

# COLORADO WATER CONSERVATION BOARD

## Department of Natural Resources

Bill Ritter, Jr, Governor

James B. Martin, DNR Executive Director

Jennifer L. Gimbel, CWCB Director

---

# HOUSE BILL 10-XXXX

## THE 2010 WATER PROJECTS BILL

---

### Background

The General Assembly annually authorizes water project grants and loans from the Construction Fund and loans from the Perpetual Base Account of the State Severance Tax Trust Fund.

The CWCB Statewide Water Supply Initiative has determined that more than 1.84M acre-feet of water will be needed by water providers by 2030.

The **Construction Fund** was created in 1971 to provide low-interest loans for water projects. The fund has financed up to 90% of engineering and construction costs for more than 370 locally sponsored water projects. The fund may also provide non-reimbursable investments.

The Construction Fund is a revolving loan fund that allows the CWCB to be self-supporting and operate without money from the General Fund. Revenues come from interest earned on outstanding loans and on the fund's cash balance in the state treasury, and royalty distributions from federal mineral leases (FML).

The Construction Fund's ability to support CWCB's operations and programmatic activities was significantly impacted by a \$10 million general fund transfer in FY08/09.

The **Severance Tax Trust Fund Perpetual Base Account** was established by the General Assembly in 1997. Principal funding comes from the taxes paid by the producers of gas, oil, coal and other minerals.

This fund is also used for water supply project loans. The CWCB's ability to provide low interest loans for water projects was significantly impacted by a \$97 million General Fund transfer in FY08/09 and FY09/10. Given these fund transfers, this fund is not available for new project loans until FY11/12 or later.

FY 09/10, loan rates for both funds are:

- 2.75% for agricultural loans; to,
- 4.0% to 5.25% for municipal loans; to,
- 6.25% for commercial loans.

These rates are adjusted each fiscal year by the CWCB.

The CWCB is adjusting weekly to manage its available cash flow for new loans, non-reimbursable projects, and other projects at its bi-monthly Board meetings



### 2010 Water Projects Bill Highlights

*Provides over \$1.5 million for watershed protection, flood control programs, satellite monitoring of stream gage systems, and other projects.*

For more information, contact  
Tim Feehan at CWCB  
(303) 866-3441 x3211.

CWCB  
1313 Sherman Street, Room 721,  
Denver, CO, 80203  
Phone: (303) 866-3441  
FAX: (303) 866-4474  
Internet: [www.cwcb.state.co.us](http://www.cwcb.state.co.us)

## Recommended Non-reimbursable Investments

The CWCB accepts applications for non-reimbursable projects from the Construction Fund until August first of each year. Applications for non-reimbursable projects are accepted for:

1. Projects or studies of statewide impact or importance.
2. Feasibility studies and projects designed to address statewide, region-wide, or basin-wide issues. The Board examines whether such studies will result in new loans.

<b>Division of Water Resources (Sec.1)</b> Satellite Monitoring	Appropriates funds to install, maintain, and operate satellite monitored stream gauges for water rights administration as statutorily authorized.	Statewide	\$250,000
<b>CWCB (Sec.2)</b> Instream Flow Engineering and Tech. Support Services	Engineering support to assist staff in technical analysis and expert testimony needed to resolve instream water right acquisitions and appropriations.	Statewide	\$50,000
<b>CWCB (Sec.3)</b> Continuation of the Weather Modification Program	Assist water conservation and conservancy districts with the development of cloud seeding programs to provide benefits to recreation, streams, and reservoirs through snowpack enhancement. This Program leverages \$200, 000 in local funds annually.	Statewide	\$175,000
<b>Local Communities (Sec. 4)</b> Continuation of the Floodplain Map Modernization Program	Assist communities to revise and improve floodplain studies and maps. Provides the required non-federal matching dollars that are further leveraged by local cost share and in-kind services. This Program leverages four million dollars in local and federal funds annually.	Statewide	\$500,000
<b>CWCB (Sec. 5)</b> Continuation of the Watershed Restoration Program	Continue to provide planning and engineering studies, including implementation measures, to address technical needs for watershed restoration and flood mitigation projects throughout the State. In FY08/09 this program leveraged one million of local funds.	Statewide	\$250,000
<b>CWCB (Sec. 6)</b> Restoration of Flood Response Fund Balance	Refresh fund created to respond to flood events by documentation, forecasting, post flood mapping and flood mitigation.	Statewide	\$300,000
		<b>Total</b>	<b>1,525,000</b>

