

COLORADO

Colorado Water Conservation Board

Department of Natural Resources

DIRECTOR'S REPORT

November 2016

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

STATE OF COLORADO

	COLORADO Colorado Water Conservation Board Department of Natural Resources
TO:	Colorado Water Conservation Board Members
FROM:	James Eklund Erik Skeie
DATE:	November 16-17, 2016
SUBJECT:	Agenda Item 5d, November 2016 CWCB Board Meeting Director's Report

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~INTERSTATE AND FEDERAL~

U.S.-MEXICO MINUTE 32X NEGOTIATIONS— Representatives from the United States, Mexico, and the Colorado River Basin States have been meeting regularly to work towards a new "Minute 32X" 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 32X would replace Minute 319 prior to the end of its term in December 2017. Negotiations with Mexico are continuing with urgency from U.S. federal officials who hope to conclude negotiations before the current Administration leaves office. The two countries have not yet reached consensus on several key issues, including management of reservoirs under drought conditions. It seems increasingly unlikely that the matter will be resolved before the current Administration leaves office in January, but there is still a narrow opportunity to reach agreement in late November. It is probable that negotiations will continue under a new Administration in 2017 if an agreement is not reached within the next few months. (*Carlee Brown*)

GLEN CANYON DAM HIGH FLOW EXPERIMENT— The Department of Interior (DOI) has authorized a High-Flow Experimental release (HFE) from Glen Canyon Dam to take place from Nov. 7-12, 2016. The purpose of the HFE is to deposit sediment downstream of the dam which helps build sandbars. The Seven Basin States (including Colorado) expressed some concern that non-native Green Sunfish present in a backwater slough of Glen Canyon would make their way downstream during the release. The fish population was successfully treated with ammonia prior to DOI's approval. The States requested that DOI commit prioritizing the development and implementation of a non-native species monitoring and mitigation plan prior to the next fall HFE. (*Carlee Brown*)

UPPER COLORADO RIVER BASIN EMERGENCY DROUGHT CONTINGENCY RESPONSE - DRAFT MEMORANDUM OF UNDERSTANDING— The Upper Colorado River Basin states, Department of Interior (DOI) agencies, and Western Area Power Administration (WAPA) are in the final phase of negotiations on a Memorandum of Understanding (MOA) for management of Colorado River Storage Project Act (CRSPA) reservoirs in response to drought. The draft MOA has been sent to Commissioners for their review. The document outlines the process for reservoir operational adjustments and communication between all parties. Provisions for recovery of storage are also included. While the MOA is specific to reservoir operations, the UCRC is holding separate discussions on drought response through demand management and weather modification. (*Carlee Brown*)

FINAL EIS ISSUED FOR LONG-TERM EXPERIMENTAL AND MANAGEMENT PLAN (LTEMP) — The Department of Interior (DOI) has filed a Final Environmental Impact Statement (FEIS) for the Glen Canyon Dam Long-Term Experimental and Management Plan (LTEMP). The LTEMP will provide a framework for adaptively managing Glen Canyon Dam over the next 20 years, including specific options for dam operations. This process is the first look at changing operations at Glen Canyon Dam since the EIS of 1996. Issuing the FEIS was one of the last steps required of DOI before finalizing LTEMP. The FEIS is available for review at http://ltempeis.anl.gov/documents/final-eis/. DOI anticipates finalizing a Record of Decision (ROD) on the proposed LTEMP action on or before the end of the Calendar Year. (*Carlee Brown*)

~STATEWIDE~

GROUND WATER COMMISSION MEETING— The Ground Water Commission (GWC) has not held a meeting since the last CWCB Meeting. The next regular meeting will be held on November 18, 2016, in Castle Rock, CO. For more information visit:

http://water.state.co.us/groundwater/CGWC/Pages/default.aspx. (*Suzanne Sellers*)

~ARKANSAS RIVER BASIN~

ARKANSAS RIVER COMPACT ADMINISTRATION— ARCA will hold its 2016 Annual Meeting in Lamar on December 8-9, 2016. In preparation for that meeting, state officials and water users will convene in Pueblo on November 15. A key effort for Colorado this year will be to secure an additional water supply for the permanent fishery pool at John Martin Reservoir in cooperation with CPW and LAWMA. Colorado's three representatives to ARCA are: CWCB Director Eklund, Lane Malone from Holly, and Scott Brazil from Vineland. Additional Information on ARCA and the 2016 meeting can be found at: <u>http://www.co-ks-arkansasrivercompactadmin.org/</u> (*Steve Miller*)

~COLORADO RIVER BASIN~

COLORADO RIVER WATER USE-

2016 Colorado River Storage as of October 31st, 2016					
	Elevation (feet	Storage	Percent of		
	above mean		Capacity		
	sea level)		Capacity		
Lake Mead	1076.23	9.71	37%		
Lake Powell	3609.51	12.678	52%		
Total System Active Storage*		29.873	50%		
2015 Total Active Storage		30.188	51%		
			Percent of		
			Average		
Forecasted Unregulated Inflow into Powell		9.616	89%		

*Total System Active Storage on October 31,2015 was 30.188 MAF, or roughly 1% higher than last year

Forecasted CY 2016 Lower Basin Consumptive Use					
State		Use (MAF)	Total (MAF)		
Arizona		2.55			
California					
California Agricultural	3.27	4.27	7.06		
Metro. Water District	0.86				
Nevada		0.24			

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

THE UPPER COLORADO RIVER WILD AND SCENIC STAKEHOLDER GROUP— The UCRW&SG held its quarterly Governance Committee (GC) meeting on October 26, 2016 in Summit County. The GC discussed and approved next steps for the Ad Hoc committees responsible for reviewing Boating and Fish ORV indicators and resource guides in the Alternative Management Plan. The GC also discussed and approved the proposed annual budget. The group heard recreation management presentations by the USFS and BLM, water project updates, and committee updates. The next GC meeting is scheduled for January 18, 2017 in Summit County. Additional information on the UCRW&SG can be found at http://www.upcowildandscenic.com. (*Linda Bassi*)

LEASE OF RUEDI CONTRACT WATER FROM UTE WATER CONSERVANCY DISTRICT 2016 UPDATE— After receiving Board approval at the May 2015 meeting, CWCB staff negotiated a short-term lease with the Ute Water Conservancy District ("Ute Water") to use a portion of the water that Ute Water owns in Ruedi Reservoir ("Ruedi water") for instream flow ("ISF") use in the 15-Mile Reach of the Colorado River. The CWCB sought the leased water to supplement existing ISF water rights and preserve/improve the natural environment of endangered fish species in the 15-Mile Reach of the Colorado River. The lease allowed the CWCB to utilize 6,000 AF of Ruedi water, with a potential increase to 12,000 AF, at a price of \$7.20 per acre-foot. The initial lease expired in April 2016, and was subsequently renewed through April 2017 at the same price.

In 2015, 9,000 AF was released from Ruedi under the lease at a cost of \$64,800. In 2016, the full 12,000 AF available under the lease was released, at a cost of \$86,400. Releases of lease water were coordinated with releases from pools dedicated to the USFWS. The first 6,000 AF of leased water was released August 27 - September 11. Ute Water authorized the additional 6,000 AF, which was released August 24 - October 14. Total releases from Ruedi were held below the threshold of 300 cfs to address concerns regarding the power plant and downstream fishery on the Fryingpan River.

Spring runoff throughout the basin was near average, so an average-year target of 1,240 cfs was set by the USFWS for the 15-Mile Reach. Warm and dry conditions dominated through summer and fall of 2016, making it difficult to achieve the average-year target.

In July and early August, USFWS limited its releases from Ruedi Reservoir to maintain a total release of 250 cfs, due to indications from stakeholders in the Fryingpan basin that releases of 250 cfs are considerably better than 300 cfs for accessibility and other fishery concerns. By early August, USFWS was releasing heavily out of its water from other reservoirs. A surplus had been declared and releases had begun from the Green Mountain Historic Users Pool (HUP). Flows in the 15-Mile Reach were dropping near and below the dry-year target of 810 cfs. At the August 11, 2016 Ruedi Operations

Meeting, USFWS and Reclamation announced that releases from Ruedi would increase to 300 cfs. Total releases from Ruedi were held at or slightly below 300 cfs throughout August and September, and declined in October. In future years, limiting total releases to 250 cfs will be considered when feasible.

CWCB staff is pleased with the results of the lease. 12,000 AF was released to help achieve the flow targets in the 15-Mile Reach. This not only resulted in higher flows in the 15-Mile Reach, but provided more operational flexibility for the USFWS and operators of other reservoirs that release water in late summer to benefit the endangered fish habitat. The released water was allowed to pass through Orchard Mesa Irrigation District's power plant on its way to the 15-Mile Reach, providing some additional local benefits.

The lease expires April 30, 2017, with an option to renew. \$151,200 has been spent on the leased water to date. Approximately \$349,000 remains in the Species Conservation Trust Fund account for leasing of water for instream flows for endangered fish recovery purposes. (*Linda Bassi, Michelle Garrison*)

COLORADO RIVER BASIN SALINITY CONTROL PROGRAM— The CRBSCP Forum and Advisory Council met in Moab, UT the last week of October. Carlee Brown and Steve Miller participated for the CWCB. The Forum and Advisory Council consist of governor-appointed representatives from the Seven Basin States who receive reports from--and provide recommendation to--the participating federal agencies. Approximately half of the current program activities occur in Colorado. The following items were discussed during the meetings:

- The 20th anniversary of successful operation of the Paradox Valley Unit located in Montrose County. The Unit treats natural saline brine which would otherwise flow into the Dolores River and uses deep well injection to dispose of the brine. The injection well is nearing the end of its expected life and USBR is conducting planning studies and an EIS to evaluate and select a new disposal scheme. CWCB staff has been active in those studies.
- The next round of USBR Funding Opportunity Announcements ("FOA") will open sometime in the second half of 2017. In the 2015 round, CWCB provided small technical assistance grants (\$5-10,000) to approximately 15 potential applicants, about half of whom were awarded grants to modernize their irrigation systems. CWCB plans to do the same in 2017.
- The Colorado Dept. of Agriculture (CDA) has been an important partner in the CRBSCP for approximately 15 years, helping USBR and NRCS to implement on farm and small lateral irrigation improvement projects. CDA receives Basin States cost-share funds generated from power revenues to coordinate and manage projects. Recent declines in power revenues have jeopardized CDA's role in the program, and efforts will be made to develop a new model for CDA's participation.
- The 3 Lower Basin States have asked the Forum to consider possible links between salinity control projects and the goal of creating additional inflows to Lake Powell through system conservation.
- The Forum began the process for conducting the required triennial review of water quality standards for salinity in the Basin. The review involves modeling projected depletions, average hydrology, anticipated salt loads, and the impact of new control projects. The goal of the review is to determine expected salinity concentrations at Imperial, Parker, and Hoover Dams through 2035. The 2017 Review will be finalized in Oct. 2017.

• The Forum has prepared a new 12-minute video explaining the program's purposes and benefits. The video will be shown at a break during the Board meeting.

• Additional information on the CRBSCP can be found at: <u>http://coloradoriversalinity.org/</u> (*Steve Miller*)

~PLATTE RIVER BASIN~

PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM— The Platte River Recovery Implementation Program (PRRIP) Governance Committee (GC) held its regularly scheduled meeting on September 13-14, 2016 in Kearney, NE and a special conference call on October 14, 2016.

During the September meeting, the GC voted to approve a score of 160 ac-ft/year for the Cook Track Well; approve one-year extensions of the water service agreements for Phelps Canal and Elwood Reservoir; and to allow the Nebraska Community Foundation to sign land use agreements for Tracts 1008, 1228, 1604, and 160. The GC also agreed to next steps for the pallid sturgeon process including planning for an internal program pallid sturgeon workshop and a subsequent expert workshop. The GC set a timetable for revising the extension proposal and budget with the goal of agreeing to final versions at the November 2, 2016 GC meeting in Denver, CO. During the October 14, 2016 call, the GC spent time negotiating the first increment extension proposal.

CWCB staff participated in the Adaptive Management Plan (AMP) Reporting Session, and Water Advisory Committee (WAC) and Finance Committee (FC) meetings. The next special meeting will be held in Denver on November 2, 2016 to discuss the annual budget and the next regular GC meeting will be held on December 6-7, 2016 in Denver, CO. For more information, please visit: <u>http://www.platteriverprogram.org/Pages/default.aspx</u>. (*Suzanne Sellers and Carlee Brown*)

~SAN JUAN/SAN MIGEUL-DOLORES RIVER BASIN~

LOWER DOLORES PLAN WORKING GROUP UPDATE— The team of key stakeholders appointed by the Group's Legislative Subcommittee has met numerous times to work on refining the draft federal legislation that would establish a National Conservation Area (NCA) along the Dolores River from below McPhee Dam to Bedrock and remove the finding of Wild and Scenic suitability from the Dolores River. On October 4, attorney David Robbins traveled to Cortez and met with the water users and counties, and then met with the Legislative Subcommittee. The groups identified remaining issues to be resolved and committed to working through those issues. One issue is how to formally structure the Native Fish Monitoring and Recommendation Team, with the options being (1) setting up a committee under the Federal Advisory Committee Act (FACA), or (2) through establishing some type of State mechanism. The groups also agreed that addressing several issues on La Sal Creek is a priority, including the fact that a rare and globally impaired riparian forest exists along the creek, and the existence of several upstream water rights users whose interests and needs must be addressed. Currently located in a Wilderness Study Area, La Sal Creek would be part of a new Wilderness Area established via the legislation. The legislative effort continues to receive input from a variety of community stakeholders across local, state and federal entities, and conservation and recreation groups. Additional information on the Lower Dolores Plan Working Group can be found at: http://ocs.fortlewis.edu/drd/meetings.asp. (Linda Bassi)

RIVER PROTECTION WORKGROUP— The River Protection Workgroup (RPW) Steering Committee has not met since the last CWCB Meeting and the next meeting has not been scheduled; however, the Drafting Committee has been meeting to discuss specific concerns. Meanwhile, work on investigating the iron fens in the Silverton area has been completed for the season. Additional information on the RPW can be found at: http://ocs.fortlewis.edu/riverprotection. (*Suzanne Sellers*)

~ WATER CONSERVATION AND DROUGHT PLANNING UPDATES ~

CWCB WATER EFFICIENCY GRANT FUND PROGRAM (WEGP) UPDATE-

Four grant applications have been received since the July 2016 Director's Report

- Western Resource Advocates Best Practices/Guidelines for Water Retrofits in Public Buildings
- Town of Frisco Regional Water Efficiency Plan
- City of Longmont Water Efficiency Plan Update
- 4CORE Home H2O Program

Three grants have been approved since the July 2016 Director's Report

- South Metro Water Supply Authority Regional Landscape Certification Pilot Program (\$42,350)
- Town of Severance Water Efficiency Plan (\$41,919.60)
- Western Resource Advocates Best Practices/Guidelines for Water Retrofits in Public Buildings (\$46,000)

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

- North Weld County Water District Water Efficiency Plan Update -50% Progress Report
- Water Returns Landscape Irrigation Evaluations Final Report
- High Country Conservation Center Summit Saves Program 75% Progress Report
- City of Brighton Water Efficiency Plan Update 75% Progress Report
- Western Resource Advocates Tap Fee Workshops 50% & 75% Progress Reports
- City of Cortez Meter Replacement Program Final Report
- Center for Resource Conservation School District Water Efficiency Project 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-

<u>Approved Plans</u> No new plans approved since the last Board Meeting

WATER EFFICIENCY PLANS-

Approved Plans

No new plans approved since the last Board Meeting

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

- City of Boulder
- Skyland Metro District
- Mount Crested Butte
- Southeastern Colorado Water Conservancy District Supplemental Regional Plan
- Parker Water & Sanitation District
- Fort Collins-Loveland Water District

Water Efficiency Plans in review

- Centennial Water and Sanitation District
- North Table Mountain Water and Sanitation District
- City of Brighton
- East Larimer County Water District (Kevin Reidy & Ben Wade)

GOVERNOR'S WATER AVAILABILITY TASK FORCE— The next Water Availability Task Force meeting will be held on November 15, 2016 from 1:00pm-3:00pm at the Colorado Parks & Wildlife Headquarters, 6060 Broadway, Denver, CO in the Red Fox Room. Please check the website (http://cwcb.state.co.us/public-information/flood-water-availability-task-forces/Pages/main.aspx) for additional information. (*Ben Wade*)

DROUGHT UPDATE— Following a warm and dry start to the 2017 water year (Oct-Sept), 59 percent of the state is experiencing abnormally dry to moderate drought conditions. The vast majority of that is abnormally dry (53 percent), while 6 percent, predominantly along the Front Range, is classified as having moderate drought conditions. Snowpack is below normal for this time of year at 33 percent, and some areas of the state are also observing below average stream flows. However, the latter is heavily influenced by reservoir management and could simply be a result of operators holding onto stored water. Statewide reservoir levels remain near normal for this time of year. Looking ahead to the snow accumulation season there continues to be much uncertainty. ENSO neutral conditions exist with a weak La Nina forecast to begin this fall and possibly persist into winter. Should La Nina conditions emerge it would not necessarily foretell drought conditions for the state, although a dry October is emblematic of La Nina conditions. The long term Climate Prediction Center forecast indicates a warm November- January with no clear indication of wet or dry conditions. (*Taryn Finnessey*)

ADVISORY COMMITTEE ON CLIMATE CHANGE AND NATURAL RESOURCE SCIENCE (ACCNRS)— Staff has been selected as a primary member to ACCCNRS representing state government and western fish and wildlife agencies. Chartered in May 2013, the Advisory Committee on Climate Change and Natural Resource Science (ACCCNRS) is a 25 member group that advises the Secretary of the Interior on the establishment and operations of the U.S. Geological Survey (USGS) National Climate Change and Wildlife Science Center (NCCWSC) and the Department of the Interior (DOI) Climate Science Centers (CSCs). She will attend her first meeting November 9-10 in Tucson, AZ. The objectives of this meeting are to address NCCWSC + CSC strategic planning and the work of the Southwest CSC. This is an opportunity for the state to help shape federal efforts to better support the needs of the western States. (*Taryn Finnessey*)

WORKSHOP ON UNDERSTAINDING AND ASSESSING DROUGHT AND DROUGHT IMPACTS IN THE U.S. AND GERMANY— Staff will be presenting in Pillnitz/Dresden, Germany 16-18 November, 2016. The workshop will engage researchers and practitioners from the US and Germany with additional individual contributions from the international drought research and management community involved with innovative approaches to monitoring, forecasting, drought risk assessment and planning. The workshop organizing committee selected Colorado for our innovative and comprehensive approach to drought planning and preparedness. This provides a unique educational opportunity for Colorado to not only share our efforts with other states, provinces and countries, but also to learn what others are doing on this topic and how our own efforts can be improved as we embark on an update to the Drought Mitigation and Response Plan. The Workshop is being sponsored by the U.S. National Oceanic and Atmospheric Administration, German Meteorological Services, and the European Union.

WATER AND GROWTH DIALOGUE— Through a Water Efficiency Grant, the Keystone Center is facilitating a dialogue to quantify water use through different land use patterns as well as bringing together land use and water managers to discuss where integration can occur. Kevin Reidy is on the technical advisory group as well as the steering committee. At present time, Denver Water is still running numbers through their model but should be done by the end of the year. The Sonoran Institute is analyzing the results of the scenario planning exercises and will have results by the end of the year. At present, the steering committee is determining the path forward for the group and how to disseminate the results of the project once complete. (*Kevin Reidy*)

SB15-008 IMPLEMENTATION— Staff is working with counterparts from DOLA to create trainings specified in SB 15-008 (AKA the land use bill). This bill stated that the CWCB and DOLA would create trainings for land use and water planning professionals in order to incorporate water conservation and demand management best practices into land use planning. Curriculum will be developed with webinars and in person trainings taking place in Summer-Fall of 2016. At present, Kevin and DOLA staff are putting the finishing touches on the 3 modules and have produced 3 webinars with participation ranging from around 65 -100 participants. The webinars will be posted on the Colorado Water Plan site with links on the CWCB and DOLA sites. A train the trainer event took place at the Colorado American Planning Association's annual conference on October 24, 2016 with about 40 attendees. Next steps will include development of another module as well as planning on how to spread the trainings across the state. (*Kevin Reidy*)

~WATERSHED AND FLOOD UPDATES~

MAPPING UPDATE—

FY16 Activities: The CWCB was recently awarded several FEMA grants this fiscal year to fund Risk Map activities including: continuation of the Upper White Watershed Risk Map and St. Vrain Risk Map Projects and a \$3.4 million grant to acquire LiDAR for a portion of southwest and eastern Colorado. The FEMA grants have been obligated and currently working on finalizing the State task orders to begin work.

FY15 Activities: The CWCB was awarded several FEMA grants this past year to fund Risk Map activities including: continuation of the Cache La Poudre Watershed Risk Map Project, develop approximate floodplain delineations in the Middle South Platte Watershed located in northeast Colorado, obtain IFSAR topographic data for over twenty un-modernized counties, continuation of Phase II of the flood forecasting tool development, and to begin Phase I of the Upper Gunnison Risk Map Project. The final scopes of work have been approved and awaiting final task orders to begin work.

FY14 Activities: The erosion zone study for the Salt Creek Wash near the Town of Collbran in Mesa County has been completed and approved by FEMA. This report will be made available on the Risk Map website. Survey work has been put on hold for the Upper White (Rio Blanco County) Risk Map study due to access issues and weather. A First Order Approximate (FOA) or countywide approximate mapping, for El Paso County will begin in the Spring 2016. Other non-mapping projects funded by FEMA this year included an inventory of the ongoing studies and other data in the post flood areas, developing a technical evaluation of flood forecasting methods using Risk Map products, and developing a model management system to store all available hydrologic and hydraulic models in the post-flood areas. All of these projects have been completed and approved by FEMA.

