

# COLORADO

# Colorado Water Conservation Board

Department of Natural Resources

# **DIRECTOR'S REPORT**

# July 2017

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

	COLORADO Colorado Water Conservation Board Department of Natural Resources
TO:	Colorado Water Conservation Board Members
FROM:	Rebecca Mitchell Erik Skeie
DATE:	July 19-20, 2017
SUBJECT:	Agenda Item 7d, July 2017 CWCB Board Meeting Director's Report

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### ~INTERSTATE AND FEDERAL~

**U.S.-MEXICO, MINUTE 323 NEGOTIATIONS**— Representatives from the United States, Mexico, and the Colorado River Basin States remain engaged in negotiations regarding Minute 323, an agreement that would extend and replace Minute 319. Minute 319 is a binding agreement between the U.S. and Mexico which helps implement the 1944 Water Treaty between the two countries, including considerations for operations during both high and low reservoir conditions, salinity, environmental projects, and other issues. Minute 319 will remain in effect through December 31, 2017 unless Minute 323 replaces it prior to expiration.

The International Boundary and Water Commission (IBWC) has announced that the Minute will be number 323 in the succession of Minutes to the 1944 Treaty. Previously, the document had the working title of "Minute 32x" since it was uncertain when the document would be completed, and other Minutes to the treaty have been executed in the meantime.

The language is Minute 323 is now considered near-final. Recent work by CWCB and the Colorado Office of the Attorney General has focused on the domestic agreements that will accompany Minute 323. After productive conversations among the Basin States, the domestic agreements are almost complete as well. The IBWC plans to have parties sign the Minute and domestic agreements in mid-September 2017.

For the Upper Basin states, the creation of an additional side agreement informally known as the "triggering agreement" was particularly important for tying together important provisions of Minute 323 with drought contingency planning in the Basin States. Section IV of the Minute describes a Binational Water Scarcity Contingency Plan which is contingent upon the Lower Basin Drought Contingency Plan (LBDCP) being made effective as authorized by U.S. Federal law. Colorado and the other Upper Basin states maintain that certain provisions of the current working version of the LBDCP are inconsistent with the Law of the River, thus federal legislation will be needed to approve the plan as it currently stands. In the triggering agreement, parties will commit to working together to seek federal legislation for the LBDCP. (*Carlee Brown*)

**COLORADO RIVER BASIN DROUGHT CONTINGENCY PLANNING**— The Upper and Lower Basins of the Colorado River have been engaged in drought contingency planning on separate tracks for the past several years. The Upper Colorado River Basin Emergency Drought Contingency Response draft plan involves reservoir operational adjustments, demand management, and supply augmentation (such as the weather modification program). Colorado and the other Basin States continue to work through the details of a "companion agreement" that would tie together the two draft plans and define the requirements for notification and consultation in each Basin's plan. The States intend to return their focus to drought contingency planning once the Minute is finalized. Efforts are currently slated to last through spring 2018. (*Carlee Brown*)

**COLORADO RIVER BASIN SALINITY CONTROL FORUM**— The Colorado River Basin Salinity Control Forum held their ninety-sixth meeting on June 8th and 9th in Moran, Wyoming. The Forum elected officers, approved the 2018 budget and state assessments, and heard a series of reports from federal partners and Forum staff. Among the items of discussion was the 2017 Review of the Water Quality Standards for Salinity, the future direction of the Basin States Program, and the status of the Lower Colorado River Basin Development Fund. Reclamation staff also provided an update on the Environmental Impact Study for the Paradox Valley Unit in southwestern Colorado. USGS provided an update on the improved SPARROW model, and other federal partners such as NRCS and BLM provided updates on staffing concerns and future funding projections. (*Brent Newman*)

WATER QUALITY STANDARDS FOR SALINITY — At the June 2017 meeting, the Colorado River Basin Salinity Control Forum reviewed a draft of the 2017 Review: Water Quality Standards for Salinity, Colorado River System. This triennial report provides history and background of salinity issues in the Colorado River basin states, and establishes the water quality standards for salinity. This standard consists of numeric criteria, measured at three locations along the river, and a Plan of Implementation to keep the flowweighted average annual salinity concentrations at or below the 1972 numeric criteria levels. The Review also details the actions taken by the Basin states and the federal partners to maintain the water quality standard. The Forum provided a few comments to be incorporated, and will allow for a period of public comment. A final version of the 2017 Review, pending public comment, will be approved at the October meeting of the Forum in Sacramento. The June draft of the 2017 Review will be available on the CWCB's website for public comment when available. (*Brent Newman*)

**FACA COMMITTEES SUSPENSION**— The Department of Interior suspended all of its Federal Advisory Committee Act (FACA) meetings and activities on May 9, pending a review by new Interior leadership that is intended to last through September 2017. This has resulted in a suspension of activities under the Glen Canyon Dam Adaptive Management Work Group (AMWG) and the Colorado River Basin Salinity Control Advisory Council.

The AMWG group was in the middle of a review of the Triennial Work Plan (TWP) and budget for the Glen Canyon Dam Adaptive Management Program (GCDAMP) when Interior's announcement was made. Because of the suspension of FACA activities, the group review of the TWP was pushed back by months. On June 12, the Secretary granted a special waiver for the AMWG to continue its subcommittee meetings for TWP review and coordination of a previously-planned workshop on brown trout management. The federal agencies will resume TWP discussions with AMWG technical work group members this month; CWCB staff members intend to be actively engaged in that process. The waiver does not extend to all AMWG activities, thus a degree of uncertainty remains about future meetings and coordination. The next AMWG meeting is tentatively scheduled for September 20-21, 2017.

Colorado and other Basin States participate in the Colorado River Basin Salinity Control Program (CRBSCP) through two groups: (1) an Advisory Council, which is a formal FACA committee, and (2) a Forum, which has a less formal structure. The membership of the Council and the Forum are the same, but the capacity in which each body acts is separate. Colorado is a member of both.

A Salinity Control Forum meeting was held on June 7-9. The Advisory Council was unable to meet at that time due to the FACA review. Most items on the agenda were within the purview of the Forum, so most matters were able to be addressed. Items requiring Advisory Council action (such as funding) were tabled until the next Council meeting. CWCB Staff will provide an update on the CRBSCP at the Board Meeting (Item 11). (*Carlee Brown*)

#### ~STATEWIDE~

**GROUND WATER COMMISSION MEETING**— The Ground Water Commission (GWC) held its quarterly meeting on May 18, 2017 in Denver, CO. The agenda items included routine reports and Staff update on the status of the stakeholder process to amend Rule 5.6 regarding replacement plans, and Rule 5.8 regarding artificial recharge, storage and recovery and reported that stakeholder meetings and public comment had taken place and Staff which would incorporate, then re-distribute the revised language to the stakeholders. The Commission, lead by Staff then discussed a proposal to initiate a change to Rule 7.4 which included a change of description of acreage, how this may impact the Republican River Compact, if this should apply to all designated groundwater basins, whether an expansion in acreage would cause material injury to other water rights holders, the process involved by which the changes should be carried out, and a request by Staff to allow the rule change process to begin. The Commission will hold its next regular meeting on the west slope (location TBD) on August 11, 2017. For more information visit: http://water.state.co.us/groundwater/CGWC/Pages/default.aspx. (*Craig Godbout*)

**BUREAU OF RECLAMATION FUNDING OPPORTUNITY ANNOUNCEMENT**— The Bureau of Reclamation held three listening sessions to help applicants understand the requirements of an upcoming Funding Opportunity Announcement (FOA) for projects that reduce salinity contributions to the Colorado River system. On June 20th, a session was held in Delta, and on June 21st, a session was held in Cortez. Reclamation staff provided an overview of the salinity control programs and the logistics for applying for grant funds under this upcoming FOA. Presenters walked through the requirements for grant funding, the online application processes, environmental compliance, and the rating criteria for grant applications. CWCB staff attended both workshops, and provided interested parties with information on additional state funding for technical assistance in preparing a FOA application. (*Brent Newman*)

#### ~ARKANSAS RIVER BASIN~

JOHN MARTIN RESERVOIR FISH AND WILDLIFE CONSERVATION POOL— In May, the Arkansas River Compact Administration passed a resolution allowing Colorado Parks and Wildlife (CPW) to utilize a water right in the Highland Ditch on the Purgatoire River into John Martin Reservoir for the benefit of the fish and wildlife conservation pool. The fish and wildlife permanent pool is intended to benefit the fishery in the reservoir, with additional benefits for boating and other recreational opportunities. This resolution of the Administration is a oneyear agreement, with potential for renewal. This agreement is the product of cooperation and hard work by CPW, CWCB, the state of Kansas, the Lower Arkansas Water Management Association, the Attorney General's office, and especially the Division 2 staff of the Division of Water Resources. If the agreement is implemented long-term, better protection of the fishery and recreational opportunities will be possible, with reduced costs and a more dependable source of water for the permanent pool. (*Brent Newman*)

### ~COLORADO RIVER BASIN~

#### COLORADO RIVER WATER USE-

2017 Colorado River S			
	Elevation (feet above mean sea level)	Storage (MAF)	Percent of Capacity
Lake Mead	1,080.03	10.80	38%
Lake Powell	3,633.52	15.251	63%
Total System Active Storage		33.560	56%
2016 Total Active Storage		31.366	53%
		Flow (MAF)	Percent of Average
Forecasted Unregulated Inflow into Powell		12.360	114%

Forecasted CY 2017 Lower Basin Consumptive Use			
State	Use (MAF) Total (MAF)		
Arizona		2.615	
California			
California Agricultural	3.282	3.877	6.766
Metro. Water District	0.475		
Nevada		0.274	

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

**UPPER COLORADO RIVER COMMISSION MEETING**— At the June 6-7 Upper Colorado River Commission (UCRC) meeting, the Commissioners reiterated their commitment to getting a new Minute to the 1944 Treaty with Mexico done this year. The Commissioners also provided staff direction to make progress on drought contingency planning documents in the Upper Basin, and to remain involved in Lower Basin discussions. The Commissioners also confirmed their decision to learn from the first three years of the System Conservation Pilot Program (SCPP) and to take a year off from the Program to analyze lessons from the pilot projects, and to contemplate what could come next. (*Carlee Brown*)

### ~PLATTE RIVER BASIN~

PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM— The Platte River Recovery Implementation Program (PRRIP) Governance Committee (GC) held its regularly scheduled meeting on June 6-7, 2017 in Cheyenne, WY. During the meeting, the GC voted to approve one manuscript for publication, changes to the Whooping Crane Monitoring Protocol, the budget (Attachment A) for the first increment extension, changes to the Platte River Recreational Access (PRRA) Program, and a Request for Proposals for the slurry wall project. The GC also voted to move toward selling four properties, to trade property for a gravel pit for potential slurry wall application, and to pursue three tracts of land for potential off-channel sand and water habitat and to start a new habitat complex. The GC received regular updates and discussed the Platte to Republican Diversion Project, the potential for leasing North Platte Project water, the water service agreement for a pipeline and well field related to Broad-Scale Recharge (BSR), the upcoming pallid sturgeon workshop, and the Bureau of Reclamation's annual indexing calculations. CWCB staff also participated in a Land Advisory Committee (LAC) meeting. The GC will hold a Pallid Sturgeon Workshop on September 13-14, 2017 in Kearney, NE. Its next regular GC meeting will be held on September 12-13, 2017 in Kearney, NE. For more information, please visit: https://www.platteriverprogram.org/Pages/Default.aspx. (*Suzanne Sellers*)

### ~ WATER CONSERVATION AND DROUGHT PLANNING UPDATES ~

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

One grant application has been received since the May 2017 Director's Report

• Town of Castle Rock – Drought Management Plan

Two grants have been approved since the May 2017 Director's Report

- Center for Resource Conservation Turf Replacement Project (\$45,449)
- Town of Castle Rock Drought Management Plan (\$35,000)

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

- Western Resource Advocates Building Retrofit Best Practices Manual 75% Progress Report
- Metro State University One World One Water Center Colorado Water Laboratory Final Report
- Community Office for Resource Efficiency High Five Campaign 50% Progress Report
- Security Water District Water Loss Control Audit *Final Report* (*Ben Wade*)

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

### DROUGHT MANAGEMENT PLANS:

Approved Plans

• No new plans approved since last board meeting

### WATER EFFICIENCY PLANS:

### Approved Plans:

• No new plans approved since last board meeting

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

- Parker Water & Sanitation District
- City of Brighton
- Morgan County Quality Water District

### Water Efficiency Plans in review:

• Widefield Water & Sanitation District (Kevin Reidy & Ben Wade)

**GOVERNOR'S WATER AVAILABILITY TASK FORCE**— The next Water Availability Task Force meeting on July 25th from 9:00am-11:30am at the Colorado Parks & Wildlife Headquarters, 6060 Broadway, Denver, CO in the Red Fox Room. Please check the website (<u>http://cwcb.state.co.us/public-information/flood-water-availability-task-forces/Pages/main.aspx</u>) for additional information. (*Ben Wade*)

**DROUGHT UPDATE**— May was characterized by wet and cool conditions, particularly in southeast Colorado. However, June has seen a drastic change characterized by hot temperatures and little rainfall. In most parts of the state, after receiving 132% percent of average precipitation in May at Snotel stations, June precipitation to date statewide is only 30% of average as of June 21. Despite this streamflow forecasts throughout the summer season are projected to be near normal to above normal and reservoir storage remains high. These conditions leave municipal suppliers generally feeling comfortable with current levels of supply and demand in their systems. Reservoir storage statewide remains high at 109% of normal. Long-term forecasts for the summer season are not suggesting any major departure from normal conditions across Colorado; and the U.S. Drought Monitor, has only 6 percent of Colorado classified as abnormally dry (D0), with no other drought classification area in the state. (*Taryn Finnessey*)

WATER AND GROWTH DIALOGUE— Through a Water Efficiency Grant, the Keystone Center is facilitating a dialogue to quantify water use through different land use patterns as well as bringing together land use and water managers to discuss where integration can occur. Staff is on the technical advisory group as well as the steering committee. On 6/28/17, Ray Quay from Arizona State University's Desert City Decision Center took Denver Water's model and ran many scenarios based upon the data in the model and presented preliminary results to the Steering Committee. The committee will take the results and start preparing a final report for dissemination. At present, the group is determining the path forward and how to disseminate the results of the project once complete. (*Kevin Reidy*)

**SB15-008 IMPLEMENTATION**— Staff is working with counterparts from DOLA to create trainings specified in SB 15-008 (AKA the land use bill). This bill stated that the CWCB and DOLA would create trainings for land use and water planning professionals in order to incorporate water conservation and demand management best practices into land use planning. At present, 2 of the 3 modules have been finalized and 5 webinars have been produced with participation ranging from around 65 -100 participants for each one. The webinars and modules are posted on the Colorado Water Plan site with links on the CWCB and DOLA sites. CWCB and DOLA will also convene a group of

involved parties who have been working in the land use-water integration field to plan on how to spread the trainings across the state and figure out next steps for the land-water integration. (*Kevin Reidy*)

### CONFERENCES AND WORKSHOPS/OUTREACH—

**Watershed Summit 2017:** Staff appeared on a panel with Westminster and Denver Water at the Denver Botanic Gardens to discuss the "Evolution of Water Conservation" and what are the trends to expect in the next 10 years. (*Kevin Reidy*)

**NATIONAL WESTERN CENTER WATER STRATEGY ADVISORS GROUP**— Staff has been asked to participate in the water advisory group for redeveloping the National Western Center. Other advisors represent Colorado State University, Denver Water, City and County of Denver and Metro Wastewater. First meeting will be July 14th. (*Kevin Reidy*)

### **~WATERSHED AND FLOOD UPDATES~**

### MAPPING UPDATE—

**FY16 Activities:** Upper White Watershed and St. Vrain Risk Map Phase III State task orders have been approved and work is under way to begin the last phase of these projects. CWCB is currently working on an RFQ process to select contractors for future LiDAR acquisitions.

A State task order was recently approved to fund a regional hydrology study update on the Colorado River near Granby to the border with Utah. Preliminary results will be available in early summer 2017.

**FY15 Activities:** The Cache La Poudre Phase III project will begin shortly after the hydraulic and floodplain mapping tasks are completed. The hydraulic analysis will be reviewed a second time by FEMA, but the project is delayed until the levee issues in Fort Collins is resolved. The purchase of the IFSAR data is in progress and the data should be delivered in May 2017. This purchase was delayed due to contracting language revisions and additional approval processes. The Middle South Platte Watershed delineation project will begin shortly after we receive the IFSAR data. Upper Gunnison Risk Map Project schedule was revised due to a slight delay in locating topographic data near Crested Butte.

**FY14 Activities:** The erosion zone study for the Salt Creek Wash near the Town of Collbran in Mesa County has been completed and approved by FEMA. This report is now available on the Risk Map website. A Flood Risk Review meeting was held in early April with the community officials to provide a sneak preview of the draft floodplain maps. This project will continue through post processing tasks with a new FEMA grant which was awarded in FY 16.

FEMA has provided funding to conduct a countywide approximate floodplain mapping for El Paso County, referred to as a Base Level Engineering (BLE) study. A part of this grant funding will be rescoped to fund the revised preliminary project for the El Paso County DFIRM project.

Other non-mapping projects funded by FEMA this year included an inventory of the ongoing studies and other data in the post flood areas, developing a technical evaluation of flood forecasting methods using Risk Map products, and developing a model management system to store all available hydrologic and hydraulic models in the post-flood areas. All of these projects have been completed and approved by FEMA.

**FY13 Activities:** The El Paso County as a partial Countywide DFIRM project is now in the post appeal period and will be completed as a revised preliminary project due to the number of issues found in the mapping. Purgatoire Watershed Risk Map project has gone through the preliminary phase and the preliminary maps have been sent to communities for review. The next step will be to schedule a meeting with the local officials to review maps and obtain any comments from the community officials. This project includes Las Animas County and the City of Trinidad.

The Pueblo County DFIRM is now in the post-preliminary phase. The appeal period started on January 17, 2017. Thus far no appeals have been received by the communities.

**FY12 Activities:** The grant for Purgatoire Watershed was funded through floodplain mapping and all tasks have been completed under the 2012 grant. A new grant was approved in 2013 to complete the Purgatoire Risk Map project to effective and the progress report is found under FY 13 Activities. The Cache La Poudre Risk Map project was funded in FY 2012 and the hydraulic and floodplain mapping tasks are almost complete. A new FEMA grant was awarded in FY 2015 to complete the Cache La Poudre Risk Map project under Phase III.

**FY11 Activities:** Hydrology tasks for St. Vrain and Clear Creek watersheds have been completed and approved. The scope of work for the St. Vrain watershed was revised to include areas that were impacted by the flood. All tasks under this grant have been completed through to floodplain mapping. The FEMA grant for this project has expired and a new grant was approved in 2016 to complete additional tasks to finalize the maps as FEMA effective products. Updates for the St. Vrain Risk Map project will be provided under FY 2016 activities. Some streams updated through the Colorado Hazard Mapping Project will be included in the St. Vrain map update.

Clear Creek Risk Map preliminary maps were distributed on February 8, 2017. The community review meeting was held on March 30, 2017. Documents are currently being finalized to request Federal Register and the next step will be the local newspaper publications and appeal period.

**FY10 Activities:** Chaffee and Pitkin Counties are now in the post preliminary phase. The appeal period has ended for both of these projects and there were several appeals that were received. The appeal resolution and community response letters are being finalized. Pitkin County may be extended into a revised preliminary project due to the number and scale of appeals that were received. Chaffee County DFIRM is moving forward toward effective and the Letter of Final Determination (LFD) will be determined in the next few weeks, depending on FEMA HQ approval.

**FY09 Activities:** The Morgan County DFIRM appeal period started on February 22, 2017. There has been some local questions and concerns about the updated mapping and CWCB and FEMA are working with the local constituents and community officials.

The Prowers County DFIRM appeal period has ended and the LFD letters were distributed on October 19, 2015. The maps became effective on April 19, 2016. (*Thuy Patton*)

**FLUVIAL HAZARD MAPPING UPDATE**— The floods of September 2013 reminded Coloradans how quickly rivers and streams in their state can change and morph into extreme storm events. Approximately half of the private structure damages and losses experienced in the 2013 flood were located outside of the regulatory floodplain, or Special Flood Hazard Area (SFHA), designated by the Federal Emergency Management Agency (FEMA). These flood-related risks associated with erosion, deposition, degradation, lateral migration, and avulsion created disastrous outcomes in 2013, and those outcomes may occur again in future flood events in Colorado.

The identification of fluvial hazard zones has become a high priority as Colorado recovers from the September 2013 floods and transitions toward long-term river corridor planning. Planning for erosion hazards is an essential component of effective river corridor management and the prevention of future flood damages. Broadly defined, the Fluvial Hazard Zone (FHZ) is the area a stream has occupied in recent history, could occupy, or could physically influence as it stores and transports sediment and debris during flood events. In early 2015, Colorado's Legislature passed a funding bill for the Colorado Hazard Mapping Program, which aims to provide a mitigation and land use framework in areas likely to be affected by future flooding, erosion, and debris flow events. The fluvial hazard mapping component of the project began in January 2017. The engineering firm Amec Foster Wheeler has been contracted to do the work. The program will refine mapping methodology and perform a series of pilot studies on fluvial hazards throughout the State. Communities interested in participating in the pilot studies submitted applications to the CWCB and selections were made in May of 2017. Community selections were based on physio-geographic location, geomorphic setting, existing data availability, and other technical elements, as well as community support, budget, and time constraints.

Communities selected include Boulder, Eagle, Saguache, and San Miguel Counties, and the Town of Castle Rock, City of Delta, Town of Estes Park and Town of Nederland. A Kickoff Webinar was held for communities on June 28, 2017 and field work is set to take place between September and October of 2017. Map products and a model land use code will be available for voluntary adoption by communities by the end of June 2018. (*Stephanie DiBetitto*)

**FLOODPLAIN RULES AND REGULATIONS UPDATE**— The State of Colorado, through CWCB action in November 2010, adopted increased standards for floodplain management, which are contained in the Rules and Regulations for Regulatory Floodplains in Colorado (Rules), effective January 14, 2011.

Communities were provided with a three-year transition period to adopt local regulations consistent with the Rules. Through sound floodplain management practices, these standards support enhanced public health, safety and welfare and will help communities reduce future flood risk to people and property. Staff has been working very collaboratively with communities to assist them with technical questions, model ordinance templates, and transition support. CWCB staff has contacted each community that has not yet provided documentation of adoption of the Rules via phone or email to offer assistance. Staff has also met with several communities to answer questions and review the process for updating floodplain regulations. Most communities have made adopting the Rules into local floodplain regulations a priority. However, several communities have not completed the adoption or provided documentation to CWCB. There are 9 out of 251 total National Flood Insurance Program participating communities that have not yet provided documentation of adopting the Rules. In accordance with the procedure outlined in Rule 16, staff is continuing to provide outreach and technical assistance to communities. (*Stephanie DiBetitto*)

**FLOODPLAIN HAZARD MAPPING UPDATE**— We are now entering into our third and final year of the Colorado Hazard Mapping Program (CHAMP), funded under Senate Bill 15-245. Phase 1 of CHAMP involves conducting new flood hazard analyses and floodplain delineations for streams particularly affected by the September 2013 flood event. These primarily include streams in Boulder, Larimer, and Weld Counties, CO, and small portions of Jefferson and Gilpin Counties, CO. The CWCB has been coordinating with FEMA in order to leverage the CHAMP study in order to secure federal funds for the regulatory FEMA map update. Currently, the hydraulic analyses and floodplain mapping tasks have been completed and submitted to FEMA for review. In addition, Phase 2 and 3 of the program are now in full swing.

CHAMP Phase 2 includes streams excluded from Year 1 in the Big Thompson and St. Vrain Hydrologic Unit Code 8 (HUC8) Watersheds and an update of the South Platte River from the Weld-Adams County line to the Colorado-Nebraska State line. A South Platte Progress Update meeting took place in Logan and Weld counties on June 13th, 2017. These meetings allowed for community officials to get a brief overview of the CHAMP Phase 2 progress along the South Platte River. Specifically, updates included field reconnaissance and survey work involving 155 structures in 2016. Challenges such as braided channels, and ditch and diversion structures were also discussed during the meeting. The CHAMP team continues to meet and provide support to local and county officials within Boulder, Larimer, and Weld counties. Coordination and data sharing among local communities and the CWCB will continue as local recovery efforts continue to advance.

Phase 3 of CHAMP focuses on counties and communities that are still utilizing paper FEMA floodplain maps. This scope includes digitizing existing Flood Insurance Rate Maps (FIRM) panels in select communities and jurisdictions and wherever topographic data is available, updated flood risk information will be provided as best available information for local communities to utilize. A kick-off webinar meeting was held on June 27, 2017 to provide the participating communities with an overview of the program and the project specifics. Funding for Phase 3 is limited and therefore, the communities were selected and prioritized based on interest level, local mapping needs and available topography data. All project information can be found at <a href="http://coloradohazardmapping.com/">http://coloradohazardmapping.com/</a>. (*Thuy Patton and Corey Elliott*)

**STREAM MANAGEMENT PLAN (SMP) UPDATE**— Stream Management Plans are a grant type under the Colorado Watershed Restoration Program. The Colorado Water Plan includes a measureable objective stating that 80% of priority streams will have an SMP by 2030. Well-developed SMPs should be grounded in the complex interplay of biology, hydrology, channel morphology, and alternative water use and management strategies. They should also consider the flow and other structural or management conditions needed to support both recreational uses and ecosystem function. A stream management plan should: (1) Involve stakeholders to ensure their acceptance of the plan; (2) assess existing biological, hydrological, and geomorphological conditions at a reach scale; (3) identify flows and other physical conditions needed to support environmental and recreational water uses; (4) incorporate environmental and recreational values and goals identified both locally and in a basin roundtable's BIP; and (5) identify and prioritize alternative management actions. For basin roundtables, local stakeholder groups, and decision makers, such plans can provide a framework for decision-making and project implementation related to environmental and recreational water needs.

