



# **COLORADO WATER CONSERVATION BOARD**

## **DIRECTOR'S REPORT**

**September 2014**

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

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TO: Colorado Water Conservation Board

FROM: James Eklund  
Meg Dickey-Griffith  
CWCB Staff

DATE: September 11-12, 2014

SUBJECT: **Agenda Item 13d**, September 2014 CWCB Board Meeting Director's Report

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**~INTERSTATE AND FEDERAL~**

**GLEN CANYON DAM ADAPTIVE MANAGEMENT WORK GROUP (“AMWG”) AND TECHNICAL WORK GROUP (“TWG”) MEETINGS**— The Glen Canyon Dam Technical Work Group (TWG) held additional calls in July and August to finalize and recommend a budget for consideration by the AMWG at the upcoming AMWG summer meeting. The next AMWG meeting is scheduled to occur on August, 27-28, 2014, in Flagstaff, Arizona. The key topics of this meeting will be the approval of the budget, the Long Term Experimental and Management Plan (LTEMP), the proposed hydrograph, and the prospects for another fall High Flow Experiment (HFE). The next TWG meeting is scheduled for October 28-29, 2014 in Phoenix, Arizona. This meeting will be used to plan for an HFE if conditions are appropriate. *(Ted Kowalski)*

**COLORADO RIVER BASIN STUDY, NEXT STEPS**—The three workgroups (municipal & industrial conservation and reuse, agricultural conservation and transfers, and environmental and recreational flows) continue to meet and develop data and information for the reports on their respective subject matters. The workgroups will be reviewing draft reports within the next couple of months, and the reports are now scheduled to be published by the end of December, 2014. *(Ted Kowalski)*

**GLEN CANYON DAM, LONG TERM EXPERIMENTAL AND MANAGEMENT PLAN (LTEMP)**—The Bureau of Reclamation (BOR) and the National Park Service (NPS) are still developing the models to evaluate the alternatives for Glen Canyon Dam operations under this EIS process. The States have been working with BOR and NPS to understand the basis for their “emerging consensus alternative.” There were several meetings in July and August to explore the aspects of this alternative and how it compares to the Basin State alternative. Recently, the BOR and NPS announced that this LTEMP EIS schedule has slipped. They are expecting to have a public draft EIS out by January 2015. Commissioner McClow will update the Board about this work at the September Board meeting. *(Ted Kowalski)*

**~STATEWIDE~**

**STATE OF COLORADO AND CORPS OF ENGINEERS TO JOINTLY HOST COLORADO FLOOD PROOFING AND FLOOD RECOVERY WORKSHOPS**— The State of Colorado and Corps of Engineers will be offering a series of three regional workshops to provide community leaders, local officials, stakeholders and the engineering community with information regarding floodplain management and the benefits of flood proofing measures to reduce future flood losses. These workshops are being held as a result of the Silver Jackets partnership between the State of Colorado and the Corps of Engineers. The workshops are available to all interested persons but are being targeted to the flood affected communities. Workshops will be held in Colorado Springs on September 16, Greeley on September 17, and

Grand Junction on September 18. CWCB staff will be participating in all workshops. (*Kevin Houck*)

## **FLOODPLAIN MAP MODERNIZATION/RISK MAP UPDATE—**

**FY14 Activities:** Three consulting firms were selected for the Risk Map Program: AMEC, URS, and Atkins Global. This will be a five year contract and we anticipate the new contracts will be in place mid May 2014.

**FY13 Activities:** Lidar acquisition for Rio Blanco County has been completed. Final deliverables will be available at the end of August 2014. FEMA funding to complete El Paso County as a partial Countywide DFIRM was approved. Purgatoire Watershed and Pueblo County also received additional FEMA funding to complete the mapping projects.

**FY12 Activities:** Hydrologic modeling and field survey tasks have been submitted and approved for Purgatoire watersheds. The field survey and hydrologic tasks were approved for the Cache La Poudre watershed. The City of Fort Collins will be surveying several bridges and culverts this spring and this data will be used in the hydraulic modeling.

**FY11 Activities:** Hydrology tasks for St. Vrain and Clear Creek watersheds have been completed and approved. The scope of work for the St. Vrain watershed will be revised to include areas that were impacted by the flood. The project is currently on hold. Clear Creek Risk Map is in progress and the Lidar data is now available.

**FY10 Activities:** Work is underway for Chaffee, Logan and Pitkin Counties. Preliminary mapping for Pitkin County is complete. The floodway delineation along Redstone is complete and the County has approved the preliminary mapping. CWCB is awaiting final approval of the preliminary mapping by FEMA before scheduling a final meeting with the communities. Logan County preliminary DFIRMs were distributed on May 31, 2014. The preliminary mapping products for Chaffee County are completed and anticipating a preliminary distribution in early fall 2014.

**FY09 Activities:** The Morgan County DFIRM has been converted to a seclusion project and will not include an update of the Wiggins levee.

The Prowers County DFIRM floodplain mapping tasks have been completed. Preliminary floodplain mapping is scheduled to be distributed in August 2014.

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

The Pueblo County DFIRM scope of work has been altered to a Seclusion DFIRM. The FEMA grant has been extended to September 2013 to complete the project to the preliminary

phase. The Fountain Creek hydrology has been approved and most of the hydraulic analyses and floodplain mapping has been completed in the County. 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.

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

**FY 06 Activities:** Weld County will be going through the Appeal period sometime in early fall 2014. Fremont County DFIRMs became effective on January 6, 2012. Clear Creek County has gone effective July 17, 2012.

**FY 05 Activities:** Mesa County DFIRM became effective in June 2010. The Garfield County DFIRMs are now in the post preliminary phase. The Montezuma County DFIRM went effective September 28<sup>th</sup> 2008.

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

**FLOOD RECOVERY STREAM TEAM**—CWCB staff has developed a new partnership with the Department of Local Affairs (DOLA), and this partnership is now spearheading the efforts of the stream team. DOLA is administering \$199 million of Community Development Block Grants – Disaster Recovery (CDBG-DR) from The United States Department of Housing and Urban Development (HUD). This Phase II funding will be used for all aspects of flood recovery including infrastructure, housing, economic development, planning, agriculture, private roads/bridges, and watershed resilience. The Watershed Resilience Program is a pilot program proposed by CWCB and DOLA. It recommends funding for capacity building, planning, and project implementation. Currently, \$25 million is proposed for the program, but this amount could increase or decrease.

The primary function of the program is support watershed coalitions developed by the CWCB and other stream team members. Capacity building will include funding for full time watershed coordinators, paid interns, and a CWCB/DOLA managed technical assistance consultant. Planning funds will be used to address additional needs not covered in the initial round of master planning funding. It will also be used synchronize stream master planning activities with other planning efforts. Other efforts may include green infrastructure, greenways, recreation, and community master planning. Half or more of the funding will be used to design and build stream

restoration projects and multi-objective projects with a stream restoration component. CWCB staff is reserving \$500,000 from the Colorado Watershed Restoration Program as match for the CDBG-DR Watershed Resilience Program. (*Chris Sturm*)

**GROUND WATER COMMISSION MEETING**—The Ground Water Commission (GWC) held its quarterly meeting on August 15, 2014 in Denver, CO. The agenda items included routine reports and a discussion on the coordination of the newly granted enforcement authority of local Ground Water Management Districts (GWMD) as a result of the passage of HB 14-1052. The GWC also discussed the possibility of seeking legislation to clarify the meaning of the court’s “de novo” review of the GWC’s administrative actions. The State Engineer advised the GWC that his office’s definition of commercial use does not include industrial uses, including water used for oil and gas production. Lastly, the Commissioners and local GWMD were encouraged to engage in the water plan process through the CWCB or their local round tables. The Ground Water Commission will hold its next regular meeting on November 21, 2014 in Castle Rock, CO. For more information visit:

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

**USFS’ PROPOSED DIRECTIVE FOR SKI AREA WATER RIGHTS**—The U.S. Forest Service (USFS) published a Proposed Directive for Ski Area Water Rights in the Federal Register (See 79 Fed. Reg. 35513) on June 23, 2014. The Department of Natural Resources (DNR) provided comments to the USFS on this proposed directive on August 22, 2014. (*Suzanne Sellers*)

**USFS’ PROPOSED GROUNDWATER DIRECTIVE**—The USFS published a Proposed Directive on Groundwater Resource Management in the Federal Register (See 79 Fed. Reg. 25815) on May 6, 2014. The CWCB is working with DNR and the Division of Water Resources (DWR) on this matter. DNR is contemplating providing comments on the proposed directive. The comment period has been extended to September 3, 2014. (*Suzanne Sellers*)

**USFWS & NMFS’ PROPOSED REGULATORY CHANGES RELATED TO ESA CRITICAL HABITAT**—The U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) published the following proposed regulatory changes related to Endangered Species Act (ESA) Critical Habitat in the Federal Register on May 12, 2014: Proposed Rule concerning Changes to the Critical Habitat Designation Process (see 79 Fed. Reg. 27066); Proposed Rule defining “Destruction or Adverse Modification” of Critical Habitat (see 79 Fed. Reg. 27060); and Proposed Policy on Exclusions from Critical Habitat (see 79 Fed. Reg. 27052). The CWCB is working with DNR on this matter. DNR is contemplating providing comments on these proposed changes. The comment period has been extended to October 9, 2014. (*Suzanne Sellers*)

**USFWS’ PROPOSED RULE RELATED TO THE YELLOW-BILLED CUCKOO**—The USFWS published a proposed rule for the Designation of Critical Habitat for the Western

Distinct Population Segment of the Yellow-Billed Cuckoo in the Federal Register (see 79 Fed. Reg. 48548) on August 15, 2014. The CWCB is working with DNR and Colorado Parks and Wildlife (CPW) on this matter and are contemplating providing comments on the proposed rule. The comment period ends on October 14, 2014. *(Ted Kowalski)*

**EPA & USACE's PROPOSED CHANGES TO THE CLEAN WATER ACT**—The Environmental Protection Agency (EPA) and U.S. Army Corps of Engineers (USACE) published a proposed rule change regarding the definition of “waters of the United States” under the Clean Water Act (CWA) in the Federal Register (see 79 Fed. Reg. 22188) on April 21, 2014. The CWCB is working with Colorado's DNR, Department of Agriculture and Department of Public Health and Environment on this matter and are contemplating providing joint comments on the proposed changes. The comment period has been extended to October 20, 2014. *(Steve Miller)*

#### **~ARKANSAS RIVER BASIN~**

**FOUNTAIN CREEK FISH PASSAGE PROJECT**—In January of 2013, the Board authorized the expenditure of up to \$250,000 of the Species Conservation Trust Fund to support fish passage on Fountain Creek and its tributaries for fish that are on Colorado's list of species that are threatened, endangered or of special concern. The project was intended to prevent further decline of fish habitat due to fragmentation caused by various water diversion structures. In discussions with Colorado Springs Utilities, the purpose of this project has shifted slightly to focus on a specific tributary of Fountain Creek, namely Bear Creek. The goals of the project on Bear Creek are to protect the federal and state threatened greenback cutthroat trout from sedimentation caused by an adjacent trail system. This project seeks to restore aquatic habitat and stream resiliency by reducing sediment delivery and improving habitat. *(Suzanne Sellers)*

#### **~COLORADO RIVER BASIN~**

**CITY OF GLENWOOD SPRINGS RICD APPLICATION**—The Division 5 water court extended the deadline for the CWCB to report its findings to the water court in Case No. 13CW3109 until February 13, 2015. The CWCB will be conducting a public deliberation on this matter at its regular January 2015 board meeting. Additionally, the water court recently granted a motion to intervene in the case filed by American Whitewater and Western Resource Advocates. *(Suzanne Sellers)*

**UPPER COLORADO RIVER RECOVERY IMPLEMENTATION PROGRAM (UCRRIP)**—The Management Committee of the UCRRIP met Monday, August 25th in Denver. Agenda items included updates on:

- the Sufficient Progress memo. While areas of concern remain, the program is continuing to make sufficient progress.



- Yampa PBO status review
- nonnative fish control efforts, including proposed northern pike reduction by CPW in the Yampa Basin using CWCB Species Conservation Trust Funds
- a proposed meeting between the UCRRIIP Program Director's Office and the states' oil, gas and mining agencies to discuss existing environmental protections in each state and their benefit to endangered species critical habitat
- Colorado Pikeminnow Recovery Plan revisions
- 2013/14 hydrology and streamflows
- Upper Colorado Basin Contingency Planning
- Colorado's Water Plan
- White River Management Plan
- flow protection efforts on the Green River in Utah
- peak flow study plan
- Capital Construction Projects, including OMID system improvements
- future program funding

The Implementation Committee will meet on October 2nd to discuss Sufficient Progress, nonnative fish control efforts, Recovery Plans, work plans, Contingency Planning, Reclamation's LTEMP EIS process and its possible effects on the Recovery Program, the 2014 and 2015 D.C. trips, and program funding. The Management Committee will meet again on October 21st.  
(Michelle Garrison)

**HISTORIC USERS POOL (HUP)**—Meetings and phone calls of the Green Mountain Historic Users Pool (HUP) Managing Entities and other involved and interested parties have commenced. Discussion of river administration, reservoir and irrigation system operation, weather and streamflow forecasts, flow targets in the 15-Mile Reach and related issues for the Colorado River basin occurs weekly. The Shoshone Power Plant has completed replacement of trash rakes and is operational. The Recovery Program is managing releases from dedicated pools in Granby, Wolford and Ruedi reservoirs to support a wet-year base flow target of 1630 cfs in the 15-Mile Reach. Releases from the HUP to support the 15-Mile Reach target flows began on August 13th. The Grand Valley Irrigation Company (GVIC) has requested an in-person meeting of the HUP Managing Entities to discuss items of concern. (Michelle Garrison)

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

The Upper Colorado River Wild and Scenic Stakeholder Group (Stakeholder Group) held its regular meeting on August 5, 2014 in Summit County and its next regular meeting is scheduled for October 24, 2014 at the same location. The Stakeholder Group meeting included a presentation on stream flow gaging by Brian Epstein of CWCB staff. The Stakeholder Group meeting also included discussions on a BLM Information Sharing Agreement, the CWCB staff's FOIA request to the BLM and USFS, this year's float boating/angler survey, finances, and updates by the various workgroups. It is anticipated that the UCRW&S Group will be submitting a proposal seeking additional monies from the Wild and Scenic Alternatives Fund to support their ongoing work. For more information, see the following link: <http://www.upcowildandscenic.com> (Suzanne Sellers)

**COLORADO RIVER WATER USE**—As of August 4, 2014, the Lake Mead water level was at 1080.51 feet with 10.05 million acre-feet (MAF) of storage, or 38% of capacity, while the Lake Powell water level was at 3608 feet with 12.53 MAF of storage, or 52% of capacity. Total system active storage as of August 3 was 30.44 MAF, or 51% of capacity, which is 200,000 AF more than one year ago when system storage was also at 51% of capacity.

As of August 21, the 2014 Reclamation forecast for the Lower Basin states' consumptive use of Colorado River water totals 7.335 MAF, which includes Arizona at 2.765 MAF, California at 4.321 MAF, and Nevada at 0.249 MAF. The preliminary end-of-year estimate for 2014 for California's agricultural consumptive use of Colorado River water is 3.416 MAF. The Metropolitan Water District of Southern California is forecasted to use approximately 0.799 MAF. (Andy Moore)

## **PUBLIC NOTICE: REVIEW OF COLORADO RIVER WATER QUALITY**

**STANDARDS, AUGUST 2014**— In 1975, Colorado joined with the other six Colorado River Basin States to adopt water quality standards with respect to salinity for the entire Colorado River Basin in the United States, as required under the newly enacted Clean Water Act. The standards contain two elements:

- Flow weighted annual TDS levels in the River at 3 numeric criteria stations in the Lower Basin: below Hoover Dam, below Parker Dam and at Imperial Dam.
- A Plan of Implementation consisting of scheduled construction of control measures, application of the Forum's policies with respect to salinity discharges in the administration of the NPDES permit program by the States, and State implementation of non-point source management plans.

Every three years the States, through the Colorado River Basin Salinity Control Forum (Forum), have reviewed these standards in compliance with the Clean Water Act. The Forum has issued its review of the standards covering the period 2014 – 2017 in a draft report entitled “**2014 Review Water Quality Standards for Salinity Colorado River System**”. The Forum and each of the States are soliciting public comments on the draft 2014 Review report. The draft can be

found at: [www.ColoradoRiverSalinity.org](http://www.ColoradoRiverSalinity.org) or by contacting Steve Miller at the Colorado Water Conservation Board. Comments should be submitted before September 15, 2014 to:

Don Barnett, Executive Director  
**Colorado River Basin Salinity Control Forum**  
106 W. 500 S. Suite 101 Bountiful, Utah 84010  
or by email to [dbarnett@barnettwater.com](mailto:dbarnett@barnettwater.com).

In general, the 2014 Review found that:

- 1) The salt load in the Colorado River has been reduced by 1.326 million tons per year thus far through the implementation of the Salinity Control Program.
- 2) There is no need to change the adopted numeric criteria or the Forum NPDES policies.
- 3) The Plan of Implementation identifies another 67,000 tons of annual salt removal to be accomplished by the year 2017.
- 4) With the Plan of Implementation in place, there is a very low probability (4% or less) of exceeding the numeric between now and 2017.
- 5) Salinity damages in the Lower Basin remain significant, but would have been much higher without the program.
- 6) The Forum and the states intend to continue their support of an aggressive salinity control program.

Please also send questions and copies of any comments to:

Steve Miller, Sr. Water Resource Specialist  
Colorado Water Conservation Board (CWCB)  
1313 Sherman Street, Room 721  
Denver, CO 80203  
[steve.miller@state.co.us](mailto:steve.miller@state.co.us) (*Steve Miller*)

**PRESS RELEASE: SALT IN THE COLORADO RIVER CONTROLLED BUT DAMAGES STILL HIGH, AUGUST 2014**

—High salt concentrations in water have a major economic impact to water users. Salt leached from marine shales in Colorado, New Mexico, Utah and Wyoming contributes to the Colorado River's high natural salt load. Water uses such as irrigation and other human activities have added to the salt load in the river. Downstream water users in Arizona, California, Nevada, and Mexico experience economic damages as a result of the salt load in their water supply. Quantified damages in the United States alone amount to over 375 million dollars annually, and the unquantified damages within the United States and damages experienced by Mexican water users are estimated to be equally significant.

In 1975, Colorado joined with the other six Colorado River Basin States to adopt water quality standards with respect to salinity for the entire Colorado River Basin in the United States, as required under the newly enacted Clean Water Act. The standards contain two elements:

- Flow weighted annual TDS levels in the River at 3 numeric criteria stations in the Lower Basin: below Hoover Dam, below Parker Dam and at Imperial Dam.
- A Plan of Implementation consisting of scheduled construction of control measures, application of the Forum's policies with respect to salinity discharges in the administration of the NPDES permit program by the States, and State implementation of non-point source management plans.