### Notes

Provisions included in the Statutes allow the CWCB to approve loans up to \$10 million without legislative authorization. A report detailing the 20 new loans made in 2009, valued at over \$28 million, is presented to the House and Senate Agriculture Committees annually. Additional copies of the report are available upon request or at [www.cwcb.state.co.us](http://www.cwcb.state.co.us)

In FY09/10 the CWCB will continue to monitor its cash available for new loans at its bi-monthly Board meetings. The CWCB expects to use all of the available cash in the Construction Fund this fiscal year.

## Water Project Construction Program – Project Data

**Applicant:** Division of Water Resources and Colorado Water Conservation Board

**Project Name:** Satellite-linked Monitoring System and Flood Hardening Program

**Project Type:** DWR Stream Gaging

**County:** Statewide      **Drainage Basin:**  
Statewide Drainage Basins

**Water Source:** N/A

**Total Study Cost:** \$250,000

**Funding Sources:** CWCB

**CWCB Investment:**      **Interest Rate:** N/A  
\$250,000

**Term:** N/A

This project entails the continued, long-term operational viability of the State Satellite Linked Monitoring System, which is administered by the Division of Water Resources (DWR). It also involves the continued implementation of the joint DWR/CWCB Flood Hardening Program. The Satellite-linked monitoring system, which is comprised of over 500 satellite-gaging stations, requires continued renovation and flood hardening of existing gages, replacement of outdated data collection platforms and upgrades to transmission components. In addition, many existing gaging stations need to be modified to provide critical stream flow data for flood warning and

low flow monitoring. Changes in technology, which will ultimately increase reliability and real time data transmission rates will require the DWR to continue to upgrade the system in the future. The costs associated with the continued refurbishment and operational viability of the system is approximately \$350,000 per year. This year's request is being temporarily reduced to \$250,000 as a result of state budget constraints.



Crystal River DWR/CWCB Satellite Gage

## Water Project Construction Program – Project Data

**Applicant:** Colorado Water Conservation Board

**Project Name:** ISF Engineering and Technical Support Services

**Project Type:** Stream and Lake Protection Technical Services

**County:** Statewide      **Drainage Basin:**  
Statewide Drainage Basins

**Water Source:** N/A

**Total Study Cost:** \$50,000

**Funding Sources:** CWCB

**CWCB Investment:** \$50,000      **Interest Rate:** N/A

**Term:** N/A

This project entails the continued implementation of a statewide engineering, technical, and support services program to help address consulting engineering and other technical service needs of the Colorado Water Conservation Board's Instream Flow and Natural Lake Level Program.

The fund will be used to retain consultants, temporary employees and others on an as-needed basis to perform engineering, technical and data support services for the protection of the Board's decreed instream flow water rights, and for providing (1) technical and scientific bases for new appropriations, and (2) technical analyses related to the acquisition of water rights for instream flow use.

The CWCB relies upon sound technical investigations to appropriate, acquire, and protect instream flow water rights throughout the state. Due to a steady increase in water court matters, the workload for the CWCB staff responsible for the protection of the CWCB's existing instream flow water rights continues to grow. For example, resume review activities, including injury analyses that provide justification for filing of Statements of Opposition, requires significant staff resources. In addition, technical investigations are needed to process the acquisition of senior water rights and to provide technical support and expertise to change the decreed uses of the acquired water to instream flow use.