CWCB is currently engaged in six SMPs in the South Platte, Gunnison, Yampa, Colorado, and Southwest Basins. There is another active effort in this realm on the Poudre River, but the CWCB is not involved in it. These plans are identifying environmental and recreational values of importance. They are assessing existing information, flow impacted reaches, and well functioning reaches. Management actions include setting flow targets and describing habitat-flow relationships. Some plans are also assessing flow needs for agricultural and municipal uses as well.

Possible strategies to implement SMPs include market based (water leasing, in stream flows), conservation (ditch lining, modified irrigation methods), infrastructure (off-channel reservoirs, fish/boat passage), management (reservoir release timing, exchange/augmentation release timing), and channel modifications (restoration, enhancement, reconfiguration). (*Chris Sturm*)

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

The Colorado Emergency Watershed Protection (EWP) Program for the 2013 Flood Recovery provides funding to implement emergency recovery measures to address hazards to life and property in watersheds impaired by the 2013 Colorado flood event. The program provides financial and technical assistance to local project sponsors to reduce erosion and threats from future flooding, protect streambanks, repair conservation practices, remove debris, and more.

The Colorado EWP Program, 2013 Flood Recovery Phase II is funded and administered by the USDA Natural Resources Conservation Service and managed by the Colorado Water Conservation Board on behalf of the State.

**Project Updates:** Information on the EWP program, construction progress, weekly project updates, and upcoming projects may be accessed at <u>www.coloradoewp.com</u>.

### Project Update: Sunset Pond EWP Stream Reclamation

Location: Fourmile Creek, Boulder County, CO Project Sponsor: Fourmile Fire Protection District

### Work in Progress/Completed Work

- 1. New Channel in pre-flood location
- 2. Set the irritation diversion box/pond water intake
- 3. Connected the 8-in DIA HDPE pipe to the diversion box and backfilled
- 4. Excavated ditch to convey water to pond and completed installation of Parshall flume.
- 5. Hand-chinked and backfilled gaps on backsides of rock toe and rock cross vanes.
- 6. Rock cut-off sills to keep flow from eroding into the existing channel.

### Upcoming Work

- Planting started in April with seeding and mulching to follow

- 2. Project was completed in late April
- 3. Engineers have conducted on-site oversight, surveys for as-built drawings as well as surveys of thalweg along the stream profile, cross-sections, rock toe, topo, cross-vanes, and pools.

### Project Update: North Douglas Creek Restoration

Location: North Douglas Creek upstream of Flying W Ranch Road, Colorado Springs Project Sponsor: City of Springs

### Work in Progress/Completed Work

- 1. Rock step wall completed at 49+00
- 2. Rock Sills excavated and filling sill #3-5
- 3. Grading between sills started
- 4. Low water crossing at Sta 25+60 poured
- 5. Forming low water crossing at Sta 11+45

### Upcoming Work

- 1. Excavating of existing stock pond and construction of berm in pond
- 2. Continue work around the sills
- **3.** Rock cross vanes still to start between 37+00 19+00

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

Four Mile Canyon Creek Restoration – Wagon Wheel Gap Road Watershed: Four Mile Canyon Creek County: Boulder

### **Project Sponsor: Boulder County Transportation**

A large amount of hillside and bank erosion caused by the 2013 flooding along Fourmile Canyon Creek still impacts residences, structures, and bridges. The project proposes debris and sediment removal to establish a floodplain where feasible; streambank shaping and cross vanes to facilitate flow, protect banks from erosion, and provide grade control; and rip-rap and bioengineering to stabilize streambanks. A low-flow channel, rock clusters, and woody material will be added to create channel complexity and enhance aquatic habitat, and disturbed areas will be planted with willows, trees, and shrubs, and/or will be seeded and mulched. The



project is expected to be constructed with the ongoing Boulder County work for permanent repairs on Wagon Wheel Gap Road.



James Creek Restoration – Mill Street Watershed: Left Hand Creek County: Boulder County Project Sponsor: Boulder County Transportation

The 2013 flood left behind hillside and streambank erosion and sedimentation along James Creek which impacts residences, bridges, roads, and utilities. Emergency repair work throughout the reach has provided some stability but several structures are failing. The project proposes to use rip-rap and bioengineering to stabilize streambanks and in-stream structures to provide and enhance grade control, where necessary. Additionally, where feasible, sediment will be removed and a floodplain will be shaped to lower flood surfaces and store future excess sediment. A low-flow channel, rock clusters, and woody material will be added to create channel complexity and



enhance fish habitat, and disturbed areas will be planted with willows, trees, and shrubs, and/or will be seeded and mulched. The project is expected to be constructed with the ongoing Boulder County work for permanent repairs on James Canyon.

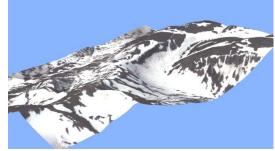
A full EWP update will be provided as an agenda item during the Board Meeting. (Jeff Conboy)

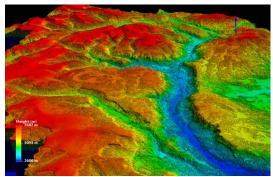
**WATER FORECASTING PARTNERSHIPS AUTHORIZATION**— The CWCB, NOAA, National Center for Atmospheric Research (NCAR), and NASA-Aerial Snow Observatory (NASA-ASO) continue to make progress in new data and

models for water supply forecasting in the Rio Grande watersheed. A NASA aerial snow observatory flight was conducted on June 9th for the Conejos and Rio Grande basins. Pictured at right are NASA-ASO images for snowpack analyses and LIDAR data from the Rio Grande project.

NOAA mobile radar was at the Alamosa airport for the winter and that data will be run through the national water model as well. The two years of radar data for water modeling has helped build a business case in the water community that gap filling radar through permanent installations are needed. NCAR continues to provide periodic national water model forecasts to supplement the existing water supply forecasts provided by the West Gulf River Forecast Center and NRCS Snow Survey Program in Portland, Oregon.

Staff, NCAR, and the Conejos Water Conservancy District are finalizing a USFS permit to install five snow data stations in the





Conejos river basin that will be locally owned and operated. The Conejos is a 20 mile long watershed southeast of Wolf Creek Pass that is loaded with snow that melts into the river near the state line with New Mexico. Previously, the Conejos had only two SNOTEL sites at either end of that watershed. This work should help water modeling and administration and compact obligations in the Rio Grande.

A similar effort is starting to migrate into the Gunnison River Basin. In the Gunnison watershed, there are five "SNOTEL Lite" stations built by NCAR and the Upper Gunnison River WCD that will be turned over to the NRCS Snow Survey program. The NRCS is working through USFS permits to site them in the Taylor River Basin. It is anticipated that periodic national water model forecasts and new snow data in the Taylor River basin will provide value added to the USBR and the Colorado Basin River Forecast Center. We have also allocated a portion of the new round of CWCB funding towards NASA-ASO flights in the Gunnison for the Taylor River, East River, and possibly the Ohio Creek basin if funding and partnerships develop to make this a reality in April 2018.

Also with new CWCB funding for this program available July 1, the CWCB staff is allocating funding towards permanent radar for the Rio Grande. Local coalitions are growing to figure out the annual O&M obligations. CDOT is leading an effort to support local initiative and apply to the State of Colorado Capitol Development Committee for more state funding to help the locals towards the radar purchase. (*Joe Busto*)

**SOUTH PLATTE WORKING GROUP UPDATE**— The CWCB in partnership with communities and the Corps of Engineers are revitalizing the river corridor of the South Platte just downstream of Chatifield Dam. Recent successes include building Denver's first free standing river surfing wave in August 2016 called "River Run", a new river safety campaign and signage featuring "Banks" the river otter, and projects are under construction for River Run Phase II that will create one mile of recreation trail just upstream of River Run Park. The final Phase III will be to remove and replace drop



structures between Union and Oxford Avenue. Recent approved funding from the CWCB Fish and Wildlife Mitigation Resources Fund will also help bury and seed exposed rip rap for a natural vegetated look and in channel



work to establish some wetland benches to improve habitat in this stretch.

The collaborative work here embodies many principles that run throughout the state's water plan by finding win-win projects for water supply, flooding, river restoration, recreation, and the environment and building those into projects. The communities in the SPWG have also pledged funding and support for 50 AF from the

environmental pool at Chatfield working with Greenway Foundation and Denver Water. Picture 1 is the current construction during River Run Phase II where the Englewood intake is being encased for river safety and a new section of recreation trail is delicately threaded through the Englewood river intake and pumping plant facility. Picture two is river surfers enjoying River Run during the good Chatfield reservoir releases in May 2017. (*Joe Busto*)

**CLOUD SEEDING UPDATE**— Last winter was a high snowfall winter and most of the programs were in suspension for the middle part of winter. Staff is working on finalizing a new nine year Colorado River collaborative cloud seeding agreement and will seek CWCB director and approval this summer. There is interest in a North Platte seeding program that could be coordinated with and funded with help from the Wyoming Water Development Office and the CWCB.

Currently all of the CWCB weather modification funding is heavily leveraged in the Colorado River basin. The annual national weather modification conference will be held in April 2018 in either Boulder or Estes Park, and Coloradoans interested in cloud seeding are encouraged to come. Staff continues to work with the Governor's office of policy and reform on a periodic sunset of the Weather modification permitting program. A report to the legislature will be presented during the January through May 2018 legislative session and positive legislative action through a bill due to the sunset provision is needed to reenact the DNR weather modification permitting program.

A tour bus of Colorado River water users from California will tour new cloud seeding equipment on the grand Mesa in late August hosted by the CWCB and City of Grand Junction personnel. Staff is also actively seeking interest in new remote operated seeders from the Idaho Power Company. (*Joe Busto*)

**RED MOUNTAIN PASS SNOTEL PROJECT**— As a part of the water forecasting partnerships authorization the CWCB has used a little funding to hire a Land Trust to figure out the details to team up with the Southwestern WCD, Upper Gunnison River WCD and Colorado River Water CD to investigate the purchase of a ten acre parcel of land at the top of Red Mountain Pass. This is one of the only long term NRCS SNOTEL sites on private land, and if possible and affordable, this coalition will look at purchasing this site to preserve the snowpack data in its current form as it is so valuable for the Animas, Uncompahgre, and Gunnison basins in the modeling and forecasts that they get every year. Special thanks to former board member April Montgomery for finding the Trust for Land Restoration in Ridgway that is helping water users, the NRCS Snow Survey Program, and this private land owner investigate the feasibility, price, ownership issues, and potential paths forward for this purchase. (*Joe Busto*)

**SOUTH PLATTE RIVER MASTER PLAN**— The four northeastern counties through which the South Platte River travels through on its way to Nebraska (Morgan, Washington, Logan, and Sedgwick) have come together to develop a Master Plan for river management in regards to flood mitigation, sediment control, habitat and recreation, and other related issues. A consultant, CDM Smith, has been hired by the Counties to prepare the report.

The \$300,000 project is funded through a grant provided by HUD and administered by the Colorado Department of Local Affairs through the Community Development Block Grant – Disaster Recovery (CDBG-DR) program. Although CWCB staff have no formal role during this process, they are serving as technical lead for the State by request from DOLA.

A kickoff meeting was held for this project on February 6<sup>th</sup>, 2017. Since that time, numerous meetings and site visits have taken place for the purpose of stakeholder consultation, gathering data, and development of problem understanding and solutions. The project is intentionally backloaded and is proceeding slowly at this time so that floodplain mapping and information from CWCB's Colorado Hazard Mapping Program (CHAMP), which is developing information for the South Platte River at this time, can be used during this master planning process.

This project will wrap up in 2018. The final deliverable will include a comprehensive report which can be used to leverage additional federal funds at later dates. (*Kevin Houck*)

### ~AGENCY UPDATES~

**RECENTLY DECREED ISF WATER RIGHTS**— On May 16, 2017, the Division 2 Water Court decreed instream flow water rights to the CWCB on Turkey Creek in Case No. 16CW3085 for 3.7 cfs (5/1-8/31), 1.8 cfs (9/1-11/30), 1.0 cfs (12/1-3/31), and 2.7 cfs (4/1-4/30), with an appropriation date of January 26, 2016. The upstream terminus is the confluence of East Fork Turkey Creek and West Fork Turkey Creek and the lower terminus is the confluence with an unnamed tributary. This ISF reach is approximately 2.38 miles long and flows in a southeasterly direction through parts of El Paso County.

On May 16, 2017, the Division 2 Water Court decreed instream flow water rights to the CWCB on West Fork Turkey Creek in Case No. 16CW3086 for 2.1 cfs (5/1-8/31), 0.75 cfs (9/1-11/30), 0.5 cfs (12/1-3/31), and 0.75 cfs (4/1-4/30), with an appropriation date of January 26, 2016. The upstream terminus is the headwaters of West Fork Turkey Creek and the lower terminus is the confluence of East Fork Turkey Creek and West Fork Turkey Creek. This ISF reach is approximately 3.98 miles long and flows in a southeasterly direction through parts of El Paso, Fremont and Teller Counties.

On May 21, 2017, the Division 5 Water Court decreed instream flow water rights to the CWCB on East Hawxhurst Creek in Case No. 16CW3154 for 1.7 cfs (4/15-6/30), and 0.46 cfs (7/1-4/14), with an appropriation date of January 26, 2016. The upstream terminus is the outlet of McCurdy Reservoir and the lower terminus is the confluence with West Hawxhurst Creek. This ISF reach is approximately 5.75 miles long and flows in a southern direction through parts of Mesa County.

On May 21, 2017, the Division 5 Water Court decreed instream flow water rights to the CWCB on West Hawxhurst Creek in Case No. 16CW3160 for 1.6 cfs (4/15-6/30), and 0.56 cfs (7/1-4/14), with an appropriation date of January 26, 2016. The upstream terminus is the West Hawxhurst Creek headwaters and the lower terminus is the confluence with East Hawxhurst Creek. This ISF reach is approximately 5.57 miles long and flows in a southerly direction through parts of Mesa County. (*Rob Viehl*)

**RETIREMENT**— CWCB congratulates Steve Miller on his retirement. Steve has worked for CWCB since January 28, 1991 as a Senior Water Resource Specialist focusing on the Arkansas River Basin, Colorado River Basin Salinity Management Program, and Gunnison Basin Selenium Management Program. His depth of knowledge, passion for his programs, and consistent work to help support programs that provide on-the-ground benefits have been an enormous asset to CWCB for the past 26 years. In honor of his service, June 30, 2017 was officially proclaimed by Governor Hickenlooper as Steve Miller Day. Congratulations, Steve! (*Carlee Brown*)

**NEW STAFF**— CWCB is glad to welcome Brent Newman back to the agency. After less than a year away, Brent has returned as a Water Resource Specialist in the Interstate, Federal, and Water Information Section. Brent will take over Steve Miller's portfolio and will manage CWCB's role in the Arkansas River Compact Administration, the Colorado River Basin Salinity Control Program, and the Gunnison Basin Selenium Management Program. Brent previously worked for CWCB in the Water Supply Planning Section, serving as one of the lead authors of Colorado's Water Plan. (*Carlee Brown*)

### ~GENERAL ATTACHMENTS~

• 01 Instream Flow and Natural Lake Level Program – Summary of Resolved Opposition Cases

### ~LOAN PROGRAM ATTACHMENTS~

- 01 Water Project Loan Program Interest Rates
- 02 Prequalified Project List and Loan Prospect Summary
- 03 Design and Construction Status Report
- 04 Emergency Loans Status Report
- 05 Loan Repayment and Delinquency Report Loan Financial Activity Report

### July 19-20, 2017 Board Meeting Instream Flow and Natural Lake Level Program Summary of Resolved Opposition Cases

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

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

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

(1) Case No. 16CW3035 (Water Division 4) - Application of L&D Ranches, LLC, A Colorado Limited Liability Company (Patrick E. Kowaleski)

The Board ratified this statement of opposition at its September 2016 meeting. The Board's main objective in filing the statement of opposition in this case was to ensure that the Applicant's proposed change of water rights does not injure the Board's instream flow water right on the East River and the Slate River by expansion of use or altering the time, place and amount of historical return flows. Staff, in cooperation with the Attorney General's Office, has negotiated a settlement to ensure that the CWCB's instream flow water rights will not be injured.

Case Number	Stream	Upper Terminus	Lower Terminus	CFS Rate (Dates)	Approp. Date
83CW0230	East River	confl Brush Creek	confl Alkali Creek	10 (1/1 - 12/31)	06/03/1982
83CW0228	East River	confl Alkali Creek	confl Taylor River	27 (10/1 - 4/30) 50 (5/1 - 9/30)	06/03/1982
80CW0092	Slate River	confl Coal Creek	confl East River	12 (12/1 - 3/31) 23 (4/1 - 11/30)	03/17/1980

The CWCB holds the following instream flow water rights in Water Division 4 in the East-Taylor watershed that could be injured by this application:

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 Whetstone Industrial Park Exchange shall only be operated when there is no call from a controlling water right within the Exchange Reach. For the purpose of this paragraph, a controlling water right is defined as a water right senior to the Whetstone Industrial Park Exchange that is placing a valid call on the stream and diverting all physically and legally available stream flow, or one of the following CWCB instream flow water rights senior to the Whetstone Industrial Park Exchange, if any such right is placing a valid call on a

stream within the Exchange Reach: Slate River (Case No. 80CW92), and East River (Case Nos. 83CW228 and 83CW230). Additionally, the Whetstone Industrial Park Exchange shall only be operated when there is a live stream within the Exchange Reach. The Whetstone Industrial Park Exchange shall only be operated upon prior approval of authorized personnel in the Division Engineer's Office.

• Rozman Pond will be filled and refilled whenever there is no local call, either by inpriority junior appropriation or by exchange from Blue Mesa Reservoir. When there is a local call senior to the Rozman Pond and Whetstone Industrial Park Exchange, refills of Rozman Pond will be curtailed and Rozman Pond will be managed to ensure that the pond drops in total by a sufficient amount to replace stream depletions caused by the use of the Augmented Structures, and by evaporation from Rozman Pond. Releases from Rozman Pond will be conveyed from the outlet works of Rozman Pond directly by pipeline back to the Slate River on the Applicant's property.

# B. Letters in Lieu of Filing a Statement of Opposition

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

# (1) Case No. 17CW0002 (Water Division 3) - Application of Wagon Tracks West, LLC

During the March 2017 Water Court Resume Review, CWCB staff identified concerns regarding potential injury to CWCB's instream flow water rights decreed in Case Nos. 03CW0040 on La Garita Creek. This case was resolved with CWCB by a letter agreement, dated May 23, 2017, by which CWCB agreed not to file a statement of opposition provided Applicant incorporates the following terms and conditions into any draft and final decrees and Applicant agreed to not oppose a motion to intervene by CWCB if such terms and conditions are not included.

• At times when CWCB's instream flow on La Garita Creek decreed in Case No. 03CW40 is not met and the river is being administered, the Applicant shall cease the diversions decreed in this case at the Curby Ditch #2 to the extent necessary to prevent injury.

# (2) Case No. 17CW3066 (Water Division 5) - Application of Anthony & Terry Caine

During the March 2017 Water Court Resume Review, CWCB staff identified concerns regarding potential injury to CWCB's instream flow water rights decreed in Case Nos. 76W2948 and 85CW0646 on the Roaring Fork River. This case was resolved with CWCB by a letter agreement, dated May 23, 2017, by which CWCB agreed not to file a statement of opposition, provided Applicant incorporates the following terms and conditions into any draft and final decrees and Applicant agreed to not oppose a motion to intervene by CWCB if such terms and conditions are not included.

- Applicant shall cease diversions into the ponds through the Caine Pump and Pipeline at times when the following conditions exist:
  - The CWCB's instream flow on the Roaring Fork River decreed in Case No.
     76W2948 is not met at a location within the reach decreed for that right that cannot be augmented by releases from the Caine ponds; AND one of the following two conditions occurs:
    - Either the CWCB has placed a call for the 76W2948 right that is recognized and administered by the Division Engineer; OR
    - The Division Engineer is administering the river as though the CWCB has placed a call for its 76W2948 right.
- At times when CWCB's instream flow on the Roaring Fork River decreed in Case No. 85CW646 is not met and either the CWCB has placed a call for such instream flow that is recognized and administered by the Division Engineer or the Division Engineer is administering the river as though the CWCB has placed a call for such instream flow, the Applicant shall replace its out-of-priority depletions in time and amount from the on-site pond replacement water.
- The Caine Exchange and Caine Exchange First Enlargement will operate only when in priority vis-a-vis water rights located between the downstream and upstream termini of the exchange.

# (3) Case No. 17CW0093 (Water Division 5) - Application of Sun Valley Inprovement Association

During the April 2017 Water Court Resume Review, CWCB staff identified concerns regarding potential injury to CWCB's instream flow water rights decreed in Case Nos. 87CW276 and 87CW292 on the North Fork of the Colorado River and the Colorado River. This case was resolved with CWCB by a letter agreement, dated June 29, 2017, by which CWCB agreed not to file a statement of opposition provided Applicant incorporates the following terms and conditions into any draft and final decrees and Applicant agreed to not oppose a motion to intervene by CWCB if such terms and conditions are not included.

• The diversion of water though the DeWitt Ditch to fill, refill and continuously fill Sun Valley Reservoir at the rate of 2.0 c.f.s. was occurring at the time of the instream flow appropriations by the Colorado Water Conservation Board ("CWCB") on the North Fork Colorado River and the Colorado River, decreed in Case Nos. 87CW276 and 87CW292. Pursuant to section 37-92-102(3)(b), C.R.S., the Applicant is not required to augment out-of-priority diversions of water by DeWitt Ditch through the 72.5 acre foot pond at a maximum flow rate of 2.0 c.f.s. during the period April 1 to October 31, solely to satisfy a call under the decrees entered in Case Nos. 87W0276 and 87CW0292, as long as the surface area of the pond does not exceed 19.08 acres, and the reach of the North Fork Colorado River impacted by diversions by the DeWitt Ditch for delivery to Sun Valley Lake does not extend upstream of the point of diversion of the DeWitt Ditch located in NW1/4 of the NW1/4 of Section 25, Township 4 North, Range 76 West, 6<sup>th</sup> P.M., and does not extend downstream below the point where water returned to the North Fork of

the Colorado River near the SE corner of the NE1/4 of the SW1/4 of section 25, Township 4 North, Range 76 West, 6<sup>th</sup> P.M. The subordination of the instream flow water right to the Applicant's water use decreed herein pursuant to section 37-92-102(3)(b) C.R.S. in this case does not prevent the administration of the DeWitt Ditch or Sun Valley Reservoir in priority as against all other water rights and does not result in a general subordination of the CWCB's instream flow water rights decreed in Cases No. 87CW276 and 87CW292 to any other water rights junior to such instream flow water rights.



WHEREAS, Steve Miller has served the State of Colorado and its citizens since January 1991; and

WHEREAS, Steve Miller's service on the Arkansas River Compact Administration protected Colorado's compact entitlements while maintaining relationships with Kansas; and

WHEREAS, Steve Miller's attention to detail always ensured the State of Colorado produced high-quality results; and,

WHEREAS, Steve Miller represented Colorado on the Colorado River Basin Salinity Control Forum technical work group, advising water leaders in Colorado and throughout the Basin on ways to fund and implement on-the-ground projects that significantly improved water quality; and

WHEREAS, Steve Miller led CWCB's work on the cooperative Gunnison Basin Selenium Management Program and thereby helped support water use practices that improved water quality and helped promote the recovery of threatened and endangered species while protecting basin water users; and,

WHEREAS, Steve Miller's empathy for agricultural producers and water providers was invaluable in creating more efficient water usage throughout Colorado; and,

WHEREAS, Steve Miller is an unfailing advocate for the State of Colorado, relentlessly pursuing CWCB's mission to conserve, develop, protect and manage Colorado's water for present and future generations;

*Therefore I, John W. Hickenlooper, Governor of the entire State of Colorado, do hereby proclaim, forever after, June 30, 2017, as* 

# STEVE MILLER DAY

in the State of Colorado.



GIVEN under my hand and the Executive Seal of the State of Colorado, this thirteenth day of June, 2017

John W. Hickenlooper Governor



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

Department of Natural Resources

1313 Sherman Street Denver, CO 80203

P (303) 866-3441 F (303) 866-4474 John Hickenlooper, Governor

Robert Randall, DNR Executive Director

Lauren Ris, CWCB Acting Director

TO:	Colorado Water Conservation Board Members
FROM:	Kirk Russell, P.E., Finance Section Chief
Board Meeting:	July 19-20 Board Meeting
Directors Report:	Water Project Loans Interest Rates

### Introduction

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

The current rates for a 30-year term are as follows: 1.80% - Agricultural 2.50% - Low-income Municipal 2.90% - Middle-income Municipal 3.25% - High-income Municipal 6.00% - Commercial 2.00% - Hydroelectric

The standard loan term is 30 years. Rates are reduced by 0.25% for 20-year loans, and by 0.80% for 10-year loans. Rates are increased by 0.25% for 40-year loans.