In addition, Congress has authorized an aggressive salinity control program. Over the decades many remarkable partnerships have been forged to help implement salinity control measures. The seven Colorado River Basin States are united in their support of the Colorado River Basin Salinity Control Program. Several federal agencies are working together and with the states to control the salt loading in the Colorado River. Additionally, local water users have invested their resources.

Every three years the states engage in a formal review of the salinity control program. The most recent review covering the period 2014 – 2017 has been completed and is now available for public comment. The draft report of the 2014 Review can be viewed at [www.ColoradoRiverSalinity.org](http://www.ColoradoRiverSalinity.org) or by contacting Steve Miller at:

Colorado Water Conservation Board  
1313 Sherman Street, Room 721, Denver, CO 80203  
email: [steve.miller@state.co.us](mailto:steve.miller@state.co.us)

In general, the findings of the Review are that:

1. The salt load in the Colorado River has been reduced by 1.326 million tons per year thus far through the implementation of the Salinity Control Program.
2. There is not a need to change the adopted numeric criteria or the Forum NPDES policies.
3. The Plan of Implementation identifies another 67,000 tons of annual salt removal to be accomplished by the year 2017.
4. With the Plan of Implementation in place, there is a very low probability (4% or less) of exceeding the numeric between now and 2017.
5. Salinity damages in the Lower Basin remain significant, but would have been much higher without the program.
6. The Forum and the states intend to continue their support of an aggressive salinity control program. (*Steve Miller*)

### **~PLATTE RIVER BASIN~**

**PLATTE RIVER RECOVERY PROGRAM**—The Platte River Recovery Implementation Program (“Program”) Governance Committee has not met since the last CWCB meeting. However, CWCB staff participated in Water Advisory Committee, Technical Advisory Committee, Land Advisory Committee, and Finance Committee conference calls and meetings. The next Governance Committee meeting will be held on September 9-10, 2014 in Kearney, NE.

For more information, please visit: <http://www.platteriverprogram.org/Pages/default.aspx>.  
(Suzanne Sellers)

**FLOOD RECOVERY AND REBUILDING WORKSHOP**—The Urban Drainage and Flood Control District, Colorado Water Conservation Board, and Federal Emergency Management Agency have developed a training workshop to provide information to communities and organizations active in flood recovery about how to build stronger and minimize damage from natural disasters. The topics covered will include floodplain regulations, hazard identification, and methods and practices for reducing flood damages to residential buildings. The workshop will be presented on September 9<sup>th</sup> in the Boulder County Parks and Open Space building in Longmont. (Jamie Prochno)

#### **~SAN JUAN/MIGUEL-DOLORES RIVER BASIN~**

**RIVER PROTECTION WORKGROUP**—The River Protection Workgroup (RPW) Steering Committee held regular meetings on July 1 and 30, 2014. The RPW Steering Committee's next meeting is scheduled for August 28, 2014 in Durango, CO. The Steering Committee is currently engaged in negotiations and development of consensus approaches for the protection of the five rivers and specific outstanding remarkable values (ORVs) in the San Juan River basin. At the meetings, the group discussed the existing proposal by Trout Unlimited and the alternate proposal by the Wilderness Society and the San Juan Citizen's Alliance. The group identified areas of agreement between the two proposals and topics that require more discussions. Both of the outstanding proposals include combinations of removal of suitability, wild and scenic designation and maintaining suitability within the five watersheds of the San Juan Basin. The Hermosa Creek Watershed Protection Act (HR1839) was up for mark up in Committee and staff for Rep. Tipton and Senator Bennet hope to see more progress on the bill after the election. A representative from the Forest Service indicated that their administrative appeal process been completed and the San Juan National Forest Land and Resource Management Plan is now in full implementation. For more information, see the following link:  
<http://ocs.fortlewis.edu/riverprotection>. (Suzanne Sellers)

#### **~RIO GRANDE RIVER BASIN~**

**GAP FILLING RADAR PROJECT IN THE RIO GRANDE**—Staff has been working with NOAA, Pueblo and Grand Junction NWS, University of Oklahoma, the Rio Grande County Emergency Manager, and the RWEACT team on site selection and deployment of a temporary mobile radar on Wolf Creek Pass from September 1 through October 15. This will support flash flood prediction work for the NWS Pueblo Office for the West Fork Complex Fire and other adjacent areas. Currently, NWS is unable to view meteorological activity in this area with radar due to beam blockage from the Sangre de Cristo Mountain Range. There are tipping buckets in the burn area and trained storm spotters will provide on the ground observations, but this radar is

the best tool for accurate and timely alerts and warnings. From the site called Lobo overlook (at the top of Wolf Creek Pass), the radar will see multiple burn areas well. (*Joe Busto*)

### **~AGENCY UPDATES~**

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

Five grant applications were received since the July 2014 Director's Report

- **City of La Junta** – Water Conservation Plan
- **Colorado WaterWise** – Smart Phone App for Landscape Professionals
- **Colorado WaterWise** – Conservation Toolkit
- **Left Hand Water District** – Water Conservation Plan Update
- **Colorado Clean Energy Cluster** – Net Zero Water Planning Template

Three grants were approved since the last Board meeting:

- **Cherokee Metropolitan District** – Water Conservation Plan (\$27,000)
- **City of La Junta** – Water Conservation Plan (\$16,200)
- **Colorado WaterWise** – Smart Phone App for Landscape Professionals (\$24,245)

The following are deliverables sent to the CWCB since the March 2014 CWCB Board Meeting:

- **Security Water District** – Water Loss Control Audit – *50% Progress Report*
- **Roaring Fork Watershed** – Water Conservation Plan – *50% Progress Report*
- **City of Lafayette** – Pre Rinse Spray Nozzle Replacement Program – *50% Progress Report*
- **Town of Firestone** – Water Conservation Plan Update – *50% Progress Report*
- **Center for Resource Conservation** – Indoor Commercial Water Audit – *Final Report*
- **City of Louisville** – Water Conservation Plan – *75% Progress Report*
- **City of Aurora** – GIS Mapping Project – *Final Report*
- **City of Longmont** – Rebate Program – *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:**

Plans in review

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

## **Water Efficiency Plans:**

### Approved Plans

None approved since last board meeting.

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

- **Snowmass Water and Sanitation District**
- **Town of Telluride**
- **Town of Ouray**  
(Taryn Finnessey & Ben Wade)

### Water Efficiency Plans in review

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

**GOVERNOR’S WATER AVAILABILITY TASK FORCE**—The next Water Availability Task Force meeting will be on September 17, 2014 from 9:30-11:30am at the Colorado Parks & Wildlife Headquarters, 6060 Broadway, Denver, CO in the Bighorn Room. Please check the website (<http://cwcb.state.co.us/public-information/flood-water-availability-task-forces/Pages/main.aspx>) for additional information. (Ben Wade)

**WATER CONSERVATION TECHNICAL ADVISORY GROUP (WCTAG) UPDATE**—The WCTAG has not met since December but will reconvene at a future date to discuss the water conservation section of Colorado’s Water Plan. (Kevin Reidy)

**1051 REPORTING WEB PORTAL UPDATE**—The online 1051 reporting web portal is now available for covered entities to use and enter data. The website is [www.cowaterefficiency.com](http://www.cowaterefficiency.com) and users can log on and have an account created for their respective entity to enter conservation data. To date, we have 51 providers total signed up in the database with 35 entities who have submitted full reports. The remaining entities are in various stages of progress. CWCB staff sent

out reminders to those providers still in progress and to those entities that have not submitted their reports. Additionally, staff is organizing and analyzing the collected data at this time.  
(Kevin Reidy)

**DROUGHT UPDATE**— Mild temperatures and above average precipitation across much of the state during July and August has brought continued drought relief to the eastern plains.

However, the four corners region is experiencing less precipitation and deteriorating conditions, monsoon rains could potentially help alleviate the drying. Storage levels remain strong, with many reservoirs near or at capacity and demands slightly below normal. Reservoir Storage statewide is at 97% of average. Currently, 40% of the state is in some level of drought classification according to the US drought monitor. 13% is characterized as “abnormally dry” or D0, while an additional 11% is experiencing D1, moderate drought conditions. 13% is classified as severe, 3% as extreme and for the first time in 110 weeks none of the state is in exceptional drought (D4). (Taryn Finnessey)

**RELEASE OF CLIMATE CHANGE IN COLORADO REPORT**—A new report examining how climate change may affect Colorado water resources was released on August 5th. The report, *Climate Change in Colorado: A Synthesis to Support Water Resource Management and Adaptation*, was a collaboration between CWCB and Western Water Assessment at the University of Colorado. Executive Summaries will be handed out at the board meeting. Both the full report and the executive summary can be downloaded at <http://cwcb.state.co.us/environment/climate-change/> (Taryn Finnessey)

**M & I WATER CONSERVATION/REUSE WORKGROUP MEETINGS**—Kevin Reidy attended a meeting in Albuquerque on May 30. The group discussed some of the case studies from the various states and what additional data was needed for those, the water conservation savings data that has been collected to date and the opportunities, considerations and potential future actions for the draft document for Phase I. No date has been set for the next meeting.  
(Kevin Reidy)

**PRESS RELEASE: COLORADO WATERSHED SYMPOSIUM SUCCEEDS AT PREPARING COALITIONS TO MOVE FORWARD ON STREAM RECOVERY**—More than 150 community leaders last week resolved to work together in strong coalitions to focus on rebuilding streams and watersheds damaged by last fall’s flooding.

The Colorado Watershed Symposium, a daylong event July 18 in Loveland with the theme “Working with Watersheds: It’s More Than Just the River”, included presentations on disaster-relief funding, watershed master-planning, and intergovernmental agreements. Most importantly, representatives from nine watershed coalitions met and developed joint plans for the “next steps” in restoring their watersheds.



The symposium was sponsored by the Colorado Recovery Office, the Department of Local Affairs, the Colorado Water Conservation Board, the U.S. Environmental Protection Agency, and the Federal Emergency Management Administration.

Molly Urbina, Colorado's Chief Recovery Officer, told participants: "Each of you have taken a collaborative approach to watershed planning, even though it may be easier to plan alone. If nothing else, this past year has taught us just how interdependent we are. Every action in the watershed impacts another point in that watershed, up or down stream. We are in this together."

The nine watershed coalitions in attendance echoed Urbina's call for continued collaboration. Representatives from each coalition shared best practices from their public outreach programs and emphasized the need to continue involving private stakeholders in the recovery process.

"Creek restoration cannot happen in a vacuum. It must be accomplished along with efforts to restore public and private infrastructure and floodplain management," said Julie McKay, director of the Boulder, Left Hand, and St. Vrain coalitions. "It's really great to be able to compare experiences and approaches of all the coalitions across the Front Range."

"When you win the hearts and minds, you win the river," said Gordan Gilstrap, of the Little Thompson Coalition. Dave Skuodas of the Urban Drainage and Flood Control District echoed Gilstrap's sentiments. "Even though we have the power to dictate, we choose to facilitate. We want people down in the stream using it and recreating in it. We want people to take ownership in the creek."

Carol Ekarius, director of the highly successful Coalition of the Upper South Platte, delivered the day's keynote address, emphasizing the need for coalitions to consider a broad array of potential issues when they create master plans. "The flood doesn't start in the corridor; the flood starts in the shed," said Ekarius. "I tell people we're a watershed collaborative, forest collaborative, and emergency response collaborative. It allows us to do all kinds of work."

Each of the nine coalitions split into breakout sessions to coordinate next steps. In their informal discussions, many expressed interest in becoming formal non-profit organizations. They also agreed that Colorado's watersheds are interconnected and that any successful recovery effort has to take into account both the upstream and downstream portions of the river.

"I was pleased at how the various coalitions came together and focused on how they can move forward," said Chris Sturm of the Colorado Water Conservation Board. "This is very important, because the coalitions will be very well positioned for disaster relief funding as it becomes available."

Representatives from the Big Thompson, Boulder Creek, Coal Creek, Fall River and Fish Creek, Left Hand, Little Thompson, St. Vrain, Upper Fountain and Cheyenne Creek, and South Platte all reported different challenges and expressed interest in continued coordination on recovery issues.

All stakeholders recognized the difficulties of the recovery process and emphasized the need for effective long-term recovery planning. The Symposium is part of a larger series of events that work toward achieving coordinated and efficient recovery planning. For those interested in attending the next event, the 2014 Sustaining

Colorado Watersheds Conference will be held in Avon on October 7-9 at the Westin Riverfront Resort.

The flooding affected 24 counties. It triggered nine small dam failures, damaged or destroyed nearly 225 water-diversion structures, damaged an estimated 32,000 acres of croplands and swept away \$540,000 in state-owned stream-gauge equipment. During the floods, many northern Colorado waterways experienced 100-year or 500-year events. (*Kevin Houck*)

**PRESS RELEASE: GOV. HICKENLOOPER ANNOUNCES \$2.29 MILLION IN GRANTS FOR STREAM RECOVERY PROJECTS**—Moving quickly to keep Colorado's long-term recovery on pace, Gov. John Hickenlooper today announced grants totaling \$2.29 million for 19 new stream recovery projects in Boulder, Larimer, Weld, and Jefferson counties, less than three months after the program was created.

"Quickly and strategically rehabilitating streams damaged by the flood is critical for many reasons; most notably so that we are prepared to endure any future surprises Mother Nature might throw our way," said Hickenlooper. "We are grateful to the Colorado Water Conservation Board; to Senators Jeanne Nicholson and Scott Renfroe and Representatives Mike Foote and Jerry Sonnenberg, for working with us to expeditiously get these resources where they are so needed."

Repairing the state's streams and watersheds is a high priority because it reduces future flood risk, and helps restore stream banks, wildlife habitats, agricultural areas and recreational opportunities.

The flooding - which impacted 24 counties - triggered nine small dam failures, damaged or destroyed nearly 225 water-diversion structures, damaged an estimated 32,000 acres of croplands and swept away \$540,000 in state-owned stream-gauge equipment. During the floods, many northern Colorado waterways experienced 100-year or 500-year floods.

The grant program, created with Senate Bill 14-179, will reimburse up to 50 percent of eligible expenses used for cleaning up debris or restoring watersheds. The Colorado Water Conservation Board (CWCB) approved the grants on July 16.

The legislation authorizes payments to private entities and individuals whose property was affected by the floods as well as local governments, watershed coalitions, and other private non-profit entities who are performing restoration activities.

Applicant	Project Title	Approved Funding
Wildland Restoration Volunteers	North Fork of the Big Thompson River Restoration	\$196,500
City of Boulder Open Space and Mountain Parks Department	Boulder Creek Confluence Restoration	\$200,000
Rocky Mountain Flycasters	Multi-basin Riparian Restoration and Plant Propagation Program	\$200,000
Boulder County Parks and Open Space	Left Hand Creek Restoration	\$200,000
Town of Estes Park	Fish Creek Restoration Project: Brook Drive to Country Club Reach	\$200,000
Boulder County Land Use Department	Fourmile Creek Restoration Project	\$80,000
City of Longmont	Peschel-St. Vrain Creek Restoration	\$110,000
Boulder County Parks and Open Space	South St. Vrain Creek Restoration at Hall Ranch	\$110,000
City of Greeley/Larimer County	Lions Open Space Eastern Bank Restoration Project	\$150,000
The Environmental Group	Coal Creek Canyon Restoration Project: Twin Spruce Junction	\$94,400
Colorado Parks and Wildlife	Big Thompson River Restoration	\$300,000
Sylvan Dale Ranch	Fish Habitat Design and Debris Removal, sylvan Dale Reach, Big Thompson River	\$59,850
Big Thompson Conservation district	Little Thompson River Urgent Needs	\$170,625
Mark Boslough	Riparian Habitation Restoration, Stream Bank Revegetation and Beaver Reintroduction on Highland Placer, South St. Vrain Watershed, Boulder County	\$14,00
Stephen Strand	8398 Lefthand Creek Streambed and Bank Stabilization, Riparian Corridor Restoration	\$20,000
Logan Mill Ranch Tree Farm and Properties	Sunbeam Gulch Stream Restoration Project	\$20,000
Town of Lyons	Lower McConnell Hazard Mitigation Project	\$56,250
Left Hand Water District	Debris Removal from Left Hand Creek Water Intake	\$9,030

*(Kevin Houck)*

**~ATTACHEMENTS~**

- 01 Stream and Lake Protection Section De Minimis Case
- 02 Instream Flow and Natural Lake Level Program – Summary of Resolved Opposition Cases
- 03 Finance – Prequalified Project List and Loan Prospect Summary
- 04 Finance – Emergency Loan Status Report
- 05 Finance – Design & Construction Status Report
- 06 Finance – Non-reimbursable Investments Status Report: Fiscal Year 2013-2014

**Director's Report Attachment – September 11-12, 2014 CWCB Meeting  
Stream and Lake Protection Section De Minimis Case**

The following table summarizes an application that has the potential to injure the Board's instream flow water right, but the impact is considered de minimis. In this case, 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 this case and has provided the required notification to the Division Engineer and applicant.

<b>Case No.</b>	<b>Applicant</b>	<b>Stream/ Case Number</b>	<b>ISF Amount</b>	<b>Percent Injury</b>	<b>Cumulative % Injury</b>	<b>Previous Cases</b>
1-14CW3076	Forest Glen Sports Association, North Fork Associates Inc., & Mountain Mutual Reservoir Co.	Middle Fork South Platte River/ 1-80CW067	16 cfs (summer) 8 cfs (winter)	0.0125 % 0.0250 %	0.0668 % 0.0991 %	4

**September 11-12, 2014 Board Meeting  
Instream Flow and Natural Lake Level Program  
Summary of Resolved Opposition Cases**

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

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

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

**(1) Case No. 5-12CW188 - Application of C Lazy U Ranch, LLC**

The Board ratified this statement of opposition at its March 2013 meeting. The Board's main objective in filing the statement of opposition in this case was to ensure that the Applicant's proposed change of water right, which could cause an expansion of use, and plans for augmentation and exchange do not injure the Board's instream flow water right on the Colorado River by not replacing out-of-priority depletions in 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 right will not be injured.