FY13 Activities: The El Paso County as a partial Countywide DFIRM will be published in the Federal Register in the next couple of months and shortly after the appeal period will begin. Purgatoire Watershed and Pueblo County mapping projects are currently in review and are nearing the Preliminary phase.

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

FY11 Activities: Hydrology tasks for St. Vrain and Clear Creek watersheds have been completed and approved. The scope of work for the St. Vrain watershed was revised to include areas that were impacted by the flood. Work on Sunshine Canyon in now complete. Clear Creek Risk Map is in progress and the hydraulic analysis review has been completed by FEMA.

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

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

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

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

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

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

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

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

COLORADO HAZARD MAPPING UPDATE— The CWCB staff and their consultant team from AECOM meet quarterly with local and county officials within the project boundaries to give updates on the status of the program, discuss concerns, and ensure collaboration and transparency. Past quarterly meeting were held in February 2016, May 2016, and September 2016. The next Hazard Mapping quarterly meeting will take place in February 2017.

A Flood Risk Review meeting for the St. Vrain Watershed was held on October 21st, 2016 at Boulder County Transportation. This meeting allowed for community officials an opportunity to review and provide early input on draft versions of the floodplains prior to FEMA review. Coordination and data sharing among local communities and the CWCB will continue as other local efforts are underway.

There are two scheduled South Platte River kick-off meetings to be held on November 10th, 2016, one in Greeley, CO and one taking place in Sterling, CO. To date, Part 2 of Phase I of the Colorado Hazard Mapping Program is to prepare updated hazard information for the streams where there are currently ongoing flood recovery construction projects in the St. Vrain and Big Thompson HUC-8 watersheds and will take place in 2016-2017.

Hazard Mapping Field Reconnaissance & Survey, Topographic Data Development, and Hydrology tasks are complete, while Hydraulic Analysis is underway. Floodplain mapping for Phase I streams is anticipated to be complete this fall. All project information can be found at http://coloradohazardmapping.com/.

(Corey Elliott)

FLUVIAL HAZARD MAPPING— The CWCB staff has helped identify ways to make the state more resilient to future events, including evaluating erosion hazard potential. The erosion hazard mapping project was started and two memos have been completed; a technical process for mapping and regulatory recommendations. Both memos are posted on the Colorado Hazard Mapping website. Pilot mapping projects are set to begin in early 2017. (*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, which expired in January 2014, nearly two years ago. 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 13 out of 250 total National Flood Insurance Program participating communities that have not yet provided documentation of adopting the Rules. In accordance with the procedure outlined in Rule 16, staff is working on drafting notices of non-compliance to those remaining communities. (*Stephanie DiBetitto*)

COMMUNITY RATING SYSTEM UPDATE— The CWCB is looking to increase participation of Colorado communities in the National Flood Insurance Program's (NFIP) Community Rating System (CRS) as one of its resiliency goals for 2016. CRS is a voluntary program that rewards communities that are implementing proactive floodplain management programs that exceed the NFIP minimum requirements. CRS also provides incentives for communities to further improve their programs. Currently, only 46 Colorado communities out of the 243 communities participating in the Regular Phase of the NFIP are also participating in CRS. To reach more communities and to provide them resources about the CRS, CWCB tasked AECOM with developing a Colorado specific CRS website. The CRS website is a "one-stop shop" for Colorado communities to access information and resources about the CRS -

geared towards two user groups: New Users and Participating Communities. New Users are able to quickly learn about CRS; use tools to determine if CRS might be a good fit for their community; and consider the next steps towards participation. Participating Communities have access to Colorado specific resources for CRS activities. The website can be found at:

www.coloradohazardmapping.com/crs

(Stephanie DiBetitto)

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

The greatest challenge for the program now is the timeline. Project implementation has been delayed for a variety of reasons including project prioritization at watershed coalition level, project eligibility, identification of local sponsors, identification of match funding sources, environmental clearances, local permitting processes, and design. Achieving resiliency in stream restoration is not easily achieved on tight timelines and small design budgets. The EWP program is hampered by both. (*Chris Sturm*)

Fact Sheet: Local Cost Share Requirements

A <u>fact sheet</u> reminding sponsors of cost share requirements was recently made available with other program information at <u>www.coloradoewp.com</u>. Project sponsors were reminded of the requirements for submitting invoices as part of CWCB's agreement with the Natural Resources Conservation Service for all reimbursements. Local cost share must be identified and committed prior to the project beginning. However, costs must be incurred after the project's Financial Assistance Agreement is signed by the NRCS. Records should be requested and retained to document costs incurred for in-kind match contribution.

Two new documents were recently made available on the Colorado EWP Program website on the <u>Meeting Resources</u> page. These materials are intended to help with communications and outreach to landowners.

1. <u>River Restoration Design in EWP Projects</u> - This handout provides information on general river restoration principles and includes a glossary of common restoration features and treatments likely to be incorporated in EWP projects.

2. <u>Landowner Participation Handout</u> - This handout is an updated version replacing the previous one. It provides additional information to landowners on what to expect during each of phase of EWP project design and implementation.

<u>Upcoming Projects</u> - all projects overviews may be accessed at our website.

Fourmile Sunset Pond Restoration - Fourmile Creek Watershed: Fourmile Creek County: Boulder Project Sponsor: Four Mile Fire Protection District

Flooding in 2013 caused erosion and deposition, relocating the stream and subsequently cutting off the diversion used to fill the Fire Protection District's storage pond in this remote community surrounded by forest. The project proposes to remove and rework unstable sediment as remove flood debris that remains in the channel. The project will also provide bioengineering and rock toe protection to stabilize streambanks, and will repair the diversion into the water storage pond.

Fish Creek Restoration - Lower Fish Creek Watershed: Estes Valley County: Larimer Project Sponsor: Estes Valley Watershed Coalition

Streambank erosion and sedimentation from the flood of 2013 are still impacting residences, businesses, and culverts along this reach of Fish Creek. The project proposes to establish a vegetated floodplain, as well as provide bioengineering to stabilize streambanks. Vegetation 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. *(Jeff Conboy)*





FLOOD THREAT BULLETIN 2016 FINAL REPORT ISSUED-

Another successful year of flood forecasting has ended. The Flood Threat Bulletin (FTB) is a program that runs annually from May1st through September 30th in which the CWCB, through a meteorological consultant issues daily flood forecasts throughout the state for public use. A number of metrics portray the success of the program in 2016:

- 100% of the forecasts were delivered on time
- 84% of the forecasts resulted in a "hit", meaning an accurate forecast
- Social media associated with the service increased with the number of followers increasing from 815 in May to 901 at the end of September (for context, the number of followers was 148 in May 2015)
- Site visits to the website increased by 30% over the same time period in 2015. In addition, the average session duration for visitors increased by 10% over the same period

The following graphic portrays the number of flood threats issued in various areas of the state throughout the 2016 forecast period. It indicates the east central plains as being the most active area

of the state, followed by the remainder of the eastern plains as well as the southwest mountains. CWCB staff is looking forward to another successful season in 2017. (*Kevin Houck*)



Total flood threats issued during 2016

COLORADO RESILIENCY FRAMEWORK -- COLORADO RESILIENCY WORKING GROUP— Various State of Colorado agencies to include the Colorado Geological Survey, and the CWCB and partners will be meeting first of the year to discuss efforts with the Colorado Hazard Mapping Continuation subcommittee. Corey Elliott, has taken over responsibility as the Hazard Mapping Coordinator, and will continue to provide stakeholder collaboration and managing product deliverables for the ongoing effort to collect high resolution topographic data or LiDAR. In November 2016, the CWCB will be building upon the on-going partnership with the Governor's Office for Information Technology in data sharing and coordination along with planning for upcoming LiDAR acquisitions in identified priority hazard area regions. The CWCB will continue to collaborate with the Colorado Resiliency and Recovery Office to implement the actions identified in the Colorado Resiliency Framework to build communities that are more resilient to natural disasters through the CHAMP and RiskMAP programs. The CWCB staff will attend the next All-hands Colorado Resiliency Working Group meeting will be held on November 15th, 2016 at the CSU Denver Center in Denver, CO. (*Corey Elliott*) WEATHER MODIFICATION PROGRAM UPDATE —For the upcoming winter, the Lower Colorado River Basin water users have pledged \$255,500 towards six Colorado wintertime cloud seeding programs. The agreements are nearly ready for Director Eklund's signature and are under review by the Nevada legal department. Through a mix of Severance Tax, WSRF program, and CWCB Weather Modification appropriations, the CWCB is spending \$293,000 towards WY 2017 activities. The Lower Basin will put \$145,500 towards operational programs (extending times of operations) and partner on remote operated seeders at Winter Park, near Mancos, and at Telluride. They will also share in the purchase of Idaho Power Company remote seeder, operations of a weather station at Crested Butte, and the leaseto-own radiometer that will be sited at Norwood.

Other CWCB plans are to upgrade the Colorado Avalanche Information Center weather and snow modeling operational products by computer upgrades to increase the model grid spacing from 3KM to 1KM. Also an ongoing activity is negotiations and coordination of an effort to create a multi-state agreement where all of the Colorado Seven Basin States sign on to one programmatic agreement. There are pros and cons to this approach and we are working through them over the next water year. That new Colorado agreement should be in place by fall 2017, but as drafted by the Lower Basin, the agreement budgets \$500,000 per state per year for the next ten years with a total of \$15M pledged by the Lower Basin. This new agreement will be an excellent opportunity for leveraging and match for the CWCB to continue to expand, modernize, and optimize Colorado's wintertime cloud seeding programs. (*Joe Busto*)

WATER FORECASTING PARTNERSHIPS PROGRAM UPDATE— The Rio Grande Forecasting project was historic and has led to the creation of a new CWCB program to work on the data and modeling needs for volumetric water supply forecasting. This work was presented to the Western States Water Council in October in Nevada, and a letter of support is attached to the Directors report. Efforts are ongoing in the Rio Grande, and we will branch out into the Gunnison and Arkansas River basins with additional funding. Plans for winter 2016-2017 with the existing \$300,000 appropriation include a NASA Aerial Snow Observatory flight snowpack flight in the Rio Grande and four months mobile radar in the Rio Grande. In addition, the National Center for Atmospheric Research (NCAR) continues providing experimental forecasts with the new national water model, and federal permitting and installation of four new SNOTEL-lites will be implemented in the Conejos River Basin.

Requested for WY 2018 is \$800,000 through the CWCB construction fund. If approved, the planned activities are: add all DWR gauges into national water model that currently only has USGS gauges, work with NCAR to provide experimental water forecasts in both the Arkansas and Rio Grande basins, experiment with the NWS Pueblo radar data as inputs into the national water model for the Arkansas River Basin, partner with Lawrence Berkeley National Lab to map snowpack in the Taylor, East, Slate, and Ohio Creek river basins of the Gunnison watershed. We also hope to partner on a permanent or mobile radar purchase, and develop a database for the Center for Snow and Avalanche studies to have dust on snow data more model ready and friendly for water users and water supply forecasts. (*Joe Busto*)

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

Outcomes of Requests for Water Rights Administration

STREAM NAME	CASE NUMBER	DATE OF FORMAL WRITTEN CALL	Outcome
Dolores River	7-75W1346	October 4, 2016	Curtailed: Ground Hog Reservoir Inlet Ditch (until Nov. 1), Sebastian Tam, Twin Spruce, Hammond & Clark, and Burch & Longwill - yielding ~8 cfs; senior swing right of McPhee Reservoir diverted
Colorado River	5-80CW0447	October 3, 2016	Curtailed: Snowmaking Administrative Exchanges - Granby Ranch, Byers Peak, and Winter Park - yielding ~100 ac-ft and Middle Park Water Conservancy District yielding ~5 to 10 ac-ft
Slate River	4-80CW0092	September 16, 2016	Augmentation Releases: Meridian Lake Reservoir (a/k/a Long Lake, under UGRWCD augmentation plans), Glacier Lily Ponds, and Saddle Ridge Pond - yielding ~22 ac-ft
Eagle River	5-77W3811	September 8, 2016	Augmentation release from Pando Pond - yielding ~1.5 ac-ft
Crystal River	5-77W2720	August 31, 2016	Curtailed: Ela, Prospect, and Rabino Pond Exchange; Operational Changes: Bowles & Holland, East Mesa, Rockford, and Carbondale - yielding ~8 cfs; and Augmentation Releases: Durian Pond, Ogilby Pond, and Chair Mountain Pond - yielding ~0.3 ac-ft
Elk River	6-77W1279 & 6-77W1331	August 17, 2016	Curtailed: Undecreed pumps and reduced diversions to decreed amounts: Elk Valley and Felix Borgy #1 - yielding ~22 cfs

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

NEW COLORADO RIVER STREAM GAGE— The United States Geological Survey Colorado River at Catamount Bridge gage (USGS ID 09060799) is now operational. In a cooperative effort, staff, on behalf of the Board, funded installation of the gage, and the Bureau of Land Management and Upper Colorado River Wild and Scenic Stakeholder Group funded temperature sensors and will fund operation and maintenance. Gage-height, and water and air temperature data are streaming real-time. Because the stage-discharge relation is in the process of being developed, streamflow measurements are not yet available on-line. http://waterdata.usgs.gov/co/nwis/uv?site_no=09060799 (*Brian Epstein*)

~AGENCY UPDATES~

ONLINE DATA VIEWERS— CWCB has created an online Data Viewer in collaboration with DWR. This interactive map allows the public to view an interactive map of CWCB programs and priorities, including: locations of Construction Fund loan projects, WSRF grant recipient sites, instream flow reaches, location and cost of past flood events, and communities participating in water conservation efforts. Datasets compiled as part of the Colorado Decision Support System (CDSS) are also available on this map. The Data Viewer works in any browser and is mobile friendly. https://www.coloradodnr.info/h5v/Index.html?viewer=cwcbviewer

DWR has also developed a suite of interactive maps which allow users to search for water rights, well permits, water supply information, and more. <u>http://water.state.co.us/DATAMAPS/GISANDMAPS/MAPVIEWER/Pages/FAQ.aspx</u> (*Carolyn Fritz*)

NEW CWCB ADMIN SECTION STAFF— The CWCB welcomes Andrew Rickert to the Administration Section. Andrew started on October 11th and will work at the front desk providing assistance to the CWCB and the DNR Executive Director's Office. Andrew brings to the position exceptional experience and an education in environmental studies. Andrew grew up in Colorado, has a great interest in the outdoors, and has a strong belief in our mission of preserving Colorado's natural resources. (*Tina Heltzel*)

WATERSHED AND FLOOD PROTECTION SECTION WELCOMES NEW MEMBER— The Flood Section welcomes Corey Elliott as its newest member. Corey joined the team on October 3rd, and is responsible for management of the Colorado Hazard Mapping Program, which operates to fulfill the duties assigned to the CWCB as a result of Senate Bill 15-245. The position is a term-limited position that will expire at the completion of the program, which has an end date of June 30, 2018 and is funded through a fiscal note provided with the legislation.

As part of the program, Corey is responsible for managing the remapping of all floodplains in Northern Colorado affected by the 2013 flood, including the South Platte River and many of its tributaries. In addition, all counties that do not currently have digital floodplains will be provided one, a process to analyze erosion hazard zones will be developed and tested, and debris flow zones will continue to be developed (by the Colorado Geological Survey).

Corey comes from the Division of Homeland Security and Emergency Management and also has past employment history with FEMA. He has extensive experience in responding to the 2013 flood and will fit will within his new role. (*Kevin Houck*)

~GENERAL ATTACHMENTS~

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

~LOAN PROGRAM ATTACHMENTS~

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

Director's Report Attachment - November 16-17, 2016 CWCB Meeting Stream and Lake Protection Section De Minimis Cases

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

Case No.	Applicant	Stream/ Segment ID	ISF Amount	Percent Injury	Cumulative % Injury	Count
16CW3024	Weibel Land, LLC	Elk River 6-77W1331	65 (1/1 - 12/31)	0.08570 0.08570	0.12803 0.11008	5
16CW3110	Congregation Emanuel	Chicago Creek 1-86CW179	3.5 (1/1 - 12/31)	0.03950 0.03950	0.69950 0.69950	2
16CW3110	Congregation Emanuel	Chicago Creek 1-86CW181	1.5 (1/1 - 12/31)	0.09230 0.09230	0.09230 0.09230	1
16CW3110	Congregation Emanuel	Chicago Creek 1-86CW180	2 (1/1 - 12/31)	0.06920 0.06920	0.06920 0.06920	1

November 16-17, 2016 Board Meeting Instream Flow and Natural Lake Level Program Summary of Resolved Opposition Cases

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

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

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

(1) Case No. 98CW0173 (Water Division 2) - Application of Board of County Commissioners of Lake County, Colorado

The Board ratified this Statement of Opposition at its March 1999 meeting. The Board's main objective in filing the Statement of Opposition in this case was to ensure that the Applicant's proposed County wide augmentation plan does not injure the Board's instream flow water rights on Big Union Creek, Busk Creek, East Fork Arkansas River, Lake Creek and Lake Fork by not replacing out-of-priority depletions in the proper time, place or amount. Staff, in cooperation with the Attorney General's Office, has negotiated a settlement to ensure that the CWCB's instream flow water rights will not be injured.

CWCB		Amount	Approp.		
Case Number	Stream/Lake	(cfs)	Date	Watershed	County
75W4271	Lake Creek	15	05/01/1975	Arkansas Headwaters	Lake
76W4442	Big Union Creek	8	01/14/1976	Arkansas Headwaters	Lake
77W4646	East Fork Arkansas River	15	01/19/1977	Arkansas Headwaters	Lake
77W4654	Lake Fork	15	01/19/1977	Arkansas Headwaters	Lake
77W4655	Lake Fork	20	01/19/1977	Arkansas Headwaters	Lake
79CW0124	Busk Creek	3	03/14/1979	Arkansas Headwaters	Lake

The CWCB holds the following ISF water rights that could have been 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 Colorado Water Conservation Board's instream flow water rights, including those listed above, may be injured if Applicant fails to replace depletions in time, place and amount. If the Colorado Water Conservation Board places a call on a decreed instream flow reach that would otherwise result in the curtailment of a diversion of a District contractee, Applicant will either curtail the diversion pursuant to its contract with such contractee and by notice to the Division Engineer's Office if the diversion

has no lagged depletions, or augment the out-of-priority depletions with augmentation water released from storage pursuant to the terms and conditions of the proposed decree attached hereto to the extent necessary to prevent injury to the instream flow water right.

- The concept of contract exchanges which would not be administered by the state and division engineers was removed from the proposed decree.
- The Division 5 COA Sources are available to Lake County in the amount of 40 acre feet per year pursuant to the AIGA identified in paragraph 2.3. above and pursuant to the terms of the AIGA. Lake County and the CWCB agree, and the Court finds, that the transbasin water diverted from Water Division 5 under the Division 5 COA Sources would occur in the absence of the AIGA. Aurora needs and would have diverted and used the 40 acre-feet of transbasin water. Therefore, Aurora's trade to Lake County of 40 acre-feet of transbasin water for use in this Plan for Augmentation, in exchange for 40 acre-feet of in-basin historical consumptive use water pursuant to the AIGA, does not result in an expansion of use of the Division 5 COA Sources diverted from Water Division 5. Applicant's use of the City of Aurora's water rights diverted from Colorado Water Division No. 5 or any other area of the Colorado River Basin within Colorado shall require that such rights must be decreed for or changed to the uses to be made by the Applicant by appropriate Water Court decree.
- Before Applicant approves the inclusion of any structure in its Plan for Augmentation that is located within or upstream of a senior decreed instream flow right, Applicant will follow procedures outlined in the decree including: an analysis of available flows over and above the decreed instream flow water right; potential for exchanges through such reach; and any claims under CRS 37-92-102(3)(b). The procedures include opportunity for CWCB to review the analyses and include a dispute resolution process.

(2) Case No. 13CW3000 (Water Division 2) - Application of New Elk Coal Company The Board ratified this Statement of Opposition at its July 2013 meeting. The Board's main objective in filing the Statement of Opposition in this case was to ensure that the Applicant's proposed plan for augmentation and exchange does not injure the Board's instream flow water rights on the Purgatoire River and the South Fork Purgatoire River by not replacing outof-priority depletions in the proper time, place and amount. Staff, in cooperation with the Attorney General's Office, has negotiated a settlement to ensure that the CWCB's instream flow water rights will not be injured.

CWCB Case Number	Stream/Lake	Amount (cfs)	Approp. Date	Watershed	County
09CW0088	South Fork Purgatoire River	3 - 18 (varies)	01/27/2009	Purgatoire	Las Animas
09CW0090	Purgatoire River	7 - 21 (varies)	01/27/2009	Purgatoire	Las Animas

The CWCB holds the following ISF water rights that could have been 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 CWCB's ISF appropriations decreed in Case Nos. 09CW88 and 09CW90, Water Division 2, are subject to the uses of water being made by the Applicant on the date of the CWCB's appropriations, pursuant to Section 37-92-102(3)(b), C.R.S. (2014). Such uses consist of the production of ground water from New Elk Coal Dewatering System, and the resulting modeled depletions to stream segments from such production of ground water and the past pumping up to the date of the CWCB's ISF appropriations. Based upon the stipulation and agreement between Applicant and CWCB dated September 6, 2016, certain terms included in the decree will govern the administration of applicant's plan for augmentation as it relates to the CWCB ISF water rights claimed in Case Nos. 09CW88 and 09CW90.
- So long as the projected depletions to the CWCB's ISF reaches decreed in Case Nos. 09CW88 and 09CW90 are no greater than the maximum annual depletion (2.3 acre-feet per year, and 3.482 acre-feet per year) to the respective ISF reach, Applicant shall not be required to make augmentation deliveries to replace the projected out-of-priority depletions to the CWCB's ISF reaches. Applicant shall provide notice to the CWCB if and when the projected depletions will exceed such maximum annual depletion amount.
- If the projected annual depletions for either stream reaches decreed in Case Nos. 09CW88 and 09CW90 are greater than the amounts described in the decree, Applicant shall either: (1) replace such additional out-of-priority depletions in time, location, and amount; or (2) at least five years prior to any such exceedance as indicated by required projection modeling, apply to the CWCB to request approval of an injury with mitigation ("IWM") plan, pursuant to Rule 8.i(3) of the CWCB Rules Concerning the Colorado Instream Flow and Natural Lake Level Program, 2 CCR 408-2, or the relevant "injury with mitigation" rule within such promulgated rules at such time, if any. CWCB Staff shall confer and cooperate with Applicant on a mutually-agreeable IWM project, and shall not unreasonably withhold a recommendation to the CWCB Board of an IWM project proposed by Applicant.