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





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Robert Randall, DNR Executive Director

Lauren Ris, CWCB Acting Director

TO:	Colorado Water Conservation Board Members
FROM:	Anna Mauss, P.E., Marketing Finance Section
DATE:	July 19-20, 2017 Board Meeting
DIRECTORS REPORT:	Water Project Loan Program Prequalified Project List and Loan Prospect Summary

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

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



Interstate Compact Compliance • Watershed Protection • Flood Planning & Mitigation • Stream & Lake Protection

Prequalified Project List

BORROWER	PROJECT NAME	APPLICATION DATE	BASIN	PROJECT DESCRIPTION	PROJECT COST/LOAN AMOUNT
Previously Ap	proved Applica	ations			
Canal	Adobe Creek Dam Rehabilitation	May 1, 2017	Arkansas	The Company is under a storage restriction and intends to rehabilitate Adobe Creek Dam and is considering raising the dam to increase storage.	\$7,000,000
Grand Valley Drainage District	Buthorn Drain	Jan 1, 2017	Colorado	The District identified the Buthorn Drain as its top capital improvement project need to address irrigation return flows and stormwater conveyance.	\$5,000,000
Canal Company	Upper Platte & Beaver Canal Diversion Structure	Sept 1, 2016	South Platte	The purpose of this project is to replace the existing diversion structure that diverts water for both the Upper Platte & Beaver Canal Company and the Deuel & Snyder Improvement Company.	\$7,412,000
Totals					\$12,412,000

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

South Platte River Basin•Borrower •NISP Participants •Central CO WCDProject NISP Pipeline ProjectPotential Loan Amount \$100,000,000 \$4,000,000	
•NISP ParticipantsNISP\$100,000,000•Central CO WCDPipeline Project\$4,000,000	
• Parker Water & Sanitation DistrictWater Meter Project\$5,000,000• Henrylyn Irrigation DistrictReservoir Rehabilitation\$6,000,000• Bijou Irrigation DistrictReservoir Rehabilitation\$600,000• Left Hand Water DistrictWater Rights\$6,000,000• Windy Gap Firming ParticipantsWindy Gap Firming\$90,000,000• Subtotal\$211,600,000	
Arkansas River Basin	
• Stonewall Springs, LLCReservoir Construction\$5,500,000• Colorado Springs Flycasting ClubReservoir Rehabilitation\$450,000• Oxford DitchSiphon Repair\$1,800,000• Town of Manitou SpringsRaw Water Pipeline\$3,000,000• City of Woodland ParkStorage Project\$1,000,000• Fort Lyon Canal CompanyAdobe Creek Dam Rehab\$6,000,000• Subtotal• \$17,750,000	
San Miguel/San Juan River Basin	
•Town of NorwoodDual Water System\$1,000,000•Town of BayfieldDitch Piping\$500,000•Subtotal\$1,500,000\$1,500,000	
Colorado River Basin	
Kendall Reservoir     Private Borrower     Subtotal     Reservoir Rehabilitation     Reservoir Rehabilitation     \$250,000     \$650,000	
Gunnison River Basin	

Rio Grande Basin		
•Manasa Land & Irrigation Co.	Ditch Rehabilitation	\$6,000,000
•Baca Grande Water and San District	Water Rights Purchase	\$1,000,000
<ul> <li>Sanchez Ditch and Reservoir Co.</li> </ul>	Dam Rehabilitation	\$4,000,000
Rio Grande WCD	Water Rights Purchase	\$5,000,000
•Trinchera Water Conservancy Distric	t Water Rights	\$2,000,000
•Subtotal	č	\$18,000,000

Г	Yampa River Basin			
	•Town of Oak Creek	Reservoir Rehabilitation	\$500,000	





COLORADO Colorado Water Conservation Board

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Lauren Ris, CWCB Acting Director

то:	Colorado Water Conservation Board Members
FROM:	Kirk Russell, P.E., Finance Section Chief Jessica Halvorsen, Program Assistant
Board Meeting:	July 19-20, 2017 Board Meeting
Directors Report:	Water Project Loan Program Design & Construction Status Report

The CWCB Loan Program has Substantially Completed 29 projects in Fiscal Year 2016/2017 as shown in Table 1. There are currently 40 projects authorized to receive loan funding totaling \$234 million. There are 35 projects currently under contract and in the Design and Construction phase totaling \$151 million. The attached spreadsheet summarizes the status of the projects. A detailed description about each project is provided in the digital version of the Director's Report.

	TABLE 1						
	Borrower	Project	County	Loan Amount	Complete		
1	Greeley and Loveland Irrigation Company	Irrigation System Improvements	Larimer	\$ 3,745,080	07/01/2016(a)		
2	Boxelder Basin Regional Stormwater Authority	East Side Detention Facility Project	Larimer & Weld	\$ 7,171,000	07/01/2016(b)		
3	Boxelder Basin Regional Stormwater Authority	County Rd 52 Culvert Project	Larimer & Weld	\$ 818,100	07/01/2016		
4	Lake Canal Reservoir Company	North Gray Reservoir Rehab Project	Larimer & Weld	\$ 204,298	07/01/2016(c)		
5	Louden Irrigating Canal & Reservoir Company	Emergency Diversion Structure and Ditch Repair	Larimer	\$ 126,250	07/01/2016		
6	Boxelder Basin Regional Stormwater Authority	Larimer & Weld Canal Crossing Structure Project	Larimer & Weld	\$ 1,010,000	08/01/2016		
7	Prairie Ditch Company	Plaza Phase 3: Prairie Ditch Imp. Project	Rio Grande	\$ 131,300	08/01/2016		
8	Farmers Pawnee Canal Company	Diversion Structure Replacement Project	Logan	\$ 2,067,470	09/01/2016		
9	Northern Colorado WCD Hydropower Enterprise	Granby Hydropower Project	Grand	\$ 5,135,183	10/01/2016		
10	Pisgah Reservoir and Ditch Company	Mount Pisgah Dam/Wrights Res Rehabilitation	Teller	\$ 990,176	10/01/2016(d)		
11	Bow Mar Water & Sanitation District	Rehabilitation and Replacement of Water Meters	Arapahoe & Jefferson	\$ 332,795	11/01/2016		
12	Union Well Augmentation Group	Union Reservoir Water Rights Purchase	Weld	\$ 227,250	11/01/2016		
13	Ephraim Ditch Company	Ephraim Diversion and Headgate Rehabilitation	Rio Grande	\$ 101,000	11/01/2016		
14	Parkville Water District	Evans Reservoir Bypass Flume Project	Lake	\$ 181,800	12/01/2016		
15	Cortez, City of	Water Meter Replacement Project	Montezuma	\$ 858,500	12/01/2016		
16	Cottonwood W&S District	WISE - ECCV Pipeline Purchase	Douglas & Arapahoe	\$ 342,921	01/01/2017		
17	Inverness W&S District	WISE - ECCV Pipeline Purchase	Douglas & Arapahoe	\$ 1,845,270	01/01/2017		
18	Gypsum, Town of	LEDE Ditch and Reservoir Rehabilitation	Eagle	\$ 2,689,731	01/01/2017(e)		

TABLE 1



19	Plum Valley Heights Subdistrict	Raw Water Supply Project	Douglas	\$ 2,248,260	02/01/2017
20	Windsor, Town of	Kyger Reservoir Project	Larimer & Weld	\$ 4,545,000	02/01/2017(f)
21	Grand Junction, City of	Hallenbeck Reservoir No. 1 Dam Rehabilitation	Mesa	\$ 1,010,000	03/01/2017(g)
22	Julesburg Irrigation District	Reconstruction of the Harmony No. 1 Dam Structure	Sedgwick	\$ 203,616	03/01/2017
23	Bellyache Ridge Metro District	Well Replacement Project	Eagle	\$ 169,175	04/01/2017
24	Oligarchy Irrigation Company	Dam Outlet Works Rehabilitation	Boulder	\$ 901,930	04/01/2017(h)
25	Uncompahgre Valley Water Users Association	Drop 5 Hydroelectric Project	Montrose & Delta	\$ 6,999,300	04/01/2017
26	North Poudre Irrigation Co	Reservoir No. 4 Rehabilitation	Larimer	\$ 2,263,410	05/01/2017(i)
27	San Luis Valley Water Conservancy District	Anaconda Ditch Water Right Acquisition	Alamosa	\$ 1,123,575	05/01/2017
28	Sanford Canal Company	Sanford Diversion and Headgate Rehabilitation	Rio Grande	\$ 101,000	05/01/2017
29	Central Colorado WCD - Water Augmentation Subdistrict	Water Rights Purchase and Gravel Pit Strorage	Weld, Adams, Moran	\$ 1,651,904	6/1/2017
			Total	\$ 50,573,390	

Fiscal Year 2016/2017 has added or preserved 21,613 acre-feet of reservoir storage (a) 12,925; (b) 1,800; (c) 075; (d) 2,192; (e) 254; (f) 1,257; (g) 699; (h) 1,737; (i) 674).



Irrigation System Improvements

Greeley and Loveland Irrigation Company Substantially Complete July 1, 2016



# **Project Description**

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

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

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

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

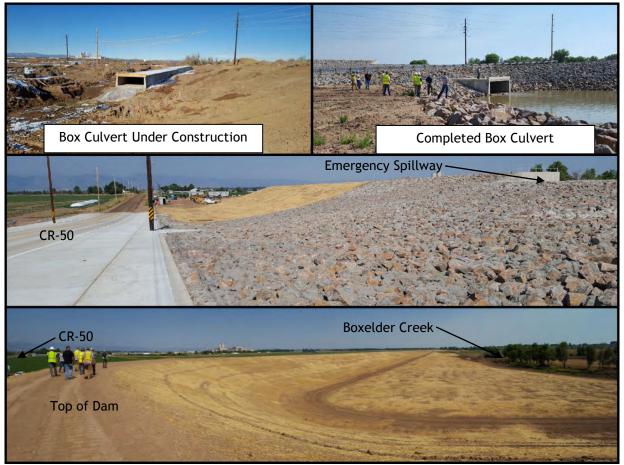
P	R O J E C	T D A T	Α	
Sponsor: Greeley & Loveland	County: Larimer		Water Source: Big Thompson	
Irrigation Company	county. Larimer		River	
Type of Loan: Reservoir Rehabilitation		Board Approval Date: September 2013		
Terms of Loan: \$3,745,080 at 2.15% for 30 years				
Design Engineer: URS Corporation/AECOM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



### Loan Program Attachment 3 East Side Detention Facility

Boxelder Basin Regional Stormwater Authority

Substantially Complete July 1, 2016



# **Project Description**

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

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



### Attachment 3 County Road 52 Improvements

Boxelder Basin Regional Stormwater Authority Substantially Complete July 1, 2016

Loan Program



# **Project Description**

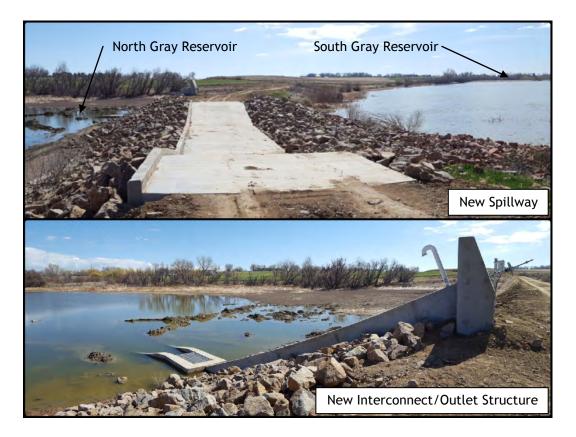
The Boxelder Basin Regional Stormwater Authority was formed in 2008, through an IGA between the City of Fort Collins, Larimer County and the Town of Wellington, to facilitate the construction of regional stormwater improvements to reduce the threat of flooding and remove areas from the FEMA floodplain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

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



Lake Canal Reservoir Company Substantially Complete July 1, 2016

Loan Program



# **Project Description**

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

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

PROJECT DATA				
Sponsor: Lake Canal Reservoir Company	County: Larimer & Weld		Water Source: Box Elder Creek	
Type of Loan: Reservoir Rehabilitation		Board Approval Date: September 2011		
Terms of Loan: \$204,298 at 2.10% for 30 years				
Design Engineer: Smith Geotechnical Engineering Consultants				
Contractor: Dietzler Construction Corporation				
Project Elements: Abandonment of old outlet works, new outlet structure with 18" diameter HDPE pipe (interconnect structure), and new 80 LF spillway				



**Emergency Diversion Structure and Ditch Repair** 

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

Louden Irrigating Canal & Reservoir Company Substantially Complete July 1, 2016



## **Project Description**

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

Р	R O J E C	ΤΟΑΤ	Α	
Sponsor: Louden Irrigating Canal & Reservoir Company	County: Larimer		Water Source: Big Thompson	
Type of Loan: Ditch Rehabilitation Board Approval Date: May 2014				
Loan Terms: (Original) \$161,600 @ 2.70% for 30 years (Final) \$126,250 @ 2.70% for 30 years				
Design Engineer: Telesto Solutions, Inc				
Contractor: Lee Nauta, John Moen				
Project Elements: Ditch and head	lgate cleanout fro	m flood debris ar	nd sediment.	



Larimer & Weld Canal Crossing Structure Project

Colorado Water Conservation Board Department of Natural Resources

COLORADO

Boxelder Basin Regional Stormwater Authority Substantially Complete August 1, 2016



## **Project Description**

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

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



## Loan Program Attachment 3 Plaza Project Phase 3: Prairie Ditch Implementation Project

# Prairie Ditch Company

Substantially Complete August 1, 2016



# **Project Description**

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 WSRF grant. Phase 3 is the second implementation project and the subject of this loan. 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. Project was funded in part with this CWCB Loan to the ditch company and a WSRF grant to the Colorado Rio Grande Restoration Foundation.

Р	R O J E C	T D A T	Α	
Sponsor: Prairie Ditch Company	County: Rio Gra	ande	Water Source: Rio Grande River	
Type of Loan: Ditch Rehabilitati	bilitation Board Approval Date: May 2014			
Terms of Loan: \$131,300 at 1.25% for 10 years				
Design Engineer: Riverbend Engineering, LLC & Natural Resources Conservation Service (NRCS)				
Contractor: Robins Construction				
Project Elements: 120 LF grouted boulder diversion dam, trash rack structure, (4) slide headgates and structure, (1) radial sluice gate, structure and channel, headgate automation				



# Attachment 3 Diversion Structure Replacement Project

Farmers Pawnee Canal Company Substantially Complete September 1, 2016

Loan Program



**Project Description** 

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

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



#### Loan Program Attachment 3 Granby Hydropower Project

Northern Colorado Water Conservation District Substantially Complete October, 2, 2016



## **Project Description**

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

P	ROJEC	TDA	ГА
<i>Sponsor</i> : Northern Colorado Water Conservancy District, Hydropower Enterprise	County: Grand		Water Source: Colorado River
Type of Loan: Hydroelectric		Board Approva	al Date: May 2014
Terms of Loan: \$5,135,183.00 at	2.0% for 30 years		
Design Engineer: CH2M			
Contractor: Aslan Construction			
Project Elements: (2) 600 kilowat	t Francis turbines:	, 70'x26' power	house



Loan Program



# **Project Description**

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

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

COLORADO



# Conservation Board Rehabilitation and Replacement of Water Meters

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





# **Project Description**

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

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

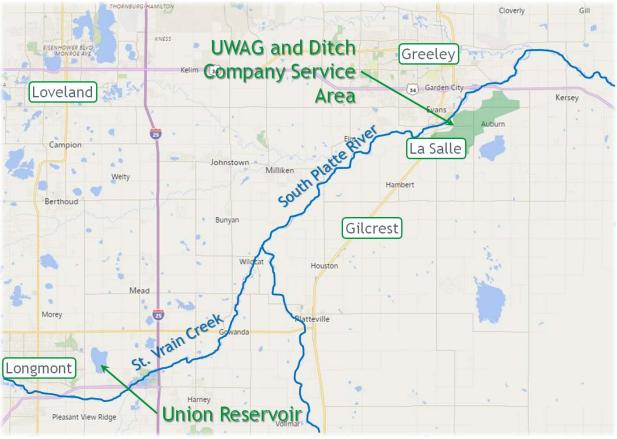
Sponsor: Bow Mar Water and Sanitation District	R O J E C County: Arapaho		Water Source: Denver Water (Master Meter)
Type of Loan: Water Meters		Board Approva	l Date: March 2015
Loan Terms: 2.65% for 10 years (	Original) \$332,79	5 (Final) \$331	,407.15
Design Engineer: ENS Consulting	, LLC		
Contractor: Levi Contractors, Inc.			
Project Elements: Water meter r	ehabilitation and	replacement	



**Union Reservoir Water Rights Purchase** 

# Union Well Augmentation Group

Substantially Complete November 1, 2016



**Project Description** 

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

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

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

**Ephraim Diversion and Headgate Rehabilitation** 



Ephraim Ditch Company Substantially Complete November 1, 2016



# **Project Description**

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 was to address the need for a well-designed diversion structure that will reduce maintenance, improve water management efficiencies, and allow for the accurate control of compact-entitled waters. The core has been washed away over time such that irrigators would pile debris or cinderblocks to act as the diversion dam, contributing to decades of limited diversion to irrigators and potential over payment to the Compact. This Project removed and replaced the diversion and headgate structure and installed automated headgates and five gauging stations.

This Project is one of three projects collectively known as the Conejos River System Confluence Management Project, managed by the Conejos Water Conservancy District. The Confluence Management Project will extend this whole river strategy to the Confluence, specifically the Sanford Canal, Ephraim Ditch, and East Bend Ditch.

Р	R O J E C	ΤΟΑΤ	Α	
Sponsor: Ephraim Ditch Company	County: Rio Grande		Water Source: Conejos River	
Type of Loan: Ditch Rehabilitation	ion Board Approval Date: May 2014			
Terms of Loan: \$101,000 at 1.75% for 30 years				
Design Engineer: Natural Resources Conservation Service (NRCS)				
Contractor: Natural Progression Homes, LLC				
Project Elements: Diversion Dam (core), headgate, sluice gate, 5 flumes, 5 stilling wells, telemetry				

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

# **Evans Reservoir Bypass Flume Replacement**

Parkville Water District Substantially Complete December 1, 2016







# **Project Description**

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

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



# Water Meter Replacement Project

## City of Cortez

Substantially Complete December 1, 2016

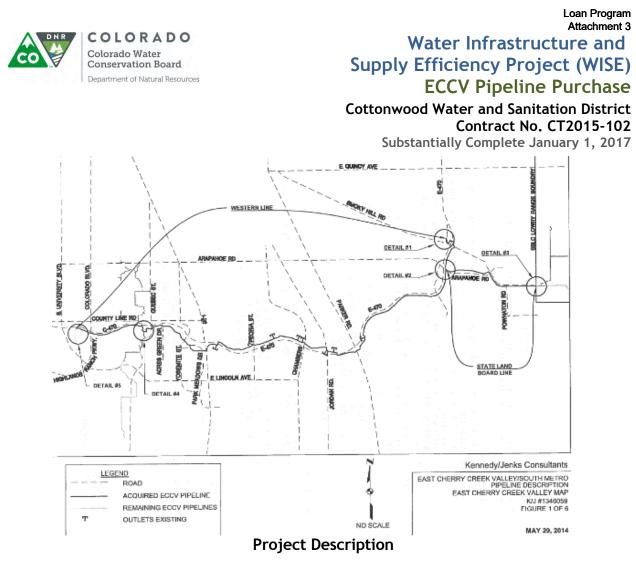




Project Description

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

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

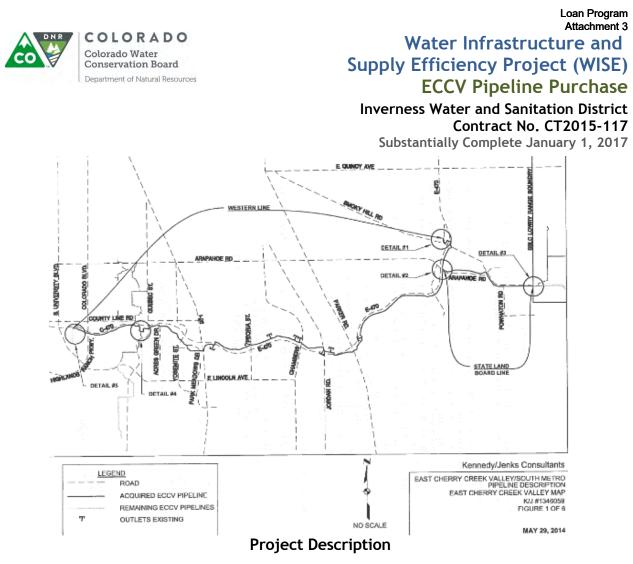


The WISE Project is a collaborative effort by multiple south metropolitan water entities (the WISE Authority), Denver Water, and Aurora water to supplement existing water supplies by bringing reusable water supplies southward through Aurora's Prairie Waters pipeline to the East Cherry Creek Valley (ECCV) Pipeline. The WISE Authority purchased an 85% ownership share in the existing ECCV Pipeline, while the remaining 15% was purchased by Denver Water. The WISE Authority will operate and maintain the ECCV pipeline.

Each WISE Authority member's cost obligations for the project are dictated by an Organizational Agreement between the WISE Authority and WISE Authority member entities, and are dependent upon each member's subscription share for water deliveries.

This Water Project Loan financed the Cottonwood Water and Sanitation District's cost share obligations for the purchase of the ECCV Pipeline by the WISE Authority, resulting in a license agreement for approximately 4.9% capacity of pipeline deliveries.

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



The WISE Project is a collaborative effort by multiple south metropolitan water entities (the WISE Authority), Denver Water, and Aurora water to supplement existing water supplies by bringing reusable water supplies southward through Aurora's Prairie Waters pipeline to the East Cherry Creek Valley (ECCV) Pipeline. The WISE Authority purchased an 85% ownership share in the existing ECCV Pipeline, while the remaining 15% was purchased by Denver Water. The WISE Authority will operate and maintain the ECCV pipeline.

Each WISE Authority member's cost obligations for the project are dictated by an Organizational Agreement between the WISE Authority and WISE Authority member entities, and are dependent upon each member's subscription share for water deliveries.

This Water Project Loan financed the Inverness Water and Sanitation District's cost share obligations for the purchase of the ECCV Pipeline by the WISE Authority, resulting in a license agreement for approximately 6.1% capacity of pipeline deliveries.

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



### Attachment 3 L.E.D.E Ditch & Reservoir Upgrade Project

Town of Gypsum Substantially Complete January 1, 2017

Loan Program





Figure 4 - Riprap Placement



Figure 5 - Spillway Channel Riprap Armoring

# **Project Description**

The Town of Gypsum purchased the LEDE Ditch and LEDE Reservoir water rights in 2006. The reservoir is located in the headwaters of Gypsum Creek, south of Gypsum within the White River National Forest. The original water rights were decreed for irrigation uses, and provide storage of up to 947 AF in the reservoir. The Reservoir was originally built to a capacity of 431 AF. In order to accommodate continued agricultural irrigation, and for future water supplies to the Town, the project was designed to increase capacity to 947 AF. This upstream storage is required to assist in managing Gypsum Creek water rights calls and dry year operations. The reservoir storage will become even more important as the Town's population continues to increase.

With this project, the Town repaired and improved the reservoir to utilize its full potential, protecting valuable senior storage rights in the reservoir. Design and permitting commenced in 2009/2010, pipeline construction started in late 2009, and dam construction completed in 2016.

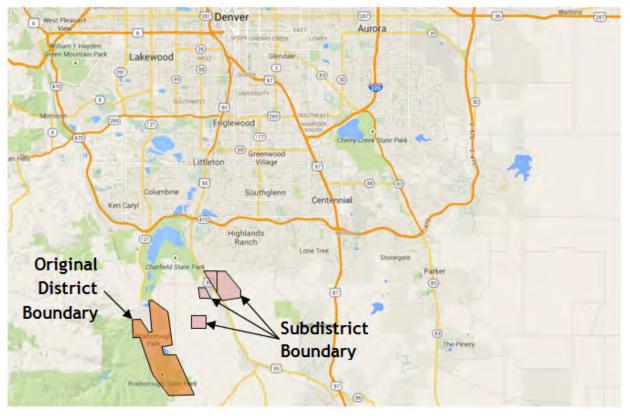
Р	ROJECT	DATA	
Sponsor: Town of Gypsum	County: Eagle	W	ater Source: Gypsum Creek
Type of Loan: Reservoir Rehabili	itation and Enlargement	Board Appro	oval Date: May 2009
Loan Terms: 4.5% for 30 years (C	riginal) <b>\$2,689,731</b> (Fina	l) \$2,689,731	WSRF Funding: \$225,000
Design Engineer: Zancanella and	l Associates		
Contractor: Hobbs Construction			



Raw Water Supply Project

Plum Valley Heights Subdistrict of the Roxborough Water and Sanitation District

Substantially Complete February 1, 2017



## **Project Description**

Plum Valley Heights Subdistrict of the Roxborough Water and Sanitation District was recently formed to provide rural communities in Douglas County with a renewable water supply. The communities will be connected to the Roxborough Water and Sanitation District system through an infrastructure project funded by a WSRA grant, CWRPDA loan, and Douglas County. The total project cost (including infrastructure) is approximately \$14.9M. The CWCB loan financed the acquisition of a renewable water supply from the City of Aurora.

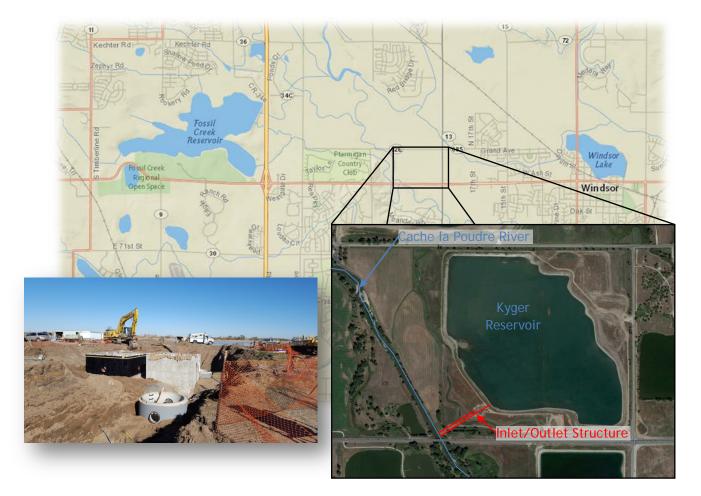
The existing residential developments of Chatfield Acres, Chatfield East, and Plum Valley Heights, and the industrial development of Titan Road Industrial Park, were built in the 1970s and 1980s. These developments are currently served by individual wells completed in the non-tributary Denver Basin aquifers. Water levels in the Denver Basin aquifers are declining, particularly in the margins of the aquifers where these developments are located. As a result, existing wells in these developments have either already failed, or are in danger of failing. The Metro Roundtable had determined this project is an important component of replacing the use of non-tributary groundwater in the South Metropolitan Area of Denver and in solving the water supply gap identified in SWSI.