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

<b>CWCB Case No.</b>	<b>Stream</b>	<b>Amount</b>	<b>Appropriation Date</b>
80CW446	Colorado River	135 cfs (1/1 to 12/31)	7/8/1980
80CW447	Colorado River	90 cfs (1/1 to 12/31)	7/8/1980
80CW448	Colorado River	150 cfs (1/1 to 12/31)	7/8/1980
87CW292	Colorado River	150 cfs (1/1 to 12/31)	10/2/1987
90CW300	Colorado River	40 cfs (5/1 to 8/31) 20 cfs (9/1 to 4/30)	11/27/1990
92CW286	Colorado River	581 cfs (7/1 to 9/30)	3/5/1992
94CW330	Colorado River	300 cfs (7/1 to 9/30)	11/4/1994
11CW159	Colorado River	600 cfs (5/15 to 7/31) 750 cfs (8/1 to 9/15) 500 cfs (9/16 to 5/14)	7/12/2011
11CW160	Colorado River	650 cfs (5/15 to 7/31) 800 cfs (8/1 to 9/15) 525 cfs (9/16 to 5/14)	7/12/2011
11CW161	Colorado River	900 cfs (5/15 to 6/15) 800 cfs (6/16 to 9/15) 650 cfs (9/16 to 5/14)	7/12/2011

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 agreement with the CWCB and pursuant to C.R.S. § 37-92-102(3)(b), all of the CWCB's instream flow rights, including those listed in the table above, are subject to the historical appropriations and practices at the Main Ranch described in Exhibit E of the decree.
- In the event that the Windy Gap Project water rights are placing a valid call on Willow Creek against the subject water rights but Willow Creek Reservoir is not and the CWCB's instream flow right decreed in Case No. 90CW300 is not satisfied, Applicant shall not book over its

Middle Park Contract water and shall instead make replacements in accordance with paragraph 13(d) above.

**(2) Case No. 5-13CW58 - Application of Shupe**

The Board ratified this statement of opposition at its January 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 use and change in the location and timing of historical irrigation return flows, does not injure the Board's instream flow water right on Main Elk Creek.

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

CWCB Case No.	Stream/Lake	Amount (cfs)	Approp. Date	Watershed	County
5-80CW311	Main Elk Creek	10/6	5/7/1980	Colorado	Garfield

An Order to dismiss this case was entered by the court on July 17, 2014.

**(3) Case No. 6-09CW062 - Application of City of Steamboat Springs**

The Board ratified this statement of opposition at its May 2010 meeting. The Board's main objective in filing the statement of opposition in this case was to ensure that the Applicant's proposed change of water rights do not injure the Board's instream flow water rights on Fish Creek by expansion of use and failure to maintain return flows in 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 right will not be injured. A Decree was entered on August 1, 2014.

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

CWCB Case No.	Stream/Lake	Amount (cfs)	Approp. Date	Watershed	County
6-76W959F	Fish Creek	2	5/14/1910	Upper Yampa	Routt
6-76W959G	Fish Creek	1	10/01/1927	Upper Yampa	Routt
6-76W959H	Fish Creek	1	5/01/1942	Upper Yampa	Routt
6-76W959I	Fish Creek	1	7/4/1963	Upper Yampa	Routt
6-76W959J	Fish Creek	2.1	8/1/1944	Upper Yampa	Routt
6-79CW104A	Fish Creek	2	3/14/1979	Upper Yampa	Routt

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

- Monthly volumetric limits for stream credits are included in the decree.
- The junior appropriative right of exchange on Fish Creek is identified with a downstream and upstream terminus and is limited by rate and volume.
- Maintenance of return flows is required any time the stream credits are used. The decree includes monthly rates required to be bypassed at the headgate.



**COLORADO**

**Colorado Water  
Conservation Board**

Department of Natural Resources

1313 Sherman Street  
Denver, CO 80203

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

John Hickenlooper, Governor

Mike King, DNR Executive Director

James Eklund, CWCB Director

**TO: Colorado Water Conservation Board Members**

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

**DATE: September 11-12, 2014**

**AGENDA ITEM: Directors Report  
Prequalified Project List and Loan Prospect Summary**

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

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



## Prequalified Project List

BORROWER	PROJECT NAME	APPLICATION DATE	BASIN	PROJECT DESCRIPTION	PROJECT COST	LOAN AMOUNT
Previously Approved Applications						
Donald Shahan	Crowley Dam Rehabilitation	May 1, 2014	San Juan / Dolores	This project involves the replacement of the outlet pipe and spillway repair at Crowley Reservoir.	\$260,000	\$234,000
Totals					\$260,000	\$234,000

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

## LOAN PROSPECTS

Basin	Last Contact	BORROWER	PROJECT NAME	PROJECT COST	LOAN AMOUNT
South Platte					
	11-Jan	East Larimer County Water District	Rigdon Storage Project		\$3,000,000
	11-Oct	NISP Participants	NISP		\$30,000,000
	11-Dec	Pinehurst Country Club	Harriman Reservoir	\$5,000,000	\$500,000
	12-Feb	McKay Lateral	Ditch Lining Project		\$50,000
	12-Jun	Foothills Park & Recreation	Reservoir Expansion	\$10,000,000	\$900,000
	12-Oct	Shamrock Irrigation Company	Reservoir Rehabilitation		\$100,000
	13-Dec	Julesburg Irrigation District	Flume Repair		\$150,000
	13-Dec	Harry Lateral Ditch Company	Ditch Lining Project		\$70,000
	14-May	Colorado Trout Group	Reservoir Rehabilitation		\$300,000
	14-May	Supply Irrigating Ditch Company	Diversion Structure Rehabilitation		\$500,000
	14-Jun	Dixon Reservoir Water Company	Reservoir Rehabilitation		\$300,000
				<b>TOTAL</b>	<b>\$35,570,000</b>
Arkansas					
	11-Sep	Ditch and Reservoir company	Big Johnson Reservoir		\$8,000,000
	12-Oct	Highline Canal Company	Water Rights Purchase	\$4,500,000	\$4,100,000
	12-Feb	Colorado City Metro District	Beckwith Dam Repair		\$500,000
	13-Apr	City of Walsenburg	Reservoir(s) Rehabilitation		\$6,000,000
	13-Dec	Stonewall Springs, LLC	Reservoir Construction	\$6,000,000	\$5,500,000
	13-Nov	Two Rivers Water & Farming	Augmentation Project		\$1,000,000
	14-Feb	Colorado Springs Fly Casting Club	Reservoir Rehabilitation		\$450,000
	13-Nov	Zinno Water	Water Acquisition		\$1,200,000
				<b>TOTAL</b>	<b>\$26,750,000</b>
San Miguel/Juan					
	11-Feb	City of Ouray	Red Mountain Ditch Rehabilitation	\$200,000	\$200,000
	14-Jun	Thompson - Epperson Ditch Company	Ditch Rehabilitation Project		\$100,000
	14-July	Moonlight Ditch	Ditch Lining (NRCS)		\$200,000
				<b>TOTAL</b>	<b>\$500,000</b>

Colorado					
		Highland Ditch Co	Ditch Rehabilitation Project	\$200,000	\$200,000
		Ian Carney - Felix Tornare	Polaris Reservoir Rehabilitation	\$500,000	\$500,000
				<b>TOTAL</b>	<b>\$700,000</b>
Gunnison					
	12-Oct	Fire Mountain Canal & Reservoir Co.	New Reservoir		\$500,000
	13-Sep	West Reservoir Ditch Company	Reservoir Rehabilitation		\$500,000
	14-Feb	Shavano Falls Hydro	Hydroelectric Project	\$7,500,000	\$6,750,000
	14-May	West Reservoir and Ditch Company	Reservoir Rehabilitation		\$450,000
				<b>TOTAL</b>	<b>\$8,200,000</b>
Rio Grande					
	13-Jun	Manasa Land & Irrigation Co.	Ditch Rehabilitation		\$1,000,000
	14-May	Baca Grande Water and Sanitation District	Water Rights Purchase		\$1,000,000
				<b>TOTAL</b>	<b>\$2,000,000</b>
Yampa					
	13-Dec	R Lazy J Ranch	New Reservoir and Diversion Structure Rehab	\$1,000,000	\$750,000
				<b>TOTAL</b>	<b>\$750,000</b>
				<b>TOTAL</b>	<b>\$74,470,000</b>

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

## Recent inquiries:

Oxford Ditch - Siphon Repair

Pueblo Board of Water Works - Busk - Ivanhoe Reservoir Rehabilitation

Town of Benette - Flood Repairs

Two Rivers Water Company - Diversion Structure Repair

Las Animas Consolidated Canal - Ditch Rehabilitation

Farmers Ditch - Ditch Rehabilitation



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F (303) 866-4474

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Mike King, DNR Executive Director

James Eklund, CWCB Director

**TO: Colorado Water Conservation Board Members**

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

**DATE: September 11-12, 2014**

**AGENDA ITEM: Directors Report  
Emergency Loan Status Report**

As a result of the unprecedented floods of September 2013, the CWCB awarded zero-interest and no-payment 3-year bridge loans to water suppliers. Typically the loans are utilized by borrowers to replace diversion structures and reconstruct the ditch delivery system.

To date, the CWCB has authorized twenty-four (24) projects totaling \$23.3 million. There are currently fourteen (14) projects under contract ready to receive loan funds for eligible project expenses. The CWCB Emergency Loan Program has Completed Construction on four (4) projects in Calendar Year 2014 as shown in Table 1.

The Union Ditch Company has elected to complete their repairs with cash funds so the project will be deauthorized in November 2014.

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

**TABLE 1**

	<b>Borrower</b>	<b>Project</b>	<b>County</b>	<b>Loan</b>	<b>Completed</b>
1	Boulder & Larimer Co Irr.	Diversion Structure Repair	Boulder/Larimer	\$202,000	April '14
2	Culver Ditch Company	Culver Mahoney Ditch Repair	Boulder/Larimer	\$151,500	May '14
3	Ish Reservoir Company	Inlet Ditch&Diversion Repair	Boulder	\$207,050	April '14
4	Sylvan Dale Ranch, LLLP	Emergency Pond Excavation	Larimer	\$105,171	May '14
			Total:	\$665,721	



**Colorado Water Conservation Board  
Water Project Loan Program  
Emergency Loan Status Report**

August 29, 2014

**Current Projects in Design or under Construction**

Borrower/Project		County	Amount	Status	Start/End	Status	PM	Status Description/Update
1	Beeman Irrigation > Emergency Beeman Diversion Dam Repair C150385	Weld	\$ 2,020,000	100%	1/2014- 5/2014	95%	JH	Project 95% complete. Waiting on installation of appurtanences....walkways, gauges, handrails, etc.
2	Big Elk Meadows Association > Emergency Raw Water Storage Repair C150391	Boulder/ Larimer	\$ 1,515,000	75%	7/2014- 4/2015	0%	JH	Project includes the reconstruction of 5 dams in series. Only one dam, the lowest one. is jurisdictional. Bid open for first 2 dams sch Aug 2014. Rest of dams to follow.
3	Big Thompson and Platte River > Big Thompson & Platte River Div. Structure Repair C150373	Larimer	\$ 808,000	100%	5/2014- 6/2014	95%	JH	Design change complete. Project is now a siphon crossing the Little Thompson River, rather than an elevated pipe. Construction nearly completed.
4	Boulder and Larimer County Irrigation > Boulder & Larimer Diversion Structure Repair C150374	Boulder & Larimer	\$ 202,000	100%	1/2014- 4/2014	100% Ltr	JH	Construction complete, used all loan funds. No grant reimbursements are expected.
5	Butte Irrigation & Milling Company > Emergency Berm Repair C150382	Boulder	\$ 277,750	100%	4/2014- 5/2014	100%	JH	Construction complete, loan funds remaining. No additional dibursements are anticipated.
6	Church Ditch Water Authority > Leyden Creek Crossing Repair C150377	Jefferson	\$ 606,000	100%	1/2014- 5/2014	95%	JH	Construction complete, loan funds remaining. Additional dibursements are anticipated for mitigation portion of project
7	Consolidated Home Supply Ditch & Reservoir Co > Big Dam Diversion Structure Repair C150375	Larimer	\$ 1,616,000	100%	1/2014- 10/2014	50%	JH	The project is 50% complete and running water. The dam will be topped off this fall after the irrigation season. Requesting loan increase at Sept 2014 for flood mitigation work.
8	Consolidated Home Supply Ditch & Reservoir Co > George Rist Ditch Repair C150380	Larimer	\$ 519,140	100%	2/2014- 5/2014	95%	JH	Project 95% complete. Waiting on installation of appurtanences. Loan Increase request approved during July 2014 Board Meeting
9	Culver Ditch Company > Culver Mahoney Ditch Repair C150390	Boulder & Larimer	\$ 151,500	100%	2/2014- 4/2014	100% Ltr	JH	Construction complete, used all loan funds. FEMA grant reimbursement is expected.
10	Green Ditch Company > Emergency Green Ditch Channel Repair C150383	Boulder	\$ 530,250	100%	5/2014- 6/2014	100%	JH	The project schedule and description has been revised to include only the river breach construction, which has been completed. The diversion structure will be completed using other funds later in the fall.

## Emergency Loan Design and Construction Status Report

### Current Projects in Design or under Construction

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

Projects Under Contract SubTotal = \$ 17,471,737

### Projects Not Under Contract

a	Louden Irrigating Canal & Reservoir Company > Emergency Diversion Structure and Ditch Repair C150398	Larimer	\$ 121,200	In Contracting		JH	Approved May 2014 Board Meeting. In Contracting
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## Emergency Loan Design and Construction Status Report

### Current Projects in Design or under Construction

Borrower/Project		County	Loan Amount	Design Status	Construction Start/End	Status	PM	Status Description/Update
b	St. Vrain and Left Hand Water Conservancy District > Emergency Rock'n WP Ranch Lake No. 4 Repair C150???	Boulder	\$ 4,545,000		In Contracting		JH	Approved July 2014 Board Meeting. In Contracting
c	Davidson Ditch & Reservoir Company > Emergency Davidson Ditch Lining C150384	Boulder	\$ 37,370		In Contracting		JH	Very small project, owner may not utilize loan. Will likely be deauthorized in November 2014
d	City of Evan, Water Activity Enterprise > Emergency Evans Town Ditch Repairs C150387	Weld	\$ 722,150		In Contracting		JH	City still negotiating with FEMA and may chose to not use the loan. Will likely be deauthorized in November 2014.
e	Zweck and Turner Ditch Company > Zweck and Turner Ditch Repair C150388	Boulder	\$ 252,500		In Contracting		JH	Ditch company has been unable to incorporate. Will likely be deauthorized in November 2014
f	<del>Union Ditch Company</del> > Emergency Union Ditch Repair C150381	Weld	\$ 202,000		To Be Deauthorized		JH	Received deauthorization request letter. To be deauthorized in November 2014

Not Under Contract SubTotal = \$ 5,880,220

Grand Total = \$ 23,351,957

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

Department of Natural Resources

1313 Sherman Street  
Denver, CO 80203

P (303) 866-3441

F (303) 866-4474

John Hickenlooper, Governor

Mike King, DNR Executive Director

James Eklund, CWCB Director

**TO: Colorado Water Conservation Board Members****FROM: Kirk Russell, P.E., Chief  
Finance Section****BOARD MEETING: September 11-12, 2014****AGENDA ITEM: Directors Report  
Design & Construction Status Report**

The CWCB Loan Program has Substantially Completed nine (9) projects in Calender Year 2014 as shown in Table 1. There are currently sixty-four (64) projects authorized to receive loan funding totaling \$315.3 million. There are forty-six (46) projects currently under contract and in the Design and Construction phase totaling \$128 million. There are an additional twenty-four (24) Emergency Loans approved totaling \$23.3 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**

	<b>Borrower</b>	<b>Project</b>	<b>County</b>	<b>Loan</b>	<b>Complete</b>
1	North Delta Irr. Co.	NDIC Tunnel Repair Project	Delta	\$808,000	4/1/14
2	Ordway Feedyard, LLC	Raw Water Line Extension Project	Crowley	\$2,116,564	4/1/14
3	Henrylyn Irr. District	Prospect Res. Dam Facing Project	Weld	\$1,824,204	6/1/14(a)
4	Lower Latham Res. Co.	Well Augmentation Project	Weld	\$3,811,573	6/1/14
5	Twenty Two Rd Lateral Co.	Lateral Replacement Project	Mesa	\$517,848	6/1/14
6	Wadley Farms Flg. 3 HOA	Water Rights Purchase	Adams	\$727,200	6/1/14
7	Missouri Heights- Mountain Meadows Irrigation Company	Irrigation Ditch Lining Project	Eagle/ Garfield	\$454,500	7/1/14
8	Boulder & Left Hand Irr. Co.	Tracy Lateral Pipeline	Boulder	\$202,000	7/1/14
9	Fisher Ditch Company	Ditch Infrastructure Project	Denver	\$454,500	7/1/14
			Total:	\$10,916,389	

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





**Colorado Water Conservation Board**  
**Water Project Loan Program**  
**Project Design Construction Status Report**

August 29, 2014

Contract Borrower	County	Loan Amount	Design Status	Const. Start/End	Const. Status	PM	Status Description/Update
<b>Projects in Design or Construction</b>							
1 Bellyache Ridge Metro District > Well Replacement Project C150356	Eagle	\$169,175	100%	00 - 00	0%	AM	Project was bid in June 2014. The District received no bids. Engineer and District are reevaluating the project. Project costs will likely increase.
2 Bergen Ditch & Reservoir Company > Bergen Reservoir No. 2 Rehabilitation C150344	Jefferson	\$2,020,000	80%	2014 - 2015	0%	JH	Project is in final design phase, awaiting SEO approval
3 Boxelder Basin Regional Stormwater Authority > Larimer and Weld Canal Crossing Structure Project C150352	Larmier/ Weld	\$1,010,000	0%	2015 - 2016	0%	JH	Project pending land acquisition
4 Boxelder Basin Regional Stormwater Authority > East Side Detention Facility Project C150353	Larmier/ Weld	\$7,171,000	0%	2015 - 2016	0%	JH	Project pending land acquisition
5 Boxelder Basin Regional Stormwater Authority > County Rd 52 Culvert Project C150393	Larmier/ Weld	\$818,100	0%	2015 - 2016	0%	JH	Project pending land acquisition
6 Central CO WCD - WAS > Augmentation Water Supply Project C150337	Weld/ Adams/ Morgan	\$3,030,000	50%	Apr 13 - Apr 15	30%	JH	Purchased a portion of the water rights on 4/25/13.
7 Colorado Parks & Wildlife > Beaver Park Reservoir Rehabilitation C150343	Rio Grande	\$10,000,000	Ph1 100% P2 100%	Summer '13 & Summer '14	100%  50%	KR	Phase 1 Alsand Construction \$2M. Spillway & Grout work is complete. Phase 2 Construcion by ASI Contractors is underway and includes dam excavaton, filter material placment, outlet rehabilitation.
8 Crystal Lakes Water and Sewer Association > Lower Lone Pine Lake Enlargement Project C150325	Larimer	\$2,363,400	100%	Apr 12 - Nov 14	70%	AM	Construction began in September 2013. SC expected in the Fall 2014.
9 Dillon, Town of > Old Dillon Reservoir Enlargement C150295	Summit	\$1,515,000	100%	Sep 10 - Jul 13	99%	KR	Construction is complete and accepted. As-built drawings indicated areas of the dam that were not at the correct elevation. Repair work has begun. Partial fill allowed. SC expected in late Summer 2014.
10 Eckhardt Farms Inc > Water Rights Purchase C150338	Weld	\$1,336,230	N/A	Jan 15 - Jan 17	0%	AM	Borrower is preparing a change in scope to change the ditch company shares being purchased.

