STATE OF COLORADO

Colorado Water Conservation Board
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TO: Colorado Water Conservation Board Members

FROM: Todd Doherty,
Water Supply Planning Section

DATE: May 3, 2013

SUBJECT: **Agenda Item 30, May 14-15, 2013 Board Meeting**
Water Supply Planning Section – ATM Grant Program

Staff Recommendation
Please refer to the attached summary reports for a staff recommendation for each project.

Background
Authorized in CWCB's 2012 Projects Bill, the Legislature appropriated $1,000,000 to the Board for the continuation of the alternative agricultural water transfer sustainability grant program. The purpose of this grant program is to advance various agricultural transfer methods as alternatives to permanent agricultural dry-up, including interruptible water supply agreements, long-term agricultural land fallowing and water banks. The grant program was initiated in 2007 and to-date, the CWCB has awarded approximately $3 million in grants to further alternative methods to the permanent dry up of irrigated lands. While some of these projects are complete and many are still underway, valuable findings have been made. The project sponsors have identified areas where more work may be necessary before alternative transfer methods are more fully accepted by irrigators and cities. It is expected that these additional monies should fund projects that build upon work performed in past funding cycles and encourage more "on-the-ground" projects (i.e. pilot/demonstration projects, facilitating agreements between municipal water providers and irrigators, etc.).

Staff presented to the Board in November 2012 a report, *Alternative Agricultural Water Transfer Methods Grant Program Summary and Status Update (*November 2012). This report summarizes all of the work performed to date under the ATM Program and serves as the foundation for future funding requests. Considering the differences between the river basins, the report provides a set of targeted recommendations for the South Platte, Arkansas, and West Slope. The criteria and guidelines adopted by the CWCB in November 2012 are attached.

Also attached is a table summarizing the projects requesting funding.

ATM--Grant Applications for Consideration at the CWCB May 2013 Board Meeting

	Project	Applicant	Amount Requested	Matching Funds (cash)	Recommended Funding
a	Use of ATMs to Increase Supplies for Conejos Basin Agricultural, Municipal and Environmental Purposes	Conejos Water Conservancy District	$124,124	$13,792	$124,124
b	Implementation of Deficit Irrigation Regimes: Demonstration and Outreach	CSU	$154,734	$20,000	$100,000
c	Poudre Basin Water Sharing Working Group Efforts Leading to Agreements South Platte Basin	CSU/Colorado Water Institute	$86,940	$10,000	$86,940
d	Defining Water Rights in Terms of Consumptive Use to Facilitate Water Transfers	Getches-Wilkinson Center, CU Law School	$25,092	$2,508	$0
e	FLEX Water Market--Education and Implementation Phase	Ducks Unlimited and Aurora Water	$183,314	$22,278	$120,250
f	Compact Water Bank Feasibility Study	Colorado River District	$180,000	$135,000	$180,000
g	Northeast Colorado Water Cooperative Implementation Project	Lower South Platte WCD	$198,900	$22,100	$173,900
h	Colorado Water Central Exchange	Dedicated General Consulting	$150,000	$15,000	$0
	Totals		**$1,103,104**		**$785,214**
		Available ATM Funds =	**$1,075,000**	**Balance=**	**$289,786**

Alternative Agricultural Water Transfer Methods – Competitive Grant Program
Water Activity Summary Sheet
Agenda Item 30.a.

Applicant: Conejos Water Conservancy District

Water Activity Name: Use of ATMs to Increase Supplies for Conejos Basin, Agricultural, Municipal and Environmental Purposes

Water Activity Purpose: Nonstructural Activity

Drainage Basin: Rio Grande

Water Source: Conejos River

Amount Requested: $124,124

Matching Funds: $13,792 (cash); $12,740 in-kind

Staff Recommendation
Staff recommends approval of up to $124,124 from the Alternative Agricultural Water Transfer Methods Program to help fund the "Use of ATMs to Increase Supplies for Conejos Basin, Agricultural, Municipal and Environmental Purposes" project contingent upon resolution of the items in the issues/additional needs section of this summary.