Р	R O J E C T D	ΑΤΑ	
Sponsor: Plum Valley Heights Subdistrict of the Roxborough Water & Sanitation District	County: Douglas	<i>Water Source:</i> South Platte River	
Type of Loan: Water Rights Purc	hase Board Ap	proval Date: May 2015	
Terms of Loan: \$2,248,260 @ 3.05% for 30 years			
Design Engineer: NA			
Contractor: NA			
<i>Project Elements:</i> Purchase of a long term water lease with the City of Aurora for 150 AF per year.			



#### Loan Program Attachment 3 Kyger Reservoir Project Town of Windsor

Substantially Complete February 1, 2017



# **Project Description**

The Town of Windsor was incorporated in 1890 and adopted its Home Rule Charter in 2003. The Town's Water Activity Enterprise was created by a Town Ordinance in 1994 and serves approximately 5,600 taps (2013). The Town has seen tremendous growth over the last decade and has a current population of approximately 18,700 people. The Town purchased a lined gravel pit known as Kyger Reservoir in 2014 to increase its water supply storage. Construction of the inlet, outlet, and conveyance structures occurred from fall 2016 through winter 2017. This infrastructure allows the Town to divert from the river to gravity fill the reservoir, and also to reverse flow and pump to the river from the reservoir to make releases. CWCB Loan funds went to the purchase of the reservoir and infrastructure construction. Based on a sonar survey, the Project added 1,257 acre-feet of usable storage capacity for the Town.

Р	R O J E C	T D A T	A
Sponsor: Town of Windsor	County: Larimer	r & Weld	Water Source: Cache la Poudre
Type of Loan: Reservoir Construct	tion	Board Approval	Date: September 2013
Terms of Loan: \$4,545,000 at 2.75% for 20 years			
Design Engineer: Wenck Associates			
Contractor: Moltz Constructors			
<i>Project Elements:</i> Purchase of lined gravel pit. Construction of river diversion with overshot gate, pipelines, pumps, reservoir inlet/outlet structure.			



#### Loan Program Attachment 3 Hallenbeck Reservoir No. 1 Dam Rehabilitation **City of Grand Junction**

Substantially Complete March 1, 2017



Figure 1 - Dam Embankment Before Construction



Figure 2 - After Construction

# **Project Description**

Hallenbeck Reservoir No. 1 is one of the City of Grand Junction's 14 reservoirs. It has a capacity of 699 acre-feet. In 2014 the City of Grand Junction developed plans to mitigate seepage through the dam; however, during the evaluation process, seepage increased and an 80-foot crack developed on the downstream face of the dam. Water was immediately released from the reservoir in an effort to relieve hydrostatic pressure within the dam. The City completed a forensic evaluation of the dam that included a geotechnical investigation and structural evaluation.

With this project, the City repaired the dam to allow the City to use all of the storage capacity. Construction involved removal of several feet of material on the downstream face of the dam, removal of the existing toe drain system, installation of a blanket filter on the downstream face, installation of a new toe drain system, installation of a buttress on the downstream face, and installation of new piezometers and monuments. Construction began in August 2016 and was completed in December 2016.

Р	ROJECT	ΔΑΤΑ	
Sponsor: City of Grand Junction	County: Mesa		Water Source: Kannah Creek
Type of Loan: Reservoir Rehabilitation Board Approval Date: March 2016			
Loan Terms: 2.65% for 20 years (Original) \$1,010,000 (Final) \$764,820.93 WSRF Funding: \$100,000			
Design Engineer: AECOM			
Contractor: M.A. Concrete Constru-	ction, Inc.		



Reconstruction of Harmony No. 1 Measurement Structure Julesburg Irrigation District Substantially Complete March 1, 2017

## **Project Description**

The Julesburg Irrigation District (District), part owner and the operator of the Harmony No. 1 Canal, delivers both Direct Flow rights and Storage water rights to the Julesburg Reservoir. The Canal diverts water from the South Platte River approximately three miles southwest of the town of Crook, Colorado. The Canal delivers direct flow irrigation water, storage water, and augmentation water to approximately 17,000 acres of land controlled by the Harmony Ditch Company and Julesburg Irrigation District. The Canal can also be used to deliver irrigation water to an additional 6,000 acres thru the Julesburg Reservoir rights administered to the Petersen Canal as a supplemental source if supplies at the Petersen head gate are not adequate. The existing 20 foot Parshall Flume experienced structural damage over time to the point of failure. The District demolished the existing structure, replacing it with a new structure located just upstream. The purpose of this project was to provide a reliable measurement structure to accurately measure the flow of the Harmony No. 1 Canal for the various water rights being used by the Julesburg Irrigation District.

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



# Well Replacement Project

Bellyache Ridge Metropolitan District Substantially Complete April 1, 2017



# **Project Description**

The District is located in Eagle County approximately six miles west of Edwards, Colorado. The District's water system includes three wells (#1R, 2, and 3) that fill two storage tanks. From January through March of 2013, the District had to haul in water because declining well production was not able to keep up with demands. In order to reduce the likelihood of future hauling of water, the District drilled a replacement for well #2. In addition to the CWCB loan, the Department of Local Affairs provided a \$167,500 grant.

Р	R O J E C	ΤΟΑΤ	Α
Sponsor: Bellyache Ridge Metropolitan District	County: Eagle		Water Source: Groundwater
Type of Project: Well Replacem	ent	Board Approval	Date: July 2013
Loan Terms: 3.00% for 30 years (Original) \$169,175.00 (Final) \$140,586.73			
Design Engineer: Zancanella and Associates, Inc.			
Contractor: Shelton Drilling			



# Dam Outlet Works Rehabilitation Project

Oligarchy Irrigation Company Substantially Complete April 1, 2017

Loan Program



# **Project Description**

The Oligarchy Irrigation Company owns and operates the Oligarchy #1 Dam and Reservoir, also known as Burch Lake. The reservoir stores 1,737 acre-feet of water and is classified as a significant hazard dam by the State Engineer's Office Dam Safety Branch (SEO). The purpose of the project was to rehabilitate the aging outlet works per the SEO's recommendation as the existing outlet was pressurized through the embankment, had difficult access for inspection and difficult operation of the valve, and the overall poor condition of the outlet structure. The Project constructed a new outlet works gate vault, outlet works piping, intake structure, and discharge structure. With the new upstream gate there is now a way to inspect the outlet works system without draining the lake. After completing final design and receiving contractor bids, the company sought, and was approved for, a 15% increase to the loan contract at the May 2016 Board Meeting. Construction began in May 2016 and was completed in October 2016.

Р	R O J E C	T D A T	А
Sponsor: Oligarchy Irrigation Company	County: Boulde	r	Water Source: St. Vrain Creek
Type of Project: Dam Rehabilitation Board Approval Date: July 2015			Date: July 2015
Final Terms of Loan: \$901,930 @ 2.40% for 30 years			
Design Engineer: Deere & Ault Consultants			
Contractor: Moltz Constructors			
<i>Project Elements:</i> Outlet Works incl. 24" diameter sluice gate, trash rack, 24" restrained concrete encased outlet pipe, discharge structure			



# Attachment 3 Drop 5 Hydroelectric Project

Uncompany Valley Water Users Association Substantially Complete April 1, 2017

Loan Program



# **Project Description**

The Uncompahyre Valley Water Users Association (Association) provides irrigation water to over 85,000 acres in Montrose and Delta Counties. This Hydroelectric Project was developed by the W.U. Drop 5 Inc. a wholly owned Company of the Association. The Project is a 2.2 MW of hydroelectric power plant facility on its existing South Canal. The power will be sold to Delta Montrose Electric Association under a Power Purchase Agreement. The Uncompahyre Project Area Federal Irrigation Systems is one of the oldest (1903) Bureau of Reclamation projects. The Association currently has five small-scale hydroelectric facilities on their system. This Project includes a diversion/bypass gate in the existing canal to divert water into the intake/power house structure. Flows are returned to the existing canal and do not affect the delivery of irrigation water. An intake/powerhouse structure houses the generator and mechanical/electrical equipment. The turbine is a vertical double regulated Kaplan turbine. These Kaplan units have been installed in the Association's Drops #1, #3 and #4. A switchyard was constructed at the powerhouse with a transformer capable of stepping up the power generated to the necessary interconnection voltage.

Р	R O J E C	ΤΟΑΤ	А
Sponsor: Uncompahgre Valley Water Users Association	County: Delta 8	t Montrose	Water Source: Gunnison River
Type of Loan: Hydroelectric Pro	ject	Board Approval	Date: May 2015
Terms of Loan: 2.0% for 20 years	s (Initial) \$6,999,	300.00 (Final) \$6,	426,813.80
Design Engineer: Sorenson Engine	eering		
Contractor: Shavano Falls Hydro,	LLC		





# **Project Description**

The North Poudre Irrigation Company is a mutual ditch company established in 1901. The Company's office is located in Wellington with a service area of approximately 28,000 irrigated acres of farm land. Reservoir No. 4 is an off stream reservoir constructed in the late 1880s, enlarged in the 1920s, and had the outlet works replaced in the late 1950s. The Reservoir No. 4 Rehabilitation Project modified the dam including its slope, outlet works, drains, spillway, and measurement structure, while also providing a new parking area and floodplain improvements. The primary purpose of the project was to lift the State Engineer's storage restriction on the reservoir and dam and improve the overall reservoir facility. The Project was approved by the SEO and the water storage restriction was lifted on October 11, 2016, restoring 674 AF of water storage.

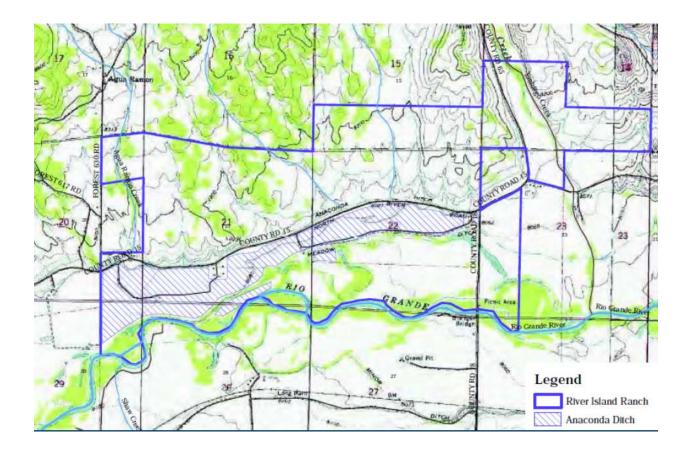
Р	R O J E C	T D A T	Α
<i>Sponsor:</i> North Poudre Irrigation Company	County: Larimer		Water Source: Cache La Poudre
Type of Loan: Reservoir Rehabili	tation	Board Approval	Date: November 2013
Terms of Loan: (Original) \$2,263,410.00 at 2.35% for 30 years (Final) \$2,189,757.89			
Design Engineer: Ronald H. Slosson, P.E.			
Contractor: Zak Dirt			
Project Elements: Restoration of 674 AF of storage. New outlet incl. 30" dia. outlet conduit w/ measurement flum, gate tower, spillway drop structures, toe drain w/ measurement weir.			



**Anaconda Ditch Water Rights Acquisition Project** 

San Luis Valley Water Conservancy District

Substantially Complete May 1, 2017



# **Project Description**

The San Luis Valley Water Conservancy District operates an augmentation program servicing portions of Rio Grande, Alamosa, Saguache, Hinsdale and Mineral Counties. The augmentation program was developed to offset river depletions from wells serving residential and commercial uses in the area. To add to the existing augmentation program, the District is purchased a 58% interest in the Anacnoda Ditch, providing an additional 304.8 acre-feet of augmentation water.

Р	R O J E C	ΤΟΑΤ	Α
Sponsor: San Luis Valley Water Conservancy District	County: Alamos	a	<i>Water Source:</i> Rio Grande River
Type of Project: Water Rights Purchase Board Approval Date: March 2013			
Loan Terms: 2.5% for 30 years	(Original) <b>\$1,123</b> ,	,574.50 (Final)	\$1,123,574.50
Design Engineer: Davis Engineering Service, Inc.			
Contractor: N/A			



# Sanford Diversion and Headgate Rehabilitation

Loan Program Attachment 3

Sanford Canal Company Substantially Complete May 1, 2017



**Project Description** 

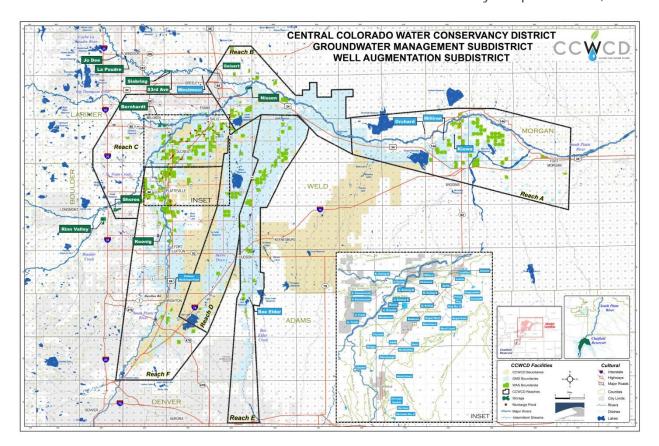
The Sanford Canal Company was incorporated in 1892 as a "Colorado Water Company" and later became a Mutual Ditch Company in 1912. Its diversion is located on the Conejos River just below the confluence with the San Antonio River and has a service area covering approximately 3,000 irrigated acres. The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

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

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

COLORADO Colorado Water Conservation Board Department of Natural Resources

## Water Rights Purchase and Gravel Pit Storage Project Well Augmentation Subdistrict of the Central Colorado Water Conservancy District Substantially Complete June 1, 2017



# **Project Description**

The Well Augmentation Subdistrict (WAS) of the Central Colorado Water Conservancy District is located in Adams, Weld, and Morgan counties. WAS is a special district created by the Weld County District Court on January 8, 2004, pursuant to the applicable provisions of the "Water Conservancy Act", Section 37-45-101, C.R.S. It has the power to acquire and sell water rights, construct and operate facilities, exercise eminent domain, levy taxes, and contract with other agencies. WAS has operated an augmentation plan since 2004, covering approximately 78 square miles and 214 predominantly agricultural member wells. WAS has an average annual depletion of 20,400. WAS received this loan to finance the purchase of water rights and explore gravel pit storage projects. Loan funds were ultimately used to purchase 80 shares of Lupton Meadows Ditch Company, and 1 share in the Platte Valley Irrigation Company.

Р	R O J E C	T D A T	A	
Sponsor: Well Augmentation System of the Central Colorado Water Conservancy District	<i>County:</i> Weld, Adams, Morgan <i>Water Source:</i> South Platte Basin			
<i>Type of Loan:</i> Water Rights Purch Augmentation Facility	nase &	Board Approval Date: September 2012		
Terms of Loan: (Original) \$3,030	,000 at 1.75% for	30 years (Final) S	\$1,651,904.79	
Design Engineer: Leonard Rice Engineers, Inc.				
Contractor: NA				

	Contract Borrower	County	Loan Amount	Design Status	Const. Start/End	Const. Status	РМ	Status Description/Update
	Projects in Design or Construction							
1	Bennett, Town of >Wells #3 and #6 Replacement Project CT2015-161 *\$	Adams Arapahoe	\$1,454,000	100%	May 2015 - Aug 2017	90%	ACM	Drilling began in May 2015. All drilling was complete as of the end of July. Temporary were replaced by permanant pumps and the Town is in the process of bringing the wells online and expects that process to be complete in the summer of 2017.
2 (	CHATFIELD Reallocation Project - First Cost of Storage							\$54.633.223
a	Castle Pines North Metropolitan District >(C150404A) CT2016- 2049 *\$	Arapahoe Douglas Park Weld	\$723,160	N/A	N/A	N/A	JMH	
b	Centennial Water & Sanitation District >(C150405A) CT2016- 2053 *\$	Arapahoe Douglas Park Weld	\$4,978,290	N/A	N/A	N/A	JMH	This contract is to provide reimbursement for the Chatfield Reallocation Project, specific to the "first cost of storage." Payment will be due once
с	Center of Colorado Water Conservancy District >(C150406A) CT2016- 2047 *\$	Arapahoe Douglas Park Weld	\$94,637	N/A	N/A	N/A	JMH	storage in the new reservoir pool is allowed (after Phase 1 Mitigation contract is complete).
d	Central Colorado Water Conservancy District >(C150407A) CT2016- 2057 *\$	Arapahoe Douglas Park Weld	\$3,187,560	N/A	N/A	N/A	JMH	
3 - 0	CHATFIELD Reallocation Project - Phase 1 Mitigation							\$37,786,120
а	Castle Pines North Metropolitan District >(C150404B) CT2016- 2050 *\$	Arapahoe Douglas Park Weld	\$4,143,020	50%	Fall 2017 - 2022	0%	JMH	This contract is to provide reimbursement for the Chatfield Reallocation Project, for engineering, recreation facilities construction, on-site mitigation,
b	Centennial Water & Sanitation District >(C150405B) CT2016- 2055 *\$	Arapahoe Douglas Park Weld	\$28,527,450	50%	Fall 2017 - 2022	0%	JMH	off-site mitigation, and mitigation monitoring. Phase 1 covers the work required before storage is allowed. Preliminary Design of environmental and recreation activities, and Army Corps review of preliminary design has been completed. Final Design for
с	Center of Colorado Water Conservancy District >(C150406B) CT2016- 2048 *\$	Arapahoe Douglas Park Weld	\$511,363	50%	Fall 2017 - 2022	0%	JMH	recreation modifications should be completed in June 2017, and Final Design for environmental mitigation should be completed in August 2017 with Army Corps review of Final Design by late summer 2017. Earliest construction activities likely to commence no sooner than October 2017.
d	Central Colorado Water Conservancy District >(C150407B) CT2016- 2058 *\$	Arapahoe Douglas Park Weld	\$18,263,830	50%	Fall 2017 - 2022	0%	JMH	An open house public meeting is scheduled for May 30, 2017.
4 - (	CHATFIELD Reallocation Project - Phase 2 Mitigation							\$7,000,310
а	Castle Pines North Metropolitan District >(C150404C) CT2016- 2051 *\$	Arapahoe Douglas Park Weld	\$1,587,720	0%	2022 - 2028	0%	JMH	

	Contract Borrower	County	Loan Amount	Design Status	Const. Start/End	Const. Status	РМ	Status Description/Update
b	Centennial Water & Sanitation District >(C150405C) CT2016- 2056 *\$	Arapahoe Douglas Park Weld	\$10,934,260	0%	2022 - 2028	0%	JMH	This contract is to provide reimbursement for the Chatfield Reallocation Project, for engineering, recreation facilities construction, on-site mitigation, off-site mitigation, and mitigation monitoring. Phase 2 covers the work remaining after storage is allowed.
с	Central Colorado Water Conservancy District >(C150407C) CT2016- 2060 *\$	Arapahoe )ouglas Weld	\$7,000,310	0%	2022 - 2028	0%	JMH	
5	Chilcott Ditch Company >Jimmy Camp Creek Siphon Reconstruction CT2017-3188	El Paso	\$580,750	100%	Feb 2017 - May 2017	95%	DRJ KGR	Project essentially completed 4/24/17; working on final punchlist items.
6	Dixon Canon Ditch & Reservoir Company >Dixon Reservioir Dam Improvements CT2017-914 \$	Larimer	\$278,100	100%	Fall 2017 - Spring 2018	0%	JMH	Bids were opened 12/14/16. Company work with low bidder Zak dirt to reduce bid by splitting work into 2 phases: 1st phase will include only the dam safety issues such as the seepage collection system. The 2nd phase to be done at a later time will include the dam outlet pipe improvements. Final Design was not completed in time to allow for spring construction and so construction will occur in fall 2017.
6	Duke Ditch Company >Piping the Duke Ditch CT2017-915 \$	Delta	\$90,000	30%	Fall 2017 - Spring 2018	0%	ACM	NRCS is scheduled to do the design work in the summer of 2017. Construction is expected to start in the fall of 2017.
7	Fowler, Town of > Augmentation Pipeline Project C150359 (CT2015-054) *\$	Otero	\$277,245	100%	Fall 2017 - Spring 2018	0%	DRJ ACM	Engineering completed. Easement and appraisal processes causing delay; might result in litigation per disc with Town 5/23/17. Bid process on hold.
8	Georgetown, Town of > Outlet Works Modification Project C150321 (CT2015-055) *\$90%	Clear Creek	\$2,976,975	100%	Aug 2014 - May 2017	99%	ACM	Construction began in August 2014 and was mostly complete by April 2016. When the new outlet gate was tested, operational issues were identified. The Town is working on solutions with additional engineering support and gate manufacturers. The Town requested a one-year extension to the loan contract.
9	Grand Mesa Water Conservancy District > Peak Res. & Blanche Park Res. Rehabilitation C150354 (CT2015-061) *\$	Delta	\$227,250	100%	Mar 2013 - Sept 2017	50%	ACM	Construction on Peak Reservoir began in the 2013 season and was completed in Oct 2014. Blanche Park construction was delayed due to Federal permitting issues. SEO approved construction drawings in June 2016. Construction is scheduled for summer of 2017.
10	Grand Valley Water Users Association >Government Highline Canal Lining CT2017-2258	Mesa	\$151,500	50%	Aug 2017 - Dec 2017	0%	ACM	Final design and permitting are underway. Construction is planned for late summer 2017.
11	Grand Valley Water Users Association >Grand Valley Power Plant Rehabilitation CT2017-2875	Mesa	\$1,717,000	0%	-	0%	JMH	BOR Design meeting 2/28
12	Huerfano County Water Conservancy District > Regional Augmentation Project C150364 (CT2015-047) *\$	Huerfano	\$2,222,000	100%	Jan 2014 - Mar 2018	60%	ACM	Land and water rights purchase occurred in January 2014. Camp Ranch augmentation site construction is complete. The District evaluated a 2nd site and will begin construction at the Sheep Mountain Ranch in the summer of 2017.

	Contract Borrower	County	Loan Amount	Design Status	Const. Start/End	Const. Status	РМ	Status Description/Update
13	Lake Durango Water Authority > Source Water Supply Project C150317 (CT2015-013) *\$90%	LaPlata	\$2,525,000	100%	Oct 2016 - Oct 2017	15%	KGR	Project Construction begin in October. Most of the pipe has been delivered and stored on site. Road alignment from highway to the outlet tower has been roughed cut in. Blasting was required in some areas.
14	Lake McIntosh Reservoir Company >Lake McIntosh Outlet Works Repair CT2016-2794 \$	Boulder	\$1,727,100	100%	Jan 2017 - Dec 2017	50%	JMH	Phase 1 construction includes pipeline from ditch crossing to downstream manhole. Phase 2 to include piping under roadway and Platte Rive Power Authority substation. Phase 1 Construction began January 2017 and was completed in April 2017. Phase 2 to begin in October and be complete by the end of the year.
15	Lamar, City of >Repurposing of Wells 12 and 13 CT2017-917	Prowers	\$101,000	100%	Jun 2017 - Sept 2017	1%	DRJ ACM	Precon mtg held 5/23/17. Procurement of pipe and well materials under way. Pipeline work first, wells and SCADA at tail end of construction.
16	Larimer & Weld Irrigation Company >Headgate Structure Replacement CT2017-2253	Larimer & Weld	\$681,750	100%	Fall 2017 - Spring 2018	0%	JMH	Bids received in September 2016 exceeded budget and the Company elected not to award the project at this time. Project was rebid in March 2017 and awarded to Moltz. Constructin to occur after 2017 irrigation season.
17	Lookout Mountain Water District > Upper Beaver Brook Dam Spillway CT2016-2515 \$	Clear Creek	\$3,099,690	100%	June 2016 - June 2017	98%	DRJ KGR	Project completed pending final punchlist items.
18	Monte Vista, City of > Augmentation Water Rights Acquisition C150309 (CT2015-011) *\$	Rio Grande	\$1,693,770	50%	N/A	N/A	ACM	The City purchased Anderson Ditch rights and will file a water court application to enable the use of those rights to replace depletions. Contracted with the San Luis Valley Irr. Dist. for storage space in the Rio Grande Res. City continues negotiations to purchase additional water.
19	North Poudre Irrigation Co > Rehabilitation of the Livermore Irrigation Tunnel CT2017-1402	Larimer	\$1,451,673	100%	Nov 2016 - Apr 2017	98%	DRJ JMH	Tunnel completed, water flowing. All funds disbursed; NPIC board to consider loan increase request.
20	North Poudre Irrigation Company >Mountain Supply Reservior No. 10 Repairs CT2017-3641		\$499,950	0%	-	0%	DRJ JMH	
21	Orchard Mesa Irrigation District >Grand Valley Power Plant Rehabilitation CT2017-2878	Mesa	\$1,717,000	0%	-	0%	JMH	BOR Design meeting 2/28
22	Orchard Ranch Ditch Company >Orchard Ranch Ditch Pipe Project CT2016-2795 \$	Delta	\$151,500	15%	Fall 2017 - Mid 2018	0%	DRJ ACM	Construction fall 2017, may delay to Spring 2018 depending on progress of elements of project through Bureau of Reclamation. Company continues to explore supplementary grant funding options.
23	Overland Ditch and Reservoir Company > Overland Reservoir Rehabilitation C150206 (CT2015-034) *\$90%	Delta	\$1,141,300	50%	Permitting	0%	KGR	Permitting issues are being addressed to enlarge reservoir. Company is concerned about the impact of increased costs to the project. Meeting scheduled to review current loan and project advancement.

