

STATE OF COLORADO

Colorado Water Conservation Board

Department of Natural Resources

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TO: Colorado Water Conservation Board Members

John W. Hickenlooper
Governor

FROM: Greg Johnson,
Water Supply Planning Section

Mike King
DNR Executive Director

DATE: March 9, 2012

Jennifer L. Gimbel
CWCB Director

SUBJECT: **Agenda Item 19, March 20-21, 2012 Board Meeting**
Water Supply Reserve Account Program

Staff Recommendation

A summary of staff's recommendation for each WSRA application is provided in the table below. At this board meeting 3 additional WSRA applications that are seeking a WSRA grant/CWCB loan package are being considered as separate agenda items (14, 15, and 16). Favorable recommendations may be contingent on providing the CWCB with additional information, clarifications, or modifications in the scope of work. Please refer to the Water Activity Summary Sheets contained within this agenda item to find a summary of staff's review and any conditions associated with each recommendation.

	Basin	Project Name	Total Request	Recommendation
a.	Colorado	Upper Swan River Restoration Project	\$30,000	To fund up to \$30,000 from the Colorado basin account.
b.	Colorado	Investigation of Water Savings, Water Quality benefits and Profitability of Sub Surface Drip on Alfalfa in Grand Valley	\$46,894	To fund up to \$46,894 from the Colorado Basin Account.
c.	Gunnison	Gunnison Basin Education Program	\$19,750	To fund up to \$19,750 from the Gunnison Basin Account.
d.	Rio Grande	Conejos River System Gauging Stations Project	\$407,280	To fund up to \$387,280 from the Statewide Account and up to \$20,000 from the Rio Grande Basin Account.

Background

For this agenda item the Board is provided with a brief overview of applications to the Water Supply Reserve Account (WSRA). Attachments to this memo include:

- Summary spreadsheet detailing funding requests for the basin and statewide accounts;
- Water Activity Summary Sheets which provide an overview, discussion, issues/additional needs, and staff recommendation regarding funding, partial funding, or not funding the applications; and

- Copies of the full applications, Basin Roundtable approval letters and any supporting documentation provided by the applicants.

Staff's review of the applications involves the following steps:

- 1) Applications are reviewed for completeness based on the information requirements, which are primarily outlined in Part 2 of the Criteria and Guidelines (C&G).
- 2) Applications are reviewed to verify that the water activity meets the **eligibility requirements** in Section 39-29-108 (III) C.R.S. (C&G, Part 2) and the **threshold criteria**, which are based on the requirements of Section 39-29-108 (III) C.R.S., and two sections of the Water for the 21st Century Act (House Bill 1177); Section 37-75-102 and Section 37-75-104(2)(c) (C&G, Part 3). Staff also verify that the applicant was an **eligible entity** to receive funding (C&G, Part 2).
- 3) Staff then prepares the Water Activity Summary Sheet which documents the outcome of the review process and contains staff's recommendations.

Water Supply Reserve Account Balance Summary and Project Status Report

To provide the Board updates on the status of specific Water Supply Reserve Account grant applications and projects, staff provides a status report in the CWCB Director's Report. The WSRA status report includes the following information:

- List of completed WSRA projects;
- List of WSRA projects in progress; and
- List of WSRA projects in the contracting and procurement process.

COLORADO WATER CONSERVATION BOARD Water Supply Reserve Account - Balance Summary March 1, 2012

Fund Appropriation and Receipts				
Fiscal Year	Legislative Appropriation	Funds Received	Statewide Account	Basin Account
2006/2007	\$10,000,000	\$10,000,000	\$5,500,000	\$4,500,000
2007/2008	\$6,000,000	\$6,000,000	\$4,200,000	\$1,800,000
2008/2009	\$10,000,000	\$7,000,000	\$4,300,000	\$2,700,000
2009/2010	\$5,775,000	\$5,775,000	\$4,215,750	\$1,559,250
2010/2011	\$6,000,000	\$6,000,000	\$4,380,000	\$1,620,000
2011/2012	\$7,000,000	\$4,900,000	\$3,388,000	\$1,512,000
Interest - Jan 2012	N/A	\$2,136,230	\$2,136,230	\$0
TOTAL	\$44,775,000	\$41,811,230	\$28,119,980	\$13,691,250

Note: The WSRA is a Severance Tax "Tier II" program with 40% of funds distributed on July 1, 30% on January 1, and the final 30% on April 1. In FY 2008/2009 the final 30% installment of \$3,000,000 was not received due to the State's budgetary shortfall.

In January 2012 interest for the program from its inception to date was credited directly to the Statewide Account.

Interest from January 2012 on will be regularly calculated by the Treasury and credited to the Statewide Account.