Water Activity Summary:
The Conejos Water Conservancy District (District) is located in Conejos County in southern Colorado in the Rio Grande Basin (Water Division 3). The District includes 88,000 acres of irrigated agriculture and the towns of Manassa, Romeo, Sanford, Conejos, Antonito, Ortiz and San Antonio. Another town, La Jara, is located just north of the District boundaries. Several of these towns rely upon partially or entirely on groundwater pumping for their water supply. The State of Colorado is in the process of developing rules and regulations for the Rio Grande Basin, which will require these towns to replace approximately fifteen to eighteen percent of their pumping (augmentation water). To meet their replacement requirements, the towns will look to agricultural water resources within the basin as there is not water available for appropriation under a new water right. Due to limited surface water supplies in the basin, these towns will have no choice but to directly dry-up irrigated land by purchasing agricultural water rights or indirectly dry up agriculture by competing for Platoro Reservoir project water currently used to irrigate agricultural lands. Acquisition of transbasin augmentation water diverted into the upper Rio Grande upstream of Creede is unlikely due to the completion and high transit losses incurred in transporting these augmentation supplies to the points of depletion from the municipal pumping.

Water stored in Platoro Reservoir (Project water) is allocated to lands within the District based on acreage. Platoro Reservoir is located on the mainstem of the Conejos river and serves a large part of the irrigated lands within the District. The District includes other water users on the San Antonio river, a tributary to the Conejos river. Agricultural irrigators on the San Antonio river within the District are entitled to a pro-rata share of project water in Platoro reservoir, but Project water cannot be delivered to these users by gravity flow or existing infrastructure. The purpose of this ATM project is to investigate the opportunities for the transfer of the allocation of San Antonio river agricultural water users' Project water to the Towns to meet their augmentation water requirement without loss or impact to the irrigated agricultural lands.

The Rio De Los Pinos is a tributary to the San Antonio river and is the second largest river in the system. Trujillo Meadows Reservoir is located near the headwaters of the Rio De Los Pinos in southern Colorado. Trujillo Meadows Reservoir is owned by Colorado Parks and Wildlife (CPW) and is an on-channel reservoir used for recreation. The reservoir bypasses all inflows so as to maintain a constant pool elevation. Out of priority evaporation losses from Trujillo Meadows are augmented through releases by CPW from Beaver

Reservoir on the mainstem of the Rio Grande. The peak runoff in the Rio De Los Pinos is in early spring, usually a month before the Conejos and San Antonio rivers, generally occurring too early in the season for beneficial use by irrigated agricultural users diverting from the San Antonio. Enlarging Trujillo Meadows Reservoir would create enough storage space to re-time run-off in order to better meet agricultural irrigation needs, enhance stream flow for a longer period of time during the spring and provide reliable supply of agricultural water so that the San Antonio river irrigators can lease their Project water allocation to the Towns for the augmentation needs.

The purpose of this project is to investigate the feasibility of a unique ATM that involves enlarging Trujillo Meadows Reservoir that preserves agriculture in the District and provides a reliable supply of augmentation water for the Towns. In addition, the project will also evaluate the other multiple-objective benefits that are possible, such as enhanced recreational opportunity at Trujillo Meadows Reservoir, potential environmental benefits such as enhanced riparian habitat, re-timing of streamflows on the Rio De Los Pinos and the on the Conejos below Platoro due to the release of augmentation water to the Towns, and meeting Compact delivery requirements.

Discussion:
Staff believes that this project, if implemented, could help meet the water supply needs for a variety of sectors (agricultural, environmental and municipal) and prevent the dry-up of irrigated lands in this area. The CWCB, the IBCC and Basin Roundtables have all indicated that storage is a necessary component for helping meet Colorado's future water needs and this approach which seeks multiple partners, interests and purposes is directly in line with these policy statements. The CWCB has also indicated that they desire for the ATM program to help fund projects that are facilitating projects, agreements and pilot/demonstrations. While this request is for a feasibility analysis, it is focused on a real problem with the objective of finding solutions.