	Contract Borrower	County	Loan Amount	Design Status	Const. Start/End	Const. Status	РМ	Status Description/Update
24	Riverside Ditch and Allen Extension Company > Ditch System Rehabilitation C150301 (CT2015-050) *\$90%	Chaffee	\$186,345	100%	Jul 2010 - May 2017	99%	ACM	Ditch lining phase of the project was completed in December 2010. NRCS completed design for replacment of the river diversion structure & construction occured in Nov 2016. Additional ditch work was completed in May 2017.
25	Riverside Reservoir and Land Company > Riverside Reservoir Spillway Enlargement C150291 (CT2015-026) *\$90%	Weld	\$2,838,100	90%	Spring 2017+	0%	DRJ KGR	Plans under review by SEO. Construction timing indeterminate. Contract extension in progress.
26	Sanchez Ditch and Reservoir Company > Sanchez Reservoir Outlet Rehabilitation Project C150342 (CT2015-012) *\$90%	Costilla	\$1,381,276	100%	Oct 2014 - March 2018	99%	ACM	Construction began in Oct 2014. Outlet works work was completed in Jan 2015. Seepage and monitoring work is currently ongoing.
27	St. Vrain & Left Hand Water Conservation District >Lake 4 Outlet Pipeline Repair CT2017-3213	Boulder	\$619,130	50%	Fall 2017 - Spring 2018	0%	JMH	Final design and permitting are underway. Construction is planned for fall 2017.
28	Thunderbird W&S Dist > Lambert Ranch Water Rights Purchase C150320 (CT2015-049) *\$90%	Douglas	\$318,150	N/A	N/A	N/A	JMH	Closing on water rights occurred September 2015. District has settled of final pipeline aliggment and final design is projected to be complete by October 2017. District is waiting for finI design and legal descriptions and drawings for the easement before it resumes negotiating the easement with the landowner (HOA)
29	Town of Firestone >Storage Development and Water Rights Purchase CT2017-2880	Weld	\$10,000,000	5%	May 2018 - Mar 2019	0%	DRJ JMH	Water rights and reservoir purchase from LG Everist under way. Ongoing negotiations for Lower Boulder rights. Change case application to be filed 2nd half of 2017 for reservoir water rights.
30	Tunnel Water Company >Laramie-Poudre Tunnel Rehabilitation CT2016-2001 \$	Larimer	\$1,111,000	100%	Apr 2015 - Fall 2017	70%	JMH	Phase 1 (Inlet) construction started September 2015 and is complete. Phase 2 (outlet) construction is delayed till Fall 2017 due to accessibility concerns for concrete trucks.
31	Upper Arkansas Water Conservancy District > Reservoir Rehabilitation C150192 (CT2015-052) *\$	Chaffee/ Custer	\$3,009,800	100%	Permitting	90%	KGR	The first phase of construction was awarded to ASI, Buena Vista, CO, and completed in May 2007. The Permitting effort for the enlargment is underway and expected to be complete by Dec 2018.
32	West Reservoir & Ditch Company >Repair of West Reservoir No. 1 Outlet Works CT2015-169 *\$	Delta	\$313,018	100%	May 2015 - Sept 2016	100%	DRJ KGR	SC July 1
31 -	WISE Project - Phase 1 Infrastructure							\$16,802,501
а	Cottonwood W&S Dist - C150408B (CT2015-106) *\$	Douglas/ Arapahoe	\$2,636,100	100%	Spring 2015 - Jan 2018	80%	DRJ JMH	
b	Inverness W&S Dist - C150409B (CT2015-118) *\$	Douglas/ Arapahoe	\$1,181,700	100%	Spring 2015 Jan 2018	40%	DRJ JMH	Infrastructure to treatment plant completed. 42-inch Pipeline construction on

	Contract Borrower	County	Loan Amount	Design Status	Const. Start/End	Const. Status	РМ	Status Description/Update
с	Parker W&S Dist - C150410B (CT2015-108) *\$	Douglas/ Arapahoe	\$6,785,321	90%	Spring 2015 - Jan 2018	60%	DRJ JMH	Ridgeway line continues. E470 bore complete.
d	Pinery (Denver SE Sub W&S Dist) C150411B (CT2015-085) *\$	Douglas/ Arapahoe	\$6,199,380	90%	Spring 2015 Jan 2018	60%	DRJ JMH	
32 -	WISE Project - Phase 2 Infrastructure							\$7,400,078
а	Cottonwood W&S Dist - C150408C (CT2015-105) *\$	Douglas/ Arapahoe	\$1,127,160	0%	Spring 2018 - Fall 2021	0%	DRJ	
b	Inverness W&S Dist - C150409C (CT2015-119) *\$	Douglas/ Arapahoe	\$1,427,130	0%	Spring 2018 - Fall 2021	0%	DRJ	
с	Parker W&S Dist - C150410C (CT2015-109) *\$	Douglas/ Arapahoe	\$3,418,658	0%	Spring 2018 - Fall 2021	0%	DRJ	
d	Denver SE Sub W&S Dist - C150411C (CT2015-086) *\$	Douglas/ Arapahoe	\$1,427,130	0%	Spring 2018 - Fall 2021	0%	DRJ	
33 -	WISE Project - DIA Connection							
а	Cottonwood W&S Dist - C150408D (CT2015-104) *\$	Douglas/ Arapahoe	\$363,600	52%	N/A	NA	DRJ	Annual diisbursment to be made on this loan through 2021.Design Status indicates percent of funds disbursed to date.
b	Inverness W&S Dist - C150409D (CT2015-120) *\$	Douglas/ Arapahoe	\$454,500	45%	N/A	NA	DRJ	Annual diisbursment to be made on this loan through 2021.Design Status indicates percent of funds disbursed to date.
с	Parker W&S Dist - C150410D (CT2015-110) *\$	Douglas/ Arapahoe	\$1,099,890	52%	N/A	NA	DRJ	Annual diisbursment to be made on this loan through 2021.Design Status indicates percent of funds disbursed to date.
d	Denver SE Sub. W&S Dist (Pinery) - C150411D (CT2015-087) *\$	Douglas/ Arapahoe	\$454,500	52%	N/A	NA	DRJ	Annual diisbursment to be made on this loan through 2021.Design Status indicates percent of funds disbursed to date.
	Projects Un	der Contract	\$151,068,041					
	*= No Option Ltr    \$= 1% SF in CORE    90%= Contract Restriction							

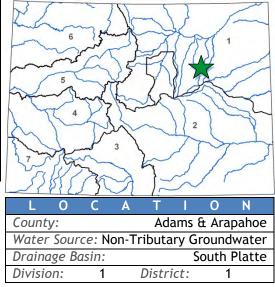
	Contract Borrower	County	Loan Amount	Design Status	Const. Start/End	Const. Status	РМ	Status Description/Update
	Approved Projects - Not Under Contract							
а	Florida Consolidated Ditch Company >Hess Lateral Improvement CT2018-83	La Plata	\$1,085,750		In Contracting		ACM	
b	San Juan Water Conservancy District >Dry Gultch Reservior Land Acquistion CT2018-839	Archuleta	\$2,000,000		In Contracting		JMH	
с	Southeastern CO Water Conserv. District > Arkansas Valley Conduit C150238	Crowley	\$60,600,000		In Contracting			Pending Federal Appropriation. Hydro project may be considered from these loan funds
d	Southeastern CO Water Conserv. District >Pueblo Dam Hydroelectric Project CT2017-1424	Crowley	\$16,725,600		In Contracting		DRJ	DRJ note 5/23: Changes to PPA agreements with Fowler and CoSpgs/Army ongoing, expect to be formalized by June 2017. Construction to start late summer, with commissioning/startup in late Spring 2018.
e	Wiggins, Town of >Wiggins Recharge Facility at Glassey Farms CT2017-3609	Morgan	\$2,408,850		In Contracting		JMH	
	Not Under Contrac	t SubTotal =	\$82,820,200					



Wells #3 and #6 Replacement Project

Town of Bennett November 2014 Board Meeting

LOAN DETAIL	S
Project Cost:	\$1,600,000
CWCB Loan (with Service Fee):	\$1,454,400
Loan Term and Interest Rate: 30 Y	'ears @ 3.25%
Funding Source: Const	truction Fund
BORROWER TY	ΡE
Agriculture Municipal	Commercial
0% 0% Low - 100% Mid - 0% High	0%
PROJECT DETA	ILS
Project Type:	Well Drilling
Average Annual Delivery:	261 AF



The Town of Bennett provides water to its 2,500 residents from the Denver, Upper Arapahoe and Lower Arapahoe, and Laramie-Fox Hills aquifers. A recent study revealed the need to address operational reliability, efficiency, and safety of the Town of Bennett's well #3 and well #6. The Town currently has 11 wells. The replacement of wells #3 and #6 will provide the Town with additional

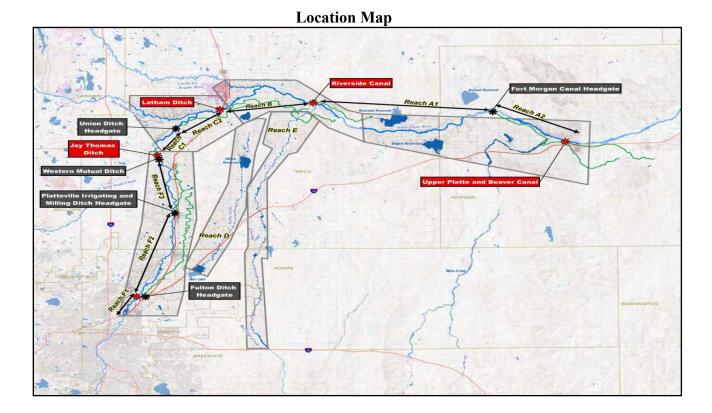
supply to meet demands and needed redundancy in its water supply system. Both wells need to be replaced due to the age of the existing wells. Construction is expected to occur during the spring of 2015.



## 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% <b>Term:</b> 30 years		

The Well Augmentation Subdistrict (WAS) of the Central Colorado Water Conservancy District is located in Adams, Weld, and Morgan counties. WAS is a special district created by the Weld County District Court on January 8, 2004, pursuant to the applicable provisions of the "Water Conservancy Act", Section 37-45-101, C.R.S. It has the power to acquire and sell water rights, construct and operate facilities, exercise eminent domain, levy taxes, and contract with other agencies. WAS has operated an augmentation plan since 2004, covering approximately 78 square miles and 214 predominantly agricultural member wells. WAS has an average annual depletion of 20,400. WAS has requested a loan for purchasing more water and storage rights to enable WAS to issue a pumping quota to member wells for the first time since 2006. The WAS General Fund will cover the remaining project expenses.



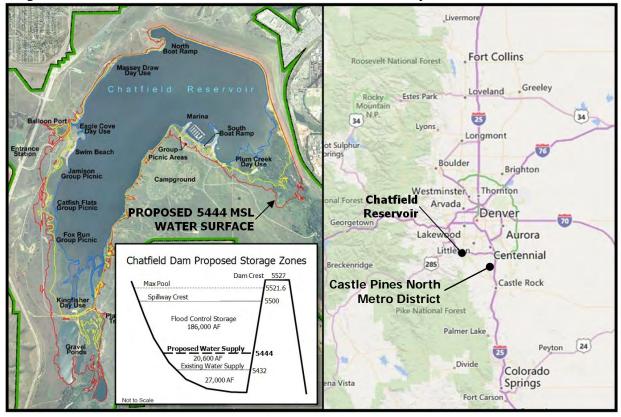
C150404

## CWCB Water Project Loan Program Project Data Sheet

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
<b>CWCB Loan:</b> \$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

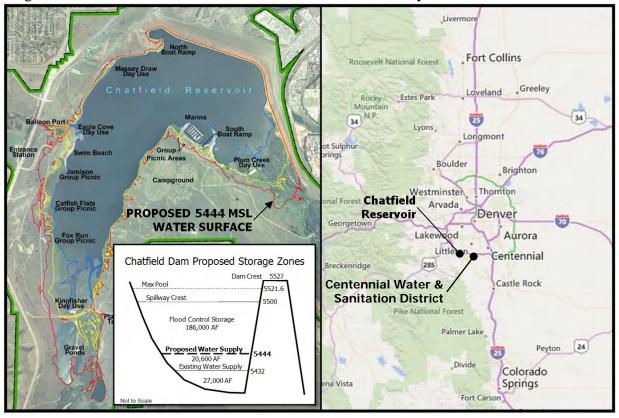
Borrower: Centennial Water & Sanitation District County: Douglas

Project Name: Chatfield Reallocation Project	Project Type: Reservoir Storage
Drainage Basin: South Platte	Water Source: South Platte River Plum Creek
<b>Total Project Cost:</b> \$48,888,000	<b>Funding Source:</b> Severance Tax Perpetual Base Fund
Type of Borrower: High-income Municipal	<b>Average Annual Delivery:</b> 17,500 AF <b>Added Water Supply Storage:</b> 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 acrefeet 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

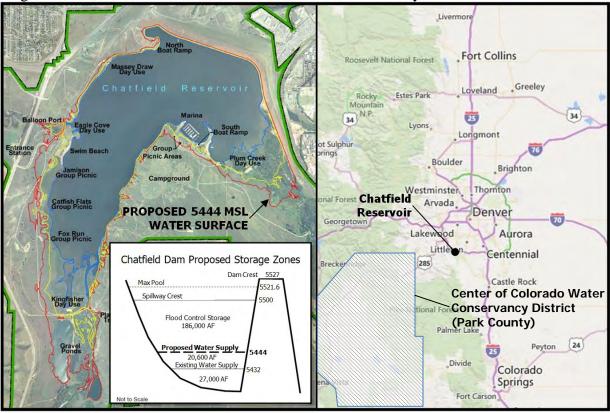
# C150406

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.

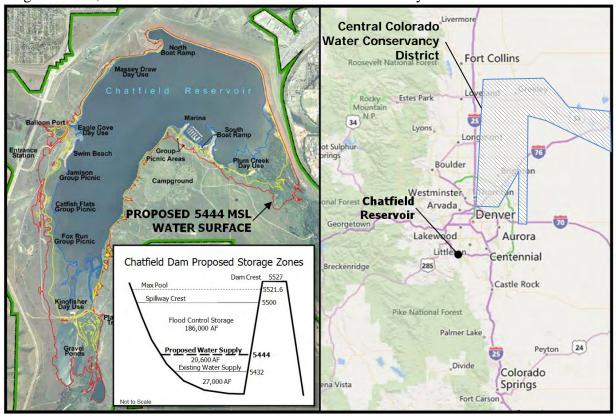


# C150407

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			
<b>Total Project Cost:</b> \$28,170,000	Plum Creek <b>Funding Source:</b> Severance Tax Perpetual Base Fund			
Type of Borrower: Agricultural	Average Annual Delivery: 24,600 AF			
<b>CWCB Loan:</b> \$28,451,700 (with 1% service fee)	Added Water Supply Storage: 4,274 AF 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.





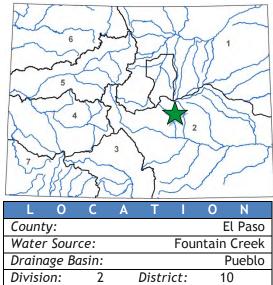
Jimmy Camp Creek Siphon Reconstruction

Loan Program Attachment 3

Chilcott Ditch Company January 2017 Board Meeting

LOAN DET	AILS
Project Cost:	\$575,000
CWCB Loan (with Service Fee):	\$ 580,750
Loan Term and Interest Rate:	20 Years @ 2.20%
Funding Source:	Construction Fund
BORROWER	ТҮРЕ
Agriculture Municipal	Commercial
0% 0% Low - 100% Mid - 0	% High 0%
PROJECT DE	TAILS
Project Type:	Ditch Rehabilitation
Average Annual Delivery:	4,961 AF

The Chilcott Ditch Company, located in El Paso County, operates the Chilcott Ditch for the benefit of its shareholders by providing direct flow Zirrigation water. The ditch diverts from Fountain creek, just north of the Town of Fountain, and water deliveries are made through the Company's eight mile ditch to service historically



irrigated areas under the ditch as well as to an augmentation station that measures direct flow water returning back to Fountain creek on behalf of shareholders. A 42-inch diameter 1,300 foot long siphon conveys ditch water flows under Jimmy Camp Creek to historically irrigated farmland to the south of the City of Fountain. During the 1940's the siphon was constructed from asphalt dipped corrugated steel pipe and has been in service for nearly 76 years. The structure has required significant repairs over the last few years. In reviewing the siphon's age, maintenance history and number of failures, the Company has concluded that the siphon has reached its useful life and the Company intends to rebuild the siphon prior to the 2017 irrigation season.



Loan Program Attachment 3



Dixon Reservoir Dam Improvement Dixon Canon Ditch and Reservoir Company

May 2016 Board Meeting

LOAN DET	AILS
Project Cost:	\$309,000
CWCB Loan (with Service Fee):	\$278,100
Loan Term and Interest Rate:	30 years @ 2.55%
Funding Source:	Construction Fund
BORROWER	ТҮРЕ
Agriculture Municipal	Commercial
Agriculture Municipal 17% 0% Low - 83% Mid - 0%	6 High 0%
	6 High 0%
17% 0% Low - 83% Mid - 0%	6 High 0%
17% 0% Low - 83% Mid - 0%	High 0%

5 4 2 3 Ν 0 O County: Larimer Water Source: **Dixon Creek** Drainage Basin: South Platte River Division: District: 1 3

Dixon Canon Ditch and Reservoir Company owns and operates the Dixon Reservoir Dam and associated ditch located in Larimer County on the west side of Fort Collins. Dixon Reservoir is directly east of Horsetooth Reservoir. The ditch diverts water off of Dixon Creek and

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

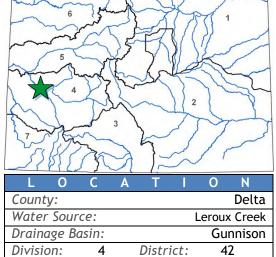




			n Program achment 3
Piping	the	Duke	Ditch
D	uke [	Ditch Co	ompany

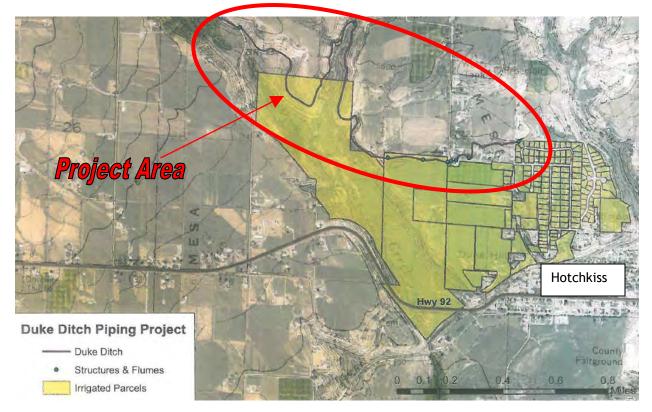
March 2016 Board Meeting

LOAN DETA	ILS
Project Cost:	\$749,374
CWCB Loan (with Service Fee):	\$90,900
Loan Term and Interest Rate:	30 years @ 2.0%
Funding Source: Construction Fund, WSRA	A, Salinity Control
BORROWER T	ΥΡΕ
Agriculture Municipal	Commercial
68% 32% Low - 0% Mid - 0% Hig	gh 0%
PROJECT DET	AILS
Project Type: Dit	tch Rehabilitation
Average Annual Delivery:	2,424 AF



The Duke Ditch Company diverts from Leroux Creek and Barrow Gulch, west of the Town of Hotchkiss, and delivers water through the Company's ditch to a 380-acre service area. The earthen ditch traverses a steep hillside in the Leroux Creek canyon where it is prone to washout and is subject to significant seepage and evaporative losses. As a result of the location, it has significant

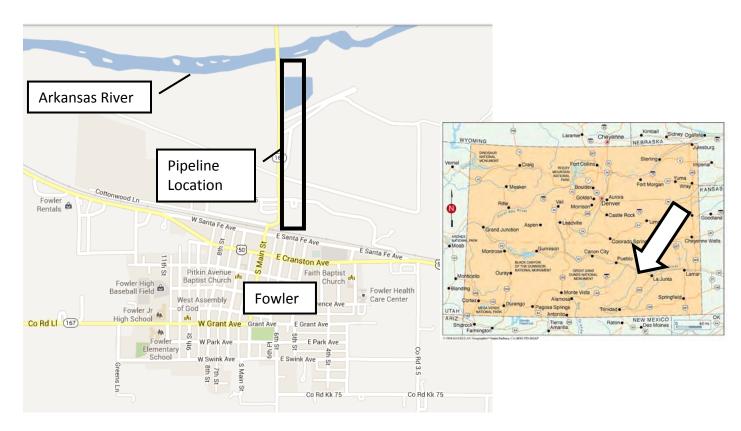
maintenance and aquatic vegetation growth issues. The deep percolation of irrigation water in this area contributes salinity and selenium to the Colorado River system; therefore, the Company obtained a \$464,000 Salinity Control Program grant (61% of project costs) and a \$100,900 NRCS grant (13% of project costs), as the project is expected to reduce salt loading to the Colorado River system by 395 tons/year. In addition, the Company is applying for a \$47,237 basin grant and a \$47,237 statewide grant from the Water Supply Reserve Account Grant Program to pipe the entire 2.7 miles of ditch. Construction is scheduled for the fall/winter of 2016/2017.



## 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
<b>Type of Borrower:</b> Municipal (Low)	Average Annual Diversion: 157 AF
<b>CWCB Loan:</b> \$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.



**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
<b>CWCB Loan:</b> \$2,976,975 (w/ 1% service fee)	Interest Rate: 4.5% Term: 30 years

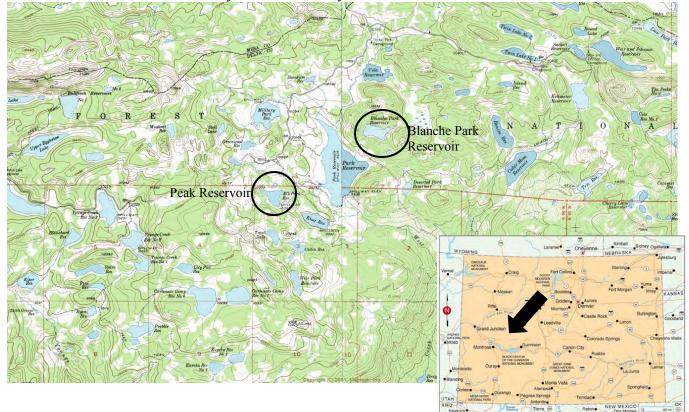
The Town of Georgetown is located on Clear Creek, along the I70 corridor, east of the continental divide. The Town needs to increase the outlet works capacity at Georgetown Lake Dam. The outlet works currently can release up to 260 cfs. In order to comply with an October 2010 court order regarding Georgetown 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.

Creek in Ma	Pass Lake Georgetown
Bard Rogers & Columbia Shaft Buckeye	Anglo Saxon Mine Saxon Molly Bawn
3745 Sherman Mountain	3572 Mountain Mine
Plume 3775 Republican Mountain I-70	Woodchuck Reak Powertune
Silver Cloud Mine Silver Plume CO Pavilli Point	Georgetown 3526 Griffith Mountain
	Alning



Borrower: Grand Mesa Water Conservancy District	County: Delta
<b>Project Name:</b> Peak Reservoir and Blanche Park Reservoir Rehabilitation	<b>Project Type:</b> Reservoir Rehabilitation
Drainage Basin/ District: Gunnison / 40	Water Source: Surface Creek
Total Project Cost: \$640,000	<b>Funding Source:</b> Construction Fund/ WSRA Gunnison Basin Funds
Type of Borrower: Municipal/Agricultural	<b>Average Annual Diversion:</b> 400 AF <b>Storage Added:</b> 155 AF
<b>CWCB Loan:</b> \$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.