Fund Distribution				
Basin	Approved Basin Grants	Total Basin Funds	Basin Account Balance	Approved State Grants Statewide Account Balance
Arkansas	\$1,243,805	\$1,521,250	\$277,445	\$3,498,692
Colorado	\$1,025,356	\$1,521,250	\$495,894	\$2,410,043
Southwest	\$1,314,946	\$1,521,250	\$206,304	\$4,463,966
Gunnison	\$1,222,572	\$1,521,250	\$298,678	\$1,001,803
Metro	\$1,089,929	\$1,521,250	\$431,321	\$1,925,268
North Platte	\$1,037,483	\$1,521,250	\$483,767	\$311,027
Rio Grande	\$1,247,365	\$1,521,250	\$273,885	\$3,518,543
South Platte	\$1,175,857	\$1,521,250	\$345,393	\$2,550,566
Yampa/White	\$1,181,374	\$1,521,250	\$339,876	\$431,813
TOTAL	\$10,538,687	\$13,691,250	\$3,152,563	\$8,008,260
TOTAL APPROVED GRANTS				\$30,650,407

Note: Only includes grants approved by CWCB

**Water Supply Reserve Account – Grant and Loan Program
Water Activity Summary Sheet
March 2012 Agenda Item 19.a**

Applicant: Blue River Watershed Group

Water Activity Name: Upper Swan River Restoration Project

Water Activity Purpose: Nonconsumptive

County: Summit

Drainage Basin: Colorado River

Water Source: Swan River

Amount Requested: \$30,000 (Colorado Basin Account)

Matching Funds: \$10,000 Town of Breckenridge; \$10,000 Summit County Open Space and Trails

Staff Recommendation
Staff recommends approval of up to \$30,000 from the Colorado Basin Account to help complete the Upper Swan River Restoration Project.

Water Activity Summary:

The Swan River drainage located east of Breckenridge and west of the Continental Divide, and its sensitive aquatic habitat, wetlands and riparian areas are identified as priority resources for protection and enhancement in Summit County Master Plans and U. S. Forest Service management plans. Summit County Government, the Town of Breckenridge, the U.S. Forest Service, and others have been working collaboratively to purchase and protect land in this watershed for over 15 years. The U.S. Forest Service has initiated a large-scale collaborative partnership effort to restore the entire Upper Swan River Watershed. The White River National Forest is pursuing landscape restoration as a top priority. The Blue River Watershed Group, (BRWG), working with these groups and others has made the Upper Swan River Restoration one of its major projects. It notable to have private property landowners working with local, county, state and federal government and other private groups such as Friends of the Dillon Ranger District and Trout Unlimited cooperatively.

The Upper Swan River Watershed is incredibly important due to the potential to restore hydrological function and water quality throughout a 24,000 acre watershed. A preliminary assessment of the watershed shows that restoration of 2.2 miles of the Swan River devastated by dredge mining in the early 20th century might provide stream continuity to 17 miles of habitat and significantly decrease unnatural rates of sedimentation. The 17 miles of reconnected stream would provide outstanding habitat for a reintroduced meta-population of Colorado River cutthroat trout. Currently, Colorado River cutthroat trout are struggling throughout the Colorado Basin as a result of habitat degradation and the invasion of non-native species. The overall project is expected to provide significant benefits to species as a whole throughout the Colorado Basin by providing additional habitat and by significantly reducing adverse impacts from sedimentation.

Summit County Government and the Town of Breckenridge completed a conceptual design for restoration of approximately 1.0 stream mile on their public properties in 2009, and more recently the BRWG undertook a master planning process focused on all private properties for approximately 1.2 miles upstream. The current request is for the critical funding required to integrate these two efforts into one plan. This integration will establish the key elevations needed for road crossings and advance the overall design to a level that necessary permit applications can be developed and submitted. This design effort, coupled with the ongoing design of gravel mining operations, will

allow cost estimates to be developed and a reclamation strategy to be finalized. This level of design will allow the participants to secure funding and begin implementation of this project on both public and private lands.

The design phase will begin as soon as funding is available. It is expected to last about four months. Much of the work will not require field access, but the current schedule looks like the design period will coincide with some of the summer's field season. Following the completion of this design, which will include a better idea of overall restoration costs, fundraising will begin in earnest. The overall schedule is integrally tied to the mining of the dredge materials. It is hoped that the project can be completed in 3-5 years. A more detailed schedule is not possible until more information is developed and is dependent in part on our ability to raise money for the actual restoration activities.

The consulting firm Ecological Resource Consultants, Inc. is just completing the conceptual design on the private lands. The next effort will advance that design and integrate it with the Summit County Open Space and Town of Breckenridge Open Space and Trails conceptual design, advancing both designs to a more detailed level. The cost estimate for this design work is \$42,000.00. With the appropriate management of the project by the Blue River Watershed Group and the need and desire to continue this effort collaboratively with multiple parties, the budget for this phase is \$50,000.00. The remaining \$20,000.00 will come from the Summit County Open Space and Trails and the Town of Breckenridge. There will be continued in-kind contributions from the U.S. Forest Service, Colorado Parks and Wildlife, Friends of the Dillon Ranger District, Trout Unlimited, and the private landowners which are not included in this budget.