Issues/Additional Needs:
None identified.

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 Criteria and Guidelines of the Alternative Agricultural Water Transfer Methods Competitive Grant Program, 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.

Alternative Agricultural Water Transfer Methods – Competitive Grant Program
Water Activity Summary Sheet
Agenda Item 30.b.

Applicant: Colorado State University

Water Activity Name: Implementation of Deficit Irrigation Regimes: Demonstration and Outreach

Water Activity Purpose: Structural Activity/demonstration

Drainage Basin: South Platte

Water Source: South Platte

Amount Requested: $154,734

Matching Funds: $20,000 (cash)

Staff Recommendation
Staff recommends approval of up to $100,000 from the Alternative Agricultural Water Transfer Methods Program to help fund the "Implementation of Deficit Irrigation Regimes: Demonstration and Outreach" project contingent upon resolution of the items in the issues/additional needs section of this summary.

Water Activity Summary:
This project seeks to demonstrate the feasibility of different methods of deficit irrigation. The applicant believes that transferring technology and educating water users and regulators is an important step in the adoption of deficit irrigation as a viable ATM.

The specific goals of the proposed demonstration and outreach project are:

- To demonstrate the feasibility (technical and economic) and resource-requirement of using selected water management techniques to quantify the water balance components and consumptive use under different deficit irrigation levels, on crops such as corn and sunflower, on clayey to sandy soil types, with pressurized and surface irrigation methods, and under different agronomic practices. Technical feasibility involves a practical, cost-effective monitoring approach and economic feasibility involves understanding and demonstrating crop water productivity, production costs and farmer incentives. Numerous sensors and their related equipment (e.g., infra-red thermometers, dataloggers, neutron probe, multispectral scanner, etc.) required to achieve this goal will be provided by CSU.
- To educate and train water users and regulators about using these techniques and their advantages and disadvantages (including limitations) through a variety of outreach and extension activities, such as publishing online and printed manuals including user-friendly spreadsheets, fact sheets, newsletters, and magazine articles; holding field days and a training workshop (video recordings to be made available online); and, creating a YouTube channel to upload short informational video clips.

This project will build upon the results of previous studies to demonstrate, transfer technology and educate on how some of the most promising techniques can be used, with minimal instrumentation, to document water balance components under deficit irrigation regimes.

Discussion:
Through the ATM program, the CWCB has been extremely supportive of efforts to investigate deficit irrigation techniques. To date, the CWCB has awarded CSU nearly $800,000 towards this effort. While deficit irrigation does show promise as a viable ATM, it is definitely one of the more complex methods being explored. This is due to the water rights administration issues (i.e. verification of actual water use) and higher farm management costs associated with deficit irrigation.

Issues/Additional Needs:
The budget appears to be relatively broad and needs more specificity. Prior to contracting, staff would like a detailed budget indicating how the costs in Task 1 (Demonstration) and Task 2 (Outreach) are justified.

Considering the nearly $800,000 contributed toward the study and analysis of deficit irrigation in the South Platte basin, staff recommends that the Board approve a reduced amount of funding of $100,000 contingent upon the applicant securing additional commitment ($34,734) from the partners identified within 6 months of Board approval. In addition, letters of commitment from the partners is requested.

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 Criteria and Guidelines of the Alternative Agricultural Water Transfer Methods Competitive Grant Program, 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.

Alternative Agricultural Water Transfer Methods – Competitive Grant Program
Water Activity Summary Sheet
Agenda Item 30.c.

Applicant: Colorado Water Institute--CSU

Water Activity Name: Poudre Basin Water Sharing Working Group Efforts Leading to Agreements South Platte Basin

Water Activity Purpose: Non-Structural

Drainage Basin: South Platte

Water Source: Cache La Poudre

Amount Requested: $86,940

Matching Funds: $10,000 (cash)

Staff Recommendation
Staff recommends approval of up to $86,940 from the Alternative Agricultural Water Transfer Methods Program to help fund the "Poudre Basin Water Sharing Working Group Efforts Leading to Agreements South Platte Basin" project contingent upon resolution of the items in the issues/additional needs section of this summary.