Likewise, engineering support services may be needed to augment staff water availability analyses for streams on which the Board is considering appropriating new instream flow water rights. This includes determination of the amount of water that is physically available for the Board's appropriation by analyzing available gage records, diversion records and call records, using available stream flow models, and developing stream flow models or utilizing appropriate standard methods to develop hydrographs to predict the natural (virgin) streamflows for each stream under consideration.

The fund will also be used to continue to hire temporary employees to assist with summer field investigations of new ISF recommendations, installation of pressure transducers and other temporary stream gages, maintenance of web based mapping applications to provide the public with information on the location of proposed ISF recommendations, and other technical services that support the appropriation, acquisition, and physical and legal protection of ISF water rights.



## Water Project Construction Program - Project Data

### Non-Reimbursable Investment

**Grantee:** Colorado Water Conservation Board    **County:** Statewide

**Project Name:** Weather Modification - Water User Cost Share Assistance

**Project Type:** Grants for operations, grants for optimization of permitted cloud seeding programs

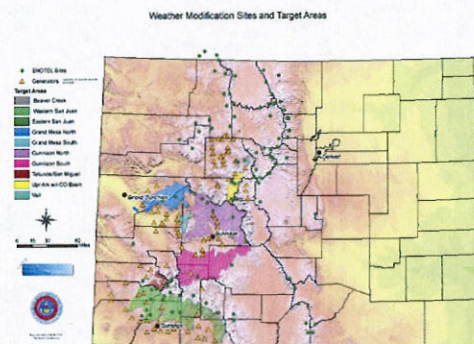
**Drainage Basin:** San Juan, Gunnison, Colorado    **Water Source:** N/A

**Total Project Cost:** \$700,000 (Estimated Local Avg.)    **Funding Source:** CWCB Const. Fund

**Type of Grantee:** Local Government    **CWCB Non-Reimbursable Inv.:** \$175,000

### SUMMARY

The CWCB has authority to permit and regulate weather modification operations in Colorado (C.R.S 36-20-101 through 36-20-127). The CWCB also has authorities to aide in the development of water resources. In section 36-20-108(4)(b) it states that "The director may represent the State and assist counties, municipalities, and public agencies in contracting with commercial operators for the performance of weather modification or cloud seeding operations." This request is a cost-share in the development of wintertime cloud seeding programs and could be considered building local capacity. Water augmentation agreements between the CWCB, the State of New Mexico, and three Colorado River Basin Water Users were developed to support Colorado's cloud seeding programs. The CWCB appropriation leverages and cooperates with other states and locals around snowpack augmentation to benefit our river systems. The funding is also used for modernization of their programs to ensure that all of our resources are being wisely invested. Evaluations have shown it is important to reliably release seeding material in clouds in order to achieve a 10% increase in snowpack snow water equivalent in a target area. Nevada went to remote operated (analog cellular communication) generators in 1975 in order to reliably release the seeding material near clouds. Colorado's has 100 manually operated generators and many are in mountain valleys and improvements can be made. Programs should seek to deploy equipment in the highest elevation terrain available. The picture shows the difference in cloud seeding equipment technologies we are deploying from the Desert Research Institute in Reno, Nevada. In the picture the old manual operated generator is tan (right), a propane tank (middle), and Colorado's first remote operated generator (green) are shown.



### Total Grants Distribution (08-09)

During the winter 2008-09 the CWCB, Colorado River Water Users, and New Mexico agreements totaled \$343,000. The CWCB provided \$175,000 of that total. The total Lower Basin budget is \$300K per year and is the funding shared between Wyoming, Colorado, and Utah. In addition to providing grant money to local agencies and as part of the CWCB, Colorado River, and New Mexico Agreements, the following new equipment in Colorado is completed or is planned as well:

- Weather Station on Grand Mesa (deployed 2007)
- Remote operated generator on the west end of Grand Mesa on Kannah Creek (deployed 2007)
- Propane Dispenser added to Grand Mesa weather station (deployed 2008)
- Remote operated generator on Milk Creek above Cedaredge (deployed 2008)
- Weather Station at Purgatory/Durango Mountain Resort (deployed fall 2009)
- Remote operated generator on Mancos Mountain (deployed fall 2009)
- Two remote operated generators for Winter Park/Denver Water (deployed fall 2009)