## Design and Construction Status Report

	Contract Borrower	County	Loan Amount	Design Status	Const. Start/End	Const. Status	PM	Status Description/Update
11	Farmers' High Line Canal and Reservoir Company > System Rehabilitation Project C150314	Adams/ Jefferson	\$2,209,597	100%	Feb 11 - May 15	99%	JH	The Co. received a loan increase of nearly \$900K in November 2012. Siphons complete. Clear Creek construction finished April 2014. SC expected May 2015.
12	Farmers Pawnee Canal Company > Diversion Structure Replacement Project C150394	Logan	\$2,067,470	1	Fall 14 - Spring 15	0%	DJ	Headgate order for fabrication to be completed. Expect construction in Sept 2014. 2 bids received. NTP to follow.
13	Fowler, Town of > Augmentation Pipeline Project C150359	Otero	\$277,245	100%	Nov 13 - July 14	0%	DJ	Bids rec'd greatly exceeded available funding. Seeking add'l grant funding; decision not expected until Jan 2015.
14	Georgetown, Town of > Outlet Works Modification Project C150321	Clear Creek	\$2,976,975	100%	Aug 14 - Dec 14	10%	AM	Construction began in August 2014.
15	Grand Mesa Water Conservancy District > Peak Res. & Blanche Park Res. Rehabilitation C150354	Delta	\$227,250	100%	Mar 13 - Nov 14	85%	AM	Construction began in the 2013 season and will be completed in the 2014 construction season.
16	Greeley Irrigation Company > Greeley Canal No. 3 Rehabilitation C150239	Weld	\$2,233,867	90%	Feb 08 - Dec 14	90%	KR	Nearly complete. The Company is working on their SCADA system and the realignment and reshaping of various sections of existing channel.
17	Greeley & Loveland Irrigation Company > Irrigation System Improvements C150362	Larimer	\$3,154,230	50%	Summer 14 - Spring 15	25%	JH	Phase 1 Horseshoe complete. Phase 2 Horseshoe and Boyd Lake projects expected to begin after 2014 irrigation season.
18	Gypsum, Town of > LEDE Ditch and Reservoir Rehabilitation C150296	Eagle	\$2,689,731	100%	Jul 13 - Sep 16	30%	DJ	The Town received a WSRA grant for an enlargement of the Reservoir. Construction began in winter 2013 and continues into 2014. Dam earthwork and piping is underway.
19	Huerfano County Water Conservancy District > Regional Augmentation Project C150364	Huerfano	\$2,222,000	100%	Mar 14 - Oct 15	60%	AM	Land and water rights purchase to occurred in January 2014. Camp Ranch augmentation site construction is underway.
20	Joseph W. Bowles Reservoir Company > Bowles No. 1 Dam Rehabilitation C150290	Jefferson	\$1,703,870	100%	Aug 10 - Dec 14	90%	JH	Dam construction project was completed in 2011. Ditch construction completed fall 2013. Minor final construction items to be completed summer 2014.
21	Lake Canal Reservoir Company > North Gray Reservoir Rehab Project C150299	Larimer/ Weld	\$393,900	20%	2015 - 2016	0%	JH	The Company's engineer is working on the design. Project has been delayed until neighboring Boxelder East Side Detention Facility is finalized.

## Design and Construction Status Report

	Contract Borrower	County	Loan Amount	Design Status	Const. Start/End	Const. Status	PM	Status Description/Update
22	Lake Durango Water Authority > Source Water Supply Project C150317	LaPlatta	\$2,525,000	5%	June 15 - Dec 15	0%	KR	Final design efforts are underway. ROW and easements are being negotiated.
23	Lamar, Town of > Raw Water Transmission Line Replacement C150367	Prowers	\$792,850	100%	Mar 14 - Nov 14	40%	DJ	Construction 100% complete.
24	Left Hand Ditch Company > Allen Lake and Lake Isabelle Repair Project C150336	Boulder	\$1,475,307	100%	Nov 12 - June 15	90%	AM	Allen Lake construction was completed in August 2013. Lake Isabelle outletworks construction will be completed in 2014/2015.
25	Lone Cabin Ditch & Reservoir Company > Lone Cabin Dam Rehab. Project C150361	Delta	\$252,803	100%	Summer 14 - Fall 14	0%	DJ	Construction completed pending final punchlist items. Ongoing discussion regarding relocation of dam access road.
26	Mancos Water Conservancy District > Inlet and Outlet Canal Rehabilitation C150120	Montezuma	\$5,486,531	100%	Jan 04 - Oct 13	99%	KR	Rehabilitation of ditch system involving retaining walls and access road along the ditch was completed in 2009. Additional 1000ft of ditch lining was completed in October 2013. SC scheduled for expected on Dec 1, 2014
27	McDonald Ditch Company > Ditch Diversion and Headgate Replacement C150334	Rio Grande	\$101,000	20%	Fall 14 - Spring 15	0%	JH	In Final Permitting with State and USACE. NRCS finalizing design. On track to bid for fall construction.
28	Monte Vista, City of > Augmentation Water Rights Acquisition C150309	Rio Grande	\$1,693,770	n/a	Oct 10 - Jul 17	50%	AM	The City purchased Anderson Ditch rights and will file a water court application to enable the use of those rights to replace depletions. Contracted with the San Luis Valley Irr. Dist. for storage space in the Rio Grande Res. City continues negotiations to purchase additional water.
29	North Poudre Irrigation Co > Reservoir No. 4 Rehabilitation C150378	Larimer	\$1,636,200	100%	Fall 14 - Spring 15	0%	JH	Design completed. Prebid set 8/26/14.
30	Overland Ditch and Reservoir Company > Overland Reservoir Rehabilitation C150206	Delta	\$1,130,000	50%	Permitting	0%	KR	Project on-hold until fens can be addressed in enlarged reservoir area.
31	Owl Creek Reservoir Company > Owl Creek Reservoir Rehabilitation C150089	Weld	\$1,125,000	99%	On Hold	0%	TF	The Company received bids and does not have enough funds to complete the project. The Company has expended approximately \$450,000 to-date for permitting, soils, and design and will need an additional \$600,000 to complete the project. A project partner is being sought.
32	Penrose Water District > Water Rights Purchase and Pipeline Installation C150237	Fremont	\$8,844,570	80%	Summer 14 - Fall 15	50%	DJ	Preconstruction meeting completed, construction imminent. Additional loan funds will be requested.

## Design and Construction Status Report

	Contract Borrower	County	Loan Amount	Design Status	Const. Start/End	Const. Status	PM	Status Description/Update
33	Petrocco Family Limited Partnership > Water Rights Purchase C150363	Adams/ Weld	\$840,825	N/A	N/A	N/A	JH	Water rights purchased. To be SC on October 1, 2014.
34	Pisgah Reservoir and Ditch Company > Mount Pisgah Dam/Wrights Reservoir Rehab C150341	Teller	\$162,958	75%	Fall 14 - Dec 16	0%	JH	After SEO design review, scope of Project increased. May need additional funds.
35	Ridgway, Town of > Lake Otonowanda Rehabilitation Project C150340	Ouray	\$606,000	100%	June 14 - Nov 14	30%	KR	Land acquisition purchase completed. Construction is underway. Earthwork and outlet construction.
36	Riverside Ditch and Allen Extension Company > Ditch System Rehabilitation C150301	Chaffee	\$186,345	85%	Jul 10 - Dec 13	80%	KR	Ditch lining phase of the project was completed in December 2010. Additional phases will be constructed in 2014. Utilizing NRCS La Junta Fld office for design and assistance with field modifications of original work.
37	Riverside Reservoir and Land Company > Riverside Reservoir Spillway Enlargement C150291	Weld	\$2,838,100	80%	Sep 10 - Sep 16	0%	DJ	The engineer is re-evaluating design options with support from the SEO. Construction not expected until summer of 2015.
38	Roxborough Water & Sanitation Dist. > Raw Water Supply Project C1503346	Douglas	\$18,538,550	100%	Oct 14 - Dec 14	0%	AM	Project Bill (SB-181) approved. Purchase is expected to occur by the end of 2014.
39	Sanchez Ditch and Reservoir Company > Sanchez Reservoir Outlet Rehabilitation Project C150342	Costilla	\$1,381,276	95%	Summer 14 - Winter 15	0%	AM	Construction is scheduled for 2014/2015.
40	Santa Maria Reservoir Company > Siphon and Canal System Rehabilitation Project C150350	Hinsdale/ Mineral	\$1,405,163	100%	2014 - 2015	40%	AM	Bid was awarded in April 2014. Construction began in May 2014.
41	Santa Maria Reservoir Company > Continental Dam Spillway Rehabilitation Project C150365	Hinsdale/ Mineral	\$3,071,633	100%	2014 - 2015	30%	AM	Bid was awarded in April 2014. Construction began in May 2014 and is scheduled for two construction seasons.
42	Terrace Irrigation Co > Spillway Replacment Project C150332	Conejos	\$2,751,968	100%	Jul 12 - Jul 13	99%	KR	Construction by ASI Contractors is complete. SEO has provided final approval. ASI has claim for \$50K for disputed additional work (was \$700K). Decision pending.
43	Thunderbird W&S Dist > Lambert Ranch Water Rights Purchase C150320	Douglas	\$318,150	100%	N/A	0%	JH	Closing has been delayed until 2014 due to easement access to purchased wells.

## Design and Construction Status Report

	Contract Borrower	County	Loan Amount	Design Status	Const. Start/End	Const. Status	PM	Status Description/Update
44	Tri-County Water Conservancy District > Ridgway Reservoir Micro Hydro Project C150324	Ouray/ Mont/ Delta	\$13,130,000	100%	Jul 12 - Jul 14	99%	KR	Construction and testing is complete and power production is underway. Ribbon Cutting Ceremony held on June 6th, 2014. Power is being produced. SC scheduled for Oct 1, 2014
45	Upper Arkansas Water Conservancy District > Reservoir Rehabilitation C150192	Chaffe/ Custer	\$3,520,000	100%	Permitting	90%	KR	The project requires Forest Service special use permit and an environmental assessment prior to construction. The initial phase of construction was awarded to ASI, Buena Vista, CO, and completed in May 2007. The enlargement effort is delayed due to NEPA permitting
46	Windsor, Town of > Kyger Reservoir Project C150366	Larimer/ Weld	\$4,545,000	0%	Fall 14 - Spring 15	0%	JH	Floods delayed project timeline. Town to purchased reservoir spring/summer 2014

Projects Under Contract SubTotal =     \$127,948,039

### Approved Projects - Not Under Contract

a	Castle Pines Metro. District > Chatfield Project C150403	Douglas	\$5,085,615	In Contracting	JH	
b	Castle Pines North Metro. District > Chatfield Project C150404	Douglas	\$5,857,814	In Contracting	JH	
c	Centennial W&S District > Chatfield Project C150405	Arapahoe	\$45,450,000	In Contracting	JH	
d	Center of Colorado WCD > Chatfield Project C150406	Park	\$606,000	In Contracting	JH	
e	Central Colorado WCD > Chatfield Project C150407	Weld	\$28,684,000	In Contracting	JH	
f	Cottonwood Water & San. District > WISE Project C150408	Douglas/ Arapahoe	\$4,040,000	In Contracting	DJ	

## Design and Construction Status Report

	Contract Borrower	County	Loan Amount	Design Status	Const. Start/End	Const. Status	PM	Status Description/Update
g	East Mesa Water Company > Ditch Piping Project C150360	Pitkin/ Garfield	\$555,500		In Contracting		KR	
h	Ephraim Ditch Company > Ephraim Diversion and Headgate Rehabilitation C150402	Rio Grande	\$101,000		In Contracting		JH	
i	Fulton Irrigating Ditch Company > Diversion Structure Rehabilitation Project C150399	Adams	\$2,020,000		In Contracting		DJ	
j	Inverness Water & San. District > WISE Project C150409	Douglas/ Arapahoe	\$5,050,000		In Contracting		DJ	
k	Northern Colorado WCD- Hydropower Enterprise > Granby Hydropower Project C150396	Grand	\$5,858,000		In Contracting		JH	
l	Parker Water & San. District > WISE Project C150410	Douglas/ Arapahoe	\$12,120,000		In Contracting		DJ	
m	Pinery Water & Wastewater District > WISE Project C150411	Douglas	\$10,100,000		In Contracting		DJ	
n	Prairie Ditch Company > Plaza Phase 3: Prarie Ditch Implementation Project C150400	Rio Grande	\$131,300		In Contracting		JH	
o	Sanford Canal Company > Sanford Diversion and Headgate Rehabilitation C150401	Rio Grande	\$101,000		In Contracting		JH	
p	San Luis Valley Water Conservancy District > Anaconda Ditch Water Right Acquisition C150348	Alamosa	\$839,000		In Contracting		AM	
q	Southeastern CO Water Conserv. District > Arkansas Valley Conduit C150238	Crowley	\$60,600,000		In Contracting		KR	Pending Federal Appropriation

## Design and Construction Status Report

	Contract Borrower	County	Loan Amount	Design Status	Const. Start/End	Const. Status	PM	Status Description/Update
r	Upper Platte & Beaver Canal Company > Hospital Rd Recharge Facility & Bridge Project C150???	Morgan	\$190,890		In Contracting		DJ	

Not Under Contract SubTotal =   \$187,390,119

Grand Total =       \$315,338,158

## Colorado Water Conservation Board

### Construction Fund, Special Funds and Severance Tax Trust Fund Accounts Non-Reimbursable Investments Status Report Fiscal Year 2013-2014

#### Construction Fund – Non-Reimbursable Investments

The Colorado Water Conservation Board (CWCB) Non-Reimbursable Investments Status Report has two sections. This section includes the non-reimbursable investment projects from the Construction Fund, Special Funds and Severance Tax Accounts. The following table summarizes the non-reimbursable investment projects in progress from July 2013 thru June 2014. This table provides the beginning and ending balances for funds available for each project during the fiscal year including amounts disbursed. Following this table, are project summaries provided by each project manager that detail the implementation and status of each project. Following this section is the Severance Tax Trust Fund Operational Account Grant Program status for the same period.

<u>No.</u>	<u>Manager</u>	<u>Project</u>	<u>July 1 Balance</u>	<u>Amount Disbursed</u>	<u>June 30 Balance</u>
1	Bassi	Acquisitions of Water for Instream Flow	\$1,000,000	\$161,780	\$838,220
2	Bassi	CWCB Stream Gaging	\$86,006	\$26,497	\$59,509
3	Bassi	Instream Flow Engineering Support Services	\$72,099	\$4,780	\$67,319
4	Bassi	Satellite Monitoring – State Eng Office	\$349,812	\$340,744	\$9,068
5	Bassi	Stream Gauge Fund	\$264,352	\$28,080	\$236,272
6	Browning	Chatfield Reservoir Reallocation Project	\$1,853,000	\$50,000	\$1,803,000
7	Browning	Chatfield Res Reallocation Implementation	\$33,000,000	\$0	\$33,000,000
8	Browning	Chatfield Reservoir Reallocation Study	\$17,015	\$0	\$17,015
9	Browning	Water Conservation Public Awareness Study	\$34,799	\$5,738	\$29,061
10	Browning	Water Education Foundation	\$150,000	\$150,000	\$0
11	Feehan	Abandonment List Legal Support	\$135,673	\$135,673	\$0
12	Feehan	Animas-La Plata Project Water	\$100,790	\$100,790	\$0
13	Feehan	Rio Grande Cooperative Project	\$4,124,555	\$2,493,528	\$1,631,027
14	Feehan	Rocky Mountain Fen Demonstration Project	\$100,000	\$0	\$100,000
15	Feehan	Water Resource Info Center & Data Harvest	\$450,000	\$0	\$450,000
16	Feehan	Windy Gap Reservoir Bypass Channel	\$2,000,000	\$0	\$2,000,000
17	Houck	Chatfield Channel Improvement	\$160,834	\$0	\$160,834
18	Houck	Colorado Floodplain Map Modernization	\$1,300,591	\$321,423	\$979,168
19	Houck	Fish and Wildlife Resources Fund	\$1,805,136	\$221,938	\$1,583,198
20	Houck	Flood and Drought Response Fund	\$459,762	\$244,302	\$215,460
21	Houck	Rio Grande Forecasting Development	\$215,000	\$65,000	\$150,000
22	Houck	Tamarisk Control Cost-Sharing Program	\$1,047,505	\$245,016	\$802,489
23	Houck	Watershed Restoration	\$995,142	\$251,520	\$743,622
24	Houck	Weather Modification Program	\$533,902	\$459,323	\$74,579
25	Kowalski	Arkansas River Basin DSS Feasibility Study	\$740,744	\$27,217	\$713,527
26	Kowalski	Ark River Surface Water Rules Tech & FA	\$27,177	\$27,146	\$31
27	Kowalski	Co River Comp - State Water Right Admin	\$18,161	\$18,161	\$0
28	Kowalski	Co Decision Support Systems O & M	\$100,000	\$0	\$100,000
29	Kowalski	Co Flood Decision Support System	\$74,189	\$4,950	\$69,239



<b>No.</b>	<b>Manager</b>	<b>Project</b>	<b>July 1 Balance</b>	<b>Amount Disbursed</b>	<b>June 30 Balance</b>
30	Kowalski	Co River Augmentation Project Develop	\$75,000	\$0	\$75,000
31	Kowalski	Co River Basin Study Implementation	\$75,000	\$50,000	\$25,000
32	Kowalski	Co River Delta in Mexico Consultation	\$128,205	\$7,594	\$120,611
33	Kowalski	Co Water Needs and Alternatives Analysis	\$1,950,002	\$184,828	\$1,765,174
34	Kowalski	Instream Flow Decision Support System	\$57,856	\$32,920	\$24,936
35	Kowalski	Litigation Fund	\$2,789,117	\$662,037	\$2,127,080
36	Kowalski	Lower So Platte Water Mgmt & Storage Site	\$500,000	\$0	\$500,000
37	Kowalski	Project Imaging System	\$119,091	\$61,969	\$57,122
38	Kowalski	Purgatoire River Channel Capacity- Improve	\$25,000	\$0	\$25,000
39	Kowalski	So Platte Groundwater Level Data Collect	\$634,458	\$39,145	\$595,313
40	Kowalski	South Platte River Alluvial Aquifer Study	\$520,784	\$395,293	\$125,491
41	Kowalski	South Platte River Decision Support System	\$1,660,091	\$793,117	\$866,974
42	Kowalski	Wild and Scenic Rivers Fund	\$480,749	\$130,893	\$349,856
43	Kowalski	Wild and Scenic Rivers Study	\$11,473	\$0	\$11,473
44	Mitchell	Alt Ag Water Transfer Sustainability Prgm	\$1,671,240	\$299,998	\$1,371,242
45	Mitchell	Climate Change Effects on Co Water Re	\$27,048	\$0	\$27,048
46	Mitchell	Co Drought Mitig & Response Plan Imp	\$44,219	\$18,331	\$25,888
47	Mitchell	Drought Mitigation Planning Technical Asst	\$17,996	\$17,996	\$0
48	Mitchell	Statewide Water Supply Initiative Cont	\$225,000	\$0	\$225,000
49	Mitchell	Water Adaptation Partnership Program	\$460,000	\$43,738	\$416,262
50	Mitchell	Water Conservation Data Tracking Project	\$166,893	\$79,602	\$87,291
51	Mitchell	Water Planning Studies	\$107,273	\$0	\$107,273
52	Russell	Closed Basin	\$175,389	\$0	\$175,389
53	Russell	Emergency Dam Repair Cash Fund	\$50,000	\$50,000	\$0
54	Russell	Feasibility Study Grant Fund	<u>\$66,216</u>	<u>\$5,000</u>	<u>\$61,216</u>
<b>Total Balances for Non-Reimbursable Investments</b>			<u>\$63,254,344</u>	<u>\$8,256,067</u>	<u>\$54,998,277</u>

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

1. Acquisitions of Water for Instream Flow

Authorization: HB 08-1346

Water Source: Statewide Streams

Location: Statewide

Sponsor: CWCB

Project Type: Water Acquisitions

Project Manager: Linda Bassi

Beneficiary: Statewide Water Users

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

In the same fiscal year, \$161,780 was disbursed to the Colorado Water Trust pursuant to the Master Task Order contract. The funding was utilized for initial investigations, stakeholder outreach activities, and engineering analyses for three separate ongoing projects.