Water Activity Summary:
The Poudre Basin Water Sharing Working Group ("Working Group") is an informal association of individuals representing organizations with interests in sharing water between agricultural and municipal users in the Poudre Basin. The Working Group had their first meeting on February 14th, 2013 and a second on March 14th. The Working Group was formed after the Larimer County Agricultural Advisory Board (LCAAB) initiated discussions with multiple entities about water sharing and subsequent meetings between the LCAAB, City of Fort Collins Water Board and Water Utility in 2011 and 2012. Fort Collins has been direct to explore water sharing with agriculture as a part of their updated Water Supply and Demand Management Policy. The issue of water sharing requires the participation and discussion among a group of Poudre Basin water users.

The Working Group is currently made up of individuals and entities representing the principal water providers, irrigation companies and producers. The Colorado Water Institute (CWI) at Colorado State University (CSU) has agreed to facilitate the working group and has done so on a pro bono basis since its inception in November of 2012, but is now seeking funding for more intensive efforts. This proposal seeks funding assistance to convene domestic water providers and agricultural water organizations/stakeholders in the Poudre Basin as a working group to:

1. Provide stability and security for water providers.
    a. Drought year firming and recovery
    b. Limited increases in base supply
2. Provide security for the agricultural water supply and access to that supply in normal years.
3. Lead to the reduction of "buy and dry" and out-of-basin transfers.
4. Lead to regional cooperation and reduction of conflict.

Tasks within the proposal include:
1. **Develop a database that describes the water portfolios and demographics of the participating water providers** and irrigation organizations/shareholders, the irrigated lands protected by conservation easements and other data needed to inform the description and feasibility of particular water sharing mechanisms.
2. **Investigate the most promising site-specific water sharing mechanisms** that would be appropriate (economically and otherwise) for the Poudre Basin.

3. **Conduct a survey to determine the perceptions of water shareholders** regarding different water sharing techniques identified by the working group, and the likelihood of those irrigators or entities participating in future water sharing agreements.
4. Based on the above, refine the **descriptions of the most appropriate water sharing mechanisms**.
5. **Draft prototype agreements** between water provider(s) and ag water organization(s)/shareholders.
6. **Identify interested parties and encourage them in the execution of one or more agreements** and develop a process to monitor and evaluate the agreement(s) during their pilot period.

The focus will be primarily on drought year firming for water providers via innovative interruptible water supply agreements. These types of agreements can make a significant amount of water available for drought firming and they involve both owned and rented water. In return for agreeing to provide drought protection, irrigators seek rental water availability during normal water years, and fewer attempts to change agricultural decrees held by domestic providers. It is expected that an equitable pricing strategy will be developed for transfers not agreed upon previously. Other water sharing mechanisms that we hope to analyze and adapt to fit the situations found in the Poudre Basin include optimum shared use of infrastructure and modification of water management and delivery to maximize supply and reduce operational costs. This might include the identification and financing of infrastructure improvements such as recharge basins or the dredging of existing reservoirs or other ways of developing water supplies that could be shared. Other options such as water banking and potential new applications of that concept which has traditionally been thought of as requiring a new tax and therefore had less support may be explored. Finally, options will be discussed such as the practice of asking developers to purchase water shares and turn them over to the water provider. A "cash in lieu" option, for example, might be applied to further water sharing mechanisms. The group may explore using storage fees that might be applied to dredging or other infrastructure projects.

The team envisions a first phase that would address tasks 1-4 above: the creation and analysis of a database; the development of descriptions of appropriate water sharing mechanisms; a survey where water users/owners would evaluate different water sharing mechanisms, be asked about and the likelihood of their participating in specific water sharing agreements, the actual or potential use of conservation easements, and their perceptions about the potential pricing of water transfers, storage fees and other aspects of financing related to water sharing. This will be followed by a second phase which focuses on tasks 5-6 above which concern the development of prototype agreements and the initial implementation of one or more agreements and evaluation strategies for their pilot period(s).