(3) Case No. 13CW3062 (Water Division 2) - Application of Huerfano County Water Conservancy District

The Board ratified this Statement of Opposition at its March 2014 meeting. The Board's main objective in filing the Statement of Opposition in this case was to ensure that the Applicant's proposed change of water rights does not injure the Board's instream flow water rights on Central Branch, Cucharas Creek, Huerfano River, South Apache Creek, South Fork Huerfano River and Strawberry Creek by expansion of use or altering the time, place and amount of historical return flows. In addition, the Board sought to ensure that Applicant's proposed plan for augmentation and exchange does not injure the Board's instream flow water rights by not replacing out-of-priority depletions in the proper time, place and amount. Further, the Board sought to ensure that Applicant's proposed plan for alternate diversion to wells does not injure the Board's water rights, if the timing of depletions does not match the timing of the surface diversions. 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.

CWCB		Amount	Approp.		
Case Number	Stream/Lake	(cfs)	Date	Watershed	County
10CW0082	Cucharas Creek	1.2 - 4.9	12/31/2010	Huerfano	Huerfano
10CW0089	Huerfano River	2.75 - 5.75	12/31/2010	Huerfano	Huerfano
10CW0090	Huerfano River	2.7 - 4.1	12/31/2010	Huerfano	Huerfano
76W4436	South Apache Creek	1	01/14/1976	Huerfano	Huerfano
79CW0125	South Fork Huerfano River	1	03/14/1979	Huerfano	Huerfano
79CW0128	Strawberry Creek	1	03/14/1979	Huerfano	Huerfano
79CW0129	South Fork Huerfano River	3	03/14/1979	Huerfano	Huerfano
79CW0130	Central Branch	0.5	03/14/1979	Huerfano	Huerfano

The CWCB holds the following ISF water rights that could have been 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 changed historical depletions may be fully consumed, and used, reused, and successively used to extinction by the District for these beneficial uses. Provided, however, except as specifically provided for by this Decree, no other specific plan for the reuse or successive use to extinction of the Subject Water Right is authorized by this decree. The reuse or successive use to extinction of the Subject Water Right, except as specifically provided for by this Decree, may not occur unless and until a detailed plan for reuse or successive us is either approved by this Court or included in this augmentation plan along with a new Participating Diversion consistent with the terms of the decree.
- The CWCB may adjudicate additional minimum instream flow water rights within the District's Service Area in the future that will be junior to the change of water right and exchanges within this Decree. If the CWCB places a call on a decreed minimum instream flow reach that would otherwise result in the curtailment of a Participating Diversion, the District will either curtail the diversion, if the diversion does not have lagged depletions, or augment the out-of-priority depletions in time, place, and amount to the extent necessary to prevent injury to the minimum instream flow rights by whatever means available at the time for the call. Those means of augmentation may include, but are not limited to, providing storage releases or other replacement water at or above the CWCB call from any source available to the District at the time of the call so long as the minimum instream flow right is protected. Pursuant to § 37-92-102(3)(b), C.R.S., and upon compliance with paragraph 15.3 of this Decree, a CWCB call, as referenced herein, shall only affect the District's or Participating Diversion's out-of-priority diversions that were not being used or were not in existence prior to the date of appropriation of the relevant CWCB minimum instream flow right being called.

- Before Applicant approves the inclusion of any structure for which stream depletions cannot be instantaneously curtailed in its Plan for Augmentation that is located within or upstream of a senior decreed instream flow right, Applicant will follow procedures outlined in the decree including: an analysis of available flows over and above the decreed instream flow water right; potential for exchanges through such reach; and any claims under CRS 37-92-102(3)(b). The procedures include opportunity for CWCB to review the analyses and include a dispute resolution process.
- Additionally, for applications for potential Participating Diversions concerning depletions on streams that are not considered normally live under decree Paragraph 10.2.1 that occur within the minimum instream flow rights decreed in Case Nos. 79CW125, 79CW128, 79CW129, 79CW130, and W-4436, notwithstanding any other provisions of the Decree, the inclusion of the Participating Diversion shall consider the location, timing, and amount of accrual of lagged depletions. The CWCB may provide comments, including comments regarding live-stream assumptions and both depletions and replacements in time, place, and amount that may impact these minimum instream flow rights. The CWCB may and protest the inclusion of such Participating Diversions.
- In the event the location of the depletion by a Participating Diversion is located upstream of the return flows from such Participating Diversion, the District shall make replacements of the amount of diversion or depletion, as appropriate, at a point at or upstream of such depletion to the extent necessary to prevent injury.

(4) Case No. 15CW3025 (Water Division 3) - Application of La Garita LLC

The Board ratified this Statement of Opposition at its January 2016 meeting. The Board's main objective in filing the Statement of Opposition in this case was to ensure that the Applicant's proposed change of water rights does not injure the Board's instream flow rights on Bellows Creek and Williams Creek by expanding use or altering the time, place and amount of historical return flows. The Board additionally opposed the Applicant's proposed flow through water right because it could injure the CWCB's instream flow water right by fully depleting a segment of the intervening instream flow water right. Some of the water rights are claimed with senior appropriation dates. The instream flow water rights are subject to these water rights under C.R.S. 37-92-102(3)(b) so long as the new water rights are sufficiently documented and verified. Staff, in cooperation with the Attorney General's Office, has negotiated a settlement to ensure that the CWCB's instream flow water rights will not be injured.

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

CWCB Case Number	Stream/Lake	Amount (cfs)	Approp. Date	Watershed	County
78W1819	Williams Creek	14	03/16/1978	Piedra	Archuleta, Hinsdale
84CW0142	Bellows Creek	3 - 6	08/16/1982	Rio Grande headwaters	Mineral

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

- Pursuant to section 37-92-102(3)(b), C.R.S., CWCB and Applicant recognize that the current uses of the Augmented Structures, as defined and limited by Paragraphs 8, 11 and 16, were uses of water in existence at the time of the CWCB's appropriation of an instream flow right on Bellows Creek, decreed in Case No. 84CW142 (Water Div. 3), with an appropriation date of August 16, 1982. The subordination of this instream flow water right to the Applicant's use of the Augmented Structures pursuant to the plan for augmentation decreed herein shall not interfere with the administration of the Augmented Structures as against other water rights, and shall not result in general subordination of the CWCB's Bellows Creek instream flow right to any other water rights junior to that instream flow water right. Any expanded use of the Augmented Structures, such as new beneficial uses, increased fill rates, increased flow-through rates, or surface areas beyond those described in decree Paragraphs 8, 11, and 16, shall be administered as junior to the CWCB's Bellows Creek instream flow water right. While the CWCB's instream flow water right on Bellows Creek is subject to the Applicant's existing uses pursuant to C.R.S. § 37- 92-1 02(3)(b), the water rights decreed herein will be administered subject to the prior appropriation system in relation to all other water rights.
- Deliveries of WCSPD water to the confluence of Bellows Creek and the Rio Grande will be assessed a storage and transit loss determined by the Division Engineer. Historically, a storage and transit loss of 5% has been assessed.

(5) Case No. 13CW3072 (Water Division 4) - Application of City of Ouray

The Board ratified this Statement of Opposition at its March 2014 meeting. The Board's main objective in filing the Statement of Opposition in this case was to ensure that the Applicant's proposed plan for augmentation and exchange does not injure the Board's instream flow water rights on East Fork Dallas Creek, the Uncompany River, and Dallas Creek by not replacing out-of-priority depletions in the proper time, place, or amount. Staff, in cooperation with the Attorney General's Office, has negotiated a settlement to ensure that the CWCB's instream flow water rights will not be injured.

CWCB Case Number	Stream/Lake	Amount (cfs)	Approp. Date	Watershed	County		
84CW0424	East Fork Dallas Creek	5 - 10	05/04/1984	Uncompahgre	Ouray		
98CW0222	Uncompahgre River	20 - 65	07/13/1998	Uncompahgre	Ouray		
98CW0234	Dallas Creek	9 - 20	07/13/1998	Uncompahgre	Ouray		

The CWCB holds the following ISF water rights that could have been 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:

- After discussion, Applicant included a complete description for each appropriative right of exchange including the source water for each exchange. In this case, Applicant claimed appropriative rights of exchanges from the future return flow locations up to the diversion points to protect its intended practice against any future claims for junior water rights within those reaches. A source of exchange water includes free river transbasin diversions through the Red Mountain Ditch.
- The primary replacement water source of water for use in the Plan for Augmentation will be the Red Mountain Ditch First Enlargement if a conditional water right is approved by the Water Court, Water Division 7, case number 2013CW3040, or a substitute water supply plan is approved. In addition, water diverted by the Red Mountain Ditch under free river conditions, aquifer recharge from uses of the Red Mountain Ditch, and return flow credits from uses of the Red Mountain Ditch to replace out of priority depletions that may occur due to the use of structures to be augmented in this claim.
- Applicant may add augmentation and replacement sources to this Plan for Augmentation and Exchange in accordance with this Decree and providing public notice to objectors and the Division Engineer who will have sixty (60) days to respond to such Notice. A detailed procedure is included in the decree.
- Use of augmentation sources not authorized in this Decree that are located downstream of the City of Ouray and require future adjudicated or administrative exchanges will be operated in a manner that does not injure vested calling water rights located within the intervening reach between the City of Ouray and the replacement source located downstream. Any claim for such use will be included in a written Notice to opposers and the Division Engineer as part of the notice procedure decreed above to add augmentation sources.
- Because free river diversions to storage could cause injury by extending the period the reservoir may divert to a different time of year, accounting must show that the decreed water rights for the water user have been filled in an amount equal to the amount diverted during free river conditions ("paper filled"), in order of seniors first. Specifically, diversions into reservoirs with existing water rights during free river conditions must be made in accordance with accounting approved by the Division Engineers prior to the diversion into storage. See the Division of Water Resources' Reservoir Administration Guidelines on the DWR website.

(6) Case No. 14CW3086 (Water Division 4) - Application of Eric Trommer

The Board ratified this Statement of Opposition at its March 2015 meeting. The Board's main objective in filing the Statement of Opposition in this case was to ensure that the Applicant's proposed change of water rights does not injure the Board's instream flow water right on the San Miguel River by expansion of use or altering the time, place and amount of historical return flows. In addition, the Board's instream flow water right by not replacing out-of-priority depletions in the proper time, place and amount. Staff, in cooperation with the Attorney General's Office, has negotiated a settlement to ensure that the CWCB's instream

flow water rights will not be injured.

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

CWCB Case Number	Stream/Lake	Amount (cfs)	Approp. Date	Watershed	County
02CW0277	San Miguel River	61 - 93	01/23/2002	San Miguel	Montrose, San Miguel

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

- Applicant clarified the claims in the decree.
- The alternate point of diversion can only be operated at those times when water is both physically and legally available at the original Fayette Placer Ditch point of diversion. As such, a measurement device (i.e., Parshall flume or totalizing flowmeter) must be maintained on the Fayette Placer Ditch. At any one time, diversion of the changed water right may only be made at the Shawnee Pond Well, or at the Fayette Placer Ditch and shall not be split between the two.
- (7) Case No. 15CW3042 (Water Division 4) Application of Bildor Real Estate, LTD

The Board ratified this Statement of Opposition at its September 2015 meeting. The Board's main objective in filing the Statement of Opposition in this case was to ensure that the Applicant's proposed flow through water right on Lake Fork Creek does not injure the CWCB's instream flow water by fully depleting a segment of the intervening instream flow. Applicant's claim for diversions for flow-through rights may not be valid given the recent ruling in St. Jude's Co. v. Roaring Fork Club, LLC, 2015 CO 51. In addition, the Board sought to ensure that the proposed plan for augmentation does not injure the Board's instream flow rights on Lake Fork Creek by not replacing out-of-priority depletions in the proper time, place and amount. Staff, in cooperation with the Attorney General's Office, has negotiated a settlement to ensure that the CWCB's instream flow water rights will not be injured. A Decree was entered in this case on October 11, 2016.

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

CWCB Case Number	Stream/Lake	Amount (cfs)	Approp. Date	Watershed	County
80CW0119	Lake Fork	25 - 45	03/17/1980	Upper Gunnison	Gunnison, Hinsdale

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

- Under this decree, a pump and pipeline will be constructed on the west bank of the Lake Fork Gunnison River which will supply two off-channel flow-through ponds to be

constructed on the ranch, which will be filled and continuously refilled by the pump and pipeline. The ponds will be used for recreational, piscatorial and irrigation and fire protection purposes. Water will be pumped by the High Bridge Pump and Pipeline directly from the Lake Fork Gunnison River to House Lake. When House Lake is full, water will then flow through a pipeline to South Pond. When South Pond is full to overflowing, water flows out through a spillway on to the ground surface and is returned to the Lake Fork Gunnison River. The flow path is depicted in Exhibit A which shows the returns accruing to the stream upstream of the diversions.

- The Applicant will ensure that when High Bridge Pump and Pipeline is diverting out of priority to supply water to House Lake and South Pond solely for piscatorial and recreational purposes, the return flow back to the river is no less than the amount diverted by the High Bridge Pump and Pipeline less the amount of pond evaporation augmented under the Lake San Cristobal Water Activity Enterprise's plan for augmentation. Because irrigation is not augmented under this plan, any refilling of the ponds must be done in priority.
- (8) Case No. 14CW3167 (Water Division 5) Application of Town of Gypsum

The Board ratified this Statement of Opposition at its March 2015 meeting. The Board's main objective in filing the Statement of Opposition in this case was to ensure that the Applicant's proposed change of water rights does not injure the Board's instream flow water right on the Eagle River and Gypsum Creek by expansion of use or altering the time, place and amount of historical return flows. In addition, the Board's instream flow rights on Gypsum Creek and the Eagle River by not replacing out-of-priority depletions in the proper time, place and amount. The Applicant's proposed appropriative right of exchange should be defined clearly with a reference to intervening instream flow water rights. Also, the Board sought to ensure that the Attorney General's Office, has negotiated a settlement to ensure that the CWCB's instream flow water rights will not be injured.

CWCB		Amount	Approp.			
Case Number	Stream/Lake	(cfs)	Date	Watershed	County	
80CW0116	Gypsum Creek	6	03/17/1980	Eagle	Eagle	
80CW0124	Eagle River	50 - 130	03/17/1980	Eagle	Eagle	

The CWCB holds the following ISF water right that could have been 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:

- Gypsum's use of the Schliff Ditch HCUs is limited to the amounts described in Columns 2 and 3 of the decree Table 2 and further limited to the amount of water available to Gypsum in priority at the original point of diversion. Gypsum will use the Schliff Ditch HCUs under this decree within the Town of Gypsum's water service area, as the same

may be modified from time to time within the Eagle River Basin. A map of the Town's water service area is attached as decree Exhibit B.

- When the augmented structures described in decree paragraph 27 are not used specifically for the benefit of the Biomass Facility, out-of-priority depletions caused by Gypsum's use of the augmented structures will be accounted for consistent with Gypsum's current accounting practices using estimated depletion rates of 5% for in-building uses and 80% for irrigation uses. These estimated (5% and 80%) depletion rates may be adjusted periodically based on advances in technology or conservation measures implemented by Gypsum, or as otherwise approved by the Division Engineer.
- Eagle River Mainstem Call: CWCB instream flow right for an estimated 21 days in July, 31 days in August, and 30 days in September. To the extent needed, Gypsum will apply its available Eagle River historic consumptive use credits to replace out-of-priority depletions and return flow obligations. Gypsum's available consumptive use credits are summarized in Tables 2 and 3. Any remaining depletions to the Eagle River will be replaced by releases from Eagle Park Reservoir or releases from LEDE reservoir. For any of the Town's uses that involve return flows downstream on the Eagle River from the point(s) of diversion on the Eagle River, the Town must replace the full out-of-priority diversion during an administered CWCB Eagle River ISF call. Releases from LEDE reservoir during times of an Eagle River Mainstem Call shall be shepherded down Gypsum Creek without capture and diversion by intervening water rights and will be subsequently collected and carried through the Ulin Ditch, Norgaard Ditch, or Gypsum Eagle River Pumping Pipeline in order to augment the affected reach of the Eagle River above its confluence with Gypsum Creek via releases to the Red Table Acres Spring Collection System, or EVCE East Ditch.
- Gypsum Creek Call: When there is a senior downstream call on Gypsum Creek and Gypsum is diverting at the structures described in decree paragraphs 27.E. and 27.F., Gypsum will not use the C.M. Stremme Change Rights or Schliff Ditch HCU credits to augment out-of-priority diversions at those structures.
- (9) Case No. 15CW3032 (Water Division 5) Application of Upper Eagle Regional Water Authority

The Board ratified this Statement of Opposition at its July 2015 meeting. The Board's main objective in filing the Statement of Opposition in this case was to ensure that the Applicant's proposed plan for augmentation and exchange does not injure the Board's instream flow water rights on the Eagle River by not replacing out-of-priority depletions in the proper time, place and amount. Adequate terms and conditions are needed to protect CWCB's instream flow water rights from injury due to Applicant's claimed well field. Staff, in cooperation with the Attorney General's Office, has negotiated a settlement to ensure that the CWCB's instream flow water rights will not be injured.

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

CWCB Case Number	Stream/Lake	Amount (cfs)	Approp. Date	Watershed	County
80CW0124	Eagle River	50 - 130	03/17/1980	Eagle	Eagle
80CW0126	Eagle River	45 - 110	03/17/1980	Eagle	Eagle
80CW0134	Eagle River	35 - 85	03/17/1980	Eagle	Eagle

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

- By this Application, the Authority seeks the right to divert water in connection with the Lake Creek Wells described in paragraph 5 above on a year round basis for use throughout Authority's service area, as that service area may expand from time to time, such expansion to be limited under this decree to an area within three miles of the boundaries of the Authority's service area as it exists at the time of the decree entered herein.
- Applicant eliminated its proposed well field approach that would have used a centroid to compute well depletions and agreed to use Glover to compute individual lagged well depletions in time, place and amount for each well as it is installed.
- The proposed exchanges will only operate when in priority and will not operate when any intervening water right within the exchange reach that is senior to the priority of the exchanges places a call that is recognized and administered by the Division Engineer.
- (10) Case No. 14CW3028 (Water Division 6) Application of M/R White River Ranch LLC

The Board ratified this Statement of Opposition at its January 2015 meeting. The Board's main objective in filing the Statement of Opposition in this case was to ensure that the Applicant's proposed change of water rights does not injure the Board's instream flow water right on Miller Creek, South Fork White River and White River by expansion of use or altering the time, place and amount of historical return flows. In addition, the Board sought to ensure that Applicant's proposed change in places of storage and points of diversion to upstream locations does not injure the CWCB's instream flow water rights. Staff, in cooperation with the Attorney General's Office, has negotiated a settlement to ensure that the CWCB's instream flow water rights will not be injured.

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

CWCB Case Number	Stream/Lake	Amount (cfs)	Approp. Date	Watershed	County
77W3652B	South Fork White River	80	11/15/1977	Upper White	Rio Blanco
77W3652C	White River	200	11/15/1977	Upper White	Rio Blanco
77W3652G	Miller Creek	10	11/15/1977	Upper White	Rio Blanco

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

- CWCB and Applicant agreed to the following in the stipulation: "Resource Engineering, Inc. prepared a contemplated draft analysis of the Stillwater Reservoir, First Enlargement, dated June 19, 2015 ("Report"). M/R and Resource Engineering continue to support the analysis done in the Report, but the CWCB believes certain factors should have also been addressed in the Report because it appears that this water right was not decreed solely for 100% consumptive uses. However, the parties have agreed to disagree given that M/R, for a variety of reasons, is only changing 44.06 acre-feet of the 100 acre-feet that it owns of the Stillwater Reservoir, First Enlargement water right and is relinquishing 55.94 acre-feet."
- When storing the subject portion of the Stillwater Reservoir, First Enlargement at the changed places of storage described in paragraph 6(a) above (of the proposed decree), Applicant may not exercise a call against a water right on Miller Creek or West Miller Creek with an adjudication date senior to September 30, 2014. With regard to the White River, a call by the Applicant for its portion of the Stillwater Reservoir, First Enlargement water right may only be placed on the South Fork of the White River and its tributaries at the originally decreed location, at a maximum rate of 5 cfs and only up to 44.06 acre-feet, less carryover.
- If one of the Downstream Miller Creek Water Rights is not satisfied and places a valid call on Miller Creek then Applicant shall not store any water in the two on-channel ponds — the Upper and Lower West Fork Ponds — and shall not divert or store any water from Miller Creek in the two off-channel ponds — the Guest House Pond and Main House Pond.
- The Applicant is limited to one annual filling of the Upper West Fork Pond, Lower West Fork Pond, Guest House Pond, and the Main House Pond with the subject portion of the Stillwater Reservoir, First Enlargement. Applicant agrees that all out-of-priority inflow shall be promptly bypassed or released from the ponds without consumption.
- The Court hereby cancels the remaining 55.94 acre-feet of the subject 100 acre-feet of the conditional Stillwater Reservoir, First Enlargement that the Applicant agreed to relinquish.
- (11) Case No. 15CW3034 (Water Division 6) Application of Arlene E. Fritzlan Revocable Living Trust

The Board ratified this Statement of Opposition at its November 2015 meeting. The Board's main objective in filing the Statement of Opposition in this case was to ensure that the Applicant's proposed flow through water right on Marvine Creek and North Fork White River does not injure the CWCB's instream flow water rights because it is fully depletive to a segment of the intervening instream flow water right. Staff, in cooperation with the Attorney General's Office, has negotiated a settlement to ensure that the CWCB's instream flow water

rights will not be injured.