2. CWCB Stream Gaging

Authorization: SB 01-157 to HB 06-1313

Water Source: Statewide Streams

Location: Statewide

Sponsor: CWCB

Project Type: Stream Gaging

Project Manager: Jeff Baessler

Beneficiary: CWCB Staff, and  
Statewide Water Users

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

In Fiscal Year 2013-2014, CWCB funded the following projects:

- DWR Gage ID BLUNINCO: Blue River at Highway 9 Bridge below Breckenridge, CO. The control had degraded and a rebuild was necessary after CDOT bridge maintenance. This gage is used for administration of agreements with Breckenridge Ski Area and the cost is shared accordingly.
- DWR Gage ID CRYDOWCO: Crystal River at CPW Fish Hatchery above Carbondale, CO. A radar water level sensor was added to the station to increase station reliability.
- In cooperation with Skyland Metropolitan District, Colorado Water & Civil Contractors, Inc. was contracted to design an instream flow bypass and diversion structure for administration of the Breem Ditch water right acquisition.
- In response to the September 2013 South Platte Basin mass flooding event, funding was provided to the USGS to conduct indirect peak streamflow measurements for St Vrain at Lyons, St Vrain at I-25, Big Thompson at Canyon Mouth and Big Thompson at Loveland.
- DWR Gage ID SNAKEYCO: Snake River at Keystone Ski Area, CO. A radar water level sensor was added to the station to increase station reliability.

3. Instream Flow Engineering Support Services

Authorization: SB 05-084 to HB 10-1250

Water Source: N/A

Location: Statewide

Sponsor: CWCB

Project Type: Technical Services

Managers: Jeff Baessler

Beneficiary: Statewide

Funding is to provide temporary help with technical support for ongoing instream flow (ISF) projects, ISF recommendation investigations and to acquire as-needed engineering services for legal protection of ISF water rights. Last fiscal year, a portion of the funding was used for engineering services related to the change of the acquired Breem Ditch water rights on Washington Gulch to ISF use. It is anticipated that these funds will be used for additional technical support in 2014 to address concerns with controversial new ISF appropriations cases.

4. Satellite Monitoring System – State Engineer’s Office

Authorization: HB 93-1273 to SB 13-181

Water Source: Statewide Streams

Location: Statewide

Project Type: Stream Gaging

Managers: Jeff Baessler/  
Scott Cuthbertson

Sponsor: State Engineer’s Office

Beneficiary: Statewide Water Users

The Satellite Monitoring System includes funding for maintenance and refurbishment of the State Engineer’s Satellite Monitoring System. The State Engineer is continuing to make progress in its replacement of out-dated data collection platforms and satellite telemetry transmission components and refurbishment/renovation of gaging stations. The funds support the continued operation of over 520 stream gages throughout the state.

In FY 2013-14, DWR spent approximately \$43,000 of the amount funded to assist with the immediate recovery of crucial administrative gages that were damaged during the September 2013 flood event. Additional funding continues to be utilized to fully recover all other gages that were lost or damaged in the flooding. However, DWR is working with both FEMA and State Risk management on reimbursement costs. Future Satellite Monitoring requests will likely be modified depending on the outcome of the reimbursement efforts.

5. Stream Gage Fund

Authorization: SB 07-122

Water Source: Statewide Streams

Location: Statewide

Sponsor: CWCB

Project Type: Stream Gaging

Project Manager: Jeff Baessler

Beneficiary: Statewide Water Users

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

6. Chatfield Reservoir Reallocation Project

Authorization: HB 08-1346

Water Source: South Platte River

Location: 10 miles South of Denver

Sponsor: CWCB, U.S. Army Corps of Engineers

Project Type: Study

Project Manager: Tom Browning

Beneficiary: Statewide Water Users

The purpose of this authorized funding is to act as “seed money” for implementation of the Chatfield Reservoir Reallocation Project (Project) in partnership with local water providers. The seed money may assist, to some extent, with finalization of FR/EIS study tasks, but more importantly will assist with the implementation phase of the Project. Implementation, pending Project approval by the federal government, will consist of contracting with the U.S. Army Corps of Engineers for water supply storage space in the reservoir and the completion of recreation modifications and environmental mitigation. This funding has been largely untapped for the time being so that it can be used in the most meaningful and efficient manner when appropriate. The funds are still greatly needed and will be encumbered appropriately for the intended purposes.

7. Chatfield Reservoir Reallocation Project Implementation

Authorization: SB 12S-002

Water Source: South Platte River

Project Type: Study

Location: 10 miles South of Denver  
Sponsor: CWCB, U.S. Army Corps of Engineers

Project Manager: Tom Browning  
Beneficiary: Statewide Water Users

This project provides for the first installment of the Chatfield Orphan Shares. Disbursement of the funds is pending a Federal Record of Decision and a signed water storage agreement with the U. S. Corps of Engineers.

8. Chatfield Reservoir Reallocation Study

Authorization: SB 97-008 to SB 07-122

Water Source: South Platte River

Location: 10 miles South of Denver

Sponsor: CWCB, U.S. Army Corps of Engineers

Project Type: Reservoir Supply Study

Project Manager: Tom Browning

Beneficiary: Colorado Water Users

This project involves a partnership with the U. S. Army Corps of Engineers (Corps) and local water providers to complete a Feasibility Report and Environmental Impact Study (FR/EIS) regarding the reallocation of up to 20,600 acre-feet of existing storages space in Chatfield Reservoir. The reallocation study is investigating several alternatives including impacts, mitigation needs, and costs. The Corps has determined that 20,600 AF of flood control space can be converted to multi-use space with no reduction in downstream flood control benefits.

The current water providers involved in the FR/EIS include the South Metro Water Supply Authority, Centennial W&S District, Town of Castle Rock, Roxborough Metro District, Castle Pines Metro District, Castle Pines North Metro District, Perry Park Country Club, Center of Colorado WCD, Mt. Carbon Metro District, City of Aurora, Central Colorado WCD, Western Mutual Ditch Company, and Denver Botanic Gardens. A large coalition of stakeholders has been assembled to allow for input on all aspects of the proposed reallocation, and affected DNR agencies are working closely together as well.

9. Water Conservation Public Awareness Research Study

Authorization: SB 07-122

Water Source: N/A

Location: Statewide

Sponsor: CWCB

Project Type: Research Study

Project Manager: Tom Browning

Beneficiary: Statewide Water Users

A comprehensive Statewide Water Conservation Public Awareness Research Study will be conducted to pinpoint critical attitudes and behaviors among Coloradoans and those affected by recommended water efficiency best management practices. A combination of qualitative and quantitative research will be conducted strategically to benchmark statewide attitudes and perceptions about water efficiency. Since attitudes, microclimates, and water supplies vary in Colorado, the research studies will be segmented geographically according to the nine HB 05-1177 roundtable basins around the State. The water awareness strategy will focus on three research target groups for all regions, regulated community, stakeholders, and citizens. The research strategy would include a quantitative and qualitative survey, in-depth interviews, and focus groups. BBC Research, supported by GBSM and various stakeholders, was selected and is under contract to conduct telephone surveys for this effort.

The study findings may be used as benchmarks for a future Water Conservation Public Awareness and Education Campaign, and as a resource from which to develop the most effective messaging and umbrella brand for the State's potential future water awareness and conservation efforts. Potential statewide marketing objectives include educating individual Coloradoans of the importance of water conservation to their future as residents of the State and to complement and reinforce other local and regional water conservation public-awareness programs and activities; striving to make all Coloradoans aware that their natural water resources are limited and not immune to the consequences of their individual behaviors. Similar research in other states indicates that the more people know about their water the more likely they are to conserve it.

10. Water Education Foundation

Authorization: HB 02-1152

Water Source: N/A

Location: Denver

Sponsor: Colorado Foundation for Water Education

Project Type: Education

Project Manager: Tom Browning

Beneficiary: Statewide

Each year, CWCB staff executes a grant contract with the Colorado Foundation for Water Education (Foundation) to provide funds for the on-going operation of the Foundation. CWCB Board members annually review and accept the Foundation's annual work plan in May. More information is available at [www.cfwe.org](http://www.cfwe.org) and [www.cwcb.state.co.us](http://www.cwcb.state.co.us).

11. Provision of Legal Support and Funding for Litigation Involving the Abandonment List

Authorization: SB 12S-002

Water Source: Statewide

Location: Statewide

Sponsor: Division of Water Resources

Project Type: Legal Support

Managers: Tim Feehan / Mike Sullivan

Beneficiary: Statewide

The State Engineer's Office continues to work with the Attorney General's Office in reviewing and providing necessary engineering support for water right abandonment cases. This effort will continue over the next five years or more. The \$100,000 funding for this effort is sufficient to meet the current litigation need.

12. Purchase of Colorado's Allotment of Animas-La Plata Project Water

Authorization: HB 10-1250

Water Source: Animas River

Location: Durango, CO

Sponsor: CWCB / USBR

Project Type: Water Purchase

Managers: Tim Feehan

Beneficiary: State of Colorado

The Purchase Contract between the State of Colorado and the Bureau of Reclamation was fully executed on June 19, 2012. Pursuant to the terms of the Contract, the State made its initial \$12 million payment to the Bureau on June 20, 2012. In April of 2013, the State made an additional payment of approximately \$23,850,000, leaving a remaining principal balance of approximately \$850,000 for the State to purchase its full project water allocation of 10,460 acre feet.

Staff is currently working with BOR to finalize the dollar amount to be credited to the State for the 46 acres parcel donated by the State to BOR to construct the Durango Pumping Plant (DPP). The appraisal process for this parcel to determine value has been completed with an estimated value of \$4.4 million. CWCB, BOR and the Animas La-Plata Water Conservancy District are working together to finalize the footprint of the permanent operation and maintenance easement, which will have a direct result in what is actually credited to the State.

13. Rio Grande Cooperative Project

Authorization: SB 12S-002

Water Source: Rio Grande River

Location: Rio Grande County

Sponsor: CWCB / SLVID

Project Type: Reservoir Rehabilitation

Project Manager: Tim Feehan

Beneficiary: Rio Grande Water Users

The CWCB 2012 Projects Bill authorized and appropriated a \$5,000,000 grant to the San Luis Irrigation District for the rehabilitation of the Rio Grande Reservoir. The State has executed five contracts towards this effort, involving project design, project management, embankment material processing, federal land exchange, and seepage control. Total funds encumbered to-date is approximately \$4,000,000. The 2012 Projects Bill also authorized \$15,000,000 for additional rehabilitation work at Reservoir Grande Reservoir, to be reviewed by the CWCB Board to determine how much would be disbursed as a grant and how much as a loan. The remaining \$15,000,000 will be presented to the Board in the near future.

14. Rocky Mountain Fen Demonstration Project

Authorization: SB 07-122

Water Source: N/A

Location: N/A

Sponsor: Colorado Mountain College

City of Aurora, Pueblo Board of Water Works

Project Type: Demonstration Project

Project Manager: Tim Feehan

Beneficiary: Statewide

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

15. Water Resource Information Center and Data Harvesting Initiative

Authorization: SB 09-125

Water Source: N/A

Location: Statewide

Sponsor: CWCB

Project Type: Water Information

Project Manager: Tim Feehan

Beneficiary: Statewide

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

The accomplishments of the CWCB Water Resource Information Center and Data Harvesting Initiative during Fiscal Year 2012 concentrated on appropriating money to CSU's digitization efforts, which included scanning, indexing and making available (through the CSU Water Resources Archive) papers, maps and slides from the Groundwater Data Collection, the David McComb Big Thompson Flood Collection, and from Delph E. Carpenter and Family, Rollin Q. Tenney, W.D. Farr, Louis G. Carpenter, Everett V. Richardson, Maurice L. Albertson, James R. Meiman, Robert E. Glover, James L. Ogilvie, Maurice L. Albertson, Edwin W. Mogren, Harvey Johnson, and/or the records of the Plumb and Daily Ditch Company, the Iliff and Platte Valley Ditch Company and Wright Water Engineers.

16. Windy Gap Reservoir Bypass Channel Project

Authorization: SB 13-181

Water Source: Colorado River

Location: Windy Gap Reservoir

Sponsor: Northern Colorado WCD

Project Type: Diversion Structure

Managers: Tim Feehan

Beneficiary: Water Users

The Northern Water Conservancy District, the Municipal Subdistrict, and the Windy Gap Firming Project Enterprise (project sponsors) have been involved in seeking a Record of Decision for the Windy Gap Firming Project. The project proponents are analyzing whether a Windy Gap bypass structure would affect the aquatic environment and whether a bypass could be permitted, designed and studied. Depending on the outcome of these studies, the State has committed \$2M towards the construction of the bypass structure. The project is still under review.

17. Chatfield Channel Improvement

Authorization: SB 79-537 – SB 90-41

Water Source: South Platte River

Location: Downstream of Chatfield Reservoir

Project Type: Flood Control

Managers: Joe Busto

Sponsor: CWCB

Beneficiary: CWCB – Metro Area

The original 1979 authorization listed was the original state and federal funding left over from the land purchase and construction of the Chatfield Downstream Channel Improvement Project (Project). The Project was to straighten the South Platte River to accommodate up to 5,000 CFS and once constructed, it was turned over to CWCB as the non-federal project sponsor. At the request of Littleton, the area between C470 and Mineral was excluded from the flood control project. This was once known as Littleton Floodplain Park and is now known as South Platte Park and is a great urban naturalist and educational amenity. The next reach is the CWCB/Corps Project that is the South Platte River from Mineral Avenue to Hampden Avenue. Annually the Flood Readiness Branch of the Omaha Corps of Engineers grades the Project. In recent years a South Platte Working group was convened with Englewood, Littleton, Sheridan, Arapahoe County and the Urban drainage and Flood Control District. The focus is to develop a multi-purpose project that includes flood control, recreation, and environmental benefits. Staff and UDFCD are working through design and planning documents and approvals with the U.S. Army Corps of Engineers. If approved and funded the annual O&M Manual from 1990 will need to be updated to accommodate the change in the way the river is managed. Recently one half mile of river in South Platte Park was rechanneled and in the CWCB reach we are planning for a park, trail, and repair and enhancement of two failed boat chutes near Oxford Avenue. About \$18,000 was spent this year on noxious weed removal and \$50,000 towards planning with Merrick and Company formerly McLaughlin White Water through agreements with UDFCD.

18. Colorado Floodplain Map Modernization

Authorization: SB 03-110 to SB 13-181

Water Source: N/A

Location: Statewide

Sponsor: Statewide

Project Type: Floodplain Delineation

Project Manager: Thuy Patton

Beneficiary: CWCB – Statewide

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

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

The Denver Metropolitan area counties are all managed by the Urban Drainage and Flood Control District with technical and financial assistance from CWCB. All other studies are being managed by CWCB staff with consulting assistance from two engineering teams that were selected and contracted for this work.

The CWCB Map Modernization Fund has been instrumental for leveraging local and state funds to maximize federal grants to the program. Typically the local funding is contributed to CWCB at some point during the project duration. The local contribution is reflected as a donation as listed above. Colorado is seen as a floodplain mapping leader within FEMA Region VIII and within the country as a whole. The remaining balance does not reflect approximately \$564,360 that has been encumbered for projects currently in progress which was transferred to

Fiscal Year 2014-15 as these are multiple year projects. In addition, many projects have been placed on hold this past year due to new FEMA levee guidance which is scheduled for release at the end of the calendar year.

19. Fish and Wildlife Resources Fund

Authorization: SB 01-157, HB 02-1152

Water Source: Various

Location: Statewide

Sponsor: CWCB

Project Type: Grant Program

Managers: Ted Kowalski / Chris Sturm

Beneficiary: Statewide

In 1987, HB 87-1158 created the Fish and Wildlife Resources Account, also known as the "Mitigation" Account, in the Construction Fund. Procedures for obtaining mitigation grant approvals are found under section 37-60-122.2, CRS. SB 01-157 transferred the account into a special fund. Expenditures from the fund in Fiscal Year 2014 were to the Platte River Recovery Implementation Program. In addition, expenditures were made to develop a stream mitigation banking protocol, sponsored by Colorado State University. This project is still active.

20. Flood and Drought Response Fund

Authorization: SB 01-157 to SB 13-181

Water Source: All Colorado Streams

Location: Statewide

Sponsor: CWCB

Project Type: Response to Flood

Managers: Kevin Houck/Taryn Finnessey

Beneficiary: CWCB - Statewide

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

The Board has previously approved the staff's program mission and guidelines for the administration of the Fund. The program is administrated jointly by the CWCB's Flood Protection Section and the Water Supply Section and is fully operational at this time. In fact, all five program elements were invoked and utilized during Fiscal Year 2014 with successful results. These activities included snowmelt flood preparation activities, long-term weather outlooks for flood and drought purposes, on the ground drought response, post-flood documentation for various flooding events, post-flood aerial photography, and floodplain evaluations to assess CWCB designated floodplains for validity. A portion of this work also proved to be valuable for the Colorado Flood Task Force and Water Availability Task Force.