## Water Project Construction Program – Project Data Non-Reimbursable Investment

**Applicant:** Colorado Water Conservation Board

**County:** Statewide

**Project Name:** Colorado Floodplain Map Modernization Program

**Project Type:** Matching Funds for Federal Grants

**Drainage Basin:** All River Basins in Colorado

**Water Source:** N/A

**Total Project Cost (Annual):** \$1,900,000

**Funding Source:** CWCB Const. Fund

**Type of Grantee:** State Government

**CWCB Non-Reimbursable Inv.:** \$500,000 (up to)

Colorado has received over \$8.4 million in federal grant dollars for floodplain mapping activities as part of the floodplain Map Modernization Program (Program) initiated by FEMA in 2003. The FEMA funds are being matched by CWCB and local cost-share dollars to implement the map update work to create new digital countywide maps. The initial Program funds authorized in the 2003 and all subsequent Construction Fund Bills have provided the required non-federal matching dollars (80/20 cost share program). The State funds are further leveraged by local cost share dollars and in-kind services from many communities thus far. The total funding amounts have been instrumental in keeping Colorado as a lead state within FEMA Region 8 and will continue to benefit Colorado communities in the future. It is expected that significant FEMA funding will continue as long as the Program exists. Program deliverables will become part of the Flood DSS system to increase data capture and enhance Colorado's decision support tools.

The Program will eventually impact the entire state, and the objective is to develop updated countywide floodplain maps using current base map information within a digital environment. The use of GIS technology will be employed for all new countywide studies for ease of distribution, updating and viewing. The table below summarizes funding provided by the CWCB and FEMA/Local governments for CWCB managed projects (in progress or completed).

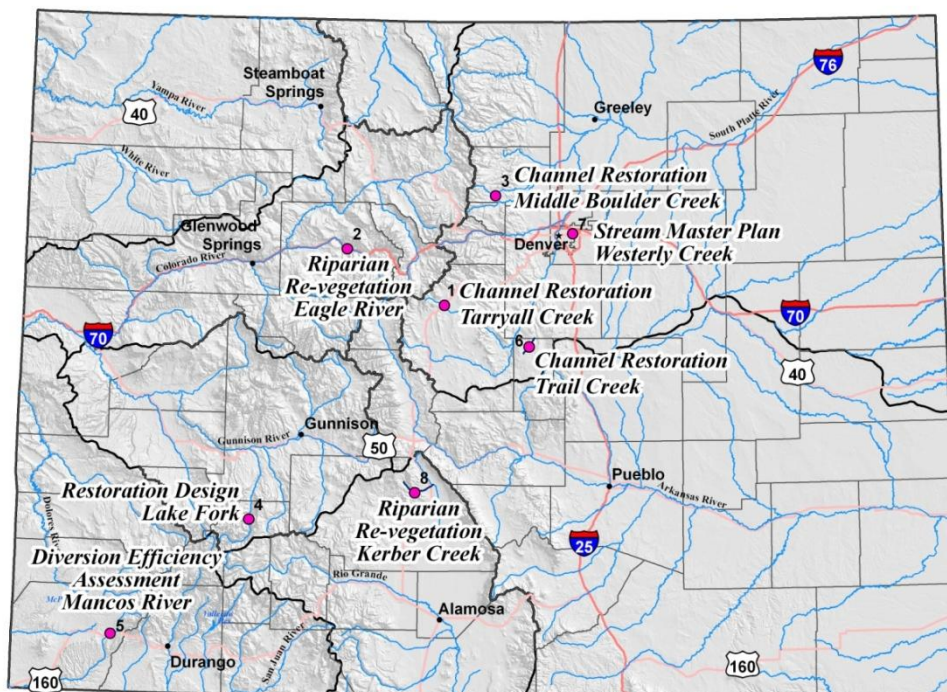
<u>COUNTY</u>	<u>CWCB Funds</u>	<u>FEMA/Local Funds</u>	<u>COUNTY</u>	<u>CWCB Funds</u>	<u>FEMA/Local Funds</u>
Archuleta	\$71,000	\$228,760	Mesa	\$33,960	\$435,780
Boulder	\$17,807	\$524,709	Montrose	\$60,376	\$241,503
Clear Creek	\$2,950	\$158,605	Montezuma	\$53,000	\$452,735
Delta	\$21,630	\$277,763	Morgan	\$25,000	\$270,700
El Paso	\$75,635	\$1,332,030	Park	\$18,800	\$165,200
Elbert	\$141,548	\$301,982	Prowers	\$76,605	\$691,024
Fremont	\$23,294	\$146,240	Pueblo	\$71,768	\$945,902
Garfield	\$29,912	\$325,000	Rio Grande	\$58,300	\$152,810
Gunnison	\$79,250	\$272,422	Summit	\$21,098	\$189,876
Jefferson	\$30,000	\$270,000	Teller	\$23,100	\$207,900
La Plata	\$74,200	\$391,910	Weld	\$112,419	\$658,530