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

CWCB		Amount	Approp.		
Case Number	Stream/Lake	(cfs)	Date	Watershed	County
77W3652A	Marvine Creek	40	11/15/1977	Upper White	Rio Blanco
77W3652H	North Fork White River	120	11/15/1977	Upper White	Rio Blanco
78W3704	North Fork White River	70	01/19/1978	Upper White	Rio Blanco

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

- Applicant withdrew some of its claims that were problematic.
- As shown on the decree Exhibit B, diversions through the Fritzlan Guest Ranch Pond Inlet flow through the surface of the Fritzlan Guest Ranch Pond and return to the North Fork of the White River. When the Division Engineer is enforcing a valid call on the North Fork of the White River or the White River, Applicant shall curtail all diversions through the Fritzlan Guest Ranch Pond Inlet.
- (12) Case No. 15CW3058 (Water Division 6) Application of Upper Yampa Water Conservancy District

The Board ratified this Statement of Opposition at its March 2016 meeting. The Board's main objective in filing the Statement of Opposition in this case was to ensure that the Applicant's plan for augmentation and exchange does not injure the Board's instream flow water rights on the Elk River and Willow Creek by not replacing out-of-priority depletions in the proper time, place, or amount. Staff, in cooperation with the Attorney General's Office, has negotiated a settlement to ensure that the CWCB's instream flow water rights will not be injured.

CWCB Case Number	Stream/Lake	Amount (cfs)	Approp. Date	Watershed	County	
77W1270	Willow Creek	5	09/23/1977	Upper Yampa	Routt	
77W1273	Willow Creek	7	09/23/1977	Upper Yampa	Routt	
77W1279	Elk River	65	09/23/1977	Upper Yampa	Routt	
77W1331	Elk River	65	09/23/1977	Upper Yampa	Routt	

The CWCB holds the following ISF water rights that could have been 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:

- This umbrella augmentation plan was designed to serve the part of the Elk Creek basin that can be served with UYWCD's upstream water. Parties worked together to define the service area and the water available for augmentation.
- Releases from Steamboat Lake may be aggregated to no more than seven days unless otherwise approved by the Division Engineer.
- A detailed procedure is included in the decree for adding new structures to be augmented to the plan. The procedure includes notice to the Division Engineer and for certain applications notice to CWCB. Any CRS 37-92-102(3)(b) claim will be reviewed by CWCB. The decree contains a process for dispute resolution.
- Applicant shall not operate the decreed exchanges from the mainstem supply on Elk Creek at times when flows are less than the CWCB decreed instream flow rate as determined by the Division Engineer with notice to the District.

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. 16CW3046 (Water Division 5) - Application of Kenneth H. Fosha and Randy Sue Fosha

During the July 2016 Water Court Resume Review, CWCB staff identified concerns regarding potential injury to CWCB's instream flow water rights decreed in Case Nos. 80CW0447 on Colorado River. This case was resolved with CWCB by a letter agreement, dated September 23, 2016, by which CWCB agreed not to file a statement of opposition provided Applicant incorporates the following terms and conditions into any draft and final decrees in the case:

- Applicant recognizes that the Colorado Water Conservation Board's existing instream flow water right decreed in Case No. 80CW447 on the Colorado River was decreed prior to the filing of this case, 2016CW3046.
- The diversion at the changed point will be limited to the amount physically and legally available at the original point in terms of flow rate, volumes, and timing of diversions.
- Applicant will not increase the historical irrigated area, but rather will decrease the decreed acreage from 70 acres to no more than 30 acres at the changed place of use.

(2) Case No. 16CW3032 (Water Division 6) - Application of White River Electric Association, Inc.

During the August 2016 Water Court Resume Review, CWCB staff identified concerns regarding potential injury to CWCB's instream flow water rights decreed in Case Nos. 77W3652C on
White River. This case was resolved with CWCB by a letter agreement, dated October 26, 2016, by which CWCB agreed not to file a statement of opposition provided Applicant incorporates the following terms and conditions into any draft and final decrees in the case:

- Applicant recognizes that the Colorado Water Conservation Board's existing instream flow water rights decreed in Case No. W3652C (1977) on the White River was decreed prior to the filing of this Case No. 2016CW3032.
- Applicant does not intend to increase the amount diverted into the ditch nor does it intend to enlarge the ditch or headgate from its current and historic size. Applicant is essentially filing on a junior right to use the pre-existing senior water rights in the ditch for power generation as a 'junior use enlargement' in agreement and cooperation of the ditch company and underlying landowners.
- Applicant intends to only use this water during the irrigation season.
- The Miller Creek Ditch headgate will not be operated any differently than it has historically as a result of this application.

(3) Case No. 16CW3034 (Water Division 7) - Application of Bootjack Ranch, LLC

During the August 2016 Water Court Resume Review, CWCB staff identified concerns regarding potential injury to CWCB's instream flow water rights decreed in Case Nos. 80CW0037 on the East Fork San Juan River and 80CW0040 on the San Juan River. This case was resolved with CWCB by a letter agreement, dated October 28, 2016, by which CWCB agreed not to file a statement of opposition provided Applicant incorporates the following terms and conditions into any draft and final decrees in the case:

- Applicant recognizes that the Colorado Water Conservation Board's existing instream flow water rights decreed in Case Nos. 80CW37 and 80CW41, WD7 on the East Fork of the San Juan River and the San Juan River were decreed prior to the filing of this case, 2016CW3034.
- When the impacted instream flow water right is calling and releases from Applicant's upstream augmentation pond are insufficient to replace out-of-priority diversions, Applicant shall curtail the diversions to be augmented herein including the W.B. Turner Alternate Pumpsite No. 2 Enlargement to the BFR Pond and the WGA Pond, and the W.B. Turner Alternate Pump Site No. 1 Enlargement and the W.B. Turner Alternate Pumpsite No. 2 Enlargement to the Bootjack South Augmentation Pond.
- CWCB may use the existing Division of Water Resources ("DWR") gage on the East Fork of the San Juan River, if operational, to place a call against these water diversions.
- Paragraph D.3.c. and Figure 1 from the water court application will be included in the final proposed decree.



COLORADO Colorado Water Conservation Board

Department of Natural Resources

1313 Sherman Street Denver, CO 80203

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Robert Randall, DNR Executive Director

James Eklund, CWCB Director

то:	Colorado Water Conservation Board Members
FROM:	Kirk Russell, P.E., Finance Section Chief
DATE:	November 16-17, 2016 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:

- 1.45% Agricultural
- 2.05% Low-income Municipal
- 2.30% Middle-income Municipal
- 2.60% High-income Municipal
- 6.00% Commercial
- 2.00% Hydroelectric

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



Borrower November 16-17, 2016 Board Meeting Page 2 of 2



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Robert Randall, DNR Executive Director

James Eklund, CWCB Director

TO:	Colorado Water Conservation Board Members
FROM:	Anna Mauss, P.E., Marketing Finance Section Chief
DATE:	November 16-17, 2016 Board Meeting
DIRECTORS REPORT:	Water Project Loan Program Prequalified Project List and Loan Prospect Summary

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

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



Prequalified Project List

	PROJECT	APPLICATION			PROJECT	LOAN				
BORROWER	NAME	DATE	BASIN	PROJECT DESCRIPTION	COST	AMOUNT				
Previously A	Previously Approved Applications									
Upper Platte & Beaver Canal Company	Upper Platte & Beaver Canal Diversion Structure	Sept 1, 2016	South Platte	The purpose of this project is to replace the existing diversion structure that diverts water for both the Upper Platte & Beaver Canal Company and the Deuel & Snyder Improvement Company.	\$7,412,000	\$6,700,000				
Town of Aguilar	Augmentation Project	July 1, 2016	Arkansas	The Town is proposing construction of a 99 AF augmentation reservoir to replace out-of- priority depletions as a result of the Town's overuse of alluvial wells.	\$2,800,000	\$2,520,000				
Orchard Mesa Irrigation District	Grand Valley Power Plant Rehabilitation Loan reque at Novemb	July 1, 2016 st to be presei er CWCB Meet	Colorado nted ting	The Orchard Mesa Irrigation District and Grand Valley Water Users Association are planning to rebuild the Grand Valley Power Plant .	\$5,200,000	\$4,680,000				
Florida Consolidated Ditch Company	Hess Lateral Improvement Project	July 1, 2015	Southwest	The purpose of this project is to pipe the lateral to improve efficiencies within the ditch system. The company will also receive \$950K in CDOT funds as a part of the Hwy 550 expansion project.	\$2,500,000	\$762,500				
Totals					\$17,912,000	\$14,662,500				

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

-	South Platte River Basin		
	•Borrower •NISP Participants •Colorado Trout Group •St Vrain and Left Hand WCD •Central CO WCD •Parker Water & Sanitation District •Metro Homeowners Association •Subtotal	Project Poter NISP Reservoir Rehabilitation Reservoir Rehabilitation Pipeline Project Water Meter Project Water Meter Project	ntial Loan Amount \$100,000,000 \$300,000 \$1,000,000 \$4,000,000 \$5,000,000 \$300,000 \$110,600,000
	Arkansas River Basin		
	 City of Walsenburg Stonewall Springs, LLC Colorado Springs Flycasting Club Oxford Ditch Town of Manitou Springs City of Woodland Park Security Water & San District Chilcott Ditch Company Subtotal 	Reservoir(s) Rehabilitation Reservoir Construction Reservoir Rehabilitation Siphon Repair Raw Water Pipeline Storage Project Water Supply Project Siphon Replacement	\$6,000,000 \$5,500,000 \$450,000 \$1,800,000 \$3,000,000 \$1,000,000 \$3,000,000 \$600,000 \$21,350,000
	San Miguel/San Juan River Basi	n	
	•Town of Norwood •Town of Bayfield •Subtotal	Dual Water System Ditch Piping	\$1,700,000 \$500,000 \$2,200,000
	Colorado River Basin		
	•Kendall Reservoir •Private Borrower • Subtota l	Reservoir Rehabilitation Reservoir Rehabilitation	\$400,000 \$250,000 \$650,000
	Gunnison River Basin		
	•Gunnison County Electric	Hydroelectric Project	\$1,000,000

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



North Platte Basin	
•No projects at this time	



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Robert Randall, DNR Executive Director

James Eklund, CWCB Director

TO:	Colorado Water Conservation Board Members
FROM:	Jodie Tavares, Loan Program Assistant Kirk Russell, P.E., Finance Section Chief
Board Meeting:	November 16-17, 2016 Board Meeting
Directors Report:	Water Project Loan Program Design & Construction Status Report

The CWCB Loan Program has Substantially Completed twenty-three (23) projects in Calendar Year 2016 as shown in Table 1. There are currently fifty-one (51) projects authorized to receive loan funding totaling \$237 million. There are forty-seven (47) projects currently under contract and in the Design and Construction phase totaling \$159 million. There are an additional nineteen (19) Emergency Loans approved totaling \$23 million shown under a separate report.

The attached spreadsheet summarizes the status of the projects. A detailed description about each project is provided in the digital version of the Director's Report. TABLE 1

	ABEE 1				
	Borrower	Project	County	Loan	Complete
1	Crystal Lakes Water and Sewer	Lower Lone Pine Lake Enlargement	Larimer	\$2,016,460	1/1/2016 (a)
2	Town of Ridgway	Lake Otonowanda Rehabilitation	Ouray	\$606,000	1/1/2016 (b)
3	Lower Poudre Augmentation Co.	Box Elder Ditch Water Rights Purchase	Larimer, Weld	\$454,500	1/1/2016
4	Lower Arkansas Valley WCD	Water Rights Purchase	Bent,Crowley,Otero,Prowers	\$2,560,350	3/1/2016
5	Fort Lyon Canal Company	Replacement of Horse Creek Flume	Otero, Bent, Prowers	\$1,542,296	4/1/2016
6	Fulton Irrigating Ditch Company	Diversion Structure Rehabilitation	Adams	\$1,947,138	4/1/2016
7	Bergen Ditch & Reservoir Company	Bergen Reservoir No. 2 Rehabilitation	Jefferson	\$2,110,765	4/1/2016 (c)
8	Upper Platte & Beaver Canal Co.	Hospital Rd Recharge Facility &	Morgan	\$119,685	4/1/2016
9	Owl Creek Reservoir Company	Owl Creek Reservoir Rehabilitation	Weld	\$485,000	5/1/2016
10	Brighton Ditch Company	River Breach Repair Project	Adams	\$225,000	5/1/2016
11	McDonald Ditch Company	Ditch Diversion and Headgate Replace	Rio Grande	\$101,000	5/1/2016
12	Las Animas Consolidated Canal Co	Repair and Replacement of the Las Animas Consolidated Spillway	Bent	\$95,054	6/1/2016
13	Left Hand Ditch Company	Allen Lake and Lake Isabelle Repair	Boulder	\$1,332,562	6/1/2016 (d)
14	Colorado Parks & Wildlife	Beaver Park Reservoir Rehabilitation	Rio Grande	\$10,000,000	6/1/2016 (e)
15	Greeley and Loveland Irrigation Co.	Irrigation System Improvements	Larimer	\$3,745,080	7/1/2016 (f)
16	Boxelder Basin Regional Stormwater Authority	East Side Detention Facility	Larimer/ Weld	\$7,171,000	7/1/2016 (g)
17	Boxelder Basin Regional	County Road 52 Culvert	Larimer/ Weld	\$818,100	7/1/2016
18	Lake Canal Reservoir Company	North Gray Reservoir Rehabilitation	Larimer/ Weld	\$204,298	7/1/2016 (h)
19	Louden Irrigating Canal & Res. Co.	Emergency Diversion Structure Repair	Larimer	\$126,250	7/1/2016
20	Boxelder Basin Regional Stormwater Authority	Larimer & Weld Canal Crossing Structure	Larimer/ Weld	\$1,010,000	8/1/2016
21	Farmers Pawnee Canal Company	Diversion Structure Replacement	Logan	\$2,067,470	9/1/2016
22	Northern Colorado WCD	Granby Hydropower Project	Grand	\$5,135,183	10/1/2016
23	Union Well Augmentation Group	Union Reservoir Water Rights Purchase	Weld	\$227,250	11/1/2016
			Total:	\$44,100,441	

Calendar Year 2016 has added or preserved 17,926 AF of reservoir storage [(a) 90, (b) 109, (c) 726, (d) 1,254 (e) 2,201 (f) 12,925, (g) 1,800, (h) 75]



Lower Lone Pine Lake Enlargement Project Crystal Lakes Water and Sewer Association

Substantially Complete January 1, 2016

Loan Program



Project Description

BEFORE

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

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



Lake Otonowanda Rehabilitation Project

Town of Ridgway

Substantially Complete January 1, 2016



Project Description

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

Р	ROJ	I E C	Т	D	Α	Т	А
Sponsor: Town of Ridgway	County:	Ouray					Water Source: Ridgway Ditch
Type of Project: Reservoir Enlar	Type of Project: Reservoir Enlargement Board Approval Date: September 2012						
Loan Terms: (Original) \$606,000 @ 3.0% for 30 years (Final) \$606,000							
Design Engineer: Joanne Fagan, PE, City Engineer							
Contractor: Rundle Construction, Hotchkiss CO							
Project Elements: replacment of outlet works, earthwork, and reservoir lining							





COLORADO

Project Description

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

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

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



Water Rights Purchase Project Lower Arkansas Valley Water Conservancy District

Substantially Complete 1/1/2016

Project Description

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

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



Р	ROJEC	T D A T	А		
Sponsor: Lower Arkansas Valley	County: Bent, C	rowley,	Water Source: Arkansas Piver		
WCD	Prowers, Pueblo		Water Source. Arkansas River		
Type of Loan: Water Rights Purchase Board Approval Date: May 2015					
Terms of Loan: \$2,560,350 @ 1.45% for 20 years					
Design Engineer: NA					
Contractor: NA					
Project Elements: Purchase of Water Rights					



Replacement of the Horse Creek Flume

Fort Lyon Canal Company Substantially Complete April 1, 2016



Project Description

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

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



Diversion Structure Rehabilitation

Fulton Irrigating Ditch Company Substantially Complete April 1, 2016



Project Description

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

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





PRO.	JEC	T D	ΑΤΑ				
Sponsor: Fulton Irrigating Ditch Co.	County:	Adams	Water Source: South Platte River				
Type of Project: Diversion Rehabilitation	n	Board Ap	pproval Date: May 2014				
Loan Terms: 2.45% for 30 years (Original)	\$2,027,0	0 70 (Final)	\$1,947,139				
Design Engineer: Deere and Ault Consultants, Inc.							
Contractor: Lillard & Clark Construction Company; Rodney Hunt - Fontaine (gates and hardware)							
Project Elements: Construction and installation of gantry crane grate cleaning system, rehabilitate							
trash rack, replace diversion gates and op	erators						



Bergen Reservoir No. 2 Rehabilitation Bergen Ditch and Reservoir Company

Substantially Complete April 1, 2016







Project Description

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

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



Project Description

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

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

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

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

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



Owl Creek Reservoir Project

Owl Creek Reservoir Company Substantially Complete May 2016



Project Description

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

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

Р	ROJEC	T D A T	Α			
Sponsor: Owl Creek Reservoir	County [.] Weld		Water Source: Owl Creek			
Company	ooding) weda					
Type of Project: Reservoir Rehabilitation Board Approval Date: May 2001						
Loan Terms: 3.25% for 30 years (Original) \$1,125,000.00 (Final) \$485,000.00						
Design Engineer: Applegate Grou	р					
Contractor: Did not construct the	project					
Project Elements: Design plans co	omplete					





Project Description

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

Р	ROJEC	T D A T	Α				
Sponsor: Brighton Ditch	County: Adams		Water Source: South Platte				
Company	County. Additis		River				
Type of Project: Ditch Rehabilit	Date: September 2015						
Loan Terms: (Original) \$225,000 for 30 years @ 2.55% (Final) \$225,000 for 30 years @ 2.55%							
Design Engineer: Deere & Ault Co	onsultants, Inc.						
Contractor: Claystone Construction, LLC							
Project Elements: Repair bank breach on the South Platte River adjacent to diversion dam.							

COLORADO Colorado Water Conservation Board Department of Natural Resources

Loan Program Attachment 3 McDonald Ditch Diversion and Headgate Replacements

McDonald Ditch Company Substantially Complete May 1, 2016



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

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

Р	ROJECT DAT	Α					
Sponsor: McDonald Ditch	County: Rio Grande Water Source: Rio Grande Rive						
Company							
Type of Loan: Ditch Rehabilitation Board Approval Date: September 2013							
Terms of Loan: \$101,000 for 20 years @ 2.50%							
Design Engineer: Natural Resources Conservation Service (NRCS)							
Contractor: Robins Construction							
Project Elements: 88 ft diversion dam with fish and boat passage; (2) radial gates with automation;							
1,054 LF of 36 in HDPE pipe.							

Loan Program Attachment 3



Project Description

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

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

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



Allen Lake and Lake Isabelle Repair Project

Loan Program Attachment 3

Left Hand Ditch Company Substantially Complete June 1, 2016



Project Description

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

Р	ROJECT DAT	А						
Sponsor: Left Hand Ditch	County: Bouldor	Water Source: Left Hand and						
Company	County. Boulder	St. Vrain Creek						
Type of Loan: Dam Rehabilitation	Board Approval	Date: July 2012						
Loan Terms: 2.45% for 30 years (0	Driginal) \$1,475,307.00 (Final) \$1	,332,562.39						
Design Engineer: Smith Geotechnical								
Contractor: Left Hand Excavating								
Project Elements: Lake Isabelle:	Project Elements: Lake Isabelle: Sleeved existing outlet pipe with 80-feet of new pipe. Installed 20-							
inch double disk valve.								
Allen Lake: 125 LF of 20-inch cast-in-place concrete outlet pipe, 5,600 CY embankment fill material,								
4,750 tons of rip rap placed.								





Project Description

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

Р	ROJEC	T D A T	А				
Sponsor: Colorado Parks and	County: Pio Gra	ndo	Water Source: Beaver Creek				
Wildlife	county. No ora	nue	Water Source. Deaver Creek				
Type of Loan: Reservoir Rehabili	bilitation Board Approval Date: September 2012						
Loan Terms: 0% for 30 years (Original) \$10,000,000.00 (Final) \$10,000,000.00							
Design Engineer: AECOM, URS							
Contractor: Phase 1 - Aslan Construction, Berthoud, CO; Phase 2 - ASI Constructors Inc, Pueblo CO							
Project Elements: raised and rehabilitated spillway, 6,000SF of soil nail wall, 450Ft of 42in. (linning							
and new outlet) pipe, 24,000CY Riprap, new outlet gates and structure							



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.

