation specifically considered whether the proposed operations and new water diversions would affect the YBC and determined it would not. Gunnison PBO at 2.

In addition to the operation of the Aspinall Unit, the plan addresses all existing water depletions in the Gunnison River basin¹, new depletions associated with the Upper Gunnison Subordination, continued operation of other Reclamation Projects in the Gunnison Basin, and other federal, private, local, and state water projects and uses in the Gunnison Basin. The plan also covers full build-out and operation of the Dallas Creek Project on the Uncompahgre River. The Gunnison PBO confirms that the proposed management and operation of these

¹ Excluding Redlands Water and Power Diversion, which depletions were addressed in a 2004 Biological Opinion.

depletions and projects would not adversely affect the positive change of flow patterns in the rivers to a more natural flow regime. Gunnison PBO at 73. In order to maintain consistency with and avoid disrupting the final agreement studied in the Gunnison PBO - which involves water users, water storage, and new depletions in the proposed CO-3, CO-4, and CO-5 units, the Department of Natural Resources urges FWS to exclude these units from designation as critical habitat, or to make them subject to the existing Gunnison PBO.

CO-1

CO-1, a stretch of the Yampa River between Craig, Colorado and Hayden, Colorado, should be excluded because it too is covered by a PBO that has as one of its primary elements the acquisition and enhancement of floodplain habitats. Two of the threats to the endangered fish, as identified in the PBO, are stream flow regulation and habitat modification. See Final Programmatic Biological Opinion on the *Management Plan for Endangered Fishes in the Yampa River Basin*, Jan. 10, 2005 ("Yampa PBO"). Because the PBO already addresses surface depletions and flow regulation to benefit fish habitat, this area should be excluded from YBC critical habitat, or made subject to and included in the Yampa PBO.

CO-2

CO-2, the Colorado River near Grand Junction, should be excluded because it too is covered by a PBO. See *Final Programmatic Biological Opinion for Bureau of Reclamation's Operations and Depletions, Other Depletions, and Funding and Implementation of Recovery Program Actions in the Upper Colorado River Above the Confluence with the Gunnison River*, Dec. 1999 (the "15-mile Reach PBO"). The PBO provides ESA coverage for existing depletions and new depletions above the confluence with the Gunnison River to avoid the likelihood of jeopardy to the endangered fish species or adverse modification of their critical habitat. The actions studied in the 15-mile Reach PBO include augmentation of late summer and fall flows, spring peak flow enhancement, and restoration and protection of natural floodplain habitats. 15-mile Reach PBO at 8-12. Alternatively, activities impacting surface depletions or floodplain encroachment should be considered under the existing 15-mile Reach PBO.

Since the implementation of the Upper Colorado Endangered Fish Recovery Program, over 200 biological opinions have been issued on water depletions to the Upper Colorado River Basin. The Recovery Program and implementation of the associated Recovery Action Plan, which encompass the actions considered in the PBO, have served as the reasonable and prudent alternative for jeopardy opinions. 15-mile Reach PBO at 4. These include non-Reclamation projects associated with the continuation of existing depletions and new depletions above the confluence of the Gunnison and Colorado Rivers at Grand Junction, all of which have relied on the implementation of the Recovery Plan to avoid the likelihood of jeopardy and adverse modification of habitat. 15-mile Reach PBO at 5.

CO-6 and CO-7

As we pointed out in our October 2014 letter, CO-6 and CO-7, along the Rio Grande and Conejos Rivers respectively, should be excluded because they are covered by an existing HCP. Please see our October letter for further discussion of these units.

Finally, we remind FWS that several State Wildlife Areas under the jurisdiction of Colorado Parks and Wildlife have been included within proposed critical habitat units. We discussed these areas in our October letter. Regardless of FWS's determination regarding the Upper Colorado Fish Recovery PBOs and the HCPs on the Rio Grande and Conejos Rivers, these SWAs should be excluded from designation of critical habitat, as these areas are already managed to protect and maintain high-quality habitat, and designation is unlikely to provide any further incremental benefits to the riparian areas on which the YBC is dependent.

Thank you for your attention to these comments.

Sincerely,

A handwritten signature in black ink, appearing to read 'M. King', with a stylized flourish at the end.