Discussion:
Staff believes the applicant did a great job describing the project and how this effort seeks to contribute to the goal of minimizing the dry-up of irrigated agricultural lands. This proposal also meets the criteria and guidelines for the ATM program exceptionally well in that the proposal is bringing together willing agricultural and municipal users to explore water sharing strategies with the end goal of entering into agreements. Further, the fact that the Working Group has been meeting for several months to advance this topic is an indication that the members are truly invested in this effort.

Issues/Additional Needs:
None identified.

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 Criteria and Guidelines of the Alternative Agricultural Water Transfer Methods Competitive Grant Program, 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.

Alternative Agricultural Water Transfer Methods – Competitive Grant Program
Water Activity Summary Sheet
Agenda Item 30.d.

Applicant: Getches-Wilkinson Center, CU Law School

Water Activity Name: Defining Water Rights in Terms of Consumptive Use to Facilitate Water Transfers

Water Activity Purpose: Non-Structural

Drainage Basin: Statewide

Water Source: Statewide

Amount Requested: $25,092

Matching Funds: $2,508 (cash)

Staff Recommendation
Staff recommends that the Board not approve the grant request of $25,092 from the Alternative Agricultural Water Transfer Methods Program to help fund the "Defining Water Rights in Terms of Consumptive Use to Facilitate Water Transfers" project.

Water Activity Summary:
This project will consider opportunities to facilitate water transfers that would result from defining water rights in terms of consumptive use. By making modest changes to the current water rights regime, the owner of a water right could be granted a presumptive right to transfer the consumptive use amount, perhaps with some modest adjustment to account for injuries, accounting errors, and losses to the water system. This project will also consider the technical, institutional, and legal constraints to defining water rights by their consumptive use and thereby making it easier to consummate complete or partial water rights transfers. For example, farmers who switch to less water intensive crops, or who agree to fallow their lands for a portion of the growing season, or who adopt water conservation practices (such as timing their water applications) would be able to reduce their consumptive use and transfer what they have saved. Importantly, they will also be able to continue farming even while substantial water becomes available to serve other important water needs.

Objectives of the project

- To review and report on our current understanding of consumptive use by crop, region, and soil type;
- To consider institutional arrangements that would have to be made to quantify consumptive use in anticipation of a possible transfer;
- To address possible changes to regulatory and legal schemes that may be necessary or helpful in facilitating the transfer of consumptive use amounts.

Discussion:
Staff believes that the objective of the proposal is sound and agrees that our current system of water law is often cumbersome, time-consuming and expensive. Through the funding of approximately $3 million in previous grants, numerous forums including the CWCB, Basin Roundtables, IBCC and CWCB workgroups in-depth discussion on the issues have occurred and are on-going. If HB 13-1248 (bill providing the authorization of CWCB to administer pilot projects for the leasing of water for municipal use) becomes law, it is expected that the CWCB will be confronted with many of the issues highlighted in this proposal.

Issues/Additional Needs:
Staff believes that will the proposal addresses many important and relevant issues, the CWCB through its ATM program is directly addressing these issues and it is not necessary to fund this additional effort.

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 Criteria and Guidelines of the Alternative Agricultural Water Transfer Methods Competitive Grant Program, 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.

Alternative Agricultural Water Transfer Methods – Competitive Grant Program
Water Activity Summary Sheet
Agenda Item 30.e.

Applicant: Ducks Unlimited and Aurora

Water Activity Name: FLEX Water Market--Education and Implementation Phase

Water Activity Purpose: Non-Structural

Drainage Basin: Statewide/South Platte

Water Source: Statewide

Amount Requested: $183,314

Matching Funds: $22,278 (cash)

Staff Recommendation
Staff recommends approval of up to $120,250 from the Alternative Agricultural Water Transfer Methods Program to help fund the "FLEX Water Market--Education and Implementation Phase" project contingent upon resolution of the items in the issues/additional needs section of this summary.