Р	R	0	J	E	С	Т	D	Α	Т	Α
Sponsor: Greeley & Loveland	C	unt		lari	mor					Water Source: Big Thompson
Irrigation Company		Jun	у.	Laii	mer					River
Type of Loan: Reservoir Rehabili	tati	on				Boar	d Ap	pro	val	Date: September 2013
Terms of Loan: \$3,745,080 at 2.1	5%	for	30	yea	rs					
Design Engineer: URS Corporation	n/A	ECO	M							
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										



East Side Detention Facility

Boxelder Basin Regional Stormwater Authority

Loan Program

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	0	J	Е	С	Т	D)	Α	Т	Α
Sponsor: Boxelder Basin Regional Stormwater Authority	С	ount	:y: L	_ariı	mer						Water Source: Boxelder Creek
Type of Loan: Flood Control						Boa	rd A	lpp	oro	val	Date: May 2013
Terms of Loan: \$7,171,000 at 3.0) % 1	for 1	5 y	ears	5						
Design Engineer: Ayres Associate	S										
Contractor: Dietzler Construction Corporation											
Project Elements: ~9,000 LF Floor	d C	ontr	ol D	Dam	(1,	800 A	AF C	ар	aci	ty),	, 425 LF of a 17'5"x6' Box Culvert



County Road 52 Improvements Boxelder Basin Regional Stormwater Authority

Substantially Complete July 1, 2016



Project Description

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

Р	ROJ	Ε (: Т	D	Α	Т	А		
Sponsor: Boxelder Basin Regional Stormwater Authority	County:	Larim	er				Water Source: Boxelder Creek		
Type of Loan: Flood Control			Boa	nrd Ap	pro	val	Date: January 2014		
Terms of Loan: \$818,100 at 2.50	% for 15 y	ears							
Design Engineer: Ayers Associate	S								
Contractor: Dietzler Construction Corporation									
Project Elements: (4) 20'x4' Box	Culverts,	utility	line re	elocat	ions	5			



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.

Ρ	R O J E C	T D A T	Α						
Sponsor: Lake Canal Reservoir	County: Larimor	. & Wold	Water Source: Box Elder Creek						
Company	county. Latimer	u welu	Water Source. Box Elder Creek						
Type of Loan: Reservoir Rehabili	tation	Board Approval	Date: September 2011						
Terms of Loan: \$204,298 at 2.10% for 30 years									
Design Engineer: Smith Geotechr	ical Engineering (Consultants							
Contractor: Dietzler Construction	Contractor: Dietzler Construction Corporation								
Project Elements: Abandonment of old outlet works, new outlet structure with 18" diameter HDPE									
pipe (interconnect structure), and new 80 LF spillway									

COLORADO 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 C	J	E	С	Т	D	Α	T	Α
Sponsor: Louden Irrigating Canal & Reservoir Company	Coui	nty:	Larir	mer					Water Source: Big Thompson
Type of Loan: Ditch Rehabilitation	n				Boar	rd Ap	pro	val	Date: May 2014
Loan Terms: (Original) \$161,600	@ 2.7	0% f	or 30	0 yea	ars (Fina	1)\$	126	,250 @ 2.70% for 30 years
Design Engineer: Telesto Solution	ns, Inc								
Contractor: Lee Nauta, John Moe	n								
Project Elements: Ditch and head	gate	clear	nout	fror	n flo	od de	ebri	s an	d sediment.

Loan Program Attachment 3



COLORADO

Department of Natural Resources

Colorado Water

Conservation Board

Larimer & Weld Canal Crossing Structure Project

Boxelder Basin Regional Stormwater Authority Substantially Complete August 1, 2016



Project Description

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

Р	R	0	J	E	С	Т		D	Α	Т	Α
Sponsor: Boxelder Basin	Col	int	·v· I	ari	mer						Water Source: Boxelder Creek
Regional Stormwater Authority	001		y. L		mer						Water Source. Boxetder creek
Type of Loan: Flood Control						Boa	ard	Ар	pro	val	Date: May 2013
Terms of Loan: (Original \$1,010,	Terms of Loan: (Original \$1,010,000 at 2.75% for 15 years(Final) \$835,104.53 @ 2.75% for 15 years									835,104.53 @ 2.75% for 15 years	
Design Engineer: Ayres Associate	S										
Contractor: Crossfire, LLC											
Project Elements: Spillway construction, erosion control consisting of: gabion mattress, turf											
reinforcement mat (TRM), riprap, and articulated concrete block (ACB) mat											



Diversion Structure Replacement Project

Farmers Pawnee Canal Company Substantially Complete September 1, 2016

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	5	Board Approval	Date: May 2014							
Terms of Loan: \$2,067,470 at 1.75% for 30 years										
Design Engineer: Gauthiere Eng	ineering, Inc.									
Contractor: Concrete Specialties and Utilities										
Project Elements: 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.

Р	ROJEC	TDAT	Α							
Sponsor: Northern Colorado										
Water Conservancy District,	County: Grand		Water Source: Colorado River							
Hydropower Enterprise										
Type of Loan: Hydroelectric		Board Approval	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 kilowatt Francis turbines, 70'x26' powerhouse										



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	ROJEC	T D A T	Α							
Sponsor: Union Well Augmentation Group	County: Weld		Water Source: South Platte							
Type of Project: Water Rights Pr	urchase	Board Approval	Date: May 2016							
Loan Terms: 1.45% for 20 years (0	Loan Terms: 1.45% for 20 years (Original) \$248,157 (Final) \$227,500									
Design Engineer: TZA Water Engi	ineers									
Contractor: NA										
Project Elements: Purchase of (2) Union Reservoir Company shares										

	Contract Borrower		County	Loan Amount	Annual Delivery	Design Status	Const. Start/End	Const. Status	РМ	Status Description/Update
	Projects in Design or Construction									
1	Bellyache Ridge Metro District > Well Replacement Project C150356 (CT2015-015)	15-015	Eagle	\$169,175	11	100%	Feb 2015 - March 2017	90%	ACM	A test well was drilled in winter of 2015 and did not produce the amount of water required by the District to meet its needs. That well was capped in Oc 2015 and appears to have had a positive impact on the water availability of the District's 2 remainig wells. The District is in a holding pattern as it continues to monitor the wells.
2	Bennett, Town of >Wells #3 and #6 Replacement Project CT2015-161	15-161	Adams Arapahoe	\$145,400	261	100%	May 2015 - Nov 2016	90%	ACM	The Project was bid in 2014 and drilling began in May 2015. All drilling was complete as of the end of July. Temporary pumps are currently in place and will be replaced with the permant pumps by winter 2016.
3	Bow Mar Water & Sanitation District >Rehabilitation and Replacement of Water Meters CT2016-2516		Arapahoe & Jefferson	\$332,795	338	100%	July 2016 - Sept 2016	100%	DRJ	Substantial completion pending
4	Central CO WCD - WAS > Augmentation Water Supply Project C150337 (CT2015-060)	15-060	Weld/ Adams/ Morgan	\$3,030,000	20,400	50%	Apr 2013 - Mar 2017	30%	JMH	Purchased a portion of the water rights on 4/25/13. Additional water rights/projects are being identified.
5 -	CHATFIELD Reallocation Project - First Cost of Storage				44,456					\$54,633,223
	Castle Pines North Metropolitan District >(C150404A) CT2016- 2049		Arapahoe Douglas Park Weld	\$723,160		N/A	2019	N/A	JMH	
	Centennial Water & Sanitation District >(C150405A) CT2016- 2053		Arapahoe Douglas Park Weld	\$4,978,290		N/A	2019	N/A	JMH	This contract is to provide reimbursement for the Chatfield Reallocation Project, specific to the "first cost of storage." To date, Chatfield participants
	Center of Colorado Water Conservancy District >(C150406A) CT2016- 2047		Arapahoe Douglas Park Weld	\$94,637		N/A	2019	N/A	JMH	have not yet had to make this payment. It is now estimated funds may not b required until 2019.
	Central Colorado Water Conservancy District >(C150407A) CT2016- 2057		Arapahoe Douglas Park Weld	\$3,187,560		N/A	2019	N/A	JMH	
6 -	CHATFIELD Reallocation Project - Phase 1 Mitigation									\$31,486,120
	Castle Pines North Metropolitan District >(C150404B) CT2016- 2050		Arapahoe Douglas Park Weld	\$4,143,020		0%	2016	0%	JMH	
	Centennial Water & Sanitation District >(C150405B) CT2016- 2055		Arapahoe Douglas Park Weld	\$28,527,450		0%	2016 2022	0%	JMH	This contract is to provide reimbursement for the Chatfield Reallocation Project, for engineering, recreation facilities construction, on-site mitigation, off-site mitigation, and mitigation monitoring. Phase 1 covers the work required to be done to allow storage to occur.
	Center of Colorado Water Conservancy District >(C150406B) CT2016- 2048		Arapahoe Douglas Park Weld	\$511,363		0%	2016 2022	0%	JMH	The Chatfield Reservoir Mitigation Company has been formed and CDM Smith/Leonard Rice has been selected at the Project Program Manager. Engineering work to develop a final design and more specific construction cost estimate can now start.

	Contract Borrower		County	Loan Amount	Annual Delivery	Design Status	Const. Start/End	Const. Status	РМ	Status Description/Update
	Central Colorado Water Conservancy District >(C150407B) CT2016- 2058		Arapahoe Douglas Park Weld	\$18,263,830		0%	2016 2022	0%	JMH	
7 - (CHATFIELD Reallocation Project - Phase 2 Mitigation									\$1,558,810
	Castle Pines North Metropolitan District >(C150404C) CT2016- 2051		Arapahoe Douglas Park Weld	\$1,587,720		0%	2022 - 2028	0%	JMH	
	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 will cover work remaining after storage is allowed.
	Central Colorado Water Conservancy District >(C150407C) CT2016- 2060		Arapahoe Douglas Weld	\$700,310		0%	2022 - 2028	0%	JMH	
8	Cortez, City of > Water Meter Replacement Project CT2015-152	15-152	Montezuma	\$858,500	2,600	100%	June 2015 - Oct 2016	99%	ACM	Notice to proceed was issued in June 2015. All of the meters that required relocation have been moved. New AMR meters have replaced the City's meters. Software upgrades are complete. Substantial completion is expected by Dec 1, 2016.
9	Dixon Canon Ditch & Reservoir Company >Dixon Reservioir Dam Improvements CT2017-914		Larimer	\$278,100	312	95%	Fall 2016 - Winter 2017	0%	JMH	SEO submittal and bidding to occur November 2016
10	Duke Ditch Company >Piping the Duke Ditch CT2017-915		Delta	\$90,000	2,424	30%	Spring 2016 Spring 2017	0%	ACM	Loan and grant contracts were executed in August 2016.
11	Ephraim Ditch Company > Ephraim Diversion and Headgate Rehabilitation C150402 (CT2015-090)	15-090	Rio Grande	\$101,000	4,100	100%	Aug 2015 - Nov 2016	95%	JMH	Construction of the structure is complete and automation has been installed Work continues on getting automation fully calibrated and operational
12	Fowler, Town of > Augmentation Pipeline Project C150359 (CT2015-054)	15-054	Otero	\$277,245	157	100%	Fall 2016 - Winter 2016	0%	DRJ	Loan Contract extension process completed. Bid process delayed due to easement aquisition issues.
13	Georgetown, Town of > Outlet Works Modification Project C150321 (CT2015-055)	15-055	Clear Creek	\$2,976,975	208	100%	Aug 2014 - Nov 2016	99%	ACM	Construction began in August 2014. Gate testing occured on 4/28/15. The gate has operational issues. The gate manufacturer is fabricating replacement parts to be installed in the fall of 2016.
14	Grand Junction, City of >Hallenbeck Reservoir No. 1 Dam Rehabilitation CT2016-3070		Mesa	\$1,010,000	5,218	100%	Aug 2016 - Nov 2016	50%	ACM	The City bid the project in July 2016 and construction began in August 2010

	Contract Borrower		County	Loan Amount	Annual Delivery	Design Status	Const. Start/End	Const. Status	PM	Status Description/Update
15	Grand Mesa Water Conservancy District > Peak Res. & Blanche Park Res. Rehabilitation C150354 (CT2015-061)	15-061	Delta	\$227,250	400	100%	Mar 2013 - Aug 2017	50%	ACM	Construction on Peak Reservoir began in the 2013 season and was completed in Oct 2014. Blanche Park construction was delayed due to Federal permitting issues. The project is on hold until the permits are issued SEO approved construction drawings in June 2016.
16	Gypsum, Town of > LEDE Ditch and Reservoir Rehabilitation C150296 (CT2015-058)	15-058	Eagle	\$2,690,000	1,200	100%	Jul 2013 - Sep 2016	95%	DRJ	Final walk through with SEO scheduled for Nov 7.
17	Huerfano County Water Conservancy District > Regional Augmentation Project C150364 (CT2015-047)	15-047	Huerfano	\$2,222,000	20	75%	Mar 2014 - Mar 2017	60%	ACM	Land and water rights purchase occurred in January 2014. Camp Ranch augmentation site construction is underway. The Red Wing augmentation project is on hold pending a re-evaluation of sites for the augmentation site.
18	Julesburg Irrigation District >Reconstruction of the Harmony No. 1 Dam Structure CT2016-3462		Sedgwick	\$203,616	54,423	25%	Fall 2016 _ Mid 2017	0%	DRJ	
19	Lake Durango Water Authority > Source Water Supply Project C150317 (CT2015-013)	15-013	LaPlatta	\$2,525,000	309	100%	Oct 2016 - Oct 2017	5%	KGR	Project Construction begin in October. Most of the pipe has been delivered and stored on site
20	Lake McIntosh Reservoir Company >Lake McIntosh Outlet Works Repair CT2016-2794		Boulder	\$1,727,100	1,533	95%	Fall 2016 - Spring 2017	0%	JMH	Bid set has been issued and the pre-bid was held on 10/24/16. Construction is planned for after the 2016 irrigation season.
21	Lamar, City of >Repurposing of Wells 12 and 13 CT2016-2003		Prowers	\$101,000	2,005	10%	Jan 2017 - June 2017	0%	DRJ	Design to continue thruough 2016. Bidding and construction planned for early 2017 and complete same season.
22	Lookout Mountain Water District > Upper Beaver Brook Dam Spillway CT2016-2515		Clear Creek	\$3,099,690		100%	June 2016 - August 2017	30%	DRJ	Spillway blasting completed. Labrynth weir construction ongoing.
23	Monte Vista, City of > Augmentation Water Rights Acquisition C150309 (CT2015-011)	15-011	Rio Grande	\$1,693,770	1,212	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.
24	North Poudre Irrigation Co > Reservoir No. 4 Rehabilitation C150378 (CT2015-003)	15-003	Larimer	\$2,263,410	44,400	100%	Nov 2015 - Jun 2016	99%	JMH	Design was updated per SEO suggestion to upsize spillway to meet higher classification. Wildlife Mitigation completed in January 2015. Reservoir construction began November 2015. Construction is complete, remaining invoice will cover retainage.
25	North Poudre Irrigation Co > Rehabilitation of the Livermore Irrigation Tunnel CT2017-1402	17-1402	Larimer	\$1,451,673	44,400	90%	Nov 2016 - Apr 2018	1%	DRJ	Construction activities started. Construction of tunnel scheduled for November.
26	Oligarchy Irrigation Company > Dam Outlet Works Rehabilitation CT2016-1597	16-1597	Boulder	\$901,930	7,966	100%	May 2016 Oct 2016	99%	JMH	SEO approved plans and specification on 3/1/16. Project was put out to bid in March 2016 and construction began in May 2016. Final walkthru occurrer 10/28/16.

	Contract Borrower		County	Loan Amount	Annual Delivery	Design Status	Const. Start/End	Const. Status	РМ	Status Description/Update
27	Orchard Ranch Ditch Company >Orchard Ranch Ditch Pipe Project CT2016-2795		Delta	\$151,500	2,750	9%	Fall 2017 - Mid 2018	0%	DRJ	Construction fall 2017, may delay to Spring 2018 depending on progress of elements of project through Buereau of Reclamation. Company continues to explore supplementary grant funding options.
28	Overland Ditch and Reservoir Company > Overland Reservoir Rehabilitation C150206 (CT2015-034)	15-034	Delta	\$1,141,300	17,000	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.
29	Parkville Water District >Evans Reservoir Bypass Flume Project CT2016-2004		Lake	\$181,800	1,500	100%	Aug 2016 - Oct 2016	100%	DRJ	Project complete and awaiting SC process.
30	Pisgah Reservoir and Ditch Company > Mount Pisgah Dam/Wrights Res Rehabilitation C150341 (CT2015-027)	15-139	Teller	\$1,172,261	86,000	100%	June 2015 - Sep 2016	95%	JMH	Approved for additional loan funds at November 2014 and July 2015 Board Meeting. Phase 1 complete. Phase 2 began September 2015. Phase 3 began November 2015. All construction was done by July 2016. There remains a possibility of additional monitoring/work on seepage through old abandoned outlet pipes.
31	Plum Valley Heights Subdistrict >Raw Water Supply Project CT2015-176	15-176	Douglas	\$2,248,260	150	0%	N/A	N/A	JMH	Project has completed final design and went to bid in July 2016. Construction started August 2016. Loan is for purchase of water from Auror which will occur after construction is finished. WSRF grant is paying for a portion of the construction.
32	Prairie Ditch Company > Plaza Phase 3: Prarie Ditch Imp. Project C150400 (CT2015-134)	15-134	Rio Grande	\$131,300	16,000	100%	Oct 2015 - Nov 2016	85%	JMH	Bids for the diversion dam were received August 27, 2015 and construction began October 2015. Headgate phase was bid and awarded in November 2015. Diversion dam and headgate structures are complete. Sluice channer radial gate, and riprap will be installed Fall 2016 when the river is low (to be funded by grant dollars)
33	Riverside Ditch and Allen Extension Company > Ditch System Rehabilitation C150301 (CT2015-050)	15-050	Chaffee	\$186,345	3,260	85%	Jul 2010 - Oct 2017	80%	KGR	Ditch lining phase of the project was completed in December 2010. NRCS La Junta Fld office has completed design plans for replacment of the river diversion structure. Const. expected in fall of 2017.
34	Riverside Reservoir and Land Company > Riverside Reservoir Spillway Enlargement C150291 (CT2015-026)	15-026	Weld	\$2,838,100	105,000	90%	Spring 2017+	0%	DRJ	Plans under review by SEO. Construction timing indeterminate.
35	San Luis Valley Water Conservancy District > Anaconda Ditch Water Right Acquisition C150348 (CT2015-166)	15-166	Alamosa	\$839,000	386	0%	N/A	N/A	ACM	Water rights purchase was pending a water court change case completion. The case was settled in December 2015. The District expects to close on the shares in late 2016.
36	Sanchez Ditch and Reservoir Company > Sanchez Reservoir Outlet Rehabilitation Project C150342 (CT2015-012)	15-012	Costilla	\$1,381,276	15,000	100%	Oct 2014 - March 2017	90%	ACM	Construction began in Oct 2014. Outlet works work was completed in Jan 2015. Seepage and monitoring work is currently ongoing.
37	Sanford Canal Company > Sanford Diversion and Headgate Rehabilitation C150401(CT2015-091)	15-091	Rio Grande	\$101,000	4,000	100%	Aug 2015 - Nov 2016	90%	JMH	NRCS has finalized design. Fabrication of steel structures began August 2015. Construction of diversion dam and headgates began in October 2015 and nearing completion. Concrete work is finished, sluice gate will be installed one river flow decreases
38	Thunderbird W&S Dist > Lambert Ranch Water Rights Purchase C150320 (CT2015-049)	15-049	Douglas	\$318,150	55	N/A	N/A	N/A	JMH	Closing was delayed until 2015 due to easement access to purchased wells Closing on water rights occurred September 2015. Easement aquisition process is still underway pending final pipeline alignment.