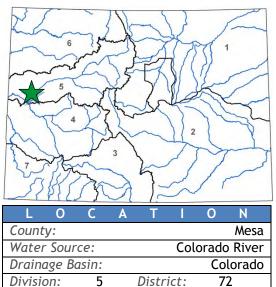


#### Loan Program Attachment 3 Government Highline Canal Lining

Grand Valley Water Users Association

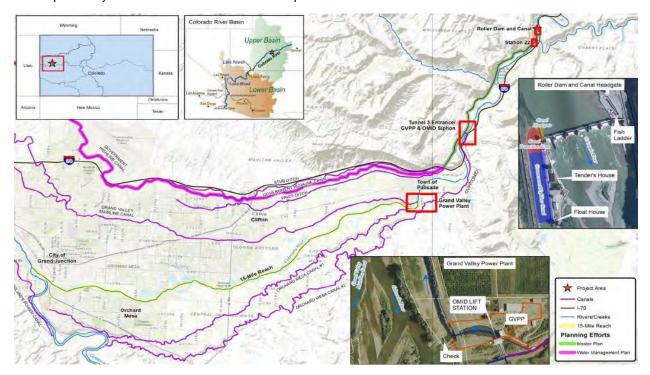
September 2016 Board Meeting

LOAN DET.	AILS
Project Cost:	\$800,000
CWCB Loan (with Service Fee):	\$151,500
Loan Term and Interest Rate:	30 Years @ 1.55%
Funding Source:	Construction Fund
BORROWER	ΤΥΡΕ
Agriculture Municipal	Commercial
90% 0% Low - 10% Mid - 0%	High 0%
PROJECT DE	ΤΔΙΙς
	IAILJ
Project Type:	Ditch Rehabilitation



The Grand Valley Water Users Association (Association), is requesting funding for the Government Highline Canal Lining Project. The Association is the managing entity of the Bureau of Reclamation's Grand Valley Project. The Grand Valley Project facilities include the Grand Valley Diversion Dam (also known as the Roller Dam) on the Colorado River in De Beque Canyon, the

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



COLORADO Colorado Water Conservation Board Department of Natural Resources

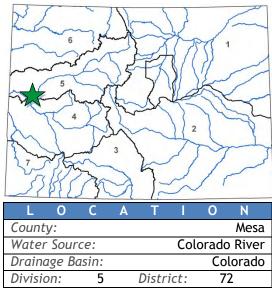
#### Attachment 3 Grand Valley Power Plant Rehabilitation

Grand Valley Water Users Association November 2016 Board Meeting

Loan Program

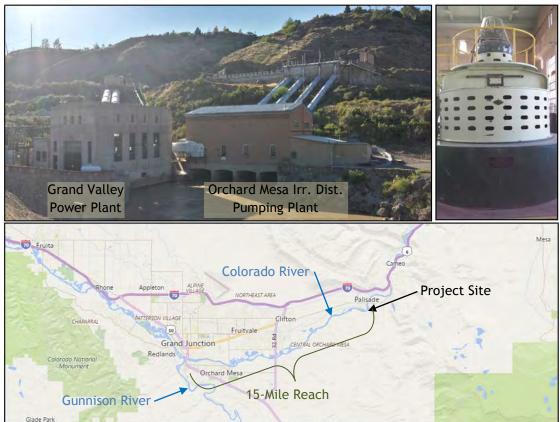
LOAN DET.	4	ΙL	- 5	5	
Project Cost:			\$	5,2	00,000
CWCB Loan (with Service Fee):			\$	1,7	17,000
Loan Term and Interest Rate:		30	Yea	ars (	<b>@ 2.0%</b>
Funding Source:	C	lons	truc	tio	n Fund
BORROWER	Т	Y	Ρ	E	
Hydropower					
PROJECT DE	Т	Α		L	S
			1.1.1.4	Iraa	lectric
Project Type:			нус	li de	

The Grand Valley Water Users Association (Association) and Orchard Mesa Irrigation District (District) are each seeking a loan to cover its cost share for the Grand Valley Power Plant (GVPP) Rehabilitation Project. The GVPP is owned by the Bureau of Reclamation and originally operated by Public Service Company of Colorado (Xcel Engergy) in conjunction with the Cameo coal fired power plant. The Association and District took operational control of the plant when Xcel decided to cease its operations. The Association and District equally split costs and



revenues from the GVPP under a Lease of Power Privilage with Reclamation and a Power Purchase Agreement with Xcel. In addition to being a revenue source, the GVPP serves an important role in providing water to the "15-Mile Reach" which has been designated by the Upper Colorado River Endangered Fish Recovery Program as critical habitat. The non-consumptive hydropower water right ensures continued flows for this important stretch of river.

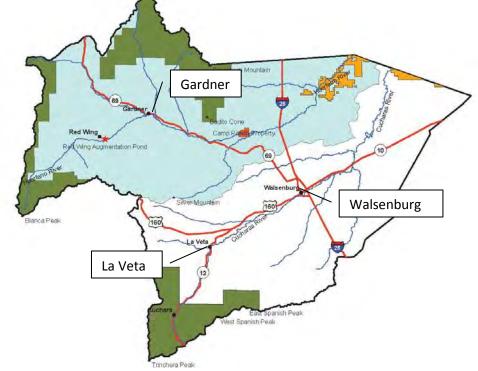
The goal of the Project is to bring the GVPP up to a sustainable operating condition and meet current electric and safety standards. The GVPP was built in the early 1930s and has seen no major upgrades or modernization to date. Under current operations, the "water-to-wire" efficiency is approximately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



Water Project Loan Program - Project Data Sheet

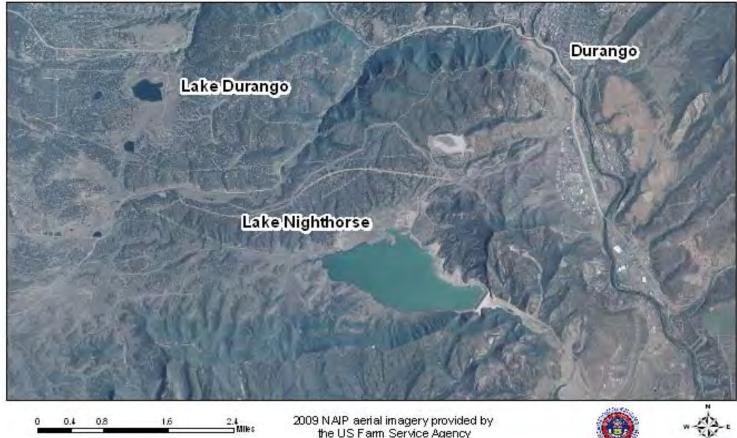
Water Project Loan Program						
Project Data Sheet						
Borrower:	Huerfano County Water Conservancy District	County:	Huerfano			
Project Name:	Regional Augmentation Project	Project Type:	Water Rig and Augm			
Drainage Basin:	Arkansas / District 67	Water Source:	Huerfano	River		
Total Project Cost:	\$3,050,000	Funding Source:	Construction Fund			
Type of Borrower:	Low-Income Municipal	Avg. Annual Diversions:	19.5 AF			
<b>CWCB</b> 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.



Borrower: Lake Durango Water Authority	County: La Plata
Project Name: Source Water Supply Project	<b>Project Type:</b> Water Rights Purchase/Infrastructure
Drainage Basin: San Juan / Dolores	Water Source: ALP
Total Project Cost: \$3,000,000	<b>Funding Source:</b> Construction Fund and WSRA Statewide Funds
Type of Borrower: Low-income Municipal	Average Delivery: 309 AF
<b>CWCB Loan:</b> \$2,525,000 (w/ 1% service fee) <b>WSRA Statewide Grant:</b> \$500,000 \$450,000	Interest Rate: 4.0% Term: 30 years

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).



2009 NAP aerial imagery provided by the US Farm Service Agency

Loan Program Attachment 3



Lake McIntosh Outlet Works Repair

Lake McIntosh Reservoir Company January 2016 Board Meeting

LOAN	DETA	A I	LS	
Project Cost:			\$1,9	00,000
CWCB Loan (with Service F	ee):		\$1,7	27,100
Loan Term and Interest Ra	te:	30 \	rears @	2.70%
Funding Source:		Con	structio	on Fund
BORROW	/ E R	ΤΥ	ΈΡΕ	
Agriculture Mu	ınicipal		Comn	nercial
	unicipal 1% Mid - 9%	High		nercial 2 %
		High T A	2	
28% 0 % Low - 6	01% Mid - 9% D E	ТА	2	2 % S
28% 0 % Low - 6 P R O J E C T	01% Mid - 9% D E	ТА	I L Rehabil	2 % S

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

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

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



Water Project Loan Program - Project Data Sheet

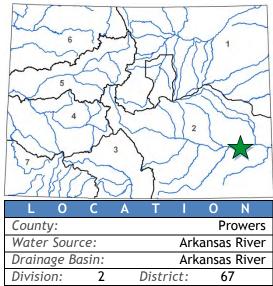


Loan Program Attachment 3 Repurposing of Wells 12 and 13

City of Lamar September 2015 Board Meeting

LOAN DETAILS
<i>Project Cost:</i> \$400,000
CWCB Loan (with Service Fee): \$101,000
Loan Term and Interest Rate: 10 Years @ 1.95%
Funding Source: WSRA & Sev. Tax Perpetual Base Fund
BORROWER TYPE
Agriculture Municipal Commercial
0% 100% Low - 0% Mid - 0% High 0%
PROJECT DETAILS
Project Type: Municipal & Industrial
Average Annual Delivery: 2,005 AF

The City of Lamar, through its Water and Wastewater Department, has been providing the city with water and sewer services for over 135 years. Although the City has undertaken numerous upgrades, rehabilitation, and expansion projects over the years, most of the existing infrastructure was funded and built during New Deal-era programs. The City's Wells 12 and 13 were developed in



the 1950s and used for municipal potable water supply until 2012, when Microscopic Particulate Analysis water quality testing was conducted, resulting in a reclassification of both wells as Ground Water Under Direct Influence of Surface Water (GWUDI) by the Colorado Department of Public Health and Environment (CDPHE). The wells were taken out of service at that time. A Feasibility Study conducted in 2014 concluded that it is feasible to redevelop both wells for non-potable irrigation use. Once this project is completed, water can be used for any non-potable municipal application, including irrigation of a city-owned cemetery and a golf course, both of which are currently watered with potable water.



Water Project Loan Program - Project Data Sheet



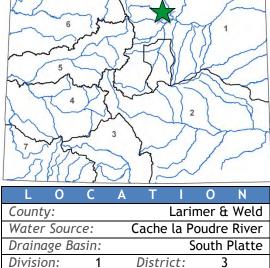
#### Attachment 3 Headgate Structure Replacement

Larimer and Weld Irrigation Company

September 2016 Board Meeting

Loan Program

LOAN DETA	ILS
Project Cost:	\$750,000
CWCB Loan (with Service Fee):	\$681,750
Loan Term and Interest Rate:	30 Years @ 1.5%
Funding Source:	Construction Fund
BORROWER T	ΥΡΕ
Agriculture Municipal	Commercial
96% 0% Low - 4% Mid - <1% Hig	gh 0%
PROJECT DET	AILS
Project Type: Di	tch Rehabilitation
Average Annual Delivery:	85,000 AF



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

Company's diversion off the Cache la Poudre River is aging and in need of repair. This Project will focus on replacing the headgate structure, including the concrete structure, gates, and gate operators. The replacement of the trash rack and forebay structure, and repairs to the diversion structure, are planned to take place within the next few years and are not a part of this Project.

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





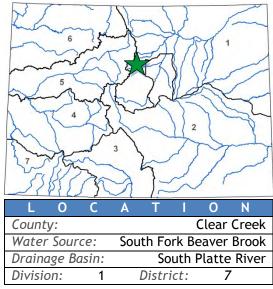
#### Loan Program Attachment 3 Upper Beaver Brook Dam Spillway

Lookout Mountain Water District

November 2015 Board Meeting

LO	Α	Ν	D	Ε	Τı	A	1	L	S			
Project Cost:									\$3	,4	10,	000
CWCB Loan:									\$3	,0	99,	690
Loan Term and	Inte	rest	Rate				30	ye	ars	@	3.2	25%
Funding Source						(	Con	stru	uct	io	n Fi	und
BOR	R	0	W	E R		Т	Ý	<b>′</b>	P	Ε		
Agriculture			Muni	cipal				(	Con	nm	ner	cial
Agriculture 0%		Hig	<i>Muni</i> h-inco			/ 5		(	Con		nero )%	cial
•	JE	Hig C				ہٰ T	A		Con			cial
0%	JE			ome '	100% E	Т				C	)% S	cial ent
0% P R O .		Ċ	h-inco T	ome '	100% E	Т		ir E	ทโล	( L arg	)% S em	

The Lookout Mountain Water District, a drinking water provider with 565 taps in Jefferson County, seeks to increase the storage capacity of the Upper Beaver Brook Dam. By designing and constructing a new labyrinth spillway structure in the location of the existing spillway,



a raise in the normal reservoir pool elevation will provide approximately 140 acre-feet of additional storage.

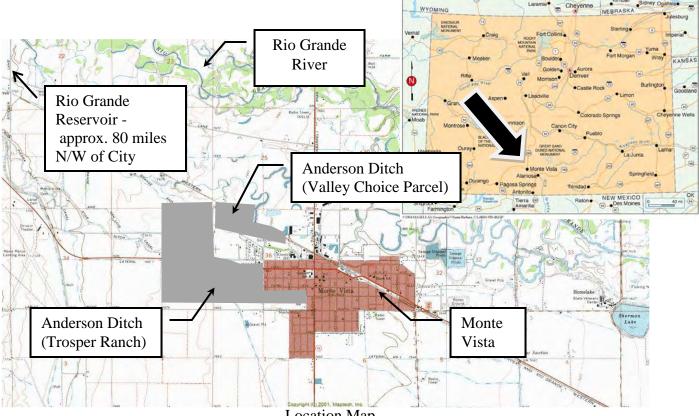


Water Project Loan Program - Project Data Sheet

#### Water Project Loan Program - Project Data

<b>Borrower:</b> City of Monte Vista (Water Activity Enterprise)	County: Rio Grande
Project Name: Augmentation Water Rights Acquisition	Project Type: Water Rights Purchase
Drainage Basin: Rio Grande	Water Source: Rio Grande River
<b>Total Project Cost:</b> \$1,863,500	Funding Source: Construction Fund
Type of Borrower: Low-Income Municipal	Aver. Demand: 1,212 AF/year
<b>CWCB Loan:</b> \$1,693,770 (incl. 1% loan fee)	<b>Interest Rate:</b> 4.0% <b>Term:</b> 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

Loan Program Attachment 3

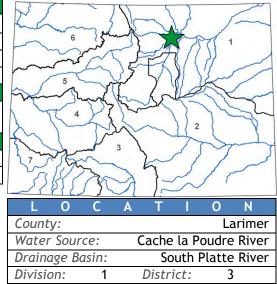
COLORADO Rehabilitation of the Livermore Irrigation Tunnel



Conservation Board Department of Natural Resources North Poudre Irrigation Company July 2016 Board Meeting

LOAN DET	AILS
Project Cost:	\$ 1,597,000
CWCB Loan (with Service Fee):	\$ 1,451,673
Loan Term and Interest Rate:	30 years @ 2.25%
Funding Source:	Construction Fund
BORROWER	ΤΥΡΕ
Agriculture Municipal	Commercial
26% 0% Low - 73% Mid - 0%	5 High 1%
PROJECT DE	TAILS
Project Type:	Ditah Dahahilitatian
Project Type.	Ditch Rehabilitation

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



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

The Livermore Tunnel consists of two tunnels connected by a short section of open channel. The tunnels are approximately 8.5 feet high and 8 feet wide with a concrete invert along the entire tunnel length. The tunnels are considered generally stable with the exception of six collapse zones where large piles of rock and debris have accumulated in the base of the tunnel, ponding up to three feet of water and

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

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





Water Project Loan Program - Project Data Sheet

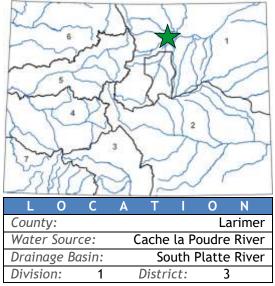
Loan Program Attachment 3

Mountain Supply Reservoir No. 10 Repairs



North Poudre Irrigation Company March 2017 Board Meeting

LOAN DET	AILS
Project Cost:	\$495,000
CWCB Loan (with Service Fee):	\$499,950
Loan Term and Interest Rate:	30 years @ 2.50%
Funding Source: Severance Tax	Perpetual Base Fund
BORROWER	ΤΥΡΕ
Agriculture Municipal	Commercial
26% 0% Low - 73% Mid - 0%	High 1%
PROJECT DE	TAILS
Project Type: Res	servoir Rehabilitation
Average Annual Delivery:	88,900 AF
Total Reservoir Storage:	344 AF
Water Storage Preserved:	264 AF



The North Poudre Irrigation Company's service area encompasses approximately 300 square miles, including additional service areas covering 14 communities and municipal water providers owning NPIC shares. The Company operates 22 storage reservoirs, 5 flood control dams, and approximately 200 miles of ditches. Irrigated acreage within the service area supports production of corn, sugar beets, soybeans, hay, and feed crops.

Mountain Supply Reservoir No. 10, owned and operated by the Company, was constructed in 1905, and a major rehabilitation of the dam was completed in 1973. The Company has a storage decree in this reservoir of 344 acre-feet. In August of 2015, the outlet works experienced a failure in the corrugated metal pipe outlet tube downstream of the intake headgate. The reservoir was drained. A subsequent storage restriction by the State Engineer's Office (SEO) was put in place while the Company made temporary repairs. Due to the temporary nature of the repairs, the Company was only permitted to store 80 acre-feet, pending comprehensive repairs to the outlet works. Further engineering investigations found need for additional reservoir infrastructure repairs, including repairs to the headgate and inlet structure from the ditch to the reservoir, grading in the bottom of the reservoir from inlet to outlet, and changes to the outlet works.

The purpose of the Project is to repair the Mountain Supply Reservoir No. 10 inlet and outlet works, removing the SEO storage restriction and restoring the Company's ability to hold their full storage rights.



COLORADO Colorado Water Conservation Board Department of Natural Resources Loan Program Attachment 3 Orchard Ranch Ditch Pipe Project

Orchard Ranch Ditch Company

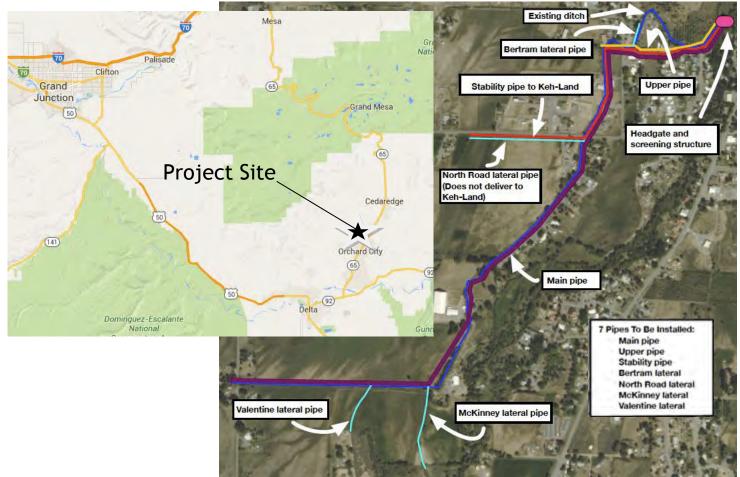
January 2016 Board Meeting

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

The Company serves approximately 350 irrigated acres in Delta County, approximately 10 miles north of the town of Delta, diverting all its supplies via a concrete diversion structure on Surface Creek. The Company's ditch was constructed in the late 1800s by a group of early settlers cooperating to get water to their new farms, and has been in continuous operation since that time. The

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

proposed project will pipe the 1.6 mile long main earthen canal and portions of 4 laterals. The project will be done in conjunction with the U.S. Bureau of Reclamation's Colorado River Basin Salinity Control Program. Approximately 90% of project costs will be provided by a grant from the the U.S. Bureau of Reclamation. Construction is expected to begin in mid-2016 with completion by mid-2017.



Water Project Loan Program - Project Data Sheet

COLORADO Colorado Water Conservation Board Department of Natural Resources Attachment 3 Grand Valley Power Plant Rehabilitation

> Orchard Mesa Irrigation District November 2016 Board Meeting

Loan Program

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

The Orchard Mesa Irrigation District (District) and Grand Valley Water Users Association (Association) are each seeking a loan to cover its cost share for the Grand Valley Power Plant (GVPP) Rehabilitation Project. The GVPP is owned by the Bureau of Reclamation and originally operated by Public Service Company of Colorado (Xcel Engergy) in conjunction with the Cameo coal fired power plant. The District and Association took operational control of the plant when Xcel decided to cease its operations. The District and Association equally split costs and revenues



from the GVPP under a Lease of Power Privilage with Reclamation and a Power Purchase Agreement with Xcel. In addition to being a revenue source, the GVPP serves an important role in providing water to the "15-Mile Reach" which has been designated by the Upper Colorado River Endangered Fish Recovery Program as critical habitat. The non-consumptive hydropower water right ensures continued flows for this important stretch of river.

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

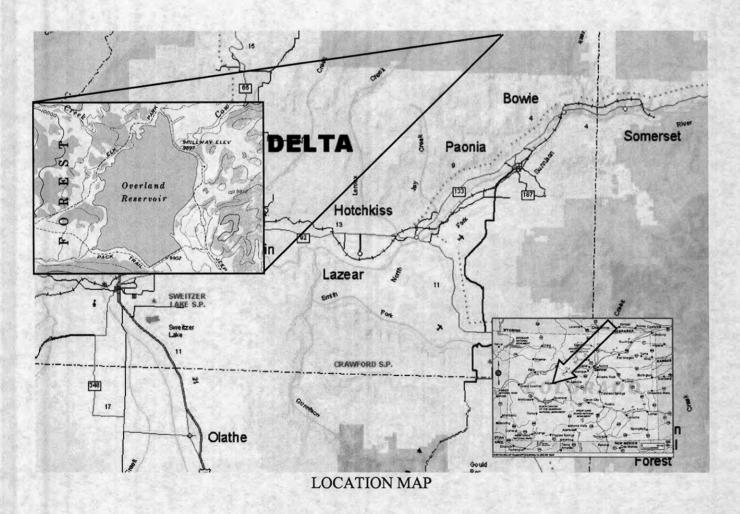


Water Project Loan Program - Project Data Sheet

#### 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

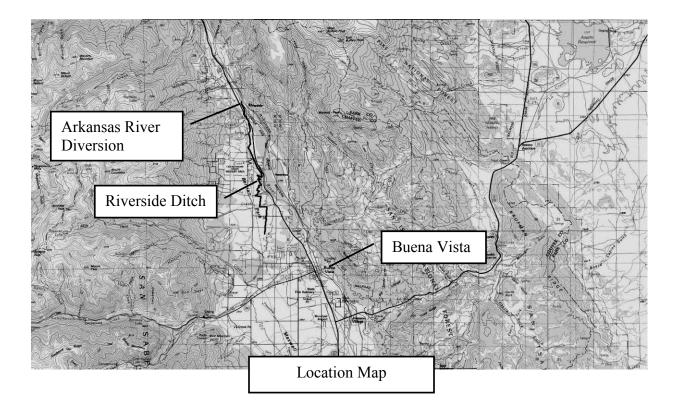
The Overland Reservoir Company is a non-profit mutual ditch company established in the State of Colorado in 1895. The Company owns and operates the Overland Reservoir for the 120 shareholders and delivers an average of 17,000 AF of irrigation water annually. The Reservoir is located in Delta County in 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.



#### Water Project Loan Program - Project Data

Borrower: Riverside Ditch & Allen Extension Co.	County: Chaffee
Project Name: Phased Canal Improvements	<b>Project Type:</b> 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

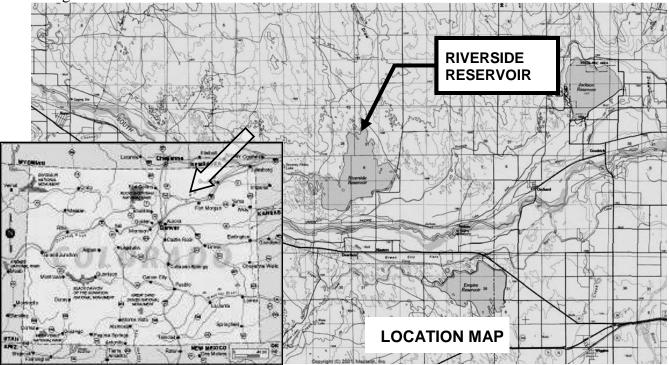
The Riverside Ditch and Allen Extension Company (Company), located near Buena Vista, owns and operates the Riverside Ditch (canal) that provides irrigation water to a 450 acre service area within Chaffee County. A significant portion of the Company's structures along the 125 year old canal are aged and 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	<b>Funding Sources:</b> Severance Tax Trust Fund Perpetual Base Account
Type of Borrower: Agricultural	<b>Average Delivery:</b> 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.



Loan Program C150t3c4m2nt 3

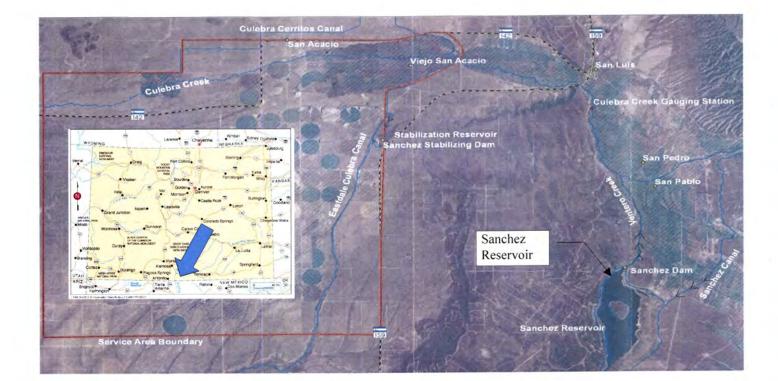
Term: 40 years

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

Borrower: Sanchez Ditch and Reservoir Co.County: CostillaProject Name: Sanchez Reservoir Outlet<br/>Rehabilitation Project<br/>Basin / District: Rio Grande / 24Project Type: Dam Rehabilitation<br/>Water Source(s): Ventero CreekTotal Project Cost: \$2,282,000Funding Sources: Construction Fund & WSRA<br/>(Basin & Statewide funds)Type of Borrower: AgriculturalAverage Diversions: 15,000 AF<br/>(Interest Rate Increased by 0.25% for longer term)

Loan Amount: \$1,381,276 (Including 1% fee)Interest Rate: 2.0%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.