Monies from this account continued to be used for post-wildfire flood mitigation purposes for a number of the large wildfires that occurred in both 2012 and 2013. These include the High Park, Waldo Canyon, Black Forest, Royal Gorge, East Peak, and West Fork Complex Fires. Specific tasks include post-wildfire floodplain identification, identification of mitigation alternatives, flood warning, and public outreach. Although no major wildfires occurred during FY2014, activities were still ongoing for fires from previous years.

Fiscal Year 2014 was characterized by ongoing exceptional drought and the September 2013 flood, possibly the most damaging flood in Colorado history. As such, there were many needed activities requiring funds from this account. As such, all money available from the fund was allocated during FY14.

21. Rio Grande Forecasting Development Project Implementation

Authorization: SB 13-181

Water Source: Rio Grande & Conejos Rivers

Location: Rio Grande

Project Type: Demonstration Project

Project Manager: Joe Busto



Sponsor: CWCB, USBR, Rio Grande BRT

Beneficiary: Rio Grande Water Users, West Gulf River Forecast Center, DWR

A list of projects was developed to help with water supply forecast errors in the Rio Grande. Water is tightly administrated and large forecast errors are an issue. For this project sixty five thousand was used to hire Riverside Technologies to take existing data and modeling techniques and tailor them to a compact compliance DSS tool and train DWR staff on using this tool to determine probabilities of water volumes and meeting compact obligations. The project will be completed by fall of 2014. The second part of the project was to try and create new model forcing data through radars rather than just SNOTEL alone and force distributed models with radar data. For \$150,000 there is a contract with NOAA-National Severe Storms Lab to provide radar and radar data processing services for winter 2014-15. This funding is matched with USBR Water Smart and Rio Grande Basin Round Table fund as well and the project will be completed with a final report summer/fall 2015. Other elements are gap filling snow depth measurements at different elevation bands besides the SNOTEL elevation band and that is part USBR funds and part BRT funds. CWCB also has funding to partner with NASA and is working through contracting issues. If successful both a mobile radar and an airplane based snowpack SWE estimate will be used as forcing data for models to compare results against SNOTEL and existing NWS forecast models. This is demonstration of newer methods and existing methods to see if the forecast volumetric errors can be decreased and explain the merits of lots of data and newer physics based modeling.

**22. Tamarisk Control Cost-Sharing Program**

Authorization: HB 08-1346 to SB 12S-002

Water Source: Various

Location: Various

Sponsor: CWCB

Project Type: Phreatophyte Control

Managers: Chris Sturm / Steve Miller

Beneficiary: Statewide Water Users

This activity combines two distinct \$1 million authorizations from the Construction Fund. HB08-1346 created what is now called the Phase 1 TRO Grant Program. Grants ranging from \$10,000 to \$100,000 were awarded to the entities in the following table in 2009 and all work completed by December 2013. The remaining funds from the 2008 authorization have been rolled into the 2012 program described below. Grant recipients have a continuing obligation to provide monitoring and maintenance reports for the next 3 years with the first submission due by December 31, 2013. Staff will be posting the final reports from each project on the Board's website.

Phase 1 TRO Control Project Grants					
App #	Applicant	Project Name	Grant Amount	Final Payment	Percent Complete
NW 2	City of Grand Junction	Watson Island Complex Restoration	\$100,000	\$99,970	100
SE3	Branson-Trinchera Cons. Dist.	Purgatoire River Watershed Riparian Restoration	\$100,000	\$100,000	100
NE4	Yuma County Pest Control Dist.	Republican River Watershed Riparian Restoration	\$100,000	\$99,897	100
SW3	The Nature Conservancy	Dolores Restoration	\$100,000	\$100,000	100
SW1	Ute Mountain Ute Tribe	Ute Mountain Tribe TRO	\$75,000	\$75,000	100
SE4	Sangre de Cristo RC&D	Upper Arkansas Watershed Riparian Restoration	\$75,000	\$54,370	100
NE1	Boulder County Parks & Open Space	Boulder County Collaborative TRO	\$85,000	\$85,000	100
NW 1	Delta County Noxious Weed Program	Delta County River Restoration	\$40,000	\$39,960	100

NW 3	Western Colorado Conservation Corps	Island Acres TRO	\$10,000	\$10,000	100
NE2	Sedgwick County Cons. Dist.	TRO Removal, Wildlife Approval	\$10,000	\$10,000	100
SW2	Dolores Cons. Dist.	McElmo Creek Tamarisk Removal	\$25,000	\$25,000	100
NE3	Weld County Weed Div.	TRO - Cache La Poudre River	\$30,000	\$30,000	100
SE1	SE Colorado WCD	ARKWIPP Riparian Restoration	\$150,000	\$123,004	100
<b>Subtotal control projects = \$852,201</b>					
<b>Science &amp; Administration Projects</b>					
Tamarisk Coalition	2010 Grand Junction Symposium		\$5,000	\$5,000	100
Tamarisk Coalition	Reno Research Symposium		\$5,000	\$5,000	100
Tamarisk Coalition	Technical services for grant administration		\$25,000	\$25,000	100
Sangre de Cristo RC&D	CSU Feasibility/Monitoring Study		\$25,000	\$24,812	100
Tamarisk Coalition	Salt Wash Monitoring & Demo		\$25,000	\$25,000	100
CSU Weed Lab	Knapweed strategies for reveg areas		\$15,000	\$15,707	100
Tamarisk Coalition	Arkansas Beetle Monitoring		\$25,000	\$15,000	100
<b>Subtotal science projects = \$125,000</b>					
<b>Phase 1 Program Total Cost = \$977,201</b>					

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

### 23. Watershed Restoration

Authorization: HB 06-1313 to SB 13-181

Water Source: Various

Location: Statewide

Sponsor: CWCB

Project Type: Watershed Restoration

Project Manager: Chris Sturm

Beneficiary: Watershed Interests

The grant funding has been allocated to projects through the CWCB Colorado Watershed Restoration Program January 2010 - 2013 competitive grant cycles. Active projects from the January 2010 grant cycle include South Platte River restoration design below Chatfield. Completed projects from the 2010 grant cycle include the Coal Creek channel stabilization in Crested Butte. Active projects from the 2011 grant cycle include ditch diversion reconstruction (Relief Ditch) on the Gunnison River (upstream of Delta) and river restoration planning for Lightner Creek (Durango). Completed projects from the January 2011 grant cycle include North Massey Draw (Ken Caryl Ranch), Union Creek (Leadville) stream restoration. Active projects from the January 2012 grant cycle include channel/floodplain restoration on Tarryall Creek, Phase II gully stabilization in the Campbell Valley (N. of Fort Collins), and forest road restoration/erosion control in the Coal Creek Basin (Redstone). Completed project from the January 2012 grant cycle include channel stabilization on the North Fork Gunnison River (Paonia), fen restoration near Ophir Pass (Silverton), and a watershed assessment for the South

Fork Arkansas River. In 2013 the grant cycle was changed. Grants were due in September 2013. Active projects from the 2013 grant cycle include the Cucharas River Basin Watershed Wildfire Assessment, post-fire watershed restoration for the Waldo Canyon and High Park fires, and floodplain/channel restoration design on the Slate River in Crested Butte.

A special allocation for the High Park Fire Assessment is still active. \$150,000 of this \$175,000 grant was contributed by the Colorado Water Resources and Power Development Authority.

A special release of the Colorado Watershed Restoration Program was opened in November 2013 for watersheds recovering from the September 2013 floods. \$1,925,000 was made available for the special release, and the money was contributed by the Department of Public Safety, Division of Homeland Security and Emergency Management. The funds are dedicated to watershed master planning efforts.

24. Weather Modification Program

Authorization: HB 04-1221 to SB 13-181

Water Source: N/A

Location: Denver

Sponsor: CWCB

Project Type: Cost Share Grants

Manager: Joe Busto

Beneficiary: Statewide

This account houses funding from five states annually and the reporting on this program can be complicated since we partner to provide grants and technical assistance and we work more on a water year basis rather than a state fiscal year basis. As of July 1, 2014 all funding was spent from all sources for this program that has focused on importing better cloud seeding equipment and funding for additional hours of operation. At the beginning of this new fiscal year the Lower Basin has pledged more funding to the CWCB to essentially double the budgets and supports request to increase funding from the CWCB. However only California has agreed to double from \$50,000 per year to \$100,000 for winter 2014—15 and we haven't heard from Arizona or Nevada yet but its withing their authorities to give \$100K per state. A detailed modeling study completed by the National Center for Atmospheric Research has evaluated the program design of the local consultant. This will give project sponsors a means to retire aging equipment and import modern remote communicated equipment at higher elevations and focus in on key hot spot areas in their larger drainage basin target area. The CWCB staff is in negotiations with Idaho Power to purchase their design of cloud seeding generators that are generally accepted as the best available but not previously on the market for sale. A letter attached to the CWCB funding request for \$300K expresses their willingness to partner in the Colorado River Basin and with the CWCB. The current script is use modeling studies to evaluate and refine our programs for better effectiveness. Currently the annual target control evaluations are estimated 0-7% increases in the target areas but Idaho Power's evaluations are yielding and average of 14% increased over the last ten years. Staff is confident that once imported the newer machines at higher elevations will produce similar results in Colorado to the Idaho Power results.

25. Arkansas River Basin Decision Support System Study and Phase 1 Implementation

Authorization: SB 07-122, HB 11-1274, SB 13-181

Water Source: Statewide Streams

Location: Statewide

Sponsor: CWCB

Project Type: Decision Support System

Project Manager: Andy Moore

Beneficiary: Statewide Water Users

With \$200,000 authorized in SB 07-122, the feasibility study began in February 2010, and the final report was completed in December 2011. At the July 2011 Board Meeting, the feasibility study results were presented, and the plan for implementation of the ArkDSS was approved by the Board. \$500,000 for implementation of Phase 1 of ArkDSS was authorized in HB 11-1274, \$250,000 was authorized in SB 13-181, and \$500,000 was authorized in HB 14-1333. Work has begun on several aspects of ArkDSS, with coordination with several Roundtable

projects and DWR Division 2 work, and a gage was installed on Fountain Creek. Requests for Proposals for more tasks will be released in the near future.

26. Arkansas River Surface Water Rules Technical and Financial Assistance

Authorization: SB 09-125

Water Source: Arkansas River

Location: Arkansas River Basin

Sponsor: CWCB

Project Type: Technical Assistance

Project Manager: Steve Miller

Beneficiary: Local Water Users

This project provided technical assistance to the Lower Arkansas Valley Water Conservancy District's (LAVWCD) basinwide compliance plan for the State Engineer's Office (SEO) Surface Water Irrigation Efficiency Improvement Rules. In Phase I approximately \$100,000 was used to examine the basic feasibility of a compliance plan. In Phase II for approximately \$125,000 design and submission of the initial compliance plan was accomplished. The final \$27,146 was used to assist the LAVWCD in acquiring replacement water supplies to cover sprinkler depletions. It is now essentially completed with the remaining grant funds. The project was completed in October 2013. The CWCB has also used, and continues to use, other funds, such as the Litigation Account and periodic grants from the Severance Tax Operational Account to work with the SEO and LAVWCD on irrigation rule compliance plans.

27. Colorado River Compact – State Water Right Administration Issues and Options Study

Authorization: HB 08-1346

Water Source: Colorado River

Location: Colorado River Basin

Sponsor: CWCB

Project Type: Study

Project Manager: Michelle Garrison

Beneficiary: Colorado River Compact

This project was a technical study to: 1) investigate and understand the amounts, locations and types of use of Colorado River and tributary water within the State in the Colorado River Basin in order to more fully understand the State's use of its allocations under the Colorado River Compact and Upper Colorado River Basin Compact, 2) develop and evaluate options to avoid, minimize or delay any curtailment of uses of Colorado River and tributary water in Colorado to meet the Upper Division States' non-depletion obligation under Art. III of the Colorado River Compact, and 3) identify, develop and evaluate approaches to curtailing water uses in Colorado, if curtailments are ever legally required to comply with Art. III of the Colorado River Compact; and to develop approaches to implement those curtailments in a way that will allow the maximum use of Colorado's allocations under the Colorado River Compact and Upper Colorado River Basin Compact and do so as equitably as possible.

Michelle Garrison, CWCB, and Mike Sullivan, Deputy State Engineer, served as co-leads for the project along with Karen Kwon and Shanti Rosset O'Donovan, Attorney General's Office.

The initial data gathering and analysis was completed in 2013. 2014 work was focused on exploring options for ensuring future compact compliance and was conducted in concert with other efforts within Colorado and the Upper Colorado River Basin. While additional efforts and studies on compact compliance continue, this study is complete.

28. Colorado Decision Support Systems O & M

Authorization: SB 13-181

Water Source: N/A

Location: N/A

Sponsor: CWCB

Project Type: O&M

Managers: Ray Alvarado/ Andy Moore

Beneficiary: Statewide

The primary use of these funds is to support the movement of the CDSS technical software to an Open Source platform. The potential future support and cost of code change and modification would be shared by a large user base, thereby reducing CWCB costs. CWCB is working with the

Attorney General's office and DNR procurement to develop a request for proposal to initiate this effort.

29. Colorado Flood Decision Support System

Authorization: SB 07-122 to HB 08-1346

Water Source: Statewide Streams

Location: Statewide

Sponsor: CWCB

Project Type: Decision Support System

Managers: Ray Alvarado/Kevin Houck

Beneficiary: Statewide Water Users

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

30. Colorado River Augmentation Project Development

Authorization: HB 08-1346

Water Source: Colorado River

Location: Colorado River Basin

Sponsor: CWCB/ Seven Basin States

Project Type: Study

Project Manager: Ted Kowalski

Beneficiary: Colorado River Compact

The seven Colorado River Basin States (States) have been investigating potential ways to augment and increase the water supply of the Colorado River for several years. In January 2010, the Bureau of Reclamation awarded the States a \$1 million grant through the Basin Study Program, under the auspices of the Water Smart Program. The States provided a \$1 million match under that application. This study's focus was on identifying the current and projected water supply and demand throughout the entire Colorado River Basin and adjacent areas of the seven States that receive Colorado River water up to the year 2060. The general focus of the Study included a comprehensive review, evaluation and characterization of current and long-term water supply and demands, and identification and quantification of future augmentation needs and recommended options to address these needs. Both consumptive and non-consumptive uses associated with Colorado River water were examined. A review and analysis of the known and potential effects of drought, and climate change on the Colorado River and their implications on current and future water supplies and associated uses in the Basin were completed. Strategies were developed and refined as needed to move forward on any needed augmentation project for the Basin. The estimated total cost of the Study originally was between \$2 and \$3 million depending on the final scope, but the total final cost was closer to \$5 million. The seven basin states and the U.S Bureau of Reclamation (Reclamation) shared the costs of the study. This work began in February 2010, and continued through the end of 2012. Colorado has spent \$75,000 and the remaining funds will be disbursed, as needed, within the next year or two, as we commence with implementation phases.

31. Colorado River Basin Study Implementation

Authorization: SB 13-181

Water Source: Colorado River

Location: Colorado River Basin

Sponsor: CWCB

Project Type: Study

Project Manager: Ted Kowalski

Beneficiary:

The Colorado River Basin States have been engaged in a "Next Steps Process", following the work of the Colorado River Basin Study. This process established three different work groups—Municipal and Industrial Conservation and Reuse, Agricultural Conservation and Transfers, and Environmental and Recreational Flows. This work is nearly complete and there will be a "Next Steps" Report that will be released in December. Upon completion of this additional study, it is expected that there will be implementation pilot projects in these areas. This funding will be used to implement these "on the ground" projects in furtherance of Colorado's interests. This work is expected to occur in 2015.

32. Colorado River Delta in Mexico Consultation

Authorization: HB 02-1152, HB 08-1346

Water Source: Colorado River and Tributaries

Location: Seven Colorado River Basin States  
and the Republic of Mexico

Sponsor: CWCB

Project Type: Compact Consultation

Project Manager: Ted Kowalski

Beneficiary: State of Colorado, Colorado  
River Basin States, and the Republic of  
Mexico

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

33. Colorado Water Needs and Alternatives Analysis (Colorado River Water Availability Study)

Authorization: SB 07-122 to SB 12S-002

Water Source: Colorado River and its Tributaries

Location: Statewide

Sponsor: CWCB

Project Type: Water Availability Analysis

Project Manager: Ray Alvarado

Beneficiary: Statewide Water Users

Since the completion of Phase 1 of the study the Board approved the allocation of an additional \$2 million for the next phase of the study. CWCB staff is working with the Basin Roundtables to integrate the CRWAS into their basin implementation plans. One aspect of the second phase of CRWAS is the updating of alternative hydrology due to climate changes. A \$150,000 contract has been awarded to update the alternative hydrology with the new global climate modeling, CIMP5.

34. Instream Flow Decision Support System

Authorization: SB 03-110

Water Source: Statewide Streams

Location: Statewide

Sponsor: CWCB

Project Type: Decision Support System

Managers: Ray Alvarado / Jeff Baessler

Beneficiary: CWCB Staff, and  
Statewide Water Users

Work began in June 2013 on an update to the ISFDSS. A contractor has been hired to update the program to be compatible with current operating systems and GIS software. Work is proceeding on schedule and should be completed by the end of 2014.

35. Litigation Fund

Authorization: HB 95-1155 to HB 11-1274

Water Source: N/A

Location: Statewide

Sponsor: CWCB

Project Type: Legal Services

Managers: Ted Kowalski / Steve Miller

Beneficiary: CWCB Staff, and  
Statewide Water Users

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

authorized additional amounts that are not reflected in the ending balance but will be disbursed in the current fiscal year.

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

Authorization: HB 00-1419, SB 01-157

Water Source: South Platte River

Location: Logan and Sedgwick

Sponsor: CWCB

Project Type: Multi-Use Water Planning

Project Manager: Ted Kowalski

Beneficiary: Statewide or Individual

Water User Group depending on project characteristics/operating rules

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

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

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

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

Staff will continue to coordinate with the CWCB’s Board member from the South Platte Basin as to how best to proceed in the use of these funds. Given the complexity of the project, Staff recommends that the current authorization remain in place to allow coordination with the Ovid Reservoir Company for future work associated with the potential reservoir.

37. CWCB – Imaging System Project

Authorization: SB 99-173 to SB 05-084

Water Source: N/A

Location: Denver

Project Type: Imaging System

Project Manager: Ray Alvarado

Sponsor: CWCB

Beneficiary: CWCB

In 1999, the General Assembly authorized \$270,000 under SB99-173, Section 8, for the CWCB's participation in the Department of Natural Resource's Electronic Document Imaging System, which corresponds with the statewide transition to electronic imaging of documents. CWCB's purpose of acquiring an imaging system was (1) to make information easily accessible to staff and the public, and (2) to minimize the amount of office space required to store paper records.

The expenditure associated with the CWCB Imaging System Project during Fiscal Year 2014 concentrated on system operating and maintenance.