	Contract Borrower		County	Loan Amount	Annual Delivery	Design Status	Const. Start/End	Const. Status	PM	Status Description/Update
39	Tunnel Water Company >Laramie-Poudre Tunnel Rehabilitation CT2016-2001		Larimer	\$1,111,000	6,875	100%	Sep 2015 - Fall 2016	70%	JMH	Phase 1 (Inlet) construction started September 2015 and is complete. Phas 2 (outlet) construction is in nearing final design and will be issued for bid in Fall 2016.
40	Uncompahgre Valley Water Users Association >Drop 5 Hydroelectric Project CT2015-174	15-174	Montrose/ Delta	\$6,999,300	N/A	100%	Dec 2015 - Aug 2016	80%	KGR	Plant prouduced power in August 2016. Breach in ditch occured mile upstream during forebay fill process. Power production was reduced by lower head on turbine. Corrective work to be performed by Water Users in winter. Loan Closeout pending
41	Upper Arkansas Water Conservancy District > Reservoir Rehabilitation C150192 (CT2015-052)	15-052	Chaffe/ Custer	\$3,009,800	500	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 underwar and expected to be complete by Dec 2018.
42	West Reservoir and Ditch Company >Repair of West Reservoir No. 1 Outlet Works CT2015-169	15-196	Delta	\$248,378	604	100%	May 2015 _ Sept 2016	100%	DRJ	Project complete. Loan increase being sought.
43	Windsor, Town of > Kyger Reservoir Project C150366 (CT2015-057)	15-057	Larimer/ Weld	\$4,545,000	2,035	100%	July 2016 - Jan 2017	10%	JMH	Town purchased reservoir and water rights in summer 2014. Town completed design and permitting in spring 2016. Construction contract was awarded at the end of June 2016 and commenced July 2017
44 -	WISE Project - ECCV Pipeline Purchase									\$2,227,050
	Cottonwood W&S Dist - C150408A (CT2015-102)	15-102	Douglas/ Arapahoe	\$381,780		80%	N/A	N/A	DRJ	80% funds disbursed.
	Inverness W&S Dist - C150409A (CT2015-117)	15-117	Douglas/ Arapahoe	\$1,845,270		0%	N/A	N/A	DRJ	No Inverness Request for Reimb received.
45 -	WISE Project - Phase 1 Infructure									\$18,484,600
	Cottonwood W&S Dist - C150408B (CT2015-106)	15-106	Douglas/ Arapahoe	\$2,900,000		90%	Spring 2015 - Jan 2017	12%	DRJ	
	Inverness W&S Dist - C150409B (CT2015-118)	15-118	Douglas/ Arapahoe	\$1,300,000		90%	Spring 2015 - Jan 2017	34%	DRJ	Infrastructure to treatment plant completed. Pipeline construction on
	Parker W&S Dist - C150410B (CT2015-108)	15-108	Douglas/ Arapahoe	\$7,464,600		90%	Spring 2015 - Jan 2017	16%	DRJ	Ridgeway line under way. E470 bore 90% complete.
	Pinery (Denver SE Sub W&S Dist) C150411B (CT2015-085)	15-085	Douglas/ Arapahoe	\$6,820,000		90%	Spring 2015 Jan 2017	6%	DRJ	
46 -	WISE Project - Phase 2 Infructure									\$7,400,078
Design and Construction - Summary

	Contract Borrower		County	Loan Amount	Annual Delivery	Design Status	Const. Start/End	Const. Status	РМ	Status Description/Update
	Cottonwood W&S Dist - C150408C (CT2015-105)	15-105	Douglas/ Arapahoe	\$1,127,160		0%	Spring 2018 - Fall 2021	0%	DRJ	
	Inverness W&S Dist - C150409C (CT2015-119)	15-119	Douglas/ Arapahoe	\$1,427,130		0%	Spring 2018 - Fall 2021	0%	DRJ	
	Parker W&S Dist - C150410C (CT2015-109)	15-109	Douglas/ Arapahoe	\$3,418,658		0%	Spring 2018 - Fall 2021	0%	DRJ	
	Denver SE Sub W&S Dist - C150411C (CT2015-086)	15-086	Douglas/ Arapahoe	\$1,427,130		0%	Spring 2018 - Fall 2021	0%	DRJ	
47 -	WISE Project - DIA Connection									
	Cottonwood W&S Dist - C150408D (CT2015-104)	15-104	Douglas/ Arapahoe	\$363,600		23%	N/A	NA	DRJ	Annual diisbursment to be made on this loan through 2021.Design Status indicates percer of funds disbursed to date.
	Inverness W&S Dist - C150409D (CT2015-120)	15-120	Douglas/ Arapahoe	\$454,500		23%	N/A	NA	DRJ	Annual diisbursment to be made on this loan through 2021.Design Status indicates percer of funds disbursed to date.
	Parker W&S Dist - C150410D (CT2015-110)	15-110	Douglas/ Arapahoe	\$1,099,890		13%	N/A	NA	DRJ	Annual diisbursment to be made on this loan through 2021.Design Status indicates percer of funds disbursed to date.
	Denver SE Sub. W&S Dist (Pinery) - C150411D (CT2015-087)	15-087	Douglas/ Arapahoe	\$454,500		36%	N/A	NA	DRJ	Annual diisbursment to be made on this loan through 2021.Design Status indicates percer of funds disbursed to date.
		Drojosta I I	dor Contros	¢150 115 017	400.469					
		FIOJECIS OI		φ109,110,217	499,400					
	Approved Projects - Not Under Contract									
а	Southeastern CO Water Conserv. District > Arkansas Valley Conduit C150238	238	Crowley	\$60,600,000	6,555		In Contracting	9	KGR	Pending Federal Appropriation. Hydro project may be considered from these loan funds
b	Southeastern CO Water Conserv. District >Pueblo Dam Hydroelectric Project CT2017-1424		Crowley	\$16,725,600	-		In Contracting	9	DRJ	

Design and Construction - Summary

	Contract Borrower	County	Loan Amount	Annual Delivery	Design Status	Const. Start/End	Const. Status	РМ	Status Description/Update
с	Grand Valley Water Users Association >Government Highline Canal Lining CT2017-	Mesa	\$151,500	-		In Contracting	g	ACM	
d	Larimer & Weld Irrigation Company >Headgate Structure Replacement CT2017-	Larimer & Weld	\$681,750	-		In Contracting	g	JMH	
	Not Under Co	ntract SubTotal	= \$78,158,850	6,555					
		Grand Total	\$237,274,067	506,023					

Borrower: Bellyache Ridge Metropolitan District County: Eagle

Project Name: Well Replacement Project	Project Type: Well Drilling
Drainage Basin/ District: Colorado / 37	Water Source: Groundwater
Total Project Cost: \$355,000	Funding Source: Construction Fund/ DOLA Energy and Mineral Impact Assistance Fund
Type of Borrower: Municipal (High)	Average Annual Diversion: 11 AF
CWCB Loan: \$169,175 (with 1% Service Fee)	Interest Rate: 3.0% Term: 30 years

The District is located in Eagle County approximately six miles west of Edwards, Colorado. The District's water system includes three wells that fill two storage tanks. From January through March of 2013, the District had to haul in water because declining well production was not able to keep up with demands. Spring storms recharged the groundwater supply such that the District has not hauled water since March, but unless a new well is drilled hauling water will likely be required in the future. A new replacement well will be drilled as soon as funding is available.



COLORADO Colorado Water Conservation Board Department of Natural Resources

Wells #3 and #6 Replacement Project

Town of Bennett November 2014 Board Meeting

LOAN 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	ruction Fund
B O R R O W E R T Y	ΡΕ
Agriculture Municipal	Commercial
0% 0% Low - 100% Mid - 0% High	0%
PROJECT DETA	ILS
Project Type:	Well Drilling
5 51	Wett Dritting

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



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



COLORADO Colorado Water Conservation Board

Rehabilitation and Replacement of Water Meters

Department of Natural Resources Water Project Loan Program Project Data Sheet

Bow Mar Water & Sanitation District

March 2015 Board Meeting

L	0	Α	Ν	D	Ε	Т	Α	1	L	S	
Project Cost:										\$3	366,102
CWCB Loan (wit	h Se	ervid	ce Fee):					\$3	332,795
Loan Term ai	nd	Inte	erest	Rate				10	Yea	ars @	2.65 %
Funding Sour	ce:						(Con	strı	uctio	on Fund
Agriculture				Muni	icipa	al			(Comr	nercial
0%	()% L	.ow	0% M	id	100	% Hi	gh		(0%
PRO	J	E	С	Т	S	U	М	Μ	ŀ	A R	Y
Project Type									uni	cina	Wator
појест туре	:							141	um	cipa	i water
Residential C	: ust	om	ers					741	um	τιρα	293



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

L	0	С	Α	Т	1	0	Ν
Count	y:		/	Arapa	hoe	& Jef	ferson
Water	Sour	ce:De	enver	· Wate	er (M	laster	Meter)
Draina	ige B	asin:					Metro
Divisio	on:	1		Distr	ict:	ç)

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



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

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



Location Map

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
CWCB Loan: \$6,453,900 (with 1% service fee)	Interest Rate: 3.0% Term: 30-years

The Castle Pines North Metropolitan District provides water and wastewater services to the residents and businesses in the City of Castle Pines, Douglas County. The District is participating in the Chatfield Reallocation Project in order to increase the permanence and reliability of its water supply. Successful completion of the Project would result in the District securing renewable water rights that on average would supply 32% of its average annual water demand. Of the 20,600 acre-feet proposed to be reallocated, the District would receive 1005.8 acre-feet of storage, or 4.88% of the total reallocation. The District will use Chatfield storage through exchanges as authorized in water court Case Nos. 04CW308 and 09CW279.



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
Total Project Cost: \$48,888,000	Funding Source: Severance Tax Perpetual Base Fund
Type of Borrower: High-income Municipal	Average Annual Delivery: 17,500 AF
	Auter Water Supply Storage. 0,922.1 Al

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.



C150406

County: Park
Project Type: Reservoir Storage
Water Source: South Platte River
Funding Source: Severance Tax Perpetual Base Fund
Average Annual Diversion: 700 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.



C150407

Borrower: Central Colorado Water	County: Adams, Weld
Project Name: Chatfield Reallocation Project	Project Type: Reservoir Storage
Drainage Basin: South Platte	Water Source: South Platte River
	Plum Creek
Total Project Cost: \$28,170,000	Funding Source: Severance Tax Perpetual
	Base Fund
Type of Borrower: Agricultural	Average Annual Delivery: 24,600 AF
	Added Water Supply Storage: 4,274 AF
CWCB Loan: \$28,451,700 (with 1% service fee)	Interest Rate: 1.75% Term: 30-years

The Central Colorado Water Conservancy District is located in the South Platte River basin between Denver and Fort Morgan including Beebe Draw, and the lower portions of the Box Elder Creek and Lost Creek drainages. Approximately 210,000 acres of irrigated agricultural lands are served by the District. The District is participating in the Chatfield Reallocation Project to increase the availability of augmentation water for users within its District. Of the 20,600 acre-feet proposed to be reallocated, the District would receive 4,274 acre-feet of storage, or 20.75% of the total reallocation. The location of Chatfield provides the ability to replace well depletions to all locations within the District.





Water Meter Replacement Project

City of Cortez January 2015 Board Meeting

LOAN DETA	AILS
Project Cost:	\$1,200,000
CWCB Loan (with Service Fee):	\$858,500
Loan Term and Interest Rate:	10 Years @ 2.1%
Funding Source:	Construction Fund
BORROWER	ΤΥΡΕ
Agriculture Municipal	Commercial
0% 100% Low - 0% Mid - 0%	High 0%
	0,0
PROJECT DE	TAILS
PROJECT DE Project Type:	T A I L S Meter replacement

The City supplies potable water to the residents of Cortez, the Ute Mountain Ute Tribe, and Montezuma County Water District No. 1. Its supply comes from McPhee Reservoir. The existing system has 3,400 meters that range in age from 25 to 70 years old. The meters are inaccurate and are failing to capture customer usage information. The City intends to replace the meters with



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





Dixon Reservoir Dam Improvement Dixon Canon Ditch and Reservoir Company May 2016 Board Meeting

L O A N D E T	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%	Commercial High 0%
AgricultureMunicipal17%0% Low - 83% Mid - 0%P R O J E C T D E	Commercial High 0% T A I L S
Agriculture Municipal 17% 0% Low - 83% Mid - 0% P R O J E T D E Project Type: F	CommercialHigh0%TAILSSDam Rehabilitation
AgricultureMunicipal17%0% Low - 83% Mid - 0%PROJECTProject Type:Average Annual Delivery:	Commercial High 0% T A I L S Dam Rehabilitation 312 AF

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.





March 2016 Board Meeting

LOAN DETAIL	S
Project Cost:	\$749,374
CWCB Loan (with Service Fee):	\$90,900
Loan Term and Interest Rate: 30	years @ 2.0%
Funding Source: Construction Fund, WSRA, Sal	inity Control
BORROWER TY	ΡE
Agriculture Municipal	Commercial
68% 32% Low - 0% Mid - 0% High	0%
PROJECT DETA	ILS
Draiaat Turaa	
Project Type: Ditch R	ehabilitation



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.



C150402

CWCB Water Project Loan Program Project Data Sheet

Borrower: The Ephraim Ditch Company	County: Rio Grande
Project Name: Ephraim Diversion and Headgate Rehabilitation	Project Type: Ditch Rehabilitation
Drainage Basin/ District: Rio Grande / 22	Water Source: Conejos River
Total Project Cost: \$201,500	Funding Source: Construction Fund, WSRA Grants
Type of Borrower: Agricultural	Average Annual Diversion: 4,100 AF
CWCB Loan: \$101,000 (with 1% service fee)	Interest Rate: 1.75% Term: 30-years

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

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



C150359

CWCB Water Project Loan Program Project Data Sheet

Borrower: Town of Fowler, Water EnterpriseCounty: OteroProject Name: Augmentation Pipeline ProjectProject Type: AugmentationDrainage Basin/ District: Arkansas / 17Water Source: Arkansas RiverTotal Project Cost: \$305,000Funding Source: Construction FundType of Borrower: Municipal (Low)Average Annual Diversion: 157 AFCWCB Loan: \$277,245Interest Rate: 2.25% Term: 30 years(with 1% Service Fee)Project Cost: 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
CWCB Loan: \$2,976,975 (w/ 1% service fee)	Interest Rate: 4.5% Term: 30 years

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

the states	Pass
Bard	Lake Georgetown
Rogers 6 6010 Buckeye	Anglo Saxon Mine Saxon Molly Bawn
3745. Sherman 3745. Mountain	asie Mountain Mine
Plume 3775 Republican Bin I-70	Woodchuck Peak powerlune
Silver Cloud Mine Silver Plume Con Pavillio Point	Georgetown 3526 Griffith Mountain
The second secon	Alling CERS



Hallenbeck Reservoir No. 1 Dam Rehabilitation

City of Grand Junction March 2016 Board Meeting

LOAN DETA	ILS
Project Cost:	\$1,153,782
CWCB Loan (with Service Fee):	\$1,010,000
Loan Term and Interest Rate:	20 years @ 2.65%
Funding Source: Construction Fund	and WSRA Grants
BORROWER T	ΥΡΕ
Agriculture Municipal	Commercial
Agriculture Municipal 0% 0% Low - 100% Mid - 0% Hi	Commercial gh 0%
Agriculture Municipal 0% 0% Low - 100% Mid - 0% Hi P R O J E C T D E T	Commercial gh 0% A I L S
AgricultureMunicipal0%0% Low - 100% Mid - 0% HiPROJECTProject Type:Data	Commercial gh 0% A I L S am Rehabilitation
AgricultureMunicipal0%0% Low - 100% Mid - 0% HiPROJECTProject Type:DataAverage Annual Delivery:	Commercialgh0%AILSSam Rehabilitation5,218 AF



Hallenbeck Reservoir No. 1 is one of the City of Grand Junction's 14 reservoirs. It has a capacity of 699 acrefeet. In 2014 the City of Grand Junction developed plans to mitigate seepage through the dam; however, during the evaluation process, seepage increased and an 80-foot crack developed on the downstream face of the dam.

Water was immediately released from the reservoir in an effort to relieve hydrostatic pressure within the dam. The City completed a forensic evaluation of the dam that included a geotechnical investigation and structural evaluation. The purpose of this project is to repair the dam to allow the City to use all if the storage capacity. Construction involves removal of several feet of material on the downstream face of the dam, removal of the existing toe drain system, installation of a blanket filter on the downstream face, installation of a new toe drain system, installation of a buttress on the downstream face, and installation of new piezometers and monuments. This will allow the City to make use of its 1939 absolute irrigation right, and 1993 conditional municipal right. Construction is expected to occur in the summer of 2016.



Water Project Loan Program - Project Data Sheet

Borrower: Grand Mesa Water Conservancy District	County: Delta
Project Name: Peak Reservoir and Blanche Park Reservoir Rehabilitation	Project Type: Reservoir Rehabilitation
Drainage Basin/ District: Gunnison / 40	Water Source: Surface Creek
Total Project Cost: \$640,000	Funding Source: Construction Fund/ WSRA Gunnison Basin Funds
Type of Borrower: Municipal/Agricultural	Average Annual Diversion: 400 AF Storage Added: 155 AF
CWCB Loan: \$227,250 (with 1% Service Fee)	Interest Rate: 1.55%* Term: 20 years (Reduced from 1.8% blended rate)

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



CWCB Construction Loan Program Project Data Sheet

Borrower: Town of Gypsum	County: Eagle
Project Name: LEDE Ditch & Reservoir	Project Type: Reservoir Rehabilitation
Drainage Basin: Colorado River	Water Source: Gypsum Creek
Total Project Cost: \$3,162,000	Funding Sources: Construction Fund
Type of Borrower: High Income Municipal	Average Delivery: 1,200 AF New Storage: 254 AF
Loan Amount: \$2,689,731 (Including 1% fee)	Interest Rate: 4.5% Term: 30 years

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



General Locations

	Water Project Loan	Program			
	Project Data Sh	neet			
Borrower:	Huerfano County Water Conservancy District	County:	Huerfano		
Project Name:	Regional Augmentation Project	Project Type:	Water Rig and Augr	ghts Acqu nentation	uisition
Drainage Basin:	Arkansas / District 67	Water Source:	Huerfano	River	
Total Project Cost:	\$3,050,000	Funding Source:	Construct	tion Fund	
Type of Borrower:	Low-Income Municipal	Avg. Annual Diversions:	19.5 AF		
CWCB Loan:	\$2,222,000 (w/ 1% service fee)	Interest Rate:	2.25%	Term:	30 years

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





Reconstruction of the Harmony No.1 Measurement Structure Julesburg Irrigation District

May	2016	Board	Meeting

LOAN DETAI	LS
Project Cost:	\$224,000
CWCB Loan (with Service Fee):	\$203,616
Loan Term and Interest Rate: 30	years @ 1.70%
Funding Source: Con	struction Fund
BORROWER TY	ΡΕ
Agriculture Municipal	Commercial
100% 0% Low - 0% Mid - 0% High	0%
PROJECT DETA	ILS
Project Type: Ditch	
Troject Type.	Rehabilitation



The Julesburg Irrigation District (District), part owner and the operator of the Harmony No. 1 Canal, delivers both Direct Flow rights and Storage water rights to the Julesburg Reservoir. The Canal diverts water from the South Platte River approximately three miles southwest of the town of Crook, Colorado. The Canal delivers direct

flow irrigation water, storage water and augmentation water to approximately 17, 000 acres of land controlled by the Harmony Ditch Company and Julesburg Irrigation District. The Canal can also be used to deliver irrigation water to an additional 6,000 acres thru the Julesburg Reservoir rights administered to the Petersen Canal as a supplemental source if supplies at the Petersen head gate are not adequate. The existing 20 foot Parshall Flume has structural damage that will cause failure. The District wishes to replace the existing structure with a new structure located just upstream, prior to the 2017 reservoir fill season beginning in November 2016. The purpose of this project is to provide a reliable measurement structure to accurately measure the flow of the Harmony No. 1 Canal during the diversion of water for the various water rights being used by the Julesburg Irrigation District.



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



1.6 2.4 2009 Miles ti

2009 NAIP aerial imagery provided by the US Farm Service Agency





Lake McIntosh Outlet Works Repair

Lake McIntosh Reservoir Company January 2016 Board Meeting

LOAN DE	TAILS
Project Cost:	\$1,900,000
CWCB Loan (with Service Fee):	\$1,727,100
Loan Term and Interest Rate:	30 Years @ 2.70%
Funding Source:	Construction Fund
BORROWEI	R T Y P E
Agriculture Municipa	al Commercial
Agriculture Municipa 28% 0 % Low - 61% Mic	l Commercial 1 - 9% High 2 %
Agriculture Municipa 28% 0 % Low - 61% Mic P R O J E C T D	al Commercial d - 9% High 2 % D E T A I L S
AgricultureMunicipal28%0 % Low - 61% MicPROJECTProject Type:	al Commercial d - 9% High 2 % D E T A I L S Reservoir Rehabilitation
AgricultureMunicipal28%0 % Low - 61% MicPROJECTProject Type:Average Annual Delivery:	al Commercial d - 9% High 2 % D E T A I L S Reservoir Rehabilitation 1,533 AF

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



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



Water Project Loan Program - Project Data Sheet



Repurposing of Wells 12 and 13

City of Lamar September 2015 Board Meeting

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

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.





Upper Beaver Brook Dam Spillway

Lookout Mountain Water District November 2015 Board Meeting

L	0	A	۹.	Ν	D	E	1	Г	Α		L	S				
Project Cos	t:											\$	3,4	41(),00	00
CWCB Loan:												\$	3,0	099	9,69	90
Loan Term a	and	In	ter	rest	Rate):				30) ye	ear	s (<u>ک</u>	3.25	5%
Funding Sou	irce	:								Coi	nsti	ruc	tio	on	Fur	nd
B C) R	2	R	0	W	Ε	R		1		Y	Ρ	E			
Agriculture	ò				Mur	nicip	bal					Со	m	тe	ercia	al
Agriculture 0%	ò			Hig	<i>Mur</i> h-inc	icip com	oal e 1	00%	6			Со	m	те 0 %	ercia	al
Agriculture 0% P R) 0	J	Ε	Hig C	Mur h-inc T	icip com	oal e 1 D	00% E	% T		Ą	Со. 	m L	me 0%	ercia S	al
Agriculture 0% P R Project Typ) 0 e:	J	E	Hig C	Mur h-inc T	onicip Com	oal e 1 D	00% E Re	% T ese	ervo	A oir I	Co I Enl	m L ar	me 0% ge	ercia S Mei	a/ nt
Agriculture 0% P R Project Typ Average Ani	e: nua	J I D	E Dive	Hig C ersic	Mur h-inc T	oicip com	oal e 1 D	00% E Re	% ese	ervo	A bir l 10	Co I Enl	m L ar ac	me 0% ge cre	ercia 5 mei -fee	al nt et

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

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

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



Water Project Loan Program - Project Data Sheet

Water Project Loan Program - Project Data

Borrower: City of Monte Vista (Water Activity Enterprise)	County: Rio Grande
Project Name: Augmentation Water Rights Acquisition	Project Type: Water Rights Purchase
Drainage Basin: Rio Grande	Water Source: Rio Grande River
Total Project Cost: \$1,863,500	Funding Source: Construction Fund
Type of Borrower: Low-Income Municipal	Aver. Demand: 1,212 AF/year
CWCB Loan: \$1,693,770 (incl. 1% loan fee)	Interest Rate: 4.0% Term: 30 years

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



Location Map

Reservoir No. 4 Rehabilitation



North Poudre Irrigation Company

January 2016 Board Meeting

(Loan Increase)

LOAN DETAILS
Project Cost: \$2,490,000
CWCB Loan (with Service Fee): \$2,263,410
Loan Term and Interest Rate: 30 Years @ 2.35%
Funding Source: Construction Fund
BORROWER TYPE
Agriculture Municipal Commercial
37% 1% Low - 57% Mid - 4% High <1%
PROJECT DETAILS
Project Type: Reservoir Rehabilitation
Project Type:Reservoir RehabilitationAverage Annual Delivery:44,400 AF

2 Ν O County: Larimer Cache la Poudre River Water Source: South Platte Drainage Basin: Division: District: 3 1

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

the late 1880s, enlarged in the 1920s, and had the outlet works replaced in the late 1950s. The Reservoir No. 4 Rehabilitation Project will modify the dam including its slope, outlet works, drains, spillway, and measurement structure and will also provide a new parking area and floodplain improvements. The purpose of the project is to lift the State Engineer's storage restriction on the reservoir and dam and improve the overall reservoir facility. Project costs have increased from the feasibility cost estimate as a result of design changes and bids received in September 2015. Reservoir construction begain in November 2015 and is scheduled for completion in May 2016.