## Water Project Construction Program - Project Data Non-Reimbursable Investment

**Grantee:** Colorado Water Conservation Board      **County:** Statewide  
**Project Name:** Colorado Watershed Restoration Program  
**Project Type:** Watershed Protection and Flood Mitigation  
**Drainage Basin:** All River Basins in Colorado      **Water Source:** N/A  
**Total Project Cost:** up to 50% cost share      **Funding Source:** CWCB Const. Fund  
**Type of Grantee:** State Government  
**CWCB Non-Reimbursable Inv.:** \$250,000

### SUMMARY

The Program objective is to provide funding for watershed restoration studies and projects. Special consideration is given to projects that reduce flood hazards, protect infrastructure, and increase benefits for water supply. Past projects successfully completed with aid from the Construction Fund include Middle Boulder Creek channel restoration, Roaring Fork multi-objective planning study, Rio Grande headwaters restoration, and Alamosa River watershed restoration. Studies and projects resulting from this program can have far reaching benefits for water supply (e.g. SWSI), flood protection, enhancement of aesthetic and environmental quality, recreation, and increased economic benefit. The CWCB has not had access to a regular and reliable source of funding for this Program in past years. Instead, special allocations on an annual basis from Severance Tax and Construction Fund investments have provided support for the Program. CWCB staff received 15 applications for Program funding in January 2009. The total request for funding was \$739,333. The total proposed match funding was \$2,363,220. All the applications met the minimum qualifications for funding consideration. Many of the applications scored well, and the median score was associated with a tight standard deviation. The Program was able to fund almost half of the total requests. Five of the eight projects funded have been mapped with focus areas identified in the Non-Consumptive Needs Assessment. This includes Threatened and Endangered species on the Mancos River (bluehead sucker and bald eagle) and the Lake Fork of the Gunnison (flannemouth and bluehead suckers). The Program is intended for statewide benefit. The map below displays projects funded in 2009.



**Water Project Construction Program - Project Data**  
**Non-Reimbursable Investment**

**Grantee:** Colorado Water Conservation Board      **County:** Statewide

**Project Name:** Colorado Flood Response Program Fund

**Project Type:** Program Funds for post event floodplain mapping, flood forecasting, aerial photography, flood mitigation and flood documentation

**Drainage Basin:** All River Basins in Colorado

**Water Source:** N/A

**Total Project Cost:** \$300,000

**Funding Source:** CWCB Const. Fund

**Type of Grantee:** State Government

**Median Household income:** N/A

**CWCB Non-Reimbursable Inv.:** \$300,000 (refresh up to) **Interest Rate:** N/A    **Term:** N/A

The CWCB and General Assembly authorized \$150,000 for the Flood Response Program Fund (Fund) in the 2001 Construction Fund Bill. The Fund was created to give the CWCB the ability to quickly respond to events and have program funds for: flood documentation, flood forecasting and outlooks, post event floodplain mapping, aerial photography, and flood mitigation. This amount was increased in the 2007 Construction Fund Bill to \$300,000 to reflect the increased cost of performing existing functions plus the added services. Previous separate accounts for the added services were rolled into the Fund for the sake of efficiency and accountability.