Threshold and Evaluation Criteria

The application/project meets all four Threshold Criteria. No Statewide funds are being requested, therefore the evaluation criteria does not apply.

Discussion:

This project will assist the Colorado Basin Roundtable in addressing important identified nonconsumptive needs within the basin. It will restore natural stream process to improve sediment transport, reduce erosion, improve water quality and create better-functioning in-stream and riparian corridor habitat. The Upper Swan River Restoration Project will directly implement the "Conserve, Protect, and Restore" strategy mentioned in SWSI II. In addition, the restoration of the natural function of the river will improve riparian and fish habitat, enhance recreational and educational opportunities. The Swan River has an instream flow right for 6 cfs. The project reach of the Swan River will make much better use of the instream flow once it is restored.

Issues/Additional Needs:

- Staff will work with the applicant to ensure that all applicable requirements in the CWCBC Rules and Regulations for Regulatory Floodplains in Colorado are satisfied.
- Staff will enroll the Swan River Project into the CWCBC Watershed Protection Measureable Results Program. All channel surveys, i.e. cross sections, should comply with the Standard Operating Procedures: Topographic Survey of Stream Channels developed by the CWCBC, Colorado Watershed Assembly, and the Water Quality Control Division.

Staff Recommendation:

Staff recommends approval of up to \$30,000 from the Colorado Basin Account to help complete the Upper Swan River Restoration Project.

All products, data and information developed as a result of this grant must be provided to CWCBC in hard copy and electronic format as part of the project documentation. This information will in turn be made widely available to Basin Roundtables and the general public and will help promote the development of a common technical platform.

In accordance with the revised WSRA Criteria and Guidelines, staff would like to highlight additional reporting and final deliverable requirements. The specific requirements are provided below.

Reporting: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of the executed contract. The progress report shall describe the completion or partial completion of the tasks identified in the scope of work including a description of any major issues that have occurred and any corrective action taken to address these issues.

Final Deliverable: At completion of the project, the applicant shall provide the CWCB a final report that summarizes the project and documents how the project was completed. This report may contain photographs, summaries of meetings and engineering reports/designs.

Engineering: All engineering work (as defined in the Engineers Practice Act (§12-25-102(10) C.R.S.)) performed under this grant shall be performed or certified by a professional engineer licensed by the State of Colorado to practice Engineering.

**Water Supply Reserve Account – Grant and Loan Program
Water Activity Summary Sheet
Agenda Item 19.b.**

Applicant: Colorado State University

Water Activity Name: Investigation of Water Savings, Water Quality benefits and Profitability of Sub Surface Drip on Alfalfa in Grand Valley

Water Activity Purpose: Structural Activity

County: Mesa

Drainage Basin: Colorado

Water Source: Colorado

Amount Requested: \$50,972

Source of Funds: \$50,972 Colorado Basin Fund

Matching Funds: In-kind Salary Match: \$8,039 (15%).

Staff Recommendation
Staff recommends approval of up to \$50,972 from the Colorado basin account to help fund the Investigation of Water Savings, Water Quality benefits and Profitability of Sub Surface Drip on Alfalfa in Grand Valley Project contingent upon resolution of the items listed in the issues/additional needs section below.

Water Activity Summary: The study is a side-by-side comparison of furrow and sub-surface drip irrigation (SDI) on alfalfa over two years starting in 2012. The study will be performed on about 3 acres under the supervision of the Colorado Water Institute and Agricultural Experiment Station staff at the Fruita Research Center in the Grand Valley of Western Colorado. The funding for this study will work collaboratively with a \$9,611 request to the Alternatives Agricultural Water Transfer Methods program in addition to CSU match of \$7,720 and a cash match of \$1,000 from the Colorado River District. The Agricultural Transfers request will fund a comparison of SDI to furrows in a plot arrangement. The combination of basic research at the Fruita Research Center and applied research on-farm will provide a conclusive summary for all Grand Valley (and Western Slope producers) interested in more efficient and profitable alfalfa. Results are expected to show SDI will generate some water savings on-farm for alfalfa production; that alfalfa will be more profitable and productive under SDI than furrow irrigation; and that SDI will have significant water quality benefits over furrow. One of the project objectives is to provide a “proof of concept” to demonstrate to West Slope irrigators that SDI technologies are effective for perennials (pasture, hay, alfalfa) in Western Colorado soils.

Discussion: Staff believes that higher efficiency irrigation systems may provide significant benefits to many river basins within the State. As mentioned in the application, some of the potential benefits include: reduced selenium and salinity loading, reduced consumptive use through a reduction in evaporation, increased crop yields and increased streamflows due to reduced diversion amounts. This demonstration project, if successful, will help test whether or not sub-irrigation drip is feasible for the typical West Slope soils. If successful, farmers may be more inclined to begin adopting SDI to gain higher crop yields. It also may be apparent that SDI does produce broader benefits (i.e. reduced selenium/salinity or instream flows) that warrant subsidies or other incentives to encourage more wide-

spread adoption. In addition, this project compliments and helps verify the applied research work that will be ongoing at the Fruita Research Center which was mostly funded through the CWCB's Alternative Agricultural Water Transfer grant program.