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	ТҮРЕ
Agriculture Municipal	Commercial
26% 0% Low - 73% Mid - 0%	% High 1%
PROJECT DE	TAILS
Draigat Turna.	
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

COLORADO Colorado Water Conservation Board Department of Natural Resources

Dam Outlet Works Rehabilitation

Oligarchy Irrigation Company May 2016 Board Meeting

(Loan Increase)

LOAN DETA	A I L S
Project Cost:	\$992,200
CWCB Loan (with Service Fee):	\$901,930
Loan Term and Interest Rate:	30 Years @ 2.40%
Funding Source:	Construction Fund
BORROWER	ΤΥΡΕ
Agriculture Municipal (TBD)	Commercial
Agriculture Municipal (TBD) 25.4% 0% Low - 74.6% Mid - 0%	Commercial High 0%
Agriculture Municipal (TBD) 25.4% 0% Low - 74.6% Mid - 0% P R O J E C T D E	Commercial High 0% T A I L S
Agriculture Municipal (TBD) 25.4% 0% Low - 74.6% Mid - 0% P R O J E C T D E Project Type: F <td>CommercialHigh0%TAILSDam Rehabilitation</td>	CommercialHigh0%TAILSDam Rehabilitation
AgricultureMunicipal (TBD)25.4%0% Low - 74.6% Mid - 0%PROJECTProject Type:Average Annual Delivery:	CommercialHigh0%TAILDamRehabilitation7,966 AF



The Oligarchy Irrigation Company owns and operates the Oligarchy Res No. 1 Reservoir, also known as Burch Lake. The reservoir stores 1,737 acre-feet of water and is classified as a significant hazard dam by the Office of the State Engineer (SEO). The purpose of the project is to avoid a SEO storage restriction by rehabilitate the

reservoir's outlet works. Work is to include a new unpressurized outlet pipe, an upstream guard gate, and a way to inspect the outlet works system. Bids were received in April 2016 and were higher than the original construction estimate. Construction is expected to start in summer 2016 and be complete by fall 2016.





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	ТҮРЕ
Agriculture Municipal	Commercial
86% 14% Low - 0% Mid - 0%	G High 0%
PROJECT DE	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	TION
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

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.





Evans Reservoir Bypass Flume Replacement

Parkville Water District September 2015 Board Meeting

LOAN DETAILS
<i>Project Cost:</i> \$533,430
CWCB Loan (with Service Fee): \$181,800
Loan Term and Interest Rate: 10 Years @ 1.95%
Funding Source: WSRA & Sev. Tax Perpetual Base Fund
BORROWER TYPE
Agriculture Municipal Commercial
0% 100% Low - 0% Mid - 0% High 0%
PROJECT DETAILS
Project Type: Municipal & Industrial
Average Annual Delivery: 1,500 AF

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



Annual maintenance of the wooden structure has

required increasingly heavy efforts and expense. Heavy runoff events in the last several years have caused the condition of the flume to become an extremely urgent situation. 8,000 acres of deep snow must be channeled through the flume during spring runoff each year. In the spring of 2014, sudden runoff combined with spring rains resulting in an unusually high snow melt. The flume was nearly overwhelmed and the portion that passes over the abutment of the dam failed. Fairly serious erosion of the dam resulted, but emergency repairs prevented further damage and contamination of the water supply. Runoff in 2015 was unusually high as well, due to the amount of snowfall in April and unusually warm temperatures in June, necessitating emergency action again. The State Engineer's Office has strongly recommended that the flume be replaced. This project proposes a buried pipeline to replace the flume. Concrete inlet and outlet structures will be constructed, and a trash rack will be installed at the inlet.

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



COLORADO Mt. Pisgah Dam/Wrights Reservoir Outlet Works Rehabilitation



Pisgah Reservoir and Ditch Company

Conservation Board Department of Natural Resources

September 2015 Board Meeting

(Loan Increase)

LOAN D	ETAILS
Project Cost:	\$1,362,000
CWCB Loan (with Service Fee)): \$1,160,655
Loan Term and Interest Rate:	30 Years @ 1.75%
Funding Source:	Construction Fund
BORROWI	ER TYPE
Agriculture Munic	cipal Commercial
Agriculture Munic 93% 7% Low - 0% N	cipal Commercial Mid - 0% High 0%
Agriculture Munic 93% 7% Low - 0% N PROJECT	cipal Commercial Mid - 0% High 0% D E T A I L S
Agriculture Munic 93% 7% Low - 0% M P R O J E C T Project Type:	cipal Commercial Mid - 0% High 0% D E T A I L S Reservoir Rehabilitation
AgricultureMunic93%7% Low - 0% NPROJECTProject Type:Average Annual Diversion:	cipal Commercial Mid - 0% High 0% D E T A I L S Reservoir Rehabilitation 860 AF

The Pisgah Reservoir and Ditch Company provides raw water for the irrigation of approximately 20,000 acres of agricultural land across an 18 mile stretch from Manzanola to La Junta. Primary shareholders include Catlin Canal Company, Canon Heights Irrigation and



Reservoir Company, Park Center Water District, City of Rocky Ford, Colorado Parks and Wildlife, and individual agricultural users.

The Company was approved for a \$161,345 loan and a \$161,345 WSRA grant at the September 2012 CWCB Board Meeting to modify the operational inlet and outlet works and replace existing control valves on Pisgah Dam, in compliance with an SEO conditional order. The scope increased during final design resulting in an increase to the loan. In response to bids received, the Company is again seeking an increase to its CWCB loan. Work to be done includes the proper abandonment of the abandoned outlet, the installation of a sluice gate on the outlet's intake, and the replacement of the flow control gate valves. Construction began in June 2015 and is scheduled for completion in November 2015.



COLORADO Colorado Water Conservation Board Department of Natural Resources

Raw Water Supply Project

Loan Program

Plum Valley Heights Subdistrict of the Roxborough Water and Sanitation District May 2015 Board Meeting

L O	A N	DE	ТА	I L	S
Project Cost:					\$2,473,605
CWCB Loan (wi	th Servic	ce Fee):			\$2,248,260
Loan Term and	Interest	Rate:		30 Ye	ars @ 3.05%
Funding Source:Construction Fund					
BOR	RO	WΕ	R T	Y	ΡE
Agriculture		Municip	al	(Commercial
0%	0% Low ·	- 0% Mid -	100% Hi	gh	0%
PRO	JEC	T	DET	Α	ILS
Project Type:			Wate	er Righ	nts Purchase
Average Annual Delivery:					150 AF



Plum Valley Heights Subdistrict of the Roxborough Water and Sanitation District was recently formed to provide rural communities in Douglas County with a renewable water supply. The communities will be connected to the Roxborough Water and Sanitation District system through an infrastructure project funded by a WSRA grant, CWRPDA loan, and Douglas County. The total project cost

(including infrastructure) is approximately \$14.9M. The CWCB loan will finance the acquisition of a renewable water supply from the City of Aurora.

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



C150400

CWCB Water Project Loan Program Project Data Sheet

Borrower: The Prairie Ditch CompanyCounty: Rio GrandeProject Name: Plaza Project Phase 3:
Prairie Ditch Implementation ProjectProject Type: Ditch RehabilitationDrainage Basin/ District: Rio Grande / 20Water Source: Rio Grande RiverTotal Project Cost: \$975,000Funding Source: Construction Fund,
WSRA GrantsType of Borrower: AgriculturalAverage Annual Diversion: 16,000 AFCWCB Loan: \$131,300
(with 1% service fee)Interest Rate: 1.25% Term: 10-years

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

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



Water Project Loan Program - Project Data

Borrower: Riverside Ditch & Allen Extension Co.	County: Chaffee			
Project Name: Phased Canal Improvements	Project Type: Ditch Rehabilitation			
Drainage Basin: Arkansas	Water Source: Arkansas River			
Total Project Cost: \$205,000	Funding Source: Construction Fund			
Type of Borrower: Agricultural	Average Diversion: 3,250 acre-feet			
CWCB Loan: \$186,345 (Including 1% fee)	Interest Rate: 2.75% Term: 30 years			

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


CWCB Construction Loan Program Project Data Sheet

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

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



Borrower: San Luis Valley Water Conservancy District	County: Alamosa					
Project Name: Anaconda Ditch Water Right Acquisition	Project Type: Water Rights					
Drainage Basin / District: Rio Grande / 20	Water Source: Rio Grande River					
Total Project Cost: \$923,000	Funding Sources: Construction Fund					
Type of Borrower: Municipal Low Income	Average Delivery: 386 acre-feet					
CWCB Loan: \$839,000 (Including 1% fee)	Interest Rate: 2.5% Term: 30 years					

The San Luis Valley Water Conservancy District (District) operates an augmentation program servicing portions of Rio Grande, Alamosa, Saguache, Hinsdale and Mineral Counties. The augmentation program was developed to offset river depletions from wells serving residential and commercial uses in the area. The District intends to acquire additional water rights to add to its existing program, including the subject of this loan request, the Anaconda Ditch water rights. The District is purchasing a 58% interest in the ditch providing an estimated 260 acre-feet. The purchase will be finalized once the water rights have been through water court. The decree is expected in the fall of 2013.



CWCB Construction Loan Program Project Data Sheet

Borrower: Sanchez Ditch and Reservoir Co.	County: Costilla
Project Name: Sanchez Reservoir Outlet	Project Type: Dam Rehabilitation
Rehabilitation Project Basin / District: Rio Grande / 24	Water Source(s): Ventero Creek
Total Project Cost: \$2,032,000	Funding Sources: Construction Fund & WSRA (Basin & Statewide funds)
Type of Borrower: Agricultural	Average Diversions: 15,000 AF

Loan Amount: \$1,128,776 (Including 1% fee) Interest Rate: 1.75% Term: 30 years WSRA Grant Amounts: \$55,000 Rio Grande Basin & \$859,400 Statewide

The Company provides irrigation water for users in Costilla County, southwest of the town of San Luis. The Company's primary storage reservoir is Sanchez Reservoir. The approximately 104,000 acre-foot reservoir was built in 1910. The reservoir's outlet includes a 135 foot tall concrete gate tower. In order to access the gates to operate the dam, a tramway/gondola runs along a cable and is powered by a portable gasoline generator. Because daily access to the tower is required during irrigation season, the reliability and safety of the gondola system has been a concern of the Company. Using loan and grant funds, the Company intends to address the safety and operational management concerns at the reservoir through the demolition of the gate tower; the installation of new control gates and operators; lining the existing outlet conduit with shotcrete; repairing the downstream outlet structure; and, installing a new perimeter drain and weir along the right side of the outlet structure to control seepage. The project schedule is estimated as: final design and State Engineer's Office (SEO) approval between January 2013 and January 2014; bid the project in May of 2014; award the bid by June of 2014; start construction in September of 2014; complete construction by March of 2015.



C150401

CWCB Water Project Loan Program Project Data Sheet

Borrower: The Sanford Canal CompanyCounty: Rio GrandeProject Name: Sanford Diversion and
Headgate RehabilitationProject Type: Ditch RehabilitationDrainage Basin/ District: Rio Grande / 22Water Source: Conejos RiverTotal Project Cost: \$213,000Funding Source: Construction Fund,
WSRA GrantsType of Borrower: AgriculturalAverage Annual Diversion: 4,000 AFCWCB Loan: \$101,000
(with 1% service fee)Interest Rate: 1.75% Term: 30-years

The Sanford Canal Company was incorporated in 1892 as a "Colorado Water Company" and later became a Mutual Ditch Company in 1912. Its diversion is located on the Conejos River just below the confluence with the San Antonio River and has a service area covering approximately 3,000 irrigated acres. The purpose of this Project is to address the need for a well-designed diversion structure that will reduce maintenance, improve water management efficiencies, and allow for the accurate control of compact-entitled waters. The core of the Sanford Canal diversion structure has been washed away over time, contributing to decades of limited diversion to irrigators and potential over payment to the Compact. Currently irrigators divert their water right by piling debris such as tree trunks or cinderblocks to act as the diversion dam. This Project will remove and replace the diversion and headgate structures and install automated headgates and four gauging stations. Construction is expected to start by September 2014.

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



Borrower: Thunderbird Water and Sanitation District	County: Douglas					
Project Name: Lambert Ranch Water Rights Purchase	Project Type: Water Rights Purchas					
Drainage Basin: South Platte, District 8	Water Source: Denver Basin Aquifer					
Total Project Cost: \$350,000	Funding Source: Construction Fund					
Type of Borrower: Middle-Income Municipal	Avg. Annual Delivery: 55 AF					
CWCB Loan: \$318,150 (w/ 1% service fee)	Interest Rate: 4.25% Term: 20 years					

The Thunderbird Water and Sanitation District (District) provides potable water service for the Indian Creek Ranch subdivision, consisting of 2,420 acres and 175 customers. The District is applying for a loan to purchase 895.9 AF of Denver Basin decreed ground water rights that underlie the property known as Lambert Ranch. On average, the District delivers approximately 55 AF annually. The increase would enable the District to enlarge its available supply; thereby increasing system reliability, providing the redundancy necessary to allow for system maintenance and protect against aquifer depletions.





Laramie-Poudre Tunnel Rehabilitation

The Tunnel Water Company September 2015 Board Meeting

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



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

Loan Program Attachment 3



Drop 5 Hydroelectric Project Uncompany Valley Water Users Association

May 2015 Board Meeting

LO	A N	D	E	Т	Α		L	S		
Project Cost:								\$7	',70	0,000
CWCB Loan (with	h Serv	∕ice Fee	e):					\$6	,99	9,300
Loan Term and I	ntere	st Rate	:			2	0-у	/eai	s@	2.0%
Funding Source:		Severe	ence	Tax	: Pe	rpe	tua	al B	ase	Fund
BOR	R	O W	E R	2	Т	·)	(Ρ	Е	
		Agricu	ultura	al						
PROJ	E	СТ	D	E	Т	· /	ł	1	L	S
Project Type:							Η	ydr	oel	ectric

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





CWCB Construction Loan Program PROJECT DATA SHEET

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

Loan Program Attachment 3

COLORADO Colorado Water Conservation Board
West Reservoir And Ditch Outlet Repair Project West Reservoir and Ditch Company

West Reservoir and Ditch Company November 2014 Board Meeting

	L (0	Α	Ν	D	E	Т	Α		L		5		
Project C	ost:											\$4	71,	577
CWCB Loc	ın (v	vit	h S	ervio	ce Fe	e):						\$2	48,	378
Loan Terr	n ar	nd	Inte	erest	Rate	2:					30 Y	'ear	's @	2%
Funding S	our	ce:												
В	0	R	R	0	W	Е	R		Т	Y	Ρ	Ε		
Agricultu	ire				Mun	icip	al				Сс	mn	ner	cial
100%					(0%						C)%	
PR	0	,	J	E C	Т		D	E	Т	Α		L	S	
Project T	ype:							0	utl	et F	Reh	abil	itat	tion
Average A	lnnι	ıal	Div	rersi	on:								604	I AF

Department of Natural Resources



The West Reservoir and Ditch Company operates West Reservoir No. 1, providing water seven miles eastward via Wakefield Ditch to Wakefield Mesa. The water is available for livestock as it traverses east Oak Mesa, and irrigates approximately 600 acres of hay and pasture. The

current landowners use the Oak Mesa Reservoir and Ditch water for spring irrigation, and, when those flows are exhausted, use the West Reservoir flows for mid-summer to fall irrigation. The West Reservoir was improved in the early 1950s, but is now under a storage restriction order from the Office of the State Engineer due to deterioration of the outlet pipe. This project will include a low-level outlet sized to meet SEO release requirements, an outlet stilling basin structure downstream of the dam for energy dissipation, and an intake structure for a manually-operated slide gate and trash racks. Construction is scheduled for Spring of 2015.



	· · ·	C150366			
Borrower: Toy	wn of Windsor Water Enterprise	County: Larimer/Weld			
Project Name:	Kyger Reservoir Project	Project Type: Reservoir Construction			
Drainage Basi	n/ District: South Platte / 3	Water Source: Cache la Poudre River			
Total Project (Cost: \$6,300,000	Funding Source: Construction Fund			
Type of Borrov	wer: Municipal (High)	Average Annual Delivery: 2035 AF			
CWCB Loan:	\$4,545,000 (with 1% service fee)	Interest Rate: 2.75% Term: 20-years			

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



C150408

Borrower: Cottonwood Water & Sanitation District	County: Douglas & Arapahoe
Project Name: Water Infrastructure and Supply (WISE) Efficiency Project	Project Type: New Water Supply
Drainage Basin/ District: South Platte / 8	Water Source: South Platte
Total Project Cost: \$4,960,000	Funding Source: Construction Fund
Type of Borrower: High-Income Municipal	Average Annual Delivery: 789 AF
CWCB Loan: \$4,508,640 (with 1% service fee)	Interest Rate: 3.00% Term: 30 years

In 1981, the Cottonwood Water & Sanitation District was formed, pursuant to Title 32 C.R.S., to provide water supply and treatment systems for customers within its service area.

Cottonwood's local project infrastructure components will extend from an existing tee located on the ECCV Western Pipeline, where a below-grade vault with flow control and metering equipment will be installed. From this location 500 feet of 36-inch pipe will be installed to connect to an existing Cottonwood pipeline. In addition, Cottonwood will also participate in a Rueter-Hess Reservoir fill pipeline and pump station being constructed by Parker.

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



C150409

Borrower: Inverness Water & Sanitation District	County: Douglas & Arapahoe				
Project Name: Water Infrastructure and Supply (WISE) Efficiency Project	Project Type: New Water Supply				
Drainage Basin/ District: South Platte / 8	Water Source: South Platte				
Total Project Cost: \$5,400,000	Funding Source: Construction Fund				
Type of Borrower: High-Income Municipal	Average Annual Delivery: 1,100 AF				
CWCB Loan: \$4,908,600 (with 1% service fee)	Interest Rate: 2.75% Term: 20 years				

In 1973, Inverness was formed pursuant to Article 1 of Title 32 C.R.S. to provide water supply and treatment systems for the customers within their service area.

Inverness will have a connection to the East Cherry Creek Valley (ECCV) Western Pipeline near the intersection of South Jamaica Street and E-470. Immediately downstream of the connection will be a below-grade vault with flow control and metering equipment. Downstream of the vault will be approximately 1,800 feet of 10-inch pipe to connect to the existing Inverness distribution system.

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



C150410

Borrower: Parker Water & Sanitation District	County: Douglas & Arapahoe				
Project Name: Water Infrastructure and Supply (WISE) Efficiency Project	Project Type: New Water Supply				
Drainage Basin/ District: South Platte / 8	Water Source: South Platte				
Total Project Cost: \$17,305,500	Funding Source: Construction Fund				
Type of Borrower: High-income Municipal	Average Annual Delivery: 5,000 AF				
CWCB Loan: \$15,734,790 (with 1% service fee)	Interest Rate: 2.75% Term: 20 years				

Parker Water and Sanitation District is a quasi-municipal corporation and political subdivision of the State of Colorado created in 1962 in Douglas County, for the purpose of providing water and sanitary sewer services its users.

Parker will take the lead on construction of 20,300 feet of new 42-inch pipeline from near the intersection of Chambers Road and E-470 to the Parker Water Treatment Plant located just south of Rueter-Hess Reservoir. Southward from the treatment plant a 16.5 million gallons per day pumping station will be constructed, followed by 9,000 feet of new 24-inch pipe that will allow WISE water to be conveyed to Rueter-Hess Reservoir for storage. Parker's facilities will oversized for use by other WISE Authority members.

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



C150411

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

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

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

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



Loan Program Attachment 3

Projects Not Under Contract

Water Project Construction Loan Program - Project Data

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

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



Location Map



Arkansas Valley Conduit Phase One Pueblo Dam Hydroelectric Project

Loan Program Attachment 3

Southeastern Colorado Water Conservancy District

July 2016 Board Meeting

LOAN DET	Α	ΙL	- 5	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:	Se	ever	anc	e Ta	x PBF
BORROWER	Т	Y	Ρ	Ε	
Hydropower					
Hydropower PROJECT DE	ΕT	Α	I	L	S
Hydropower PROJECT DE Project Type:	ΕT	A	l Hyd	L : Iroele	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

L O C A	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.



Loan Program Attachment 3



Government Highline Canal Lining Grand Valley Water Users Association

September 2016 Board Meeting

LOAN DE	TAILS
Project Cost:	\$800,000
CWCB Loan (with Service Fee):	\$151,500
Loan Term and Interest Rate:	30 Years @ 1.55%
Funding Source:	Construction Fund
BORROWE	R T Y P E
Agriculture Municip	al Commercial
Agriculture Municip 90% 0% Low - 10% Mic	al Commercial d - 0% High 0%
Agriculture Municip 90% 0% Low - 10% Mic PROJECT	al Commercial d - 0% High 0% D E T A I L S
Agriculture Municip 90% 0% Low - 10% Mic P R O J E C T Project Type:	al Commercial d - 0% High 0% D E T A I L S 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.





Headgate Structure Replacement

Larimer and Weld Irrigation Company September 2016 Board Meeting

LOAN DET	AILS
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	ΤΥΡΕ
Agriculture Municipal	Commercial
96% 0% Low - 4% Mid - <1%	High 0%
	5
PROJECT DE	TAILS
P R O J E C T D E Project Type:	T A I L S Ditch Rehabilitation

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.





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

James Eklund, CWCB Director

TO:Colorado Water Conservation Board MembersFROM:Jodie Tavares, Program Assistant
Kirk Russell, P.E., Finance Section ChiefDATE:November 16-17, 2016DIRECTORS 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.