Water Activity Summary:
Applicants were recipients of the Colorado Water Conservation Board sponsored January, 2008 and 2010 Competitive Grant Programs for Alternative Agricultural Water Transfer Methods, Arkansas and South Platte Basins. The focus of the 2008 study was to examine five alternative transfer methods and create a business plan that could be used by agricultural producers, M&I users, etc. to evaluate and to implement alternative agricultural water transfers in the South Platte River basin and across Colorado. The 2010 study expanded on the "private market" business plan concept (relabeled the "FLEX Water Market") and resulted in a model FLEX Market Contract and model Water Court Terms and Conditions. Distinguishing characteristics of the FLEX Water Market include:

1) A cooperative agreement to change the use of a senior water right to allow multiple uses, including agricultural, municipal and industrial, and conservation uses;
2) Cooperative use of the senior water right by agricultural, M&I and environmental users pursuant to further agreements whereby the owner of the rights receives appropriate compensation established by market conditions; and
3) A focus on use of recharge sites and other environmentally beneficial delivery methods and management.

The proposed pilot project will build upon the 2008 and 2010 grant studies by implementing a FLEX Water Market. Based on public feedback received during a large group meeting (the FLEX Market Summit meeting) as part of the 2010 study and the substantial number of inquiries received following the meeting, the Sponsors are becoming more aware of the potentially high demand for more information and assistance in exploring or implementing the FLEX market concept. In fact, we understand that some FLEX markets are being explored outside the scope of this request.

The goal of this project will be to successfully implement the FLEX market concept through education, facilitation, and consultation throughout the state, with specific focus on developing FLEX markets in Water Division One with municipal, industrial, agricultural, and environmental conservation partners. In addition the project will seek to address concerns raised in Draft Technical Memorandum, "Alternative Agricultural Transfer Methods Grant Program Summary of Key Issues Evaluation," July 16, 2010 and the Alternative Agricultural Water Transfer Methods Grant Program Summary and Status Update, November 2012.

The overall goal of the project will be met by achieving several objectives. A description of the project objectives is provided below:

- Provide Education, Facilitation, and Consultation. The project team (the Sponsors, LJCG, and Brown and Caldwell) will serve as a team who will help parties seeking to explore or implement the FLEX Market concept.
- Evaluate Index Based Pricing. The project team will evaluate ways to adjust water pricing based on the increasing value of water and the volatile market for agricultural commodities.
- Explore Large-Scale Implementation of the FLEX Market in the Front Range. The project team will promote and discuss the implementation of the FLEX Market with large water providers, irrigators, and environmental water users in Division 1 along the Front Range.

Discussion:
Staff is very supportive of the FLEX Market concept and believes that such creative agreements between irrigators and municipalities will become more commonplace, helping to ease the pressures on irrigated agriculture. As mentioned, the project sponsors have received previous ATM grant funding and through this funding have developed a model FLEX Market Contract and a model FLEX Market Water Court Terms and Conditions. The team should be commended for bringing in water attorneys and engineers to help provide key input in these documents. Task 3 – 5 are geared towards facilitating the implementation of a FLEX Market in the Front Range which staff believes is directly in line with the ATM program criteria and guidelines. In addition, this effort is clearly building off of the work previously performed.

Issues/Additional Needs:
The proposal requests funds to undertake a relatively robust education and outreach effort to promote the FLEX Market throughout the state and to other ATM sponsors (Tasks 1 and 2). While this is definitely worthwhile, staff does not believe that the grant funds should be used for this purpose and should be absorbed by the project sponsors. Regarding the discussions amongst other ATM recipients, staff will consider reconvening a working group that provided a forum for all project sponsors to share ideas and lessons learned. Staff recommends that the Board not fund Tasks 1 and 2 based on the explanation above.

It is unclear which entity will contract with the State of Colorado. Please specify the contracting entity.

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 Criteria and Guidelines of the Alternative Agricultural Water Transfer Methods Competitive Grant Program, 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.

Alternative Agricultural Water Transfer Methods – Competitive Grant Program
Water Activity Summary Sheet
Agenda Item 30.f.