Issues/Additional Needs: The applicant is requesting the CWCB to waive the 60 application deadline requirement to take advantage of this year's growing season.

Reporting and Deliverables: All products, data and information developed as a result of this grant must be provided to the CWCB in hard copy and electronic format as part of the project documentation. This information will in turn be made widely available to Basin Roundtables and the general public and will help promote the development of a common technical platform.

In accordance with the revised WSRA Criteria and Guidelines, staff would like to highlight additional reporting and final deliverable requirements. The specific requirements are provided below.

Reporting: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of the executed contract. The progress report shall describe the completion or partial completion of the tasks identified in the scope of work including a description of any major issues that have occurred and any corrective action taken to address these issues.

Final Deliverable: At completion of the project, the applicant shall provide the CWCB a final report that summarizes the project and documents how the project was completed. This report may contain photographs, summaries of meetings and engineering reports/designs.

Engineering: All engineering work (as defined in the Engineers Practice Act (§12-25-102(10) C.R.S.)) performed under this grant shall be performed by or under the responsible charge of professional engineer licensed by the State of Colorado to practice Engineering.

Water Supply Reserve Account Grant and Loan Program
Water Activity Summary Sheet
March 2012 Agenda Item 19.c

Applicant: Colorado Mesa University for the Water Center at Colorado Mesa University

Water Activity Name: Gunnison Basin Roundtable Education Program

Water Activity Purpose: Nonstructural Water Activity

Counties: Saguache, Gunnison, Hinsdale, Ouray, Montrose, Delta, Mesa

Drainage Basin: Gunnison

Water Source: N/A

Amount Requested: \$19,750 (Colorado Basin Account)

Matching Funds: \$47,050 (238% of requested funds)

Staff Recommendation

The proposed grant will assist the Gunnison Roundtable in sharing its consumptive & nonconsumptive needs and projects to meet those needs with the public over two years' time. Staff recommends approval of up to \$19,750 from the Colorado Basin Account.

Water Activity Summary:

The applicant seeks to implement Gunnison Education Action Plan activities in 2012 and 2013.

The Program will reach out to media, local government and civic organizations across Colorado's West Slope in order to raise awareness and generate feedback about the Roundtable's needs assessments, studies and projects, as well as the Roundtable's role in statewide water planning. Outreach activities will include media commentaries, presentations to civic and government groups, an e-newsletter, website and social media.

The Water Center at Colorado Mesa University will coordinate this program with active participation and support from the members of the Gunnison Basin Roundtable Education Committee and Basin Roundtable Members. This program will result in broader public participation in policy debates about water and better public understanding of the trade-offs inherent in making water policy decisions and the activities and discussions of the Basin Roundtables and IBCC in these decisions.

The primary objectives are to:

1. Develop and distribute at least 20,000 copies of a new overview publication on the Gunnison Basin: *Gunnison Basin Water in the 21st Century*.
2. Significantly increase media coverage of Basin Roundtable activities and the trade-offs involved in different approaches to meeting the state's water supply needs.
3. Enlarge and diversify the community of people within the Gunnison Basin who follow and comment on Basin Roundtable activities and statewide water planning efforts.
4. Increase public understanding of the trade-offs involved in different approaches to meeting the state's water supply needs.
5. Continuously improve outreach activities through rigorous, ongoing evaluation.
6. Maintain accountability through completing all required reporting tasks.

Threshold and Evaluation Criteria

The application/project meets all four Threshold Criteria. No Statewide funds are being requested, therefore the evaluation criteria does not apply.

Discussion:

HB 05-1177 (37-75-104) indicates that each basin roundtable has powers and responsibilities that include the following:

- “(c) Basin roundtables shall actively seek the input and advice of affected local governments, water providers, and other interested stakeholders and persons in establishing its needs assessment, and shall propose projects or methods for meeting those needs.
- “(d) Serve as a forum for education and debate regarding methods for meeting water supply needs; and
- “(e) As needed, establish roundtable subcommittees or other mechanisms to facilitate dialogue and resolution of issues and conflicts within the basin.”

These items are a focus of this application. The educational activities will be used to help the Roundtable to encourage stakeholders to better educate themselves about the basin's consumptive and nonconsumptive needs and proposed solutions to meet those needs, better understand the work of the Roundtable; familiarize themselves with other projects and studies, provide informed input, and become involved.

The applicant found match dollars to pay for tasks not directly associated with (c), (d), and (e) above. The applicant has articulated how each task seeking WSRA funding relates to the Basin Roundtable activities, and has outlined discreet deliverables for each task. The Gunnison Basin Roundtable's 2012 Education Action Plan, is attached.