The current request is to once again refresh the Fund up to \$300,000 for FY 10/11 for: 1) preparation of flood documentation reports for actual events, 2) contract with consulting firms for flood forecasting and weather outlooks during the spring/summer flood season, plus a web-based daily flood threat bulletin, 3) ongoing work and increased demand for evaluating and producing 100-year flood and debris flow hazards in areas affected by natural disasters, 4) assist in flood mitigation activities in communities where flood loss reduction is needed, and 5) develop on-call services for digital/aerial imagery and mapping for post-flood documentation/flood hazard identification. Staff recently added capabilities to enhance the NWS products and to provide regional flood outlooks. There is a growing need to re-evaluate flood hydrology, hydraulics, and levees for use in floodplain studies across as well. **There have not been large flood disasters recently, so Staff has responsibly used the Fund to keep funds in reserve as needed and recognizes that the fully authorized amount would be used during major flood years.**

Recent Fund expenditures included tasks relating to flood research, flood forecasting, flood documentation, operating expenses for flood response activities, landslide related flood monitoring, flood mitigation and preparedness activities, and design for emergency flood preparations. The total expenditures since FY06 are \$550,000. The remaining funds were not used in order to leave funds in reserve in the event that a major flood took place, which didn't happen during this time.



Second Regular Session  
Sixty-seventh General Assembly  
STATE OF COLORADO

DRAFT  
12.11.09

DRAFT

LLS NO. 10-0259.01 Kate Meyer

HOUSE BILL

HOUSE SPONSORSHIP

Curry,

SENATE SPONSORSHIP

(None),

SHORT TITLE: "Water Conservation Bd Construction Fund"

A BILL FOR AN ACT

101 CONCERNING THE FUNDING OF COLORADO WATER CONSERVATION  
102 BOARD PROJECTS, AND MAKING APPROPRIATIONS IN  
103 CONNECTION THEREWITH.

Bill Summary

*(Note: This summary applies to this bill as introduced and does not necessarily reflect any amendments that may be subsequently adopted.)*

The bill appropriates the following amounts from the Colorado water conservation board construction fund for the following projects:

- \$250,000 for continuation of satellite monitoring system maintenance;
- \$50,000 for instream flow engineering and technical support services;

*Capital letters indicate new material to be added to existing statute.  
Dashes through the words indicate deletions from existing statute.*

- \$175,000 for continuation of the weather modification program;
- \$500,000 for continuation of the Colorado floodplain map modernization program;
- \$250,000 for continuation of the watershed restoration program; and
- Up to \$300,000 to restore the unencumbered balance in the flood response fund to \$300,000.

---

1 *Be it enacted by the General Assembly of the State of Colorado:*

2 **SECTION 1. Continuation of the satellite monitoring system**

3 **maintenance - appropriation.** (1) In addition to any other  
4 appropriation, there is hereby appropriated, out of any moneys in the  
5 Colorado water conservation board construction fund not otherwise  
6 appropriated, to the department of natural resources, for allocation to the  
7 division of water resources, for the fiscal year beginning July 1, 2010, the  
8 sum of two hundred fifty thousand dollars (\$250,000), or so much thereof  
9 as may be necessary, for renovation of existing gauging stations,  
10 replacement of outdated collection platforms, and upgrading of  
11 transmission components of the satellite monitoring system established  
12 and operated pursuant to section 37-80-102 (10), Colorado Revised  
13 Statutes, stream gauge flood hardening projects, and data collection  
14 efforts related to flood forecasting and warning.