Mike King
Executive Director

Director's Report Attachment – January 26-27, 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
2-94CW041	Princeton Holdings, LLC	Chalk Creek/ 2-77W4662	18 cfs (summer) 18 cfs (winter)	0.00857 % 0.00857 %	0.16746 % 0.02026 %	29
2-06CW032	Daniel S. & Michelle A. Mudd	Cottonwood Creek/ 2-79CW115	20 cfs (summer) 20 cfs (winter)	0.00118 % 0.00021 %	0.65643 % 0.31145 %	157
2-06CW032	Mari L. Butler	Cottonwood Creek/ 2-79CW115	20 cfs (summer) 20 cfs (winter)	0.00140 % 0.00000 %	0.65761 % 0.31250 %	158
2-06CW032	Hans W. & Melissa A. Albrecht	Cottonwood Creek/ 2-79CW115	18 cfs (summer) 18 cfs (winter)	0.00097 % 0.00041 %	0.65901 % 0.31250 %	159
5-14CW3099	Grand River Ranch Owners Assc., Inc.	Muddy Creek/ 5-98CW305	20 cfs (summer) 20 cfs (winter)	0.01000 % 0.00500 %	0.01000 % 0.05000 %	0

**January 26-27, 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; the Director has authorized the Attorney General's Office to enter into stipulations that protect the CWCB's water right(s).

(1) Case No. 1-06CW37 - Application of Colorado Historical Society & Board of County Commissioners of Clear Creek County

The Board ratified this statement of opposition at its May 2006 meeting. The Board's main objective in filing the statement of opposition in this case was to ensure that the Applicant's proposed storage right does not injure the Board's instream flow water right on Clear Creek by inundation and that the claimed exchange will not injure that ISF water right. 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 right that could have been injured by this application:

CWCB Case No.	Stream/Lake	Amount (cfs)	Approp. Date	Watershed	County
1-84CW649	Clear Creek	10	7/11/84	Clear Creek	Clear Creek

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

- During an instream flow call on Clear Creek, Applicant shall not divert and store any water rights decreed in this case. All water which is stored out of priority, except for water stored pursuant to the operation of a lawful exchange or plan for augmentation, shall be promptly released to the stream without use as directed by the Water Commissioner.
- At the January, 2013 CWCB board meeting, the Board considered Applicant's request to inundate the Board's instream flow water right on Clear Creek. The Board approved the request determining that the inundation does not significantly interfere with the instream flow water right on Clear Creek and therefore the natural environment of Clear Creek can continue to be preserved to a reasonable degree despite the inundation.

(2) 2-13CW3061 - Application of the Town of Palmer Lake

The Board ratified this statement of opposition at its March 2014 meeting. The Board's main objective in filing the statement of opposition in this case was to ensure that the Applicant's proposed change of water rights do not injure the Board's instream flow water rights on North Monument Creek and Ice Cave Creek by expansion of use and failure to maintain return flows in time, place, and amount. A 4-day trial is set to begin on February 3, 2015. 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
2-80CW79	North Monument Creek	1	5/7/1980	Fountain Creek	El Paso
2-80CW78	Ice Cave Creek	1	5/7/1980	Fountain Creek	El Paso

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

- Use of the 0.89 c.f.s. water right being changed for augmentation or replacement purposes, other than for replacement of evaporation on Palmer Lake and on Glen Park Reservoir, will be pursuant to a separately decreed plan for augmentation or State approved substitute water supply plan.
- Replacement of evaporation losses on Glen Park Reservoir shall be pursuant to an administrative exchange and said exchange will only be operated when the instream flow right of 1.0 c.f.s. decreed in Case No. 80CW079 is satisfied. When said administrative exchange cannot be operated and free river conditions do not exist, evaporation losses shall be made up by releases from Glen Park Reservoir.
- The maximum monthly consumptive use under the 0.89 c.f.s. water right being changed shall not exceed 8.4 acre feet per month. When the flows in North Monument Creek are 1.0 c.f.s. or less, that Applicant will limit its diversions to 0.25 c.f.s. under the 0.89 c.f.s. water being changed.

(3) 4-10CW206 - Application of TSG Ski & Golf, LLC and the Town of Mountain Village

The Board ratified this statement of opposition at its March 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 of augmentation and exchange do not injure the Board's instream flow water rights on San Miguel River and South Fork San Miguel River by not replacing depletions in time, amount and location. 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
4-84CW427	San Miguel River	6.5	7/13/1984	San Miguel	San Miguel
4-05CW154 (enlargement)	San Miguel River	4 (5/15-10/31)	1/25/2005	San Miguel	San Miguel
4-84CW429	San Miguel River	20	7/13/1984	San Miguel	San Miguel
4-84CW430	South Fork San Miguel River	9	7/13/1984	San Miguel	San Miguel