The applicant and those involved in the broader Water 2012 efforts have indicated that the tasks proposed in this grant fit within and do not duplicate the activities in the Colorado Water 2012 Strategic Framework. The Basin Roundtables section of this Framework is attached.

Issues/Additional Needs: No Issues or Additional Needs were identified

Reporting Requirements:

All products, data and information developed as a result of this grant must be provided to CWCB in hard copy and electronic format as part of the project documentation. This information will in turn be made widely available to Basin Roundtables and the general public and will help promote the development of a common technical platform.

In accordance with the revised WSRA Criteria and Guidelines, staff would like to highlight additional reporting and final deliverable requirements. The specific requirements are provided below.

Reporting: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of the executed contract. The progress report shall describe the completion or partial completion of the tasks identified in the scope of work including a description of any major issues that have occurred and any corrective action taken to address these issues.

Final Deliverable: At completion of the project, the applicant shall provide the CWCB a final report that summarizes the project and documents how the project was completed. This report may contain photographs, summaries of meetings and engineering reports/designs.

Engineering: All engineering work (as defined in the Engineers Practice Act (§12-25-102(10) C.R.S.)) performed under this grant shall be performed or certified by a professional engineer licensed by the State of Colorado to practice Engineering.

Gunnison Basin Roundtable

2012 EDUCATION ACTION PLAN*

(Revised in February 2012 with new "Colorado Water 2012" activities)

Introduction

House Bill 05-1177 creating Colorado's Roundtables and the Interbasin Compact Committee decreed that each Roundtable would "serve as a forum for education and debate regarding methods for meeting water supply needs" (37-75-104(2)(d)). The Public Education, Participation and Outreach Working Group of the IBCC has asked each Roundtable to establish an Education Committee, charged to develop an "Education Action Plan" describing planned activities for a) informing and educating the Roundtable members, and b) informing and educating the general public about regional water issues and the Roundtables efforts to address them. This is the Gunnison Basin Education Action Plan for 2011.

Submitted for Roundtable consideration by the Education Action Committee:

George Sibley, Ed. Chair (At large); Hannah Holm (CMU Water Center); Austin Keiser (Grand Mesa); Denis Reich (CSU Extension Liaison); Gary Shellhorn (U.S. Forest Service Liaison); Michelle Pierce, Roundtable Chair (Hinsdale Municipal).

Goals (of equal priority)

- To provide educational resources to the members of the Gunnison Basin Roundtable that will help enable them in their decision-making processes.
- To provide educational resources to the general populace of the Gunnison Basin region that will increase their awareness of their water resources, the demands on those resources, the heritage of use of those resources, and the state and regional environment surrounding those resources and impacting their use.
- When possible and desirable, to create single programs that fulfill both of those goals.

To meet the first goal of informing the Gunnison Basin Roundtable members:

- a) All or part of the Education Action for each Roundtable meeting will be "situational": some background information, contextual connections, or analysis strategies will be prepared for one or more items to be considered at that meeting. These Action items will evolve with each agenda.
- b) Special Education Actions will be prepared around major topics of concern or interest, as established by surveys like the one conducted by the CFWE/IBCC year before last. There will be, for one example, a major Education Action on Water Quality in 2011 (see item (b) below).
- c) When possible, the Gunnison Basin Roundtable Education Committee will collaborate with other Roundtable Education Committees to provide background and contextual information and materials when or if the Roundtables decide to hold joint meetings, like the Gunnison and Arkansas Basin Roundtables did in the summer of 2010.
- d) The organizations and groups represented on the Roundtable will be invited to give short presentations about their organization to the larger group.

* This budget is for the "Colorado Water 2012" calendar year, which includes the second half of Colorado's Fiscal Year 2012 and the first half of FY 2013.

To meet the second goal of providing educational resources to the general Basin populace:

- a) The Roundtable Education Committee will collaborate with the Colorado River District, the Colorado Mesa University Water Center, the Water Program at Western State College, the Bureau of Reclamation, and appropriate Water Conservancy Districts and other local groups, to present historic programs in conjunction with the statewide "Colorado Water 2012" public education program. (This will be done in lieu of the single-event "State of the River" program in collaboration with the River District, although elements of that program will be incorporated into the 2012 programs.)
 - 1) *June 4, 2012: Commemoration/Celebration of the 50th Anniversary of the Commencement of Construction on the "Curecanti Unit" (now the Wayne N. Aspinall Unit) of the Colorado River Storage Project.* This will involve events held in conjunction with the regular meeting of the GB Roundtable, which will be held in Gunnison. Events will include a morning tour of Blue Mesa Dam, a Historical Program and a Public Reception, prior to the 4:00 meeting. The historical program will feature a slide presentation by Vern Jetley, who worked for the Bureau of Reclamation as a photographer during the 1960s. Collaborators will be the River District, the Upper Gunnison River District and the Western State College Water Program. (Note: The schedule is negotiable, and should be discussed by the GBRT.)
 - 2) *August 6, 2012: Commemoration/Celebration of the 50th Anniversary of the Completion of Construction and First "Fill and Spill" of the "Paonia Unit" (Dam and Reservoir) of the Colorado River Storage Project.* This will involve events held in conjunction with the regular meeting of the GB Roundtable, which will be held probably in Hotchkiss (near Rogers Mesa, principal destination of Paonia Reservoir water). It will include a historical presentation with slides/powerpoint about the Paonia Project, and the Fire Mountain Canal for which it was built to provide supplemental water. It may also include a tour of the dam and accessible portions of the canal. Since this overlaps with the Delta County Fair in Hotchkiss, there may be collaboration with the Fair Board, as well as the Fire Mountain Canal Company and North Fork Water Conservancy District. (Note: The schedule is negotiable, and should be discussed by the GBRT.)
- b) The Education Committee will work with the Colorado Mesa University Water Center (Hannah Holm, Co-coordinator) on media presentations to bring water information to the public media. To the greatest extent possible, these articles and short essays will be written by Roundtable members.
- c) The Education Committee will prepare a 24-page pamphlet, titled "The Gunnison River in the 21st Century." This pamphlet will be inserted in the six Gunnison Basin newspapers in June 2012. See Attachment A for a more detailed description and cost breakdown.
- d) The Education Committee will work with the Colorado Mesa University Water Center on Direct Civic Outreach programs about Gunnison Basin issues, state issues, et cetera.
- e) The Education Committee will prepare a program on Water Quality, with participation from Steve Gunderson, director of the Colorado Water Quality Control Division, to which we will invite all County Boards of Commissioners, County planners, municipal officials and planners, realtor organizations, and other relevant entities. This will be held in conjunction with a regularly scheduled Roundtable meeting, since Water Quality was designated as an area in which the Roundtable members needed some education effort. (This program was carried out in conjunction with the October Roundtable meeting, with ~20 citizens attending in addition to the Roundtable members.)
- f) The Education Committee will prepare a short Powerpoint program on "The Gap" and the IBCC four-part "Framework" for addressing the Gap, which will focus on the Gunnison Basin Gap and on ways in which the statewide Gap may impact the Gunnison Basin. This program will be available for members to use in their home areas, to make presentations to community groups and organizations.

- g) The Education Committee will work with other Water Education groups in the Gunnison Basin to put together collaborative programs for the general public. These groups include the Colorado Water Workshop at Western State College in Gunnison, the Water Center at Mesa State College in Grand Junction, and the various "watershed groups" in the Basin communities (Coal Creek Watershed Coalition in Crested Butte, North Fork River Improvement Association, and other groups in Hinsdale County and the Uncompahgre Basin).
- h) The Education Committee will work with other members of the Roundtable to prepare an "outreach" presentation on the Gunnison Basin and its water resources, to take to other Roundtables around the state, and to other organizations interested in learning more about the Gunnison Basin.

Budget

The Public Education, Participation and Outreach working group for the Interbasin Compact Committee has made \$1,800 available to each Roundtable, for each fiscal year, for expenses incurred in the Education Action programs. For the calendar year 2012, the Roundtable also has other resources for education for the "Colorado Water 2012" programs:

- a) A Water Supply Reserve Account grant for \$19,750 has been applied for, with a decision to be rendered at the March CWCB meeting.
- b) The Water Center at Colorado Mesa University has received a grant from the Walton Family Foundation, a portion of which will be applied to this Energy Action Plan, either directly or through the services of the Water Center.
- c) The Upper Gunnison River District and the Colorado River District have pledged to help with the commemoration events in June and August.

The Budget for the Education Action Plan, including those revenues, is attached.

4.5 Basin Roundtables

Local residents know their communities best and can be most effective at identifying opportunities and coordinating Colorado Water 2012 activities in their area. CFWE currently facilitates the Public Education, Participation and Outreach Workgroup of the IBCC, which includes nine Education Liaisons from each roundtable. To maximize efficiency, CFWE will use these existing relationships to help the nine Basin Roundtables identify the local activities they wish to develop in their communities. It will then be the roundtables' responsibility to plan and implement these activities in 2012.

Communications

The Basin Education Liaisons will be the primary point of contact for each basin and will be responsible for implementing any of the activities designed by the Water 2012 committees that the roundtable wants to implement in their basins. CFWE will contact each Education Liaison to discuss the Water 2012 toolkit and other mechanisms for roundtable involvement. The Liaisons will engage their roundtable's Education and Outreach Committee to integrate Water 2012 into their existing Education Action Plans, if they so desire. CFWE will meet and maintain communication with each Liaison to ensure efficient planning is achieved both within each basin as well as statewide. The Education Liaisons are expected to report back to CFWE on the progress of integrating their roundtables into Water 2012 and CFWE will communicate these activities to the Coordinator for tracking purposes. If identified activities are outside the scope of the roundtables' existing grant programs (such as WSRA grants), CFWE will meet with the Education Liaisons to help identify alternative and/or additional means of funding.