15 (2) The moneys appropriated in subsection (1) of this section shall  
16 remain available for the designated purposes until they are fully  
17 expended.

18 **SECTION 2. Instream flow engineering and technical support**

19 **services - appropriation.** (1) In addition to any other appropriation,  
20 there is hereby appropriated, out of any moneys in the Colorado water  
21 conservation board construction fund not otherwise appropriated, to the

1 department of natural resources, for allocation to the Colorado water  
2 conservation board, for the fiscal year beginning July 1, 2010, the sum of  
3 fifty thousand dollars (\$50,000), or so much thereof as may be necessary,  
4 for engineering and technical support services related to the board's  
5 instream flow and natural lake level program.

6 (2) The moneys appropriated in subsection (1) of this section shall  
7 remain available for the designated purposes until they are fully  
8 expended.

9 **SECTION 3. Continuation of the weather modification**  
10 **program - appropriation.** (1) In addition to any other appropriation,  
11 there is hereby appropriated, out of any moneys in the Colorado water  
12 conservation board construction fund not otherwise appropriated, to the  
13 department of natural resources, for allocation to the Colorado water  
14 conservation board, for the fiscal year beginning July 1, 2010, the sum of  
15 one hundred seventy-five thousand dollars (\$175,000), or so much thereof  
16 as may be necessary, for the board to continue to assist water  
17 conservation districts, water conservancy districts, and other water  
18 providers with the development of cloud seeding programs that provide  
19 benefits to recreation, streams, and reservoirs through snowpack  
20 enhancement.

21 (2) The moneys appropriated in subsection (1) of this section shall  
22 remain available for the designated purposes until they are fully  
23 expended.

24 **SECTION 4. Continuation of the Colorado floodplain map**  
25 **modernization program - appropriation.** (1) In addition to any other  
26 appropriation, there is hereby appropriated, out of any moneys in the  
27 Colorado water conservation board construction fund not otherwise



1 appropriated, to the department of natural resources, for allocation to the  
2 Colorado water conservation board, for the fiscal year beginning July 1,  
3 2010, the sum of five hundred thousand dollars (\$500,000), or so much  
4 thereof as may be necessary, to restore the unencumbered balance in the  
5 previously appropriated map modernization account of the board to five  
6 hundred thousand dollars (\$500,000), for the board to continue to assist  
7 with the preparation of revised and improved floodplain studies and maps  
8 for communities throughout Colorado and participate in federally  
9 sponsored floodplain map modernization activities.

10 (2) The moneys appropriated in subsection (1) of this section shall  
11 remain available for the designated purposes until the project is  
12 completed.

13 **SECTION 5. Continuation of the watershed restoration**  
14 **program - appropriation.** (1) In addition to any other appropriation,  
15 there is hereby appropriated, out of any moneys in the Colorado water  
16 conservation board construction fund not otherwise appropriated, to the  
17 department of natural resources, for allocation to the Colorado water  
18 conservation board, for the fiscal year beginning July 1, 2010, the sum of  
19 two hundred fifty thousand dollars (\$250,000), or so much thereof as may  
20 be necessary, for the board to continue to provide planning and  
21 engineering studies, including implementation measures, to address  
22 technical needs for watershed restoration and flood mitigation projects  
23 throughout the state.

24 (2) The moneys appropriated in subsection (1) of this section shall  
25 remain available for the designated purposes until they are fully  
26 expended.

27 **SECTION 6. Restoration of flood response fund balance.** The

1 state treasurer shall transfer a total of three hundred thousand dollars  
2 (\$300,000), or so much thereof as may be necessary, from the unreserved  
3 cash in the Colorado water conservation board construction fund to the  
4 flood response fund created in section 37-60-123.2, Colorado Revised  
5 Statutes, in order to restore the unencumbered balance in the flood  
6 response fund to three hundred thousand dollars (\$300,000).

7 **SECTION 7. Safety clause.** The general assembly hereby finds,  
8 determines, and declares that this act is necessary for the immediate  
9 preservation of the public peace, health, and safety.