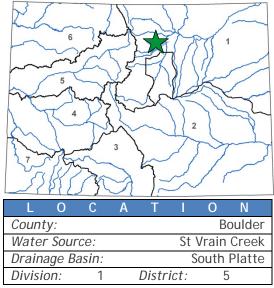




#### Loan Program Attachment 3 Lake 4 Outlet Pipeline Repair

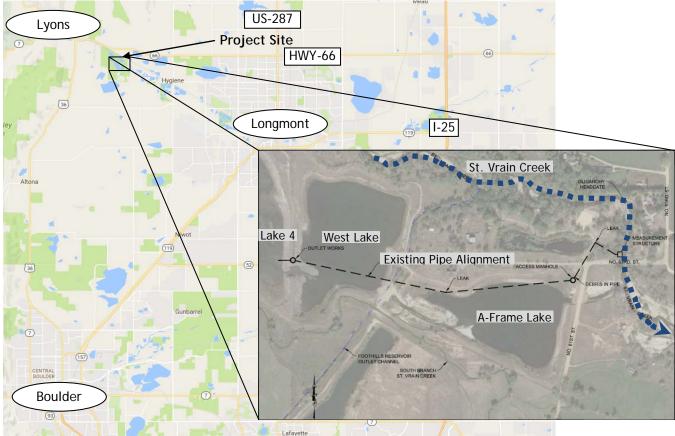
St. Vrain and Left Hand Water Conservancy District January 2017 Board Meeting

LOAN DET	A I L S
Project Cost:	\$912,000
CWCB Loan (with Service Fee):	\$619,130
Loan Term and Interest Rate:	30 Years @ 2.85%
Funding Source:	Construction Fund
BORROWER	ΤΥΡΕ
Agriculture Municipal	Commercial
0% 0% Low - 0% Mid - 97%	6 High 3%
PROJECT DE	
Project Type: Re:	servoir Rehabilitation
Average Annual Delivery:	182 AF
Storage Preserved:	600 AF



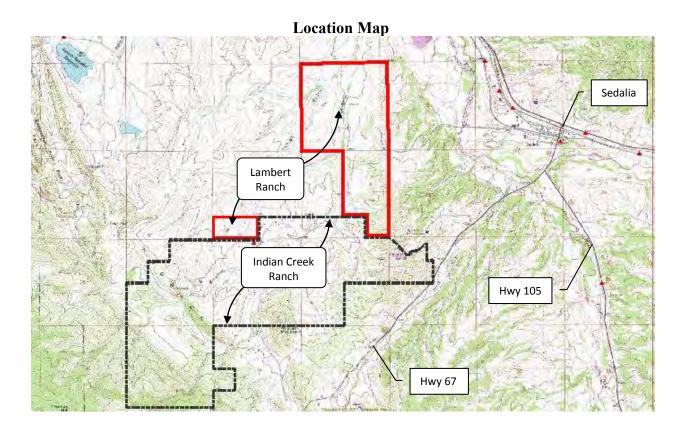
The St. Vrain and Left Hand Water Conservancy District and Boulder County Parks and Open Space jointly own a lined reservoir known as Rock'n WP Ranch Lake No. 4 (Lake 4). Lake 4 was created by reclaiming mined slopes, installing a slurry wall liner around the former gravel pit,

and installing inlet and outlet structures. The outlet works included a half-mile-long 18-inch reinforced concrete pipe approximately extending from the dam to the St. Vrain Creek. The District and County County recently inspected the outletworks pipeline and determined that it is leaking in several locations. It is critical for reservoir accounting and water rights administration purposes that the water delivered through the pipeline be water from Lake 4 and not groundwater leaking into the pipe between the dam and the river. Therefore the District and Boulder County desire to repair the pipe to resolve the leakage and to extend the service life of the structure.



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
<b>CWCB Loan:</b> \$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.





#### Loan Program Attachment 3 Storage Development and Water Rights Purchase

# Town of Firestone

November	2016	Board	Meeting
100 CHIDCI	2010	Dould	meeting

LO	Α	Ν	D	E	Т	Α		L	S			
Project Cost:									\$10	),0	43,	150
CWCB Loan (w	ith Se	ervic	e Fee	?):					\$10	),0	00,	000
Loan Term and	l Inte	erest	Rate	:			20	) Y	ears	6	2.	35%
Funding Source	?:						Со	nst	ruc	tio	n F	und
BO	R R	0	W	E	R			Y	Ρ	Ε		
Agriculture			Mun	icipa	ıl				Cor	nn	ner	cial
Agriculture 0%	0% L	.ow -	Mun 0% N		100		igh		Cor		nero 1%	cial
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0% P R O	JE	E C	0% N T Stora	۔ ۸id ا	100 D E	: 1	-	A	1	C L Pu	% S rch	

The Town of Firestone's boundary encompasses approximately 9,089 acres and is generally located east of Interstate 25 between Highway 66 and Highway 52. The Town of Firestone provides water and wastewater services to approximately 12,110 residents and operates a water distribution network of approximately 58.5 miles of pipeline and associated facilities. The purpose of this

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

project is to provide a water storage project to help meet the Town's current and future non-potable water needs. For planning purposes, the Town is pursuing a little over two times the demand, or 2,000 acre-feet of non-potable storage for the Town. As a short-term water supply goal, the Town is requesting funds to Purchase the Carbon Valley Resource Pit and acquire 1,092 acre-feet as part of this project.



Water Project Loan Program - Project Data Sheet

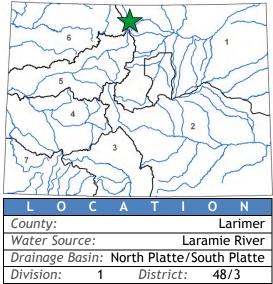


Laramie-Poudre Tunnel Rehabilitation

Loan Program Attachment 3

The Tunnel Water Company September 2015 Board Meeting

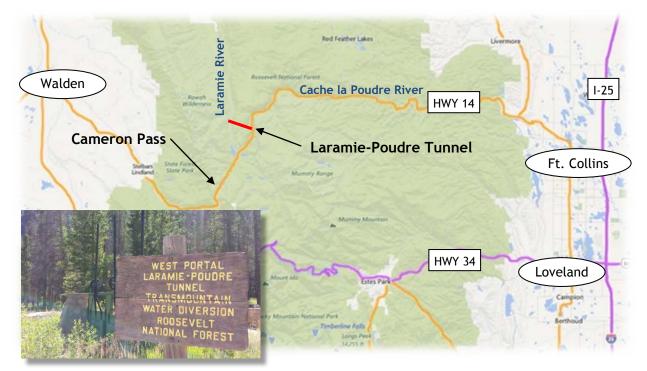
LOAN DET	AILS
Project Cost:	\$1,225,000
CWCB Loan (with Service Fee):	\$1,111,000
Loan Term and Interest Rate:	30 Years @ 2.55%
Funding Source:	Construction Fund
BORROWER	ТҮРЕ
Agriculture Municipal	Commercial
24% 20% Low - 24% Mid - 32%	% High 0%
PROJECT DE	TAILS
Project Type:	Ditch Rehabilitation
Average Annual Diversion:	6,875 AF



The Tunnel Water Company operates the Laramie-Poudre Tunnel for the benefit of its two shareholders: Water Supply and Storage Company (WSSC) and Windsor Reservoir and Canal Company (WRCC). The tunnel diverts from the Laramie River, about 60 miles west of Fort Collins, and delivers water through a 2.15-mile tunnel to the Poudre River. WSSC delivers irrigation water to its

shareholders, primarily for agricultural irrigation on approximately 40,000 acres lying below the Larimer County Canal. WRCC delivers water to its municipal shareholders via the Soldier Canyon and Bellvue Water Treatment Plants.

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

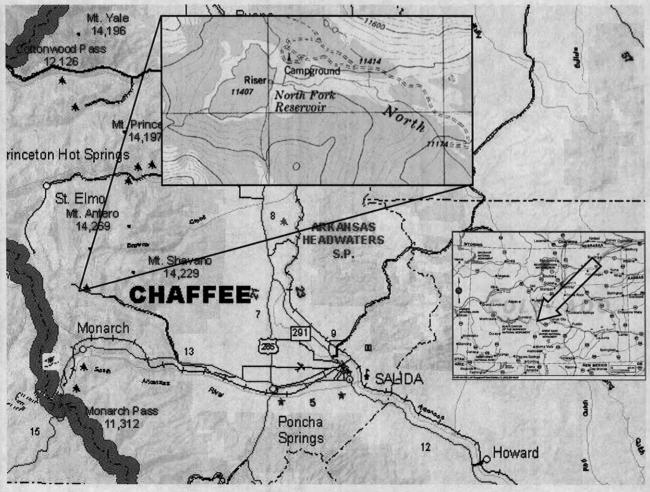


Water Project Loan Program - Project Data Sheet

#### CWCB Construction Loan Program PROJECT DATA SHEET

Borrower: Upper Arkansas Water Conservancy	District County: Chaffee/Fremont/Custer
Project Name: North Fork Reservoir Rehab/Exp	ansion 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



# Repair of West Reservoir No.1 Outlet Works

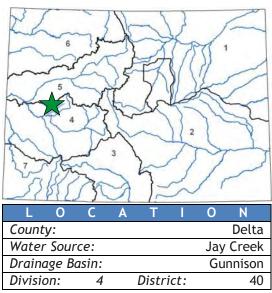
Loan Program Attachment 3

West Reservoir and Ditch Company

January 2017 Board Meeting

(Loan Increase)

LOA	N D	ЕТ.	A I	L	S
Project Cost:					\$535,577
CWCB Loan (with Se	ervice Fee)	):			\$313,018
Loan Term and Inte	rest Rate:			30	Years @ 2%
Funding Source:	Severan	ce Tax P	erpe	tual	Base Fund
BORR	0 W (	ER	Т	Y P	E
Agriculture 100%	Munio 0%	•		С	ommercial 0%
PROJE	СТ	DE	Т	A I	LS
D 1 / T					
Project Type:			Dar	n Ref	nabilitation
Project Type: Average Annual Del	ivery:		Dar	n Ref	abilitation 604 AF



The West Reservoir and Ditch Company operates West Reservoir No. 1, providing water seven miles eastward via Wakefield Ditch to Wakefield Mesa. Diversions are 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 for midsummer to fall irrigation. West Reservoir No. 1 was improved in the early 1950s, but was under a storage restriction order from the Office of the State Engineer due to deterioration of the outlet pipe. This project includes 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 was completed in fall of 2016. The Company incurred additional expense during construction and seeks an increase in loan funding.



Water Project Loan Program - Project Data Sheet

C150408

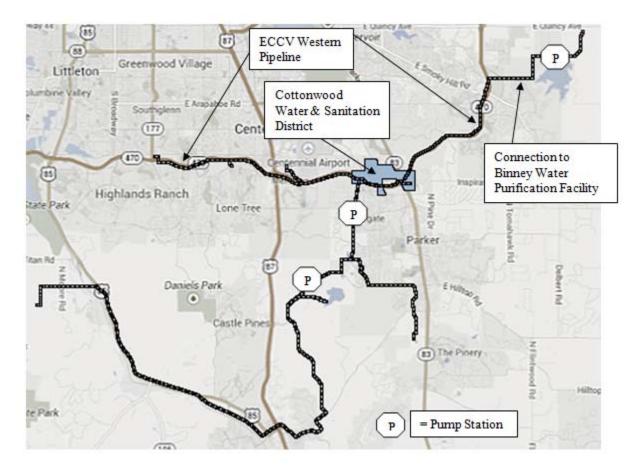
#### CWCB Water Project Loan Program Project Data Sheet

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
<b>CWCB Loan:</b> \$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.



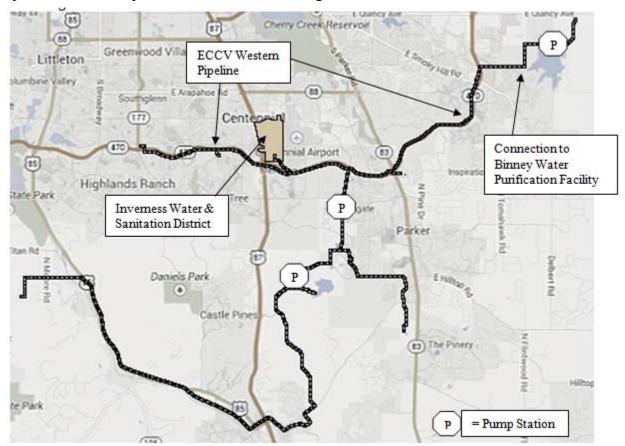
# C150409

<b>Borrower:</b> 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					
<b>CWCB Loan:</b> \$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.



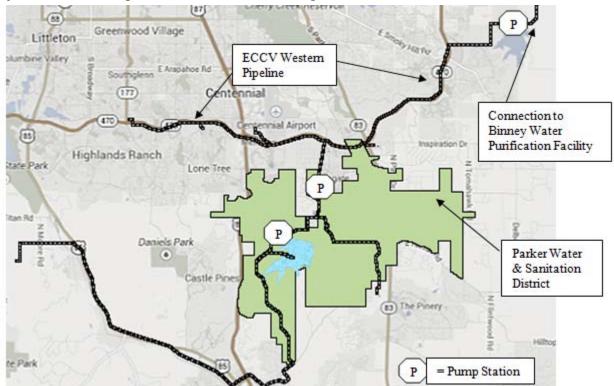
## C150410

Borrower: Parker Water & Sanitation District	County: Douglas & Arapahoe					
<b>Project Name:</b> Water Infrastructure and Supply (WISE) Efficiency Project	Project Type: New Water Supply					
Drainage Basin/ District: South Platte / 8	Water Source: South Platte					
<b>Total Project Cost:</b> \$17,305,500	Funding Source: Construction Fund					
Type of Borrower: High-income Municipal	Average Annual Delivery: 5,000 AF					
<b>CWCB Loan:</b> \$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.



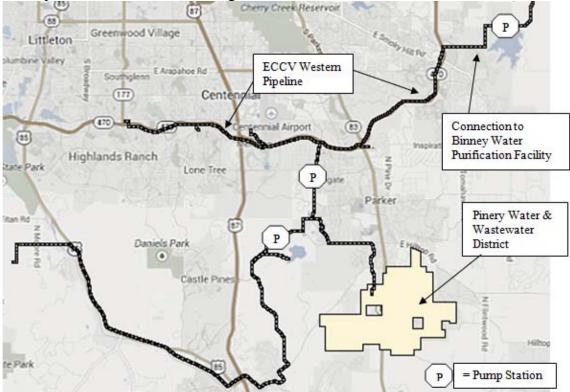
# C150411

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

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

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

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



Loan Program Attachment 3

# **Projects Not Under Contract**



# Hess Lateral Improvement

Florida Consolidated Ditch Company May 2017 Board Meeting

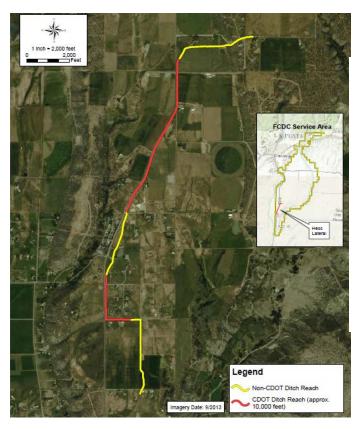
L C	)	Α	Ν		D	Е	Т	Α		L	S		
Project Cost:											\$2	800	000,0
CWCB Loan:											\$1	,085	5,750
Loan Term and Interest Rate: 30-years @ 1.80%													
<i>Funding Source:</i> Severance Tax Perpetual Base Fund													
BOR	2	R	0	W	Ε	R		Т	Y	P	' E		
Agriculture			Municipal					Commercial				rcial	
100%			0% 0%										
PRO	J	E	С	Т		D	Ε	Т	Α		L	S	
Project Type: Ditch Rehabilitation													
Average Annual Diversion:									4	3,00	)0 AF		

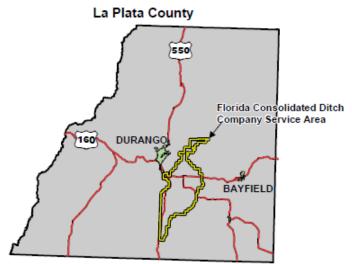
The Hess Lateral, part of the Florida Consolidated Ditch Company water conveyance system, is located 7 miles south of Durango, CO on the Florida Mesa. The lateral serves approximately 67 users irrigating over 1,500 acres of hay and pasture land. The project will replace the open ditch with buried gravity-pressurized pipeline and

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L	0	С	Α	Т		0	Ν
Count	y:					La	i Plata
Water	Water Source: Animas Ri						River
Draina	age B	asin:	Sa	in Jua	ın/Do	olores	River
Divisio	on:	7		Distr	ict:	3	0

relocate approx. 21,100 feet of the Hess Lateral due to expansion of HWY 550. CDOT has committed \$950,000 to the project. The company also received approval of a \$775,000 WSRF grant at the September 2015 meeting. Final design of the project is expected to begin in the fall of 2017 and construction will likely follow one year later.







# **Dry Gulch Reservoir Land Acquisition**

San Juan Water Conservancy District

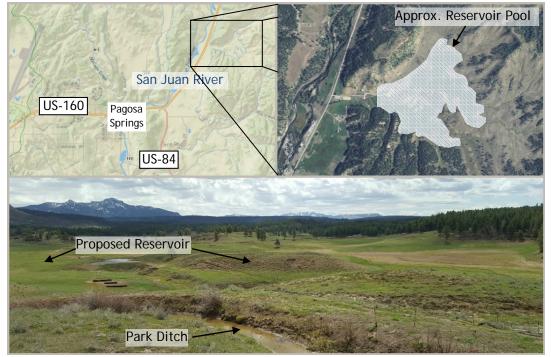
May 2017 Board Meeting

L O A N D E T	AILS
Project Cost:	\$2,000,000
CWCB Loan (with Service Fee):	\$2,000,000
Loan Term and Interest Rate:	30 Years @ 2.55%
Funding Source:	Construction Fund
BORROWER	ТҮРЕ
Agriculture Municipal	Commercial
0% 100% Low - 0% Mid - 0%	% High 0%
PROJECT DE	TAILS
Project Type: Water Stor	rage Land Acquisition
Average Annual Delivery:	NA

The District was created in 1987 with a purpose to conserve, maximize, and utilize the water resources of the San Juan River and its tributaries, with the primary function to address future water supply needs within its boundaries. Population projections predict an increase of 25,400 county-wide by 2070, an increase that could produce a water supply gap of 4,300 AF per year.

LOCATON County: Archuleta Water Source: San Juan River Drainage Basin: Southwest Division: 29 District: 7

The District has identified the development of Dry Gulch Reservoir as a top priority project for the region's long-term water supply solution. This reservoir site has been under consideration since the 1960s and has been identified in 1989 and 2003 as a preferred water storage location for diversions from the San Juan River. A previous CWCB loan to the Pagosa Area Water and Sanitation District and a WSRF grant to the San Juan Water Conservancy District provided funding for the purchase of a large portion of the land needed for the proposed Dry Gulch Reservoir. This loan will acquire the remaining land needed for the proposed reservoir. The overall Dry Gulch Reservoir project will be planned in keeping with the objectives outlined in the Colorado Water Plan for new water storage, by not only off-setting the projected water supply gap, but also providing water resources for non-consumptive uses to enhance environmental and recreational opportunities of state and local economic benefit. Planning and permitting for the reservoir is expected to take up to 10 years. This loan will not provide funds for reservoir construction.

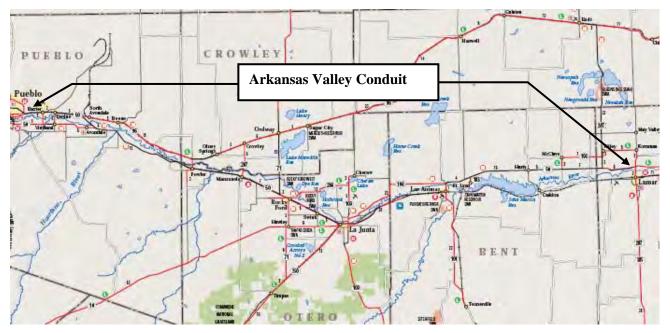


Water Project Loan Program - Project Data Sheet

## 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)		
<b>CWCB Construction Fund Loan:</b> \$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



### Attachment 3 Arkansas Valley Conduit Phase One Pueblo Dam Hydroelectric Project

Southeastern Colorado Water Conservancy District

July 2016 Board Meeting

Loan Program

LOAN DET	Α	I I	_ S	5	
Project Cost:			\$1	9,06	0,000
CWCB Loan (with Service Fee):			\$1	7,39	2,200
Loan Term and Interest Rate:		30	Yea	rs @	2.0%
Funding Source:	S	ever	anc	e Ta	x PBF
BORROWER	Т	Y	Р	Ε	
Hydropower					
Hydropower PROJECT DE	ЕT	Α	I	L	S
	T			L Iroel	S ectric

Southeastern Colorado Water Conservancy District, acting by and through its water activity enterprise, is applying for a loan for the construction of the Pueblo Dam Hydroelectric Project. The Project is located at the existing Pueblo Dam and will utilize the existing releases to the Arkansas River without changing the flow regime. This Project is being constructed as Phase One of the overall Arkansas Valley Conduit project, authorized in the

LOCA	TION
County:	Pueblo
Water Source:	Arkansas River
Drainage Basin:	Arkansas River
Division: 2	District: 10

2007 and 2009 Projects Bill (SB07-122, SB09-125). The purpose of the Project is to develop a revenue source to offset the operational and maintenance cost of the Arkansas Valley Conduit.

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





#### Attachment 3 Wiggins Recharge Facility at Glassey Farms

Loan Program

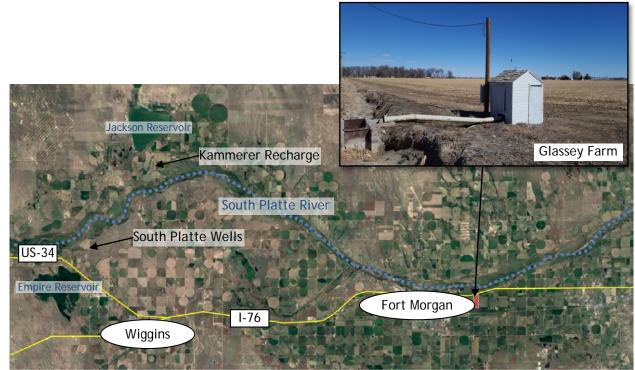
Town of Wiggins March 2017 Board Meeting

LOAN DETA	AILS
Project Cost:	\$2,385,000
CWCB Loan:	\$2,408,850
Loan Term and Interest Rate:	30 Years @ 2.40%
Funding Source:	Severance Tax PBF
BORROWER	ΤΥΡΕ
Agriculture Municipal	Commercial
0% 100% Low - 0% Mid - 0%	High 0%
PROJECT DE	TAILS
Project Type:	Augmentation
Average Annual Delivery:	140 AF

2 3 0 0 Morgan County: South Platte River Water Source: Drainage Basin: South Platte River Division: District: 1 1

The Town of Wiggins, through a water activity enterprise, provides service to approximately 900 residents. The Town anticipates considerable growth over the next 10 years due to four new developments recently annexed into the Town limits. Those developments are projected to bring up to 310 jobs into Wiggins over the next 5 years and approximately 500 new single family units and 150 multi-family units.

Historically the Town has relied on non-tributary wells drilled into the Kiowa Bijou Designated Ground Water Basin. Due to water quality issues and dropping aguifer levels, the Town drilled two wells into the South Platte Alluvial Aquifer. Those wells are augmented through the Kammerer Recharge site and augmentation water leases. In order to develop a reliable and long-term augmentation water supply, the Town will purchase the Glassey Farm and associated water rights. Recharge ponds will take approximately 40 acres and the Town is in negotiations with Morgan County Community College to share the remaining farmland for an agricultural education program focused on low watering farming techniques. Construction is planned to begin summer 2017 and be complete by fall 2017.





COLORADO Colorado Water Conservation Board

Department of Natural Resources

1313 Sherman Street Denver, CO 80203

P (303) 866-3441 F (303) 866-4474 John Hickenlooper, Governor

Robert Randall, DNR Executive Director

Lauren Ris, CWCB Acting Director

то:	Colorado Water Conservation Board Members
FROM:	Kirk Russell, P.E., Finance Section Chief
Board Meeting:	July 19-20, 2017 Board Meeting
Directors Report:	Water Project Loan Program Emergency Loan Status Report

As a result of the unprecedented floods of September 2013, the CWCB awarded zero-interest and nopayment 3-year bridge loans to water suppliers. Typically the loans are utilized by borrowers to replace diversion structures and reconstruct the ditch delivery system.

The CWCB has authorized 19 projects totaling \$17 million. The CWCB Emergency Loan Program has completed construction of 15 projects as shown in Table 1. These Projects are all in repayment.

	Borrower	Project	County	Loan	Close Out
1	Boulder and Larimer County Irrigation	Boulder & Larimer Diversion Structure Repair	Boulder & Larimer	\$ 202,000	4/2014
2	Ish Reservoir Company	Inlet Ditch & Diversion Structure Repair	Boulder	\$ 207,050	4/2014
3	Big Thompson and Platte River	Big Thompson & Platte River Div. Structure Repair	Larimer	\$ 189,861	12/2016
4	Church Ditch Water Authority	Leyden Creek Crossing Repair	Jefferson	\$ 591,179	12/2016
5	Highland Ditch Co.	Highland Ditch System Repairs	Boulder	\$1,477,756	12/2016
6	Left Hand Ditch Co.	Left Hand Ditch System Repairs	Boulder	\$1,203,086	12/2016
7	Oligarchy Irrigation Co.	Oligarchy Irr. Ditch River Diversion Struct. Repair	Boulder	\$ 326,036	12/2016
8	Rough & Ready Irrigation Ditch Company	Rough & Ready River Diversion Struct. Repair	Boulder	\$ 246,851	12/2016
	Beeman Irrigation	Emergency Beeman Diversion Dam Repair	Weld	\$2,020,000	1/2017
	Consolidated Home Supply Ditch & Reservoir Co	George Rist Ditch Repair	Larimer	\$ 434,412	1/2017
11	Consolidated Home Supply Ditch & Reservoir Co	Big Dam Diversion Structure Repair	Larimer	\$1,745,603	1/2017
12	Green Ditch Company	Emergency Green Ditch Channel Repair	Boulder	\$ 189,200	3/2017
	Culver Ditch Company	Culver Mahoney Ditch Repair	Boulder & Larimer	\$ 151,500	5/2017
14	Butte Irrigation & Milling Company	Emergency Berm Repair	Boulder	\$ 113,236	5/2017
15	Sylvan Dale Ranch, LLLP	Emergency Irrigation Pond Excavation	Larimer	\$ 105,171	6/2017
				\$9,204,073	

TABLE 1



### 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 & LarimerCounty: Boulder & LarimerWater Source: Little Thompson RiverCounty Irrigating & ManufacturingDitch Co.Construction Completed: April 2014Terms of Loan: \$202,000 for 30 years @ 1.90%Construction Completed: April 2014Expended Amount: \$202,000Anticipates FEMA Funding: NOConstructural 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 lsh 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.