The Education Liaisons for each basin are as follows (9/30/11):

- | | | | |
|---------------------|--------------|---------------|--------------------|
| • Sean Cronin | South Platte | • Judy Lopez | Rio Grande |
| • Caroline Bradford | Colorado | • Jeff Devere | IBCC & Yampa/White |
| • Debbie Alpe | North Platte | • Perry Cabot | Arkansas |
| • George Sibley | Gunnison | • Tom Acre | Metro |
| • Denise Rue-Pastin | Southwest | | |

Mechanisms for Involvement

The toolkit of activities available to the roundtables to celebrate water in 2012 is outlined in Section 5 below. The budget in Section 7 shows the extent to which Water 2012 plans to implement these activities statewide. If a roundtable wants to implement an activity to a greater scope than outlined in this document, they are encouraged to do so but must raise needed funds on their own.

As an example, the roundtables were asked to coordinate the content and hosting of the traveling exhibit. Each of these displays, designed and purchased by the Water 2012 coalition, contains a panel dedicated to local water information. The Public Education, Participation and

Outreach Workgroup of the IBCC is providing guidance on the elements to include on the display panel, such as depictions of the basin's needs assessments and projects to meet those needs. The Education Liaisons completed a display request form that identifies time periods in which the roundtable would like to host the display, including water events and community festivals. If the roundtable wishes to go beyond this and purchase their own display for extended use in their basin, this is possible but must be funded by the hosting entity.

As roundtables identify additional activities they want to implement in their basin, such as the DMNS Geodome, Speakers Bureau, or their own ideas, they will coordinate with CFWE to ensure these activities are tracked as part of Water 2012 and posted on www.water2012.org.

In addition to the toolkit of activities, the Water 2012 marketing plan (due in November 2011) will outline strategies to create a "buzz" at the statewide level about the initiative. Additionally, the marketing plan will provide strategies and resources that can be adapted for local use such as templates for press releases, advertisements and other outreach mechanisms for each Basin Roundtable to collaborate with local Water 2012 partners through meetings, communications and special events.

Financial Needs

A grant from the Colorado Water Conservation Board supports coordination and communication between Water 2012 and the Basin Roundtables as well as the identification of local activities. Funds raised to support the Water 2012 initiative will support the development and implementation of activities such as the traveling exhibit a Geodome visit per basin, training for using the speaker's bureau presentation, author visits, etc. However, if the roundtables pursue planning and implementation of activities beyond those outlined in Section 5 and outside the budget presented in Section 7, they may have additional financial needs. One option currently being pursued by roundtables includes CWCB's Water Supply Reserve Account grant program. These grant requests will be planned and implemented by a local organization in a basin. The approval of such grants by the basin roundtable and the CWCB Board is contingent upon how well the tasks directly tie to their basin's needs assessment and the WSRA Criteria & Guidelines. The Basin Roundtables should consult the WSRA grant guidelines and enabling legislation for language on activities and audiences appropriate for the roundtable process. If identified activities are outside the scope of the roundtables' existing grant programs (such as WSRA grants), CFWE will meet with the Education Liaisons to help identify alternative and/or additional means of funding.

**Water Supply Reserve Account – Grant and Loan Program
Water Activity Summary Sheet
March 2012 Agenda Item 19.d**

Applicant: Conejos Water Conservancy District

Water Activity Name: Conejos River System Gauging Stations Project

Water Activity Purpose: Structural Project (Agricultural)

County: Conejos

Drainage Basin: Rio Grande River

Water Source: Conejos River

Amount Requested: \$407,280 (\$387,280 Statewide Account and \$20,000 Rio Grande Basin Account)

Matching Funds: \$41,250 from the applicant; \$51,250 from participating water users

Staff Recommendation
Staff recommends approval of up to \$387,280 of Statewide WSRA funds and up to \$20,000 of WSRA funds from the Rio Grande Basin Account to help complete the Conejos River System Gauging Stations Project.

Water Activity Summary:

The Conejos Water Conservancy District (District) plays a critical role in the management of flows on the Conejos River and its tributaries, ensuring that enough water is available to meet agricultural needs and satisfy Colorado's obligation to the Rio Grande Compact. The Compact requires water deliveries to New Mexico based on flow measured at four index stream gages. In any given year Colorado is required to deliver between 25 and 70 percent of the water from the two river systems: the Rio Grande and the Conejos. Within the District's 86,000 acres of irrigable land, its water users are the last line of defense for the Colorado Department of Water Resources (DWR) to administer the Compact. To meet the Compact's requirements, the District implements curtailments and manages storage in Platoro Reservoir according to DWR's best estimates of river flows and forecasts of expected flows. Despite DWR's best efforts, there are often large discrepancies between the forecasts and actual river flows, particularly on the Conejos system, resulting in major costs and other ramifications to the District, the basin, and the state.