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 Applicants shall curtail certain diversions and exchanges whenever the flow in the San Miguel River, as measured at the gage described in the decree, is less than or equal to the decreed instream flow rates.
- The return flows from Applicants' uses predominantly accrue to the San Miguel below the Mahoney Street Drive Bridge Gage. These return flow credits will not reduce or offset the Applicants' obligation to curtail diversions upstream of this point.
- For the purpose of this stipulation, the flow of the San Miguel River shall be measured at the continuous recording gage previously installed by the Applicants at the Mahoney Drive Bridge approximately 750 feet downstream of the proposed alternate points of diversion. (a) The Applicants agree, at their sole expense, to maintain such measuring station, keep records of minimum stream flows and diversions, and to furnish said information to the CWCB no less often than annually or upon request of the CWCB. (b) Applicants shall report in writing to CWCB weekly: 1) November 1 and May 14 when flows are less than or equal to 9 cfs, until the flows reach 7.5 cfs or less when the written report shall be made daily; and, 2) between May 15 and October 31 when flows are less than or equal to 14.5 cfs, until the flows reach 13.0 cfs or less when the written report shall be made daily. (c) If flows at the Mahoney Drive Bridge Gage are in within one (1) cfs of the relevant minimum instream flow rate, Applicants shall cooperate with the CWCB when requested to review and confirm the accuracy of the gage at that location, provided however that Applicants do not hereby agree to undertake additional or alternative continuous measurement obligations. (d) If administration of Applicants' water rights using the Mahoney Drive Bridge Gage as described herein is found to be insufficient to protect the CWCB's instream flow rights between Mahoney Street and the South Fork of the San Miguel River from injury caused by Applicants' out of priority diversions, then the Applicants will cooperate with the CWCB regarding use of an alternate gage or other means if necessary to protect the CWCB's decreed instream flow water rights within this reach from injury caused by Applicants' out-of-priority diversions.

(4) 5-12CW186 - Application of James R. Donnelley

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 plan of augmentation and exchange does not injure the Board's instream flow water

rights on Snowmass Creek and the Roaring Fork River by not replacing depletions in time, amount and location. 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
5-76W2943B	Snowmass Creek	11/12	1/14/1976	Roaring Fork	Pitkin
5-92CW281*	Snowmass Creek	10.5	9/15/1992	Roaring Fork	Pitkin
5-76W2943A	Snowmass Creek	12	1/14/1976	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

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

- If a local call occurs, Applicant will curtail all diversions into the Donnelley Well Pond System from the Donnelley Ditch headgate. Applicant will then further curtail the pond system by fully draining the pond structure via a low level outlet.
- The CWCB holds instream flow water rights in the claimed exchange reach that are senior to the Donnelley Exchange and Donnelley Well Pond System. Applicant shall not operate the exchange through the instream flow water rights at any time during a call. Applicant has not demonstrated any uses in existence at the times that the CWCB appropriated its instream flow water rights. Therefore, the instream flow water rights are not subject to any uses of the Donnelley Well Pond System pursuant to C.R.S. § 37-92-103(b).

(5) 5-13CW3108 - Application of W/J Metropolitan District

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 of augmentation and exchange does not injure the Board's instream flow water rights on the Roaring Fork River by not replacing depletions in time, amount and location. 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
5-85CW646	Roaring Fork River	30/55	11/8/1985	Roaring Fork	Pitkin, Eagle
5-10CW184B	Roaring Fork River	4.3	6/30/1904	Roaring Fork	Pitkin
5-10CW184C	Roaring Fork River	.05-.52	6/30/1904	Roaring Fork	Pitkin

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

- The CWCB holds instream flow water rights that are senior to the exchanges confirmed in this case. W/J Metropolitan District may not operate the exchanges through the instream flow reaches any time the instream flow water rights are not fully satisfied and are being administered by the Division Engineer.


COLORADO
**Colorado Water
Conservation Board**

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TO: **Colorado Water Conservation Board Members**
FROM: **Anna Mauss, P.E., Marketing
Finance Section**
DATE: **January 26-27, 2015 Board Meeting**
AGENDA ITEM: **Directors Report
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						
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					\$260,000	\$234,000

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
	11-Dec	Pinehurst Country Club	Harriman Reservoir	\$5,000,000	\$500,000
	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		\$500,000
				TOTAL	\$35,570,000
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
				TOTAL	\$30,850,000
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:

Town of Manitou Springs - Pipeline Project
 Upper Platte & Beaver Ditch Company - Diversion Structure
 Duel & Snyder Ditch Company - Diversion Structure Repair
 Southeastern Colorado Water Conservancy District - Hydro Project
 Lower Arkansas Valley Water Conservancy District - Water Rights Purchase
 Uncompahgre Water Users Association - Hydro Project
 Town of Oak Creek - Reservoir Rehabilitation
 Fort Lyon Canal Company - Siphon Rehabilitation
 Creede School District - Water Rights Purchase
 Bijou Irrigation District - Reservoir Rehabilitation
 Bijou Irrigation District Company - Pipeline Project