38. Purgatoire River Channel Capacity and Improvement Study

Authorization: HB 08-1346

Water Source: Purgatoire River

Location: Trinidad Dam

Sponsor: CWCB/US Army Corps of Engineers

Purgatoire River WCD (PRWCD)

Project Type: Study

Project Manager: Steve Miller

Beneficiary: PRWCD Water Users

This project involved two phases with the PRWCD as the lead sponsor. In Phase 1, \$25,000 was used to determine the volume of reservoir flood releases that could be safely passed through the PRWCD service area and to identify remedial actions that could improve channel capacity. It was determined that the channel was not as degraded as originally feared and flows as high as 5,000 cfs could be routed through the district with minimal risk of damages.

Phase 2 funds were initially intended to be used to mitigate serious capacity problems that might be identified in Phase 1. With the minimal flood hazard risk found in Phase 1, it was determined to use the remaining funds for riparian restoration efforts in the modeled reaches of the Purgatoire River which will provide conveyance improvements at lower flows. CWCB entered into an agreement with the PRWCD to assist in channel improvements in the vicinity of the City of Trinidad using the Phase 2 funds. The project, with multiple sponsors and participants, will remove minor channel and streambank obstructions and includes native re-vegetation and improved river corridor access. The District is still pursuing these activities and coordinating with several potential funding partners to leverage the CWCB provided funding. The PRWCD is also working with the Corps of Engineers for necessary project review and permits. Due to continuing permitting issues and timing of partner funds the CWCB funds were not utilized in FY 2013-14. We have granted another extension through Dec. 31, 2014 to the PRWCD as it pursues these efforts.

39. South Platte Groundwater Level Data Collection and Analysis

Authorization: SB 12S-002 to SB 13-181

Water Source: N/A

Location: South Platte Basin

Sponsor: CWCB

Project Type: Data Collection/Planning

Project Manager: Ray Alvarado

Beneficiary: Local Water Users

This is a cooperative effort with the Division of Water Resources in the collection of alluvial water level data in the Sterling and LaSalle/Gilcrest areas. This was in response to reported high groundwater levels in those areas in 2011. Continuous water level monitoring equipment has been installed in 20 observation wells with the results being available online. This is a two-year effort with an independent analysis and interpretation of the potential causal relationships, leading to recommendations. A Request for Proposal will be released in the near future for this independent analysis. The SPDSS alluvial groundwater model will also be enhanced and extended to include more recent data; a contractor for this update has been selected and will be under contract in the near future.

40. South Platte River Alluvial Aquifer Study



Authorization: HB 12-1278  
Water Source: South Platte River  
Location: South Platte Basin  
Sponsor: General Assembly /CWCB/CWI

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

In 2012, the Colorado Legislature passed HB 12-1278, which commissioned an independent study of the South Platte alluvial aquifer by the Colorado Water Institute at Colorado State University. A report was provided to the legislature on December 31, 2013.

41. South Platte River Decision Support System

Authorization: SB 99-173 to SB 09-125  
Water Source: South Platte River  
Location: South Platte Basin  
Sponsor: CWCB

Project Type: Decision Support System  
Project Manager: Ray Alvarado  
Beneficiary: Statewide Water Users

The alluvial groundwater model for the basin was completed with the technical report available on the CWCB website. The historical calibration of the lower South Platte surface water model identified several issues that are currently being addressed. The development of the surface water models for the St. Vrain, Big Thompson, Boulder Creek and the Denver metro area river basins is currently underway. It is anticipated that this modeling effort will be completed by June 2015.

42. Wild and Scenic Rivers Fund

Authorization: SB 09-125  
Water Source: Various  
Location: Various  
Sponsor: CWCB

Project Type: Study  
Project Manager: Ted Kowalski  
Beneficiary: Statewide

Within Colorado, a number of river segments have been classified as eligible or suitable for “wild and scenic” designation by various federal agencies and the federal agencies. In response, a number of stakeholder groups have formed to explore and implement alternatives for resource protection that would include wild and scenic designation as well as many other options. These groups currently exist in the San Juan River Basin, the Dolores River Basin, the Upper Colorado River Basin. To date, funds have been used within each of these different basins for facilitators, informational studies, and other operating expenses. In 2009, the General Assembly passed legislation establishing a fund for this project that is automatically refreshed every July 1 up to \$400,000 for work in this regard. This work is ongoing, and will likely continue to use funds for the next several years. Staff will continue to draw down the money in the Wild and Scenic Rivers Study (below) until it is depleted while continuing to tap into the Wild and Scenic Rivers Fund. Since the Wild and Scenic River Study account is nearly depleted, this Wild and Scenic Rivers Fund is needed to fund ongoing work including the implementation of: 1) the Upper Colorado River Wild and Scenic Alternative Management Plan, 2) the San Juan Basin’s basin-wide Regional Discussion, and 3) the Implementation, Monitoring and Evaluation Plan and other work by the Lower Dolores Plan Working Group in the Dolores River Basin.

43. Wild and Scenic Rivers Study

Authorization: HB 08-1346  
Water Source: Various  
Location: Various  
Sponsor: CWCB

Project Type: Study  
Project Manager: Ted Kowalski  
Beneficiary: Statewide

Within Colorado, a number of river segments have been classified as eligible or suitable for “wild and scenic” designation by various federal agencies. In response, a number of stakeholder groups have formed to explore and implement alternatives for resource protection that would include wild and scenic designation as well as many other options. These groups currently exist in the San Juan River Basin, the Dolores River Basin, and the Upper Colorado

River Basin. To date, funds have been used within each of these different basins for facilitators, informational studies, and other operating expenses. . This work will likely continue to use funds for the next several years. Staff will draw down the money in this Wild and Scenic Rivers Study account until it is depleted, while also tapping into the Wild and Scenic Rivers Fund (above). Since this Wild and Scenic River Study account is nearly depleted, it is expected that these funds will be used within the next several months to fund ongoing work including the implementation of: 1) the Upper Colorado River Wild and Scenic Alternative Management Plan, 2) the San Juan Basin's basin-wide Regional Discussion, and 3) the Implementation, Monitoring and Evaluation Plan and other work by the Lower Dolores Plan Working Group in the Dolores River Basin.

44. South Platte River and Arkansas River Basins Alternative Agriculture Water Transfer Sustainability Grant Program

Authorization: SB 07-122 to SB 12S-002

Water Source: Statewide

Location: Statewide

Sponsor: CWCB

Project Type: Alternative Methodologies

Managers: Rebecca Mitchell/Jacob Bornstein

Beneficiary: All State River Basin Water Users

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

The Board approved six grant applications that totaled \$1,500,000 at the May, July and November 2008 CWCB meetings. The Lower Arkansas Valley Water Conservancy District was awarded \$320,000 to assist in funding of the Super Ditch Company's rotational fallowing program. The Parker Water and Sanitation District was awarded \$477,500 to assist in funding of the Lower South Platte Irrigation Research and Demonstration Project. The Farmers Reservoir and Irrigation Company (FRICO) was awarded \$202,500 to assist in funding of the Alternative Water Transfers in the South Platte Basin using the FRICO System Project. CSU Extension Office was awarded \$80,350 to study the effects of fallowing. The Highline Canal Company was awarded \$70,000 to further fallowing lease agreements in their canal system. The Colorado Corn Growers Association was awarded \$349,650 to examine a variety of alternative methods within the South Platte Basin.

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

In 2011-2012, the Board approved an additional \$1,482,000 in grants that continued to build upon the recent findings and develop solutions to the major hurdles.

45. Climate Change Effects on Colorado Water Resources Study

Authorization: HB 08-1346

Water Source: N/A

Project Type: Study

Location: Statewide  
Sponsor: CWC

Project Manager: Taryn Finnessey  
Beneficiary: Statewide

Climate change has the potential to greatly impact Colorado's natural resources, especially water resources. The Colorado Climate Action Plan laid out a number of goals, two of which included adaptation, and education and outreach. In accordance with these goals, CWC partnered with a number of Front Range utilities to examine how changes in climate can impact Front Range municipal water resources. This study, "The Joint Front Range Climate Change Vulnerability," was published in spring 2012 by the Water Research Foundation. Additionally, CWC worked with Western Water Assessment (WWA) and NOAA to produce a synthesis report entitled "Climate Change in Colorado" which was released in October of 2008, and will be updated in FY 13/14 with the latest CMIP 5 data sets. CWC has partnered with WWA and NOAA to hold a series of workshops entitled "Dealing with Drought in a Changing Climate" to educate Coloradans on the report findings, CWC plans to do a similar series of workshops now that the updated report is complete.

46. Colorado Drought Mitigation and Response Plan Implementation Program

Authorization: HB 08-1346

Water Source: N/A

Location: Statewide

Sponsor: CWC

Project Type: Drought Plan

Project Manager: Taryn Finnessey

Beneficiary: Statewide

In compliance with the Federal Emergency Management Agency (FEMA) requirements, CWC completed a comprehensive revision to the State Drought Mitigation Response Plan, approved by the CWC Members, Governor Hickenlooper and FEMA in 2010 and updated that report in 2013. The plan was adopted by the board in September 2013. The plan builds on the 2010 plan by recommending a multitude of implementation projects that will bolster the State's drought mitigation and monitoring efforts as well as aid in the local drought planning process. As Part of the implementation of the State's drought plan a second phase of the Drought Assessment for Recreation and Tourism (DART) was also conducted broadening the scope statewide and developing outreach materials for the industry.

In the past this fund was utilized to hold Drought Impacts Tours for policy makers to see firsthand the impacts of drought and help to improve the communication between the producers and policy makers. . A large statewide drought conference was also held in Fiscal Year 2013 entitled "Building a Drought Resilient Economy Through Innovation" with nearly 200 attendees from the local, state and federal levels the conference received great accolades and was considered a big success.

47. Drought Mitigation Planning Technical Assistance

Authorization: SB 07-122

Water Source: N/A

Location: Statewide

Sponsor: CWC

Project Type: Tech. Planning Asst.

Project Manager: Taryn Finnessey

Beneficiary: Statewide Water Users

The Drought Mitigation Planning Technical Assistance Program seeks to implement major issues identified in the state approved Drought Mitigation and Response Plans. Over the years CWC has developed a number of resources to provide technical assistance to water providers and local communities in developing their drought plans. These include a drought planning tool box first developed in 2010 and updated in 2013, a Municipal Drought Planning Guidance document and a Sample Municipal Drought Management Plan. A series of workshops teaching providers how to utilize these tools was completed in May and June of 2011. This year outreach materials were developed to help the recreation and tourism sector, the second largest economic sector in the state, cope with the effects of drought. This was done as part of phase II of the Drought Assessment for Recreation and Tourism (DART).

48. Statewide Water Supply Initiative Continuation

Authorization: SB 13-181

Water Source: N/A

Location: N/A

Sponsor: CWCB

Project Type: Study

Project Manager: Rebecca Mitchell

Beneficiary: Statewide Water Users

Need

49. Water Adaptation Partnership Program

Authorization: SB 09-125

Water Source: N/A

Location: Statewide

Sponsor: CWCB

Project Type: Planning

Managers: Taryn Finnessey/

Ray Alvarado / Michelle Garrison /

Joe Busto

Beneficiary: Statewide

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

In FY2013/2014, this fund was utilized to update the “Climate Change in Colorado” report with the latest IPCC CMIP 5 data sets. The findings of this report will inform both the Colorado Water Plan, SWSI 2016 and was used as the scientific basis for a statewide Climate Change Vulnerability Study that will be released by the Colorado Energy Office in late 2014.

50. Water Conservation Data Tracking Project

Authorization: HB 11-1274

Water Source: N/A

Location: Statewide

Sponsor: CWCB

Project Type: Research Study

Project Manager: Kevin Reidy

Beneficiary: Statewide Water Users

To better understand Colorado’s future water supply needs and options, more local information must be incorporated into demand forecasts. During the last year, CWCB staff worked with Leonard Rice Engineers to complete the CWCB Water Efficiency Data Portal and have it ready to accept data in late January 2013. The work consisted of many working meetings, a number of presentations on the web portal across the state, a Water Conservation Technical Advisory Group (WCTAG) workshop and a beta test period with the WCTAG to work out any issues before release. As of June 30, 2014, all covered entities are required to enter their data and at present CWCB staff is sorting through the collected data in order to use it for the SWSI 2016 update and to assess what tools will be needed. In the near future, CWCB staff will be creating a plan for creation of more output tools and reports for the data within the web portal

51. Water Planning Studies

Authorization: SB 99-173, SB 09-125

Water Source: N/A

Location: Statewide

Sponsor: CWCB

Project Type: Water Planning

Project Manager: Rebecca Mitchell

Beneficiary: Statewide

The Dolores Water Conservancy District (District), Ute Mountain Ute Tribe (UMUT), and CWCB are performing a joint reconnaissance level study to evaluate potential water supplies to serve the (UMUT). This study includes the Totten Reservoir and the potential new construction of the Plateau Creek Reservoir to store approximately 21,000 AF of water. The study is a cost-share project between all parties. Harris Engineering, Durango, Colorado, was hired to conduct the study and has performed a considerable amount of work to-date. One of the potential water sources for the UMUT was Montezuma Valley Irrigation (MVIC) Company's Class B water under various storage scenarios. Unfortunately, MVIC and the District have recently resolved a lawsuit that was indirectly caused the above water study to be put on-hold. The Study has now been substantially completed; however some of the remaining funding may be made available for implementation. Remaining funds will be used by the Water Supply Planning Section.

52. U.S. Bureau of Reclamation / State Land Board Rights-of-Way – Closed Basin Project

Authorization: SB 79-537, HB 00-1419

Water Source: Closed Basin

Location: San Luis Valley N. of Alamosa

Sponsor: CWCB

Project Type: Right of Way Acquisition

Project Manager: Kirk Russell

Beneficiary: State of Colorado

This project is the acquisition of rights-of-way (ROW) for the Closed Basin Project (Project) in the San Luis Valley. In Fiscal Year 2010, CWCB, the State Land Board and the Bureau of Reclamation (BOR) completed all of the conveyance documents for assigning the easements and ROW in the Project to the BOR. The Project was completed, with the final assignment of the easements and ROW being recorded by the BOR in September 2010. The remaining funds can be returned to the Construction Fund.

53. Emergency Dam Repair Cash Fund

Authorization: SB 01-157

Water Source: N/A

Location: Baca County

Sponsor: CWCB/DWR

Project Type: Emergency Funding

Managers: Kirk Russell/Bill McCormick

Beneficiary: Statewide

In the summer of 2013 DWR requested the utilization of the Emergency Dam Repair Cash to respond to the immediate need to address an undersized spillway on the Two Buttes Dam located in Baca County in southeastern Colorado. The dam is owned and operated by CPW. The project resulted in widening the existing spillway. Due to several monsoonal events in southeastern Colorado the water surface in the reservoir rose to a dangerous level on the restricted dam. In August of 2013, CPW retained Tetra Tech to provide engineering services which included the design of spillway modifications. Construction was completed in December 2013. Construction oversight was provided by CPW. As-builts are on file with DWR. Total emergency cost was approximately \$170,000.

54. Feasibility Study Grant Fund

Authorization: SB 01-157

Water Source: N/A

Location: Various

Sponsor: CWCB

Project Type: Feasibility Study

Project Manager: Kirk Russell

Beneficiary: Potential Borrowers

This Fund can assist potential borrowers with the cost of engineering costs in the preparation of a CWCB Loan Feasibility Study. The CWCB authorized a grant for \$5,000 to Huerfano County Water Conservancy District to assist with the preparation of a loan feasibility study. Because the loan was of a regional nature and the District did not have cash funds available for the engineering work, the grant assistance was warranted.

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

### **Severance Tax Trust Fund Operational Account**

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

<b><u>No.</u></b>	<b><u>Project</u></b>	<b><u>Project Manager</u></b>	<b><u>FY14 Amount</u></b>
<b>Interstate, Federal, and Water Information Programs</b>			
1	Colorado River Tour	Kowalski	\$ 19,475
2	County Groundwater Resources Series, Year 2	Moore	\$ 46,000
3	Groundwater Monitoring Network – Douglas County	Moore	\$ 19,960
4	Purgatoire River WCD Enhanced Diversion Records	Miller	\$ 25,000
5	Investigation of the Effects of Whitewater Parks on Co	Kowalski	\$ 43,795
6	Modeling the Influence of Conjunctive Water Use	Alvarado / Moore	\$ 50,000
7	Integrating CDSS to the Universities	Alvarado	\$ 50,000
8	Determination of Consumptive Water Use of Corn Grown	Miller	\$ 28,750
9	Wild and Scenic Recreation Users Surveys	Kowalski	\$ 10,000
10	DU Law Symposium	Kowalski	\$ 5,000
11	Environmental Systems Research	Kowalski	\$ 3,250
12	EPA Water Transfer Cases	Kowalski	\$ 5,000
13	Upper Arkansas CoAgMet Equipment	Moore	\$ 5,000
<b>Finance Programs</b>			
14	Regional Real-Time Monitoring of Oil and Gas Operations	Feehan	\$200,000
15	DWR Republican River Monitoring Equipment	Feehan	\$ 29,890
16	Extreme Precipitation Analysis Tool Software	Mauss	\$ 94,900
17	Inundation Mapping for SEO Projects	Hernandez	\$ 38,900
18	Water Archive – Metro State University	Feehan	\$ 5,000
19	Arabian Acres Feasibility Study	Feehan / Russell	\$ 25,000
20	Water Information Program	Feehan	\$ 2,000
21	So Platte Replacement Gauges for DWR	Russell	\$ 14,625
<b>Stream and Lake Protection Programs</b>			
22	Case Management and Litigation Support	White	\$ 53,700
23	Validation of Co Stream Stats for Selected Locations	Baessler	\$ 75,000
24	Instream Flow Program Outreach and Education	Bassi	\$ 12,524
<b>Watershed and Flood Protection Programs</b>			
25	Multi-Objective Watershed Restoration Projects	Sturm	\$ 49,500
26	Flood Mitigation and Project Compliance	Houck	\$ 65,445
27	Colorado Dust on Snow	Busto	\$ 50,000
28	FEMA Coordinator Matching Program	Houck / Prochno	\$ 46,280

29	Dam Safety Social Vulnerability Assmts to Aid Decisions	Russell	\$ 9,485
30	Post-fire Flow & Sediment Response to Restorations	Sturm	\$ 39,295

### **Water Supply Planning, Drought, and Conservation Programs**

31	Water Efficiency Planning Workshops	Reidy	\$ 24,000
32	Drought Preparedness and Response	Finnessey	\$ 19,900
33	Developing Metrics for Ag Production & Efficiency	Mitchell	\$ 43,130
34	Irrigation Deficits on Hay as part of a Western Water Bank	Mitchell	\$ 49,996
35	Government Ag Forum	Mitchell	\$ 5,000

### **Total Severance Tax Expended for FY 14**

**\$1,264,800**

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

1. Colorado River Tour for Colorado Basin State Leaders

Water Source: Colorado River  
Location: Colorado River Basin  
Sponsor: CWCB

Project Type: Support Services  
Project Manager: Ted Kowalski  
Beneficiary:

This tour of the Colorado River within Colorado was provided for the water leaders of the Colorado River Basin States. There has been a significant change in leadership among the Colorado River Basin States within the last year. In addition, the Colorado River basin has experienced the worst fourteen year drought in the last 100 years. This tour served to educate the other basin state leadership about Colorado's water issues, and to explore the significant issues associated with contingency planning.