### 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 lsh 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.



# **Project Description**

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

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



### Loan Program Attachment 4 Emergency Leyden Creek Crossing Repair Church Ditch Water Authority

Project Closeout December 1, 2016



## **Project Description**

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

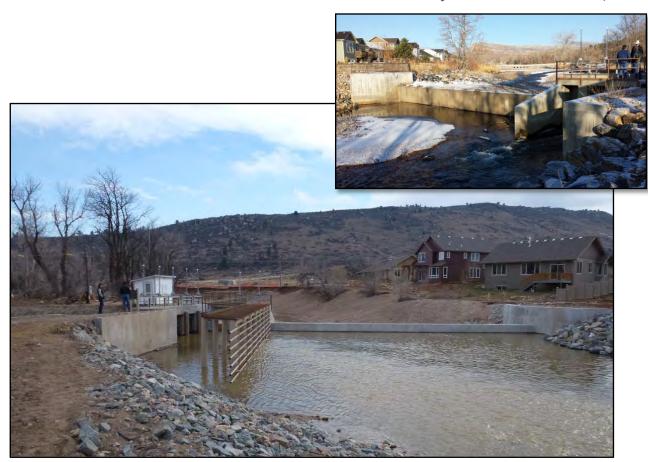
P	ROJEC	ΤΟΑΤ	Α	
Sponsor: Church Ditch Water Authority	County: Jefferso	on	Water Source: Clear Creek	
Type of Project: Diversion Rehabilitation Board Approval Date: October 2013				
Loan Terms: (Original) \$606,000 at 2.85% for 30 years (Disbursed) \$591,178.65				
Design Engineer: Ecological Resource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



#### Attachment 4 Emergency Highland Ditch System Repairs

Highland Ditch Company Project Closeout December 1, 2016

Loan Program



### Project Description

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

P	ROJEC	ΤΟΑΤ	Α	
Sponsor: Highland Ditch Company	County: Boulder		Water Source: St. Vrain Creek	
Type of Project: Diversion Rehabilitation Board Approval Date: October 2013				
Loan Terms: (Original) \$1,999,800 at 1.95% for 30 years (Disbursed) \$1,477,756.28				
Design Engineer: Tessara Water, LLC. & Providence Infrastructure Consultants, Inc.				
Contractor: Zac Dirt, Inc.				
Project Elements: Diversion dam	and trash rack co	nstruction. Flood	clean up.	





**Project Description** 

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

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



Loan Program Attachment 4 Emergency Oligarchy Ditch River Diversion Structure Repair Oligarchy Irrigation Company Project Closeout December 1, 2016



## **Project Description**

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

Р	R O J E C	T D A T	Α	
Sponsor: Oligarchy Irrigating Company	County: Boulde	r	Water Source: St. Vrain Creek	
Type of Project: Ditch Rehabilitation Board Approval Date: September 2015				
Loan Terms: (Original) \$1,262,500 @ 2.50% for 30 years (Disbursed) \$1,073,069.12				
Design Engineer: Deere and Ault Consultants, Inc.				
Contractor: Fischer Construction, Inc.				
Project Elements: Diversion Struc	ture, sluice and f	lume gates, head	gates, & fish ladder.	



Loan Program Attachment 4 Emergency Oligarchy Ditch River Diversion Structure Repair Rough & Ready Irrigating Ditch Company Project Closeout December 1, 2016



## Project Description

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

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





### **Project Description**

During the unprecedented flood of September 2013 in the tributaries to the South Platte River, a significant number of diversion structures and dams along the river corridor were damaged including the Company's system. The Company and Meadow Island No. 2 jointly operate a diversion dam, measurement flume, and bifurcation structure. The flood deposited silt covered the dam and cut a new channel through the historic island, cutting off flow to the joint headworks area. This project included four phases: (1) demolition of existing structure and reconstruction of the headworks, (2) installation of an adjustable check dam in place of the current stop log dam, (3) demolition/reconstruction of a portion of the existing 'big dam' structure, and (4) channel bank stabilization.

Р	R O J E C	T D A T	Α			
Sponsor: Beeman Irrigating	County: Weld		Water Source: South Platte			
Ditch & Milling Company	county. weld		River			
Type of Project: Diversion Rehabilitation Board Approval Date: October 2013						
Loan Terms: (Original) \$2,020,000 at 1.75% for 30 years (Disbursed) \$1,479,643.46						
Design Engineer: Smith Geotechnical Engineering Consultants, Inc.						
Contractor: Northern Colorado Constructors, Inc.						
Project Elements: Headworks and diversion dam constructin including (1) 2'x60' and (1) 3'x48'						
Obermeyer Gates, solar powered	Obermeyer Gates, solar powered automation equipment					



### Attachment 4 Emergency George Rist Ditch Repair Consolidated Home Supply Ditch and Reservoir Company

Project Closeout January 1, 2017

Loan Program



## **Project Description**

During the unprecedented flood of September 2013 in the tributaries to the South Platte River, a significant number of diversion structures and dams along the river corridor were damaged including the Company's George Rist ditch and diversion structure. During the flood, the diversion dam, headgate, measuring flume, stilling well and house, and access road was heavily damaged. Additionally, two sections of ditch embankment were completely washed out. The Project included cleaning debris and silt out of the diversion dam and headgates, reconstruction of the measuring flume and stilling well, and reconstruction of the diversion structure access road. The two sections of ditch embankment that were breached were restored with compacted material and erosion protection measures

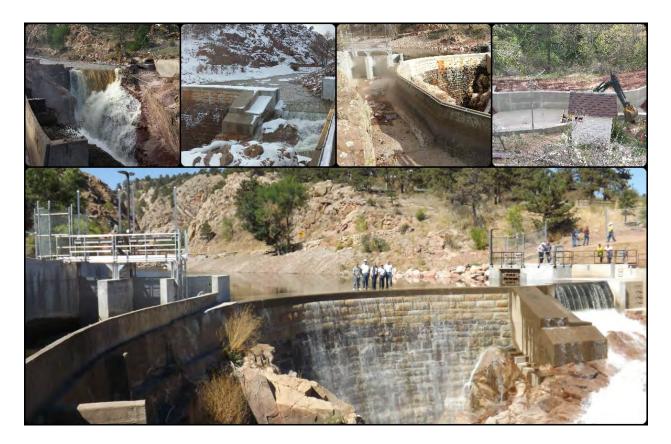
Р	R O J E C	ΤΟΑΤ	Α			
Sponsor: Consolidated Home Supply Ditch & Res. Co.	County: Larimer		Water Source: Big Thompson River			
Type of Loan: Diversion Rehabilitation Board Approval Date: October 2013						
Terms of Loan: (Original) \$519,140 at 1.95% for 30 years (Disbursed) \$491,111.77						
Design Engineer: Deere & Ault Consultants						
Contractor: Gerrard Excavating						
Project Elements: Diversion dam and headgate repair; parshall flume, ditch embankment rebuild						



#### Attachment 4 Emergency Big Dam Diversion Structure Repair Consolidated Home Supply Ditch and Reservoir Company

Project Closeout January 1, 2017

Loan Program



## **Project Description**

During the unprecedented flood of September 2013 in the tributaries to the South Platte River, a significant number of diversion structures and dams along the river corridor were damaged including the Company's "Big Dam" diversion structure. During the flood, the river overtopped the structure by approximately ten feet. The top five feet of the masonry structure was washed out and the mortar between masonry blocks on the north abutment was partially lost. Construction activities on the dam included the installation of new masonry blocks, a concrete cap, and a new spillway with an adjustable obermeyer gate. Construction on the dam required the reconfiguration of the company's headgates. Though not directly attributable to the flood, the Company chose to replace its sand out gates, control gates, and the parshall flume as they were in poor condition needing replacement. The company has a FEMA Project Worksheet for the dam and headgates and are in the process of seeking reimbursement for eligible costs.

R O J E C	ΤΟΑΤ	Α				
County: Larimor		Water Source: Big Thompson				
county. Latimer		River				
Type of Loan: Diversion Rehabilitation Board Approval Date: October 2013						
Terms of Loan: \$1,858,400 at 1.95% for 30 years						
Design Engineer: Deere & Ault Consultants						
Contractor: Gerrard Excavating						
Project Elements: Masonry dam reconstruction; 6'x20' Obermeyer gate (spillway) w/ control house;						
(2) 5'x7'6" headgates; (2) 6'x7'3" sandout gates; (2) 6'6"x6'6" Control gates; acess road, walkways,						
new parshall flume						
	<i>County:</i> Larimer ation 25% for 30 years onsultants econstruction; 6'>	25% for 30 years onsultants econstruction; 6'x20' Obermeyer g				



#### Attachment 4 Emergency Green Ditch Channel Repair

Green Ditch Company Project Closeout March 1, 2017

Loan Program



## **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 Green Ditch. The flood relocated Boulder Creek upstream of the Green Ditch diversion thereby leaving the Green Ditch headgate dry. The project included repairing the Boulder Creek channel breach with compacted embankment material and riprap erosion control. Boulder Creek currently flows in its pre-flood flowline alignment over the Green Ditch diversion structure. The Company analyzed a plan to relocate the diversion structure but has since decided to instead focus on fully restoring and improving the structure at its historic location. Work continues on this front but emergency loan funds will not be needed to complete the task.

PROJEC	Τ Ο Α Τ Α					
Sponsor: Green Ditch Company County: Boulder	Water Source: Boulder Creek					
Type of Loan: Ditch Rehabilitation	Board Approval Date: November 2013					
Terms of Loan: (Original) \$530,250 at 2.50% for 30 years (Disbursed) \$189,199.50						
Design Engineer: Applegate Group						
Contractor: Lefthand Excavating						
<i>Project Elements:</i> Headgate, sand gate, measurem and silt removal.	ent flume rehabilitation, ditch reshaping, debris					

### Culver Lateral Ditch Company Emergency Culver Mahoney Ditch Repair





### **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
 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.





## **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 or breached. Portions of the Butte Mill Ditch Company's 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 was to repair this berm and clean out the ditch channel to allow the Company to divert its decreed water rights. The project included the removal of flood debris and silt from the ditch and construction of an earthen berm protected with 9 inch riprap on the sideslope and soil riprap and bedding material on the berm crest. Construction was completed in May 2014.

Р	R O J E C	Т	D	ΑΤ	Α	
Sponsor: Butte Irrigating and Milling Company	County: Boulder				Water Source: Boulder Creek	
Type of Loan: Diversion Rehabilitation Board Approval Date: October 2013						
Terms of Loan: (Original) \$277,750 at 2.30% for 30 years (Disbursed) \$113,236.49						
Design Engineer: Applegate Group						
Contractor: Harley Keeter, Jr. Trucking						
Project Elements: Berm repair with 9-inch riprap and reseeding.						



# **Emergency Irrigation Pond Excavation**

Sylvan Dale Ranch, LLLP Project Closeout June 1, 2017



## **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 irrigated acres of alfalfa hay pastures. Hay is harvested in June, and during the rest of 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. Loan funds went to the dredging of silt from the ponds to restore pond function.

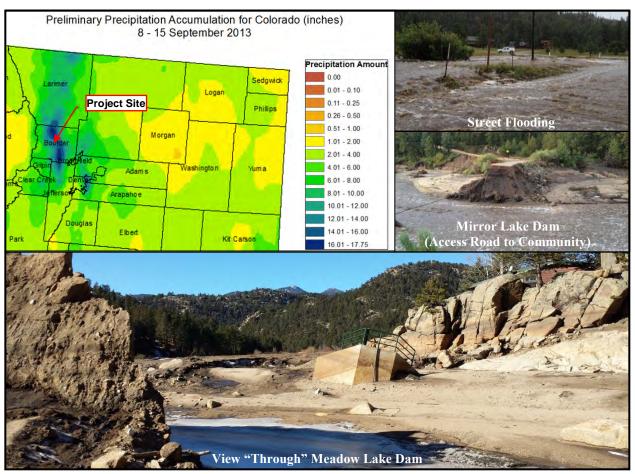
Р	R O J E C	T D	A T	Α		
Sponsor: Sylvan Dale Ranch,	County: Larimer			Water Source: Big Thompson		
LLLP	county. La inter			River		
Type of Loan: Reservoir Rehabilit	Board Approval Date: May 2014					
Terms of Loan: \$105,171.00 at 1.75% for 30 years						
Design Engineer: NA						
Contractor: Custom Design Fabricators						

			Loan D		Design	Construction			Status Description/Update	
	Borrower/Project	County		Amount	Amount Status		Status	РМ		
1	Big Elk Meadows Association > Emergency Raw Water Storage Repair C150391	Boulder/ Larimer	\$	2,020,000	75%	7/2014-9/2018	30%	JMH	Project includes the reconstruction of 5 dams in series. Mirror Dam complete as of April 2015. Rainbow Dam' complete as of Decembe 2016. Willow Dam to begin construction Summer 2017. Sunset and Meadow Dams pending. Association was approved for a loan increase at March 2017 Board Meeting to help with cash flow, and an increase to the zero percent window as construction window has been extended.	
2	North Poudre Irrigation Company > Fossil Creek Res. Diversion Structure Repair C150368	Larimer	\$	876,680	100%	11/2015 - 3/2016	100%	JMH	Construction was delayed due to continuously high river conditions during winter of 2014/2015. Bids were received August 2015 and construction began November 2015. Work has been completed and company is waiting for possible FEMA reimbursements. Loan to be closed out, and interest to begin accruing, on 11/1/18.	
3	St. Vrain and Left Hand Water Conservancy District > Emergency Rock'n WP Ranch Lake No. 4 Repair	Boulder	\$	4,545,000	50%	Spring 2017 - Fall 2017	0%	JMH	Approved July 2014 Board Meeting. Contract has been signed and final design is underway.	
4	Supply Irrigating Ditch Company >Emergency Supply Irrigating Ditch Repair Project CT15-142	Boulder	\$	324,210	100%	3/2015-5/2015	100%	JMH	Construction complete, loan funds remaining. No additional disbursements are anticipated. FEMA reimbursements pending. Loan to be closed out, and interest to begin accruing, on 3/1/18.	
	Projects Under Contra	ct SubTotal =	\$	7,765,890						

### CWCB Water Project Loan Program Project Data Sheet

Borrower: Big Elk Meadows Association	County: Boulder/Larimer C150391
Project Name: Emergency Raw Water Stor Repair Project	age <b>Project Type:</b> 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 Munici	ipal Water Storage: 108 AF
<b>CWCB Loan:</b> \$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**

# C150368

**Borrower:** North Poudre Irrigation Company

**Project Name:** Fossil Creek Reservoir Diversion Structure Repair Drainage Basin/ District: South Platte / 3

Total Project Cost: \$477,000

Type of Borrower: Blended

**CWCB Loan:** \$481,770 (with 1% service fee)

**County**: Larimer **Project Type:** Diversion Rehabilitation Water Source: Cache la Poudre Funding Source: Severance Tax PBF Average Annual Diversion: 31,700 AF 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

**Right Abutment** 

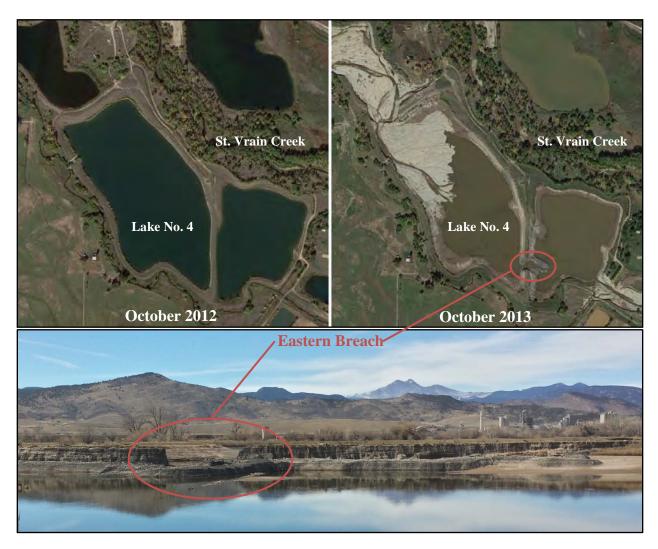
including the Company's Fossil Creek Reservoir inlet diversion off the Cache la Poudre River. The purpose of the Project is to repair the existing diversion structure by rebuilding the check dam and abutment. The Project will restore the structure to pre-flood elevations while modifying the foundation to improve protection against future scouring.



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

Borrower: St. Vrain and Left Hand Water Conservancy District	County: Boulder
Project Name: Emergency Rock'n WP Ranch Lake No. 4 Repair Project	Project Type: Reservoir Rehabilitation
Drainage Basin: South Platte	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
<b>CWCB Loan:</b> \$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.



Loan Program Attachment 4



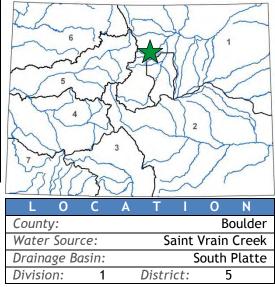
COLORADO Emergency Supply Irrigating Ditch Repair Project

Conservation Board Department of Natural Resources

Colorado Water

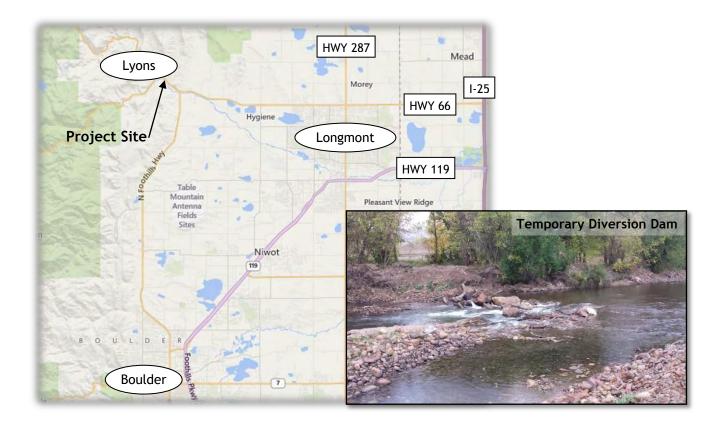
Supply Irrigating Ditch Company November 2014 Board Meeting

LOAN DETAILS
<i>Project Cost:</i> \$321,000
CWCB Loan (with Service Fee): \$324,210
Loan Term and Interest Rate: 27 Years @ 2.25%
Funding Source: Severance Tax Perpetual Base Fund
BORROWER TYPE
Agriculture Municipal Commercial
86% 0% Low - 5% Mid - 7% High 2%
PROJECT DETAILS
Project Type: Ditch Rehabilitation
Average Annual Diversion: 4,650 AF



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

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



## WATER PROJECT CONSTRUCTION LOAN PROGRAM LOAN REPAYMENT DELINQUENCY REPORT LOAN FINANCIAL ACTIVITY REPORT JULY 2017

## LOAN REPAYMENT DELINQUENCY

Loan Repayments received relative to the Water Project Construction Loan Program have been reviewed for the period covering July 2016 through June 2017. 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 Fiscal Year 2017 totaled 292. There were four loan payments not received on time during this period. The loan payments from the Sanchez Ditch and Reservoir Company and the Two Rivers Water Company were less than 30 days late. The loan payments from Fuchs Ranches, Inc. and the Town of Rico were less than 60 days late. Thus, the on-time performance for the total repayments due was 99% in compliance or 1% not in compliance.

### LOANS PAID OFF

	Borrower	Contract No.	0	Original Loan		cipal Received
1	Allenspark Water and Sanitation District	C153015	\$	200,000	\$	6,032
2	City of Aurora	C150243	\$	75,750,000	\$	69,085,617
3	Excelsior Irrigating Company	C153748	\$	100,000	\$	49,461
4	Excelsior Irrigating Company	C153797	\$	251,125	\$	159,553
5	Sanchez Ditch and Reservoir Company	C153623	\$	200,000	\$	19,600
6	Weldon Valley Ditch Company	C153792	\$	188,000	\$	13,777
	Totals for Construction Fund		\$	76,689,125	\$	69,334,040
7	Boulder & Larimer Co Irrigating & MDC	C150374	\$	202,000	\$	68,000
8	Colorado River Water Conservation District	C150164	\$	11,110,000	\$	4,637,877
9	Ish Reservoir Company	C150376	\$	207,050	\$	207,050
10	Little Thompson Water District`	C150121	\$	3,937,500	\$	2,542,546
11	Little Thompson Water District`	C150210	\$	4,994,955	\$	3,174,915
	Totals for Severance Tax PBF		\$	20,451,505	\$	10,630,388

During Fiscal Year 2017, there were six loans repaid in full to the Construction Fund and five loans repaid in full to the Severance Tax Perpetual Base Fund, detailed as follows:

## LOAN FINANCIAL ACTIVITY

Loan Financial Activity relative to the Water Project Construction Loan Program for Fiscal Year 2017 is summarized as follows: Funds received relative to loans in repayment totaled \$106.5 M for this year. Funds disbursed relative to new project loans totaled \$27.8 M for this year. Net activity resulted in \$78.7 M received by the CWCB Construction Fund and the Severance Tax Perpetual Base Fund (STPBF) over the total disbursed.

Further breakdown is summarized as follows: The Construction Fund portion consists of \$83.8 M in receivables and \$25.1M in disbursements for a total net activity of \$58.7 M received over disbursed. The STPBF consists of \$22.7 M in receivables and \$2.7 M in disbursements for a total net activity of \$20.0 M received over disbursed.

### COLORADO WATER CONSERVATION BOARD

## FINANCIAL ACTIVITY REPORT FOR FISCAL YEAR 2017

Period	Principal		Interest		Total Received		Disbursements		Net Activity	
July 2016	\$	175,219	\$	177,772	\$	352,990	\$	-	\$	352,990
August 2016	\$	69,829,119	\$	1,139,802	\$	70,968,921	\$	1,422,755	\$	69,546,166
September 2016	\$	594,899	\$	1,087,003	\$	1,681,902	\$	702,809	\$	979,093
October 2016	\$	775,633	\$	604,218	\$	1,379,851	\$	716,499	\$	663,352
November 2016	\$	468,976	\$	378,366	\$	847,342	\$	2,462,536	\$	(1,615,194)
December 2016	\$	954,147	\$	984,727	\$	1,938,874	\$	7,505,466	\$	(5,566,592)
January 2017	\$	374,491	\$	240,886	\$	615,378	\$	1,935,534	\$	(1,320,157)
February 2017	\$	399,486	\$	289,133	\$	688,619	\$	1,763,540	\$	(1,074,921)
March 2017	\$	480,725	\$	368,141	\$	848,866	\$	5,451,971	\$	(4,603,105)
April 2017	\$	824,729	\$	607,266	\$	1,431,995	\$	1,217,720	\$	214,275
May 2017	\$	1,371,507	\$	744,531	\$	2,116,037	\$	602,749	\$	1,513,289
June 2017	\$	394,405	\$	489,434	\$	883,839	\$	1,329,779	\$	(445,940)

# **CONSTRUCTION FUND**

## FY 2017 Totals \$ 76,643,336 \$ 7,111,279 \$ 83,754,615 \$ 25,111,358 \$ 58,643,257

### SEVERANCE TAX PERPETUAL BASE FUND

Period	Principal		Interest		Total Received		Disbursements		Net Activity	
July 2016	\$	60,728	\$	34,502	\$	95,230	\$	-	\$	95,230
August 2016	\$	423,038	\$	65,634	\$	488,672	\$	494,138	\$	(5,466)
September 2016	\$	3,373,146	\$	1,305,042	\$	4,678,189	\$	20,285	\$	4,657,904
October 2016	\$	370,975	\$	472,810	\$	843,785	\$	130,390	\$	713,395
November 2016	\$	4,741,943	\$	185,184	\$	4,927,128	\$	350,346	\$	4,576,782
December 2016	\$	641,627	\$	180,155	\$	821,782	\$	-	\$	821,782
January 2017	\$	520,403	\$	106,654	\$	627,057	\$	626,089	\$	967
February 2017	\$	644,227	\$	128,588	\$	772,815	\$	74,654	\$	698,161
March 2017	\$	5,912,437	\$	153,110	\$	6,065,547	\$	120,644	\$	5,944,903
April 2017	\$	1,092,977	\$	275,753	\$	1,368,731	\$	63,063	\$	1,305,668
May 2017	\$	1,202,608	\$	508,678	\$	1,711,286	\$	491,556	\$	1,219,730
June 2017	\$	148,004	\$	177,685	\$	325,689	\$	338,478	\$	(12,788)
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FY 2017 Totals	\$1	9,132,114	\$	3,593,795	\$	22,725,909	\$	2,709,642	\$	20,016,267
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GRAND TOTALS	\$ 95,775,450		\$ 10,705,074		\$ 106,480,524		\$ 27,821,000		\$ 78,659,524	