To date, the CWCB has nineteen (19) projects authorized totaling \$24.6 million. The CWCB Emergency Loan Program has Completed Construction on four (4) projects as shown in Table 1.

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

TABLE 1

	Borrower	Project	County	Loan	Completed
1	Boulder & Larimer Co Irr.	Diversion Structure Repair	Boulder/Larimer	\$202,000	04/2014
2	Culver Ditch Company	Culver Mahoney Ditch Repair	Boulder/Larimer	\$151,500	05/2014
3	Ish Reservoir Company	Inlet Ditch & Div. Repair	Boulder	\$207,050	04/2014
4	Sylvan Dale Ranch, LLLP	Emergency Pond Excavation	Larimer	\$105,171	05/2014
			Total:	\$665,721	



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

C150374



Project Description

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

Project Data

Sponsor: Boulder & 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: NODesign 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.

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

Contractor: Chaparral Construction, LLC - LaVeta, Colorado

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

Ish Reservoir Company Emergency Inlet Ditch and Diversion Structure Repair

C150376



Project Description

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

Project Data

Sponsor: Ish Reservoir CompanyCounty: Boulder & LarimerWater Source: Little Thompson River
LarimerTerms of Loan: \$207,050 for 30 years @ 1.75%Construction Completed: April 2014Expended Amount: \$207,050Anticipates FEMA Funding: NODesign 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.

Sylvan Dale Ranch, LLLP Emergency Irrigation Pond Excavation

C150392



Project Description

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

Project Data

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

Water Source: Big Thompson River Construction Completed: May 2014

Contractor: Custom Design Fabricators - Livermore, Colorado

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

Emergency Loan - Summary

Current Projects in Design or under Construction			Loan Design Construction			ion		Status Description/Update	
	Borrower/Project	County	Amount	Status	Start/End	Status	РМ		
1	Beeman Irrigation > Emergency Beeman Diversion Dam Repair C150385	Weld	\$ 2,020,000	100%	1/2014-5/2014	100%	JMH	Construction complete, loan funds remaining. No additional dibursements are anticipated.	
2	Big Elk Meadows Association > Emergency Raw Water Storage Repair C150391	Boulder/ Larimer	\$ 1,515,000	75%	7/2014-4/2017	30%	JMH	Project includes the reconstruction of 5 dams in series. Mirror Dam complete as of April 2015. Rainbow Dam's outlet constructed in fall 2015. Site shut down for winter. Rainbow's embankment and last 3 dams still pending construction.	
3	Big Thompson and Platte River > Big Thompson & Platte River Div. Structure Repair C150373	Larimer	\$ 808,000	100%	5/2014-6/2014	95%	JMH	Design change complete. Project is now a siphon crossing the Little Thompson River, rather than an elevated pipe. Construction nearly completed.	
4	Boulder and Larimer County Irrigation > Boulder & Larimer Diversion Structure Repair C150374	Boulder & Larimer	\$ 202,000	100%	1/2014-4/2014	100% Ltr	JMH	Construction complete, used all loan funds. No grant reimbursements are expected.	
5	Butte Irrigation & Milling Company > Emergency Berm Repair C150382	Boulder	\$ 277,750	100%	4/2014-5/2014	100%	JMH	Construction complete, loan funds remaining. No additional dibursements are anticipated.	
6	Church Ditch Water Authority > Leyden Creek Crossing Repair C150377	Jefferson	\$ 606,000	100%	1/2014-5/2014	95%	JMH	Repair construction complete, small amount of loan funds remaining. Additional dibursements are anticipated for mitigation portion of project. Company has applied \$360k of FEMA money to loan balance.	
7	Consolidated Home Supply Ditch & Reservoir Co > Big Dam Diversion Structure Repair C150375	Larimer	\$ 3,506,720	100%	1/2014-9/2015	100%	JMH	Loan increase approved at Sept 2014 for flood mitigation work. Flood repairs to the dam have been completed. New headgates, sandgates, control gate, and the new spillway gate are all near complete. Company to request FEMA closeout meeting soon.	
8	Consolidated Home Supply Ditch & Reservoir Co > George Rist Ditch Repair C150380	Larimer	\$ 519,140	100%	2/2014-5/2014	99%	JMH	Loan Increase request approved during July 2014 Board Meeting. Project is complete but there remains some miscellaneous items to be closed out.	
9	Culver Ditch Company > Culver Mahoney Ditch Repair C150390	Boulder & Larimer	\$ 151,500	100%	2/2014-4/2014	100% Ltr	JMH	Construction complete, used all loan funds. FEMA grant reimbursement is still pending.	

10	Green Ditch Company > Emergency Green Ditch Channel Repair C150383	Boulder	\$ 530,250	100%	5/2014-6/2014	100%	JMH	The project schedule and description has been revised to include only the river breach construction, which has been completed. The diversion structure will be completed using other funds. No additional loan disbursements are expected.
11	Highland Ditch Company > Highland Ditch System Repairs C150369	Boulder	\$ 1,999,800	100%	10/2013-4/2014	100%	JMH	Construction complete, loan funds remaining. No additional dibursements are anticipated.
12	Ish Reservoir Company > Inlet Ditch & Diversion Structure Repair C150376	Boulder	\$ 207,050	100%	1/2014-4/2014	100% Ltr	JMH	Construction complete, used all loan funds.
13	Left Hand Ditch Company > Left Hand Ditch System Repairs C150370	Boulder	\$ 3,276,056	100%	10/2013-2/2015	99%	JMH	Several projects are included in this loan. All are complete or very near completion. Significant savings in Project cost because anticipated Left Hand Valley work did not have to be done. Company has applied \$592k of FEMA money to loan balance.
14	North Poudre Irrigation Company > Fossil Creek Res. Diversion Structure Repair C150368	Larimer	\$ 876,680	100%	11/2015 - 3/2016	100%	JMH	Construction was delayed due to continuously high river conditions during winter of 2014/2015. Bids were received August 2015 and construction began November 2015. Work has been completed and company is waiting for possible FEMA reimbursements.
15	Oligarchy Irrigation Company > Oligarchy Irr. Ditch River Diversion Struct. Repair C150372	Boulder	\$ 1,262,500	100%	1/2014-5/2014	100%	JMH	Construction complete, loan funds remaining. No additional dibursements are anticipated. Company has applied \$584k of FEMA money to loan balance.
16	Rough & Ready Irrigation Ditch Company > Rough & Ready River Diversion Struct.Repair C150371	Boulder	\$ 1,843,250	100%	1/2014-5/2014	100%	JMH	Construction complete, loan funds remaining. No additional dibursements are anticipated. Company has applied \$963k of FEMA money to loan balance.
17	St. Vrain and Left Hand Water Conservancy District > Emergency Rock'n WP Ranch Lake No. 4 Repair	Boulder	\$ 4,545,000	50%	Spring 2016 - Fall 2016	0%	JMH	Approved July 2014 Board Meeting. Contract has been signed and final design is underway.
18	Supply Irrigating Ditch Company >Emergency Supply Irrigating Ditch Repair Project CT15-142	Boulder	\$324,210	100%	3/2015-5/2015	100%	JMH	Construction complete, loan funds remaining. No additional disbursements are anticipated. FEMA reimbursements pending.
19	Sylvan Dale Ranch,LLP > Emergency Irrigation Pond Excavation C150392	Larimer	\$ 105,171	100%	6/2014-4/2014	100% Ltr	JMH	Construction complete, used all loan funds. Company has applied \$84k of grant funds to loan balance.

Projects Under Contract SubTotal = \$24,576,077

C150385

CWCB Water Project Loan Program Project Data Sheet

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

Total Project Cost: \$2,000,000

Type of Borrower: Agricultural

CWCB Loan: \$2,020,000

(with 1% service fee)

County: Weld Project Type: Diversion Rehabilitation Water Source: South Platte River Funding Source: Severance Tax PBF Average Annual Diversion: 10,586 AF Interest Rate: 1.75% Term: 30-years

The Company and Meadow Island No. 2, jointly operate a diversion dam, measurement flume, and bifurcation structure. (Beeman is allocated 75% of costs, Meadow Island is allocated 25% of costs). The diversion headworks was constructed in the early 1900s to irrigate approximately 5,000 acres under both canal systems. The September 2013 flood deposited silt covered the diversion dam and cut a new channel through the historic island, cutting off flow to the joint

headworks area. The project includes four phases: 1) Demolition of existing structures and reconstruction of the headworks (headwall, headgates, flow measurement, and bifurcation structure), 2) Install an adjustable check dam in place of the current stop log dam, 3) Demolition of a portion of the existing "big dam" structure at the river, 4) Channel bank stabilization will be coordinated with adjoining landowners.



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

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



C150373

Borrower: Big	Thompson & Platte River	County: Larimer			
Project Name:	Big Thompson & Platte River Diversion Structure Repair	Project Type: Diversion Rehabilitation			
Drainage Basin	/ District: South Platte / 4	Water Source: Big Thompson River			
Total Project C	bost: \$800,000	Funding Source: Severance Tax PBF			
Type of Borrov	ver: Blended	Average Annual Diversion: 9,736 AF			
CWCB Loan:	\$808,000 (with 1% service fee)	Interest Rate: 1.85% Term: 30-years (97% Ag, 3% Comm)			

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



C150382

CWCB Water Project Loan Program Project Data Sheet

Borrower: Butte Irrigating & Milling Company

Project Name: Emergency Berm Repair

Drainage Basin/ District: South Platte / 6

Total Project Cost: \$275,000

Type of Borrower: Blended

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

Project Type: Ditch Rehabilitation

Water Source: Boulder Creek

Funding Source: Severance Tax PBF

Average Annual Diversion: 1,177 AF

Interest Rate: 2.30% Term: 30-years (48% Ag, 51% Mid-Muni, 1% Commercial

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





C150377

Borrower: Chu	urch Ditch Water Authority	County: Jefferson		
Project Name:	Leyden Creek Crossing Repair	Project Type: Ditch Rehabilitation		
Drainage Basin	/ District: South Platte / 7	Water Source: Clear Creek		
Total Project C	Cost: \$600,000	Funding Source: Severance Tax PBF		
Type of Borrov	ver: Blended	Average Annual Diversion: 8,355 AF		
CWCB Loan:	\$606,000 (with 1% service fee)	Interest Rate: 2.85% Term: 30-years (6% Ag, 26% Mid, 67% High, <1% Com)		

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



Loan Program Attachment 4

COLORADO Colorado Water Conservation Board Department of Natural Resources

Emergency Big Dam Diversion Structure Repair Consolidated Home Supply Ditch & Reservoir Company

September 2014 Board Meeting

(Loan Increase)

LOAN DETAILS	
Project Cost: \$2,775,	000
CWCB Loan (with Service Fee): \$1,840,000 (15% increa	ase)
Loan Term and Interest Rate: 30 Years @ 1.	9 5%
Funding Source: Severance Tax Perpetual Base F	und
BORROWER TYPE	
Agriculture Municipal Commer	cial
76% 0% Low - 23% Mid - <1% High <1%	
PROJECT DETAILS	
Project Type: Diversion Rehabilitat	tion
Average Annual Diversion: 22,000) 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 "Big Dam" diversion structure. During the flood, the top five feet of the masonry dam structure was washed out and the

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

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



Water Project Loan Program - Project Data Sheet

C150380

Borrower: C	onsolidated Home Supply Ditch Reservoir Company	County: Larimer	
Project Name:	Emergency George Rist Ditch Repair	Project Type: Ditch Rehabilitation	
Drainage Basin/ District: South Platte / 4		Water Source: Big Thompson River	
Total Project Cost: \$514,000		Funding Source: Severance Tax PBF	
Type of Borrower: Blended		Average Annual Diversion: 22,000 AF	
CWCB Loan:	\$519,140 (with 1% service fee)	Interest Rate: 1.95% Term: 30-years (76% Ag, 23% Mid, <1% High, <1% Com)	

During the unprecedented flood of September 2013 in the tributaries to the South Platte River, a significant number of diversion structures and dams along the river corridor were damaged, including the Company's George Rist ditch and diversion structure. During the flood, the diversion dam, headgate, measuring flume, stilling well and house, and access road were heavily damaged. Additionally, two sections of the ditch's embankment and bottom were completely washed out. The purpose of this Project is to restore the George Rist Ditch to its pre-flood condition. During repairs, approximately \$70,000 worth of additional needs were identified prompting a request for additional funds.



Loan Program Attachment 4

CWCB Water Project Loan Program Project Data Sheet

C150383

Borrower: Green Ditch Company

Project Name: Emergency Green Ditch Channel Repair Drainage Basin/ District: South Platte / 6

Total Project Cost: \$525,000

Type of Borrower: Blended

CWCB Loan: \$530,250 (with 1% service fee) County: Boulder Project Type: Ditch Rehabilitation Water Source: Boulder Creek Funding Source: Severance Tax PBF Average Annual Diversion: 1,847 AF Interest Rate: 2.50% Term: 30-years (21% Ag, 58% Mid, 5% Com)

During the unprecedented flood of September 2013 in the tributaries to the South Platte River, a significant number of diversion structures and dams along the river corridor were damaged including the Green Ditch. Additionally the flood relocated Boulder Creek at this location and water no longer flows to the Green Ditch headgate. Various stakeholders have indicated the

creek's new alignment is more environmentally friendly alignment. In an effort of collaboration the Company plans to relocate their point of diversion upstream of the breach and build a fish friendly diversion structure. A new pipeline will connect the new diversion structure with the existing ditch.





C150369

Borrower: Hig	hland Ditch Company	County: Boulder
Project Name: Highland Ditch System Repairs Drainage Basin/ District: South Platte / 5		Project Type: Ditch Rehabilitation
		Water Source: St. Vrain Creek
Total Project C	Cost: \$1,980,000	Funding Source: Severance Tax PBF
Type of Borrower: Blended		Average Annual Diversion: 38,000 AF
CWCB Loan:	\$1,999,800 (with 1% service fee)	Interest Rate: 1.95% Term: 30-years (86% Ag, 6% Mid, 6% High, 2% Com)

During the unprecedented flood of September 2013 in the tributaries to the South Platte River, a significant number of diversion structures and dams along the river corridor were damaged. The purpose of this Project is to repair the Company's system to allow the delivery of water to shareholders. The scope of work includes: repairing of the main diversion structure, headgate, SCADA system, and inlet and outlet of Foothills Reservoir.



C150370

Borrower: Left Hand Ditch Company

Project Name: Left Hand Ditch System Repairs Drainage Basin/ District: South Platte / 5

Total Project Cost: \$3,243,620

Type of Borrower: Blended

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

Project Type: Ditch Rehabilitation

Water Source: Left Hand & St. Vrain Creeks Funding Source: Severance Tax PBF

Average Annual Diversion: 22,700 AF

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

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


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

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.



C150372

Borrower: Olig	garchy Irrigation Company	County: Boulder					
Project Name:	Oligarchy Irrigation Ditch	Project Type: Diversion Rehabilitation					
Drainage Basir	/ District: South Platte / 5	Water Source: St. Vrain Creek					
Total Project C	Cost: \$1,250,000	Funding Source: Severance Tax PBF					
Type of Borrow	ver: Blended	Average Annual Diversion: 7,966 AF					
CWCB Loan:	\$1,262,500 (with 1% service fee)	Interest Rate: 2.50% Term: 30-years (26% Ag, 72% Mid, 2% High)					

During the unprecedented flood of September 2013 in the tributaries to the South Platte River, a significant number of diversion structures and dams along the river corridor were damaged including the Company's diversion off the St. Vrain Creek. Of the original structure, only a small portion of the diversion dam and right abutment remain. The purpose of this Project is to rebuild the diversion dam, sand gates, Rubicon flumegate, and bypass gate. The structure will be the same size and location as the original but will modify the sand gates and flumegate. The original structure had one sand gate into which the Rubicon flumegate was installed. For better operation and river administration, the rebuilt diversion will separate the sand gate and the flumegate into their own passages through the diversion dam.



C150371

Borrower: Rou	gh & Ready Irrigating ch Company	County: Boulder					
Project Name:	Rough & Ready Ditch River Diversion Structure Repair	Project Type: Diversion Rehabilitation					
Drainage Basin	/ District: South Platte / 5	Water Source: St. Vrain Creek					
Total Project C	bost: \$1,825,000	Funding Source: Severance Tax PBF					
Type of Borrow	ver: Blended	Average Annual Diversion: 7,528 AF					
CWCB Loan:	\$1,843,250 (with 1% service fee)	Interest Rate: 2.7% Term: 30-years (15% Ag, 69% Mid, 13% High, 3% Com)					

During the unprecedented flood of September 2013 in the tributaries to the South Platte River, a significant number of diversion structures and dams along the river corridor were damaged including the Company's river diversion off the St. Vrain Creek. This structure also serves as the diversion dam for the Palmerton Ditch. The diversion dam and sand gates no longer exist and the headgates sustained major damage. The purpose of this Project is to rebuild the diversion dam, sand gates, Rubicon flumegate, headgates, ditches, and measuring flumes. The structure will be the same size and location but will include a combined conveyance ditch off the diversion and will include the addition of a bypass to the river to better regulate diversions.



Borrower:	St. Vrain and Left Hand Water Conservancy District	County: Boulder				
Project Nam	ie: Emergency Rock'n WP Ranch Lake No. 4 Repair Project	Project Type: Res	ervoir Rehabilitation			
Drainage Ba	sin: South Platte	Water Source: St. Vrain Creek				
Total Projec	:t Cost: \$9,000,000	Funding Source:	Severance Tax Perpetual Base Fund			
Type of Bor	rower: Blended	Average Annual A	ugmentation: 200 AF			
CWCB Loan:	\$4,545,000 (with 1% service fee)	Preserved Water Interest Rate: 3.2 (Ownership: 93% H	Supply Storage: 600 AF 2% Term: 30-years Iigh 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

CO

Supply Irrigating Ditch Company November 2014 Board Meeting

LOAN DETAILS	
Project Cost: \$321,000)
CWCB Loan (with Service Fee): \$324,210)
Loan Term and Interest Rate: 27 Years @ 2.25%	ó
Funding Source: Severance Tax Perpetual Base Fund	1
BORROWER TYPE	
Agriculture Municipal Commercial	
86% 0% Low - 5% Mid - 7% High 2%	
PROJECT DETAILS	
Project Type: Ditch Rehabilitation	۱
Average Annual Diversion: 4,650 A	-

Conservation Board

Department of Natural Resources



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 NOVEMBER 2016

LOAN REPAYMENT DELINQUENCY

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

Repayments due for the first four months of Fiscal Year 2017 totaled 106. There were two loan payments not received on time during this period. The loan payment from the Sanchez Ditch and Reservoir Company was less than 30 days late. The loan payment from Fuchs Ranches, Inc. was less than 60 days late but has not received to date. Thus, the on-time performance for the total repayments due was 98% in compliance or 2% not in compliance.

LOAN FINANCIAL ACTIVITY

Loan Financial Activity relative to the Water Project Construction Loan Program for Fiscal Year 2017 is summarized as follows: Funds received relative to loans in repayment totaled \$80.5 M for this year. Funds disbursed relative to new project loans totaled \$3.5 M for this year. Net activity resulted in \$77.0 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 \$74.4 M in receivables and \$2.8 M in disbursements for a total net activity of \$71.6 M received over disbursed. The STPBF consists of \$6.1 M in receivables and \$0.7 M in disbursements for a total net activity of \$5.4 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	\$	1,422,775	\$	69,546,146
September 2016	\$ 940,753	\$ 1,351,946	\$	2,292,699	\$	702,809	\$	1,589,890
October 2016	\$ 429,779	\$ 339,275	\$	769,053	\$	716,499	\$	52,555
November 2016	\$ -	\$ -	\$	-	\$	-	\$	-
December 2016	\$ -	\$ -	\$	-	\$	-	\$	-
January 2017	\$ -	\$ -	\$	-	\$	-	\$	-
February 2017	\$ -	\$ -	\$	-	\$	-	\$	-
March 2017	\$ -	\$ -	\$	-	\$	-	\$	-
April 2017	\$ -	\$ -	\$	-	\$	-	\$	-
May 2017	\$ -	\$ -	\$	-	\$	-	\$	_
June 2017	\$ -	\$ -	\$	-	\$	-	\$	-

CONSTRUCTION FUND

FY 2017 Totals \$ 71,374,870 \$ 3,008,795

\$ 74,383,664

\$

2,842,083 \$ 71,541,582

Period]	Principal	Interest	Т	otal Received	Disbursements		I	Net Activity	
July 2016	\$	60,728	\$ 34,502	\$	95,230	\$	-	\$	95,230	
August 2016	\$	423,038	\$ 65,634	\$	488,672	\$	494,138	\$	(5,466)	
September 2016	\$	3,542,989	\$ 1,578,552	\$	5,121,541	\$	2,500	\$	5,119,041	
October 2016	\$	201,132	\$ 199,300	\$	400,432	\$	130,390	\$	270,042	
November 2016	\$	-	\$ -	\$	-	\$	-	\$	-	
December 2016	\$	-	\$ -	\$	-	\$	-	\$	-	
January 2017	\$	-	\$ -	\$	-	\$	-	\$	-	
February 2017	\$	-	\$ -	\$	-	\$	-	\$	-	
March 2017	\$	-	\$ -	\$	-	\$	-	\$	-	
April 2017	\$	-	\$ -	\$	-	\$	-	\$	-	
May 2017	\$	-	\$ -	\$	-	\$	-	\$	-	
June 2017	\$	-	\$ -	\$	-	\$	-	\$	-	
FY 2017 Totals	\$	4,227,888	\$ 1,877,988	\$	6,105,875	\$	627,028	\$	5,478,848	
GRAND										
TOTALS	\$7	5,602,757	\$ 4,886,782	\$	80,489,540	\$	3,469,110	\$	77,020,430	

SEVERANCE TAX PERPETUAL BASE FUND