2. County Groundwater Resources Series, Year 2

Water Source: N/A  
Location: Douglas County  
Sponsor: CGS

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

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

3. Groundwater-Monitoring Network in Cooperation with the Rural Water Authority of Douglas County

Water Source: N/A  
Location: Douglas County  
Sponsor: USGS

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

This is part of a multi-year groundwater monitoring effort of domestic wells completed in the Denver Basin bedrock aquifers in rural Douglas County. The funds were used to purchase pressure transducers and dataloggers for selected wells in the network.

4. Purgatoire River WCD Enhanced Diversion Records Project

Water Source: Purgatoire River  
Location: SE Colorado  
Sponsor: PRWCD

Project Type: Study  
Project Manager: Steve Miller  
Beneficiary:

This grant provided \$25,000 to the PRWCD to purchase 12 measuring devices and data recorders for installation at turnouts on the Picketwire Ditch. The District, with assistance from the Div. 2 Engineer, installed the measuring devices. Providing continuous monitoring of water diversions at each of these turnouts allowed improved administration and allocation of water according to the numerous priorities carried in a joint use ditch.

5. Investigation of the Effects of Whitewater Parks on Aquatic Resources in Colorado: Year 3

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

Project Type: Study  
Managers: Ted Kowalski/Suzanne Sellers  
Beneficiary: CSU

CWCB provided funding for a third year of investigation on the impact of whitewater parks on aquatic resources. CSU will be submitting a report to CWCB that describes the results of the PIT tag study and associated hydraulic measurements. An analysis of the results and a discussion of the impacts whitewater structures appear to be having on aquatic resources will be provided in the report along with practical whitewater park design recommendations.

6. Modeling the Influence of Conjunctive Water Use on Flow Regimes in the South Platte River Basin Using the South Platte Decision Support System Groundwater Flow Model

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

Project Type: Study  
Managers: Ray Alvarado / Andy Moore  
Beneficiary: CSU

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

7. Bringing the Value of Colorado's Decision Support Systems to Universities and Establishing Protocols for Integrating University Research with CDSS

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

Project Type: Study  
Project Manager: Ray Alvarado  
Beneficiary: CSU

This is an ongoing project with CSU's water archive center to digitize important papers that have been donated to CSU that provide historical perspective to the development of Colorado's water resources.

8. Determination of Consumptive Water Use of Corn in the Arkansas Valley

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

Project Type: Study  
Project Manager: Steve Miller  
Beneficiary: Ark Valley Water Users

In this grant the Board provided \$28,750 of funding to support continued operation of the two lysimeters installed with previous Board funding at the Arkansas Valley Research Center in Rocky Ford. The funds covered approximately four months of lysimeter staff time. For 2014 and 2015 the large lysimeter is being used to evaluate the consumptive use of a second crop, corn, as the smaller lysimeter remains planted with the alfalfa reference crop. CSU has provided



periodic updates of the water use data and the senior investigator will prepare a scientific journal article at the conclusion of the corn CU experiment.

9. Wild and Scenic Recreation Users Surveys

Water Source: Colorado River  
Location: Colorado River Basin in Colorado  
Sponsor: CWCB

Project Type: Study  
Project Manager: Ted Kowalski  
Beneficiary: UCRW&S Stakeholder Group

These funds were used for recreational studies related to the Upper Colorado River segments that are being studied by the Upper Colorado River Wild and Scenic (UCRW&S) Stakeholder group. The work included: 1) Data Analysis and Reporting based upon data collected during the 2013 Survey; 2) Commercial Outfitter Data collection and consolidation, including development of enhanced forms and protocols for collection of Commercial Data; and 3) new Survey Field Work that includes expansion of the Traffic Counter program, continuance of the Observation Program, and continuance of the Intercept Survey Program.

10. Denver University Law Symposium

Water Source: N/A  
Location: Denver  
Sponsor: DU

Project Type: Education/Outreach  
Project Manager: Ted Kowalski  
Beneficiary: Local Water Users

This project was directed at increasing public awareness about Colorado's Water Plan. This grant supported the development and implementation of the University of Denver School of Law Water conference that provided insights and a wide variety of different perspectives associated with Colorado's Water Plan.

11. Environmental Systems Research

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

Project Type: Training  
Project Manager: Ted Kowalski  
Beneficiary: CWCB

Contractor trained CWCB staff on the use of ARC GIS relative to the Decision Support Systems.

12. EPA Water Transfer Cases

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

Project Type: Education/Outreach  
Project Manager: Ted Kowalski  
Beneficiary: Local Water Users

This effort supported the State of Colorado in protecting Colorado's interests associated with litigation that would potentially create new permitting requirements for water deliveries from one river basin into another basin.

13. Upper Arkansas CoAgMet Equipment

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

Project Type: Data Collection/Planning  
Project Manager: Andy Moore  
Beneficiary: Statewide

The Colorado Agricultural Meteorological Network (CoAgMet) is a network of weather stations that provide data necessary for many water resources planning applications in Colorado. These funds were used for the operation and maintenance of four relatively new stations in the Upper Arkansas Basin.

14. Regional Real-Time Monitoring of Oil and Gas Operations

Water Source: N/A

Project Type: Data Collection/Planning

Location:  
Sponsor: DNR

Project Manager: Tim Feehan  
Beneficiary:

NEED

15. DWR Replacement Gauges on the South Platte River

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

Project Type: Equipment  
Project Manager: Kirk Russell  
Beneficiary: Local Water Users

These funds allowed DWR to purchase 10 Sutron Stage Discharge Recorders (SDR) in Division 1. The SDR is a data-logger that sits upon a stilling well attached to a measuring structure in the field. It records stage and calculates the discharge for the particular measuring structure it is attached to (Flume, Weir, etc...). Water Commissioners gather this data weekly to create diversion records and to verify diversions for administration. These 10 SDR's will replace flood damaged SDR's that were in place when the basin wide flooding occurred in September 2013. The data will be collected by downloading the file with a hand held device and then the files will later be processed from this hand held device. The Float Wheel, PVC float, Cable, Counter Weight and Hook set are all accessories to the SDR that combine make a complete data-logger package - Brent Schantz.

16. Extreme Precipitation Analysis Tool Software Verification Project, Phase 2

Water Source: N/A  
Location: Various  
Sponsor: DWR

Project Type: Software  
Project Manager: Anna Mauss  
Beneficiary: Statewide

The original software was developed by HDR Consultants under contract with DWR, in order to develop modern meteorological techniques for evaluating the safe spillway size for High and Significant Hazard dams. The West Slope version of the program was released in September 2006. Later EPAT was released for the entire State, excluding areas below 5,500 feet in elevation east of the Continental Divide, and with a basin area upper limit of 500 square miles. After several years of use, DWR staff has identified areas of concern with EPAT results, especially in areas along Colorado's Front Range. The work completed in FY2012-13 was a software review and documentation phase. This work will lead to further EPAT development. The EPAT software will allow spillways to be optimized for dam safety, resulting in minimizing cost to dam owners.

17. Dam Safety Inundation Mapping Grant Program

Water Source: Various  
Location: Various  
Sponsor: SEO

Project Type: Mapping Study  
Project Manager: Jonathan Hernandez  
Beneficiary: Local Water Users

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

18. Metro State University Water Archive Project

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

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

NEED

19. Arabian Acres Feasibility Study

Water Source:

Location:

Sponsor: Arabian Acres

Project Type: Feasibility Study

Project Manager: Tim Feehan

Beneficiary:

NEED

20. Water Information Program

Water Source: N/A

Location: N/A

Sponsor:

Project Type: Study

Project Manager: Tim Feehan

Beneficiary: Local Water Users

NEED

21. DWR Replacement Gauges on the South Platte River

Water Source: South Platte River

Location: South Platte River Basin

Sponsor: DWR

Project Type: Equipment

Project Manager: Kirk Russell

Beneficiary: Local Water Users

These funds allowed DWR to purchase 10 Sutron Stage Discharge Recorders (SDR) in Division 1. The SDR is a data-logger that sits upon a stilling well attached to a measuring structure in the field. It records stage and calculates the discharge for the particular measuring structure it is attached to (Flume, Weir, etc...). Water Commissioners gather this data weekly to create diversion records and to verify diversions for administration. These 10 SDR's will replace flood damaged SDR's that were in place when the basin wide flooding occurred in September 2013. The data will be collected by downloading the file with a hand held device and then the files will later be processed from this hand held device. The Float Wheel, PVC float, Cable, Counter Weight and Hook set are all accessories to the SDR that combine make a complete data-logger package - Brent Schantz.

22. Case Management and Litigation Support

Water Source: N/A

Location: Denver

Sponsor: CWCB

Project Type: Admin Support

Project Manager: Kaylea White

Beneficiary: Statewide

These funds were used to retain a part-time paralegal to assist the Section with ISF case management, including organizing case files, tracking court deadlines, prioritizing case review, and drafting pleadings, memos, correspondence and other documents as appropriate. The CWCB is a party in approximately 75 active water court cases. In these cases, the Stream and Lake Protection Section staff is responsible for: (1) protecting the CWCB's water rights, (2) obtaining decrees for new ISF water rights; or (3) obtaining decrees for changes of acquired water rights to ISF use. This project enables staff to focus on the substantive aspects of water court cases, and to resolve more cases in a timely manner.

23. Validation of Colorado StreamStats for Selected Locations

Water Source: Various

Location: Various

Sponsor: USGS

Project Type: Study

Project Manager: Jeff Baessler

Beneficiary: Statewide Water Users

This project evaluated streamflow regression equations developed by Capesius and Stephens (2009) and implemented in StreamStats, a web-based Graphical Information System (GIS) to predict mean monthly streamflow in Colorado. The regression equations were developed for four regions in the State (Northwest, Southwest, Mountain, and Rio Grande) to estimate streamflow at ungaged locations. StreamStats uses the regression equations to estimate streamflow at user selected locations based on the location, size, and average annual precipitation of the

drainage basin of interest. StreamStats is occasionally used by the Stream and Lake Protection section for water availability analyses in ungaged basins when no other sources of information are available. The aim of this project was to better understand the predictive capabilities of the underlying streamflow regression equations.

The streamflow regression equations were evaluated using: (1) new gages that were not used to develop the regression equations, and (2) new data collected since 2006 at gages that were used in the original regression equations. Results showed that the equations are robust and are nearly equally predictive of locations that were not used in the original analysis. For the four regions analyzed, 87% of the data are within the prediction intervals determined by the regression equations. In general, the equations perform best in spring months, with the exception of the Rio Grande where the equations perform best during late summer and early fall.

Based on the results of this study, there are a number of potential refinements to the regression equations that could improve the predictive capacity and utility of this method. These include reevaluating how regions are delineated and analyzed, better inclusion of zero flow gage data when developing the regression equations, predicting the probability of zero flows in ephemeral streams, potential inclusion of other variables in the analysis beyond drainage basin size and average annual precipitation, and developing regression equations for median streamflow rather than mean streamflow.

#### 24. Instream Flow Outreach and Education

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

Project Type: Education  
Project Manager: Jeff Baessler  
Beneficiary: Statewide

This project is directed at increasing public awareness of new instream flow appropriations and acquisitions. As the Basin Roundtables work to address nonconsumptive needs and formulate Basin implementation plans, additional outreach and education activities can result in increased collaboration and coordination between various stakeholders with regard to the ISF Program.

In FY13-14, this project provided a funding mechanism to aid staff in the increase in travel activities that were necessary to address ISF issues, including staff trips to Mesa County and Southwest Colorado to address issues associated with the CPW/BLM proposed Dolores River ISF recommendation and associated Wild and Scenic issues.

#### 25. Multi-Objective Watershed Restoration Projects

Water Source: Various  
Location: Statewide  
Sponsor: CWCB

Project Type: Restoration Project  
Project Manager: Chris Sturm  
Beneficiary: Local Water Users

The Multi-Objective Watershed Restoration Project exists to augment funding for the Colorado Watershed Restoration Program (see Construction Fund – Non-reimbursable #24) and the Colorado Healthy Rivers Fund (Tax Check-off Program). It also exists to fund multi-objective projects in watershed protection, flood mitigation, and water supply of special interest to the CWCB, e.g. projects identified in the Non-Consumptive Needs Assessment. Projects funded in FY 13 include river restoration design on the Slate River in Crested Butte, support of the Colorado Cattlemen's Agricultural Land Trust in the White River Basin, September 2013 flood restoration planning, and post fire sediment basin monitoring in the South Platte Basin. Staff strives to support qualifying Multi-Objective Watershed Protection Projects throughout the entire state.

#### 26. Flood Mitigation and Project Compliance

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

Project Type: Planning and Study  
Project Manager: Kevin Houck  
Beneficiary: CWCB

Funds from this account were used for a number of projects involving both hazard identification and mitigation. Funds were used in response and recovery activities related to the September 2013 flood. Funds were also used in partnership with the Nebraska Community Foundation to analyze various hydroclimatic indices in the North and South Platte River basins for the purposes of early seasonal water supply predictions. Finally, funds were used to assist in mitigation alternatives and design for measures to reduce post-wildfire flooding for the Waldo Canyon burn scar in partnership with El Paso County.

27. Colorado Dust on Snow Program

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

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

On behalf of the Colorado and Colorado River Basin water management community, the Center for Snow and Avalanche Studies (CSAS), based in Silverton, conducts the Colorado Dust-on-Snow program (CODOS) at its Senator Beck Basin Study Area at Red Mountain Pass and at ten additional sites located throughout the Colorado Mountains. Over the past year CODOS created site-specific webpages for all of those sites, and for the CODOS program, containing archived dust-on-snow, Snotel, hydrologic, snowpack, snowmelt, and spring weather datasets for your handy reference. CODOS also introduced a conceptual Dust Enhanced Snowmelt Space capturing the interactions of March 1 snowpack conditions, dust-on-snow, and March/April/May weather. This model was utilized in our WY 2014 Summary report to characterize spring 2014 runoff behaviors at watershed scales. The WY Summary report at: <http://www.codos.org/2014-updates/summary>.

28. FEMA Coordinator Matching Program

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

Project Type: Matching Program  
Managers: Kevin Houck/Jamie Prochno  
Beneficiary: NFIP Interests

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

29. Social Vulnerability Assessments to Aid Decisions by the DWR Dam Safety Branch

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

Project Type: Study  
Project Manager: Kirk Russell  
Beneficiary: Statewide

This funded a 9-month temporary position was created within DWR. An applicant from within the Department of Geography and Environmental Sciences was selected from a pool of student applicants for the position and the work was supervised under DWR Dam Safety Branch and GIS Program coordination. This included consultation with UC-Denver professor Deb Thomas. The results of this project were also used as part of the intern's senior thesis work toward her bachelor's degree.

The paper presents a discussion of the concepts of social vulnerability, available social vulnerability indicators (data) and how those data were organized to develop a social vulnerability index that could be used to enable ranking of the dams represented by only their dam failure inundation maps.

30. Post-fire Flow and Sediment Response to Geomorphic Based Restoration

Water Source:

Location: Various

Sponsor: CWCB

Project Type: Study

Project Manager: Chris Sturm

Beneficiary: Local Water Users

A small watershed on the North Fork of Douglas Creek was monitored for precipitation, streamflow, and sediment accumulation in sediment detention ponds during the summer of 2013. The monitored watershed was located above a series of five sediment detention ponds that were designed to accommodate sediment delivery from the upstream post-wildfire condition. Of the 22 precipitation events greater than 0.05inch, seven streamflow events were generated. Peak streamflows were poorly correlated to precipitation depth and precipitation energy. The Colorado Flood event of September 10th 2013 had a precipitation depth of 7.18 inches, a recurrence interval of approximately 30 years, using Manitou Springs precipitation records, and generated a streamflow event of 600 cubic feet per second per square mile.

This setting provided an opportunity to quantify the amount of sediment that was actually transported out of the watershed and compare it to soil erosion rates estimated by using the Revised Universal Soil Loss (RUSLE) method for each streamflow event. Soil loss rates ranged from 0.4 to 21.4 tons per acre per year.

There was a poor relation between peak streamflow and soil loss rate, and a better relationship between streamflow and sediment captured in the ponds. The relationship between soil loss modeled from RUSLE and sediment captured attest to the upstream sediment movement dynamics. Soil erosion can occur with precipitation events that do not necessarily generate streamflow events, and then later streamflow events move that sediment. Thus sediment movement may be more of a pulse phenomenon than previously considered.

31. Water Efficiency Planning Workshops

Water Source: N/A

Location: N/A

Sponsor: CWCB

Project Type: Conservation Planning

Project Manager: Kevin Reidy

Beneficiary: Statewide

CWCB staff and Leonard Rice Engineers created an instructional video, several data output tools and a water conservation planning workshop/live webinar. The purpose of the workshop was to help water providers incorporate their required HB10-1051 water use and water conservation data submissions into their planning processes. Approximately 20 water providers attended in person with another 10 participated via the live webinar option. The workshop was also recorded for anyone not able to attend.

32. Drought Preparedness and Response

Water Source: N/A

Location: N/A

Sponsor: CWCB

Project Type: Drought Planning

Project Manager: Taryn Finnessey

Beneficiary: Statewide

The SWSI is an index of surface water supply conditions in Colorado watersheds used to monitor drought conditions. It provides a numeric “score” of water supply in Colorado watersheds and is considered by the Governor’s WATF at monthly meetings when evaluating drought conditions. The preferred version of the SWSI was developed by NRCS and is calculated using spreadsheets by an retired NRCS employee. Due to staffing shortages at NRCS it is unclear that this labor-intensive duty will be taken on by other NRCS staff. This project consisted of the development of a TSTool-based SWSI generator to automate the calculation and increase access the data that drives the end result for all Colorado watersheds each month.

33. Developing Metrics for Colorado Agriculture's Production and Efficiency with Water Resources

Water Source: N/A

Project Type: Planning

Location: N/A

Project Manager: Rebecca Mitchell

Sponsor: CSU

Beneficiary: Statewide / CSU

NEED

34. Assessing the Agronomic Feasibility of Single-season Irrigation Deficits on Hay as part of a Western Slope Bank

Water Source: N/A

Project Type: Study

Location: N/A

Project Manager: Rebecca Mitchell

Sponsor: CSU

Beneficiary: CSU

NEED

35. Government Agricultural Forum

Water Source: N/A

Project Type: Education

Location: N/A

Project Manager: Rebecca Mitchell

Sponsor: CSU

Beneficiary: CSU

NEED