The proposed project is the first in a series of collaborative initiatives by the District to assist the DWR in better understanding the complex Conejos River system; minimizing forecasting errors; reducing the effect of those errors on water users; equalizing the distribution of irrigation water based on empirical data; and streamlining Colorado's compliance with the Rio Grande Compact.

The proposed project seeks to accurately track and deliver water to users throughout the system. Funds requested would be used to install 72 solar-powered gauging stations and automate 4 existing control gates on the Conejos River system. Flow data would be transmitted every minute to eight group measurement sites (pods), each consisting of a Gateway receiver and cell modem. Stage height and flow data would then be averaged for each 15 minute period and made available to the District and DWR via the internet. In collaboration with water users, four of the system's most important control gates will be upgraded for remote operation. The DWR's commissioners will be able to verify flows at a glance, saving time and transportation costs.

The proposed system would provide near-real-time data, vastly improving the District's management efficiency and effectiveness. Through close collaboration, it also provides DWR with data on the Conejos River system at a level of accuracy which has previously not been available in the Rio Grande Basin.

Threshold and Evaluation Criteria

The application meets all four Threshold Criteria.

The application articulates how the project meets the Evaluation Criteria as summarized below:

Tier 1: Promoting Collaboration/Cooperation & Meeting Water Management Goals & Identified Needs: The Conejos River System Gauging Stations Project is a collaborative effort involving numerous entities, particularly DWR. Through this cooperative process this project addresses multiple consumptive and non-consumptive needs by creating a management system that is participative, transparent, effective, and sustainable. This project seeks to protect and more efficiently use senior agricultural rights identified as critical by the Rio Grande Basin Roundtable. Due to the nature of the Rio Grande Compact administration these rights are particularly vulnerable without accurate measurement and forecasting tools.

Tier 2: Facilitating Water Activity Implementation: Due to the District's existing debt load it cannot implement this project without assistance. Water users on the Manassa, San Antonio, Romero, and North Branch systems are contributing over \$50,000 to the project while the District is contributing over \$40,000. In addition, curtailment corrections resulting from current inaccurate measurements and forecasts on the Conejos system can result in losses that have been calculated to exceed \$13,000 per day. The District has repeatedly proven its ability to implement major complex projects, including the WSRA-funded Platoro Reservoir Restoration Project and Platoro Reservoir Crest of Dam Repair. It operates Platoro Reservoir in consultation with the State Engineer, the U.S. Bureau of Reclamation, and the U.S. Army Corps of Engineers. The District has an agreement with the State Engineer to store and release Compact water without charge to the State. Finally, the District has done extensive research selecting appropriate contractors capable of executing the proposed project.

Tier 3: The Water Activity Addresses Issues of Statewide Value and Maximizes Benefits: The proposed project would sustain agriculture by equitably balancing and administering limited water resources. In addition, it seeks to bring greater efficiency to the administration of the Rio Grande Compact through the use of innovative tools. By establishing a baseline of knowledge and empirical observations, this project promotes maximum utilization of state waters. Coupled with future measures planned by the District to improve forecasting, this project goes a long way toward improving DWR's accuracy in distributing water among the District's users and ensuring that curtailments are equitably and minimally applied, while at the same time meeting Colorado's obligation to the Compact.

Discussion:

The requested WSRA funds would help implement an innovative and collaborative project to more efficiently meet identified consumptive needs in the Rio Grande Basin. Resulting efficiencies would serve to sustain agriculture while assisting DWR to more effectively meet Colorado's obligations under the Rio Grande Compact. Other benefits include: reducing the uncertainty of curtailments to water users; more equitably distributing available water; improving drought protection through more efficient management; increasing augmentation and restoration of the Basin's aquifers; and enhancing the function of the Conejos flood plain. As such, the proposed project does an excellent job of meeting criteria established for the WSRA program.

Issues/Additional Needs:

No issues or additional needs have been identified.

Staff Recommendation:

Staff recommends approval of up to \$387,280 of Statewide WSRA funds and up to \$20,000 of WSRA funds from the Rio Grande Basin Account to help complete the Conejos River System Gauging Stations Project.

All products, data and information developed as a result of this grant must be provided to CWCB in hard copy and electronic format as part of the project documentation. This information will in turn be made widely

available to Basin Roundtables and the general public and will help promote the development of a common technical platform.

In accordance with the revised WSRA Criteria and Guidelines, staff would like to highlight additional reporting and final deliverable requirements. The specific requirements are provided below.

Reporting: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of the executed contract. The progress report shall describe the completion or partial completion of the tasks identified in the scope of work including a description of any major issues that have occurred and any corrective action taken to address these issues.

Final Deliverable: At completion of the project, the applicant shall provide the CWCB a final report that summarizes the project and documents how the project was completed. This report may contain photographs, summaries of meetings and engineering reports/designs.

Engineering: All engineering work (as defined in the Engineers Practice Act (§12-25-102(10) C.R.S.)) performed under this grant shall be performed or certified by a professional engineer licensed by the State of Colorado to practice Engineering.