Applicant: Colorado River Water Conservation District

Water Activity Name: Water Bank Feasibility Study—Phase 2b

Water Activity Purpose: Nonstructural Activity

Drainage Basin: Colorado

Water Source: Colorado River Basin and its Tributaries

Amount Requested: $180,000

Matching Funds: $135,000 plus in-kind match

Staff Recommendation
Staff recommends approval of up to $180,000 from the Alternative Agricultural Water Transfer Methods Program to continue the feasibility analysis of a water bank contingent upon meeting the items identified in the issues and needs section of this summary.

Water Activity Summary:
Over the past several years, the Colorado River Water Conservation District, the Southwestern Water Conservation District, The Nature Conservancy, and Front Range Water Providers (collectively "The Coalition"), have worked with the CWCB staff to explore how a "water bank" could help Colorado prevent, address, and respond to a deficit at Lee Ferry and the corresponding possibility of curtailments of water uses in Colorado in order to meet the Upper Division States' obligations under the Colorado River Compact (hereinafter, "curtailments") and the effects on Colorado water users. A water bank could provide a means for pre-compact water rights to be used to allow post-compact water uses to continue when those uses may otherwise be subject to curtailment. . Specifically, certain lands that are irrigated by pre-compact water rights could be temporarily fallowed, and these water rights could be used to offset depletions associated with post-compact water uses. There are other ways that a water bank could operate using storage or other infrastructure, as well. The purpose of the water bank concept examined in this study is three-fold:

1) Proactively develop interruptible supply agreements to temporarily cease irrigation or reduce consumptive use associated with irrigation (i.e. deficit irrigation or reduce the number of cuttings) when curtailments may otherwise be necessary and then return it to full irrigation afterwards to minimize disruption
2) Develop the bank before curtailments to minimize the impacts, and
3) Explore and develop the institutional framework for transactions to minimize the risk to buyers, sellers, and the State of Colorado.

In 2011, the CWCB approved $180,000 in funding to study the feasibility of a water bank in the Colorado River basin in Colorado. This study consisted of a feasibility study to estimate potential supplies and demands for the bank (Phase 1) and a reconnaissance level evaluation of eight actual irrigation systems (Phase 2a). This work concluded that more detailed studies were necessary to properly evaluate the feasibility of a bank.

This proposal is requesting funds to investigate further of how a bank would operate to reduce consumptive use either by fallowing or deficit irrigation on three or four actual irrigation systems that were evaluated in the 2011 Phase 2 study. The 2011 Phase I study identified approximately 350,000 acre-feet of post-compact municipal and industrial water use that could be protected by a water bank. Using conservative assumptions, Phase 1 of the feasibility study estimated at least 1 million acre-feet of pre-compact irrigation water rights are currently in use. The vast majority of use irrigates hay, either from grass pasture or alfalfa. These crops may not be readily fallowed but it is possible, at least theoretically, to achieve reduced consumptive use by "deficit irrigation," applying less than a full supply of water, and thereby developing water supplies that can be

banked. However, the means and methods for successful deficit irrigation and the methods for measuring reduced consumptive use require further investigation. Therefore, feasibility of the water bank concept that is the subject this study cannot be fully ascertained without more study and a better understanding of the practical effects of, and limitations associated with, deficit irrigation practices.

The study to be funded pursuant to this proposed grant is to engage in further and more detailed studies of several of the irrigation system evaluated in Phase 2. This next study is referred to as "Phase 2B".
Phase 2B includes a focus on deficit irrigation and a portion of the project funds will be used to support field research by Joe Brummer of Colorado State University on deficit irrigation and fallowing. This phase of the study does not include other elements that eventually will need to be studied in order to develop a complete picture of feasibility for a bank. These additional elements include regional economic evaluations, environmental evaluations, further definition of how a bank would operate and function, and further evaluation of the post-compact demands the bank would serve to protect.

Discussion:
Staff agrees with the applicant that a water bank could be an effective means of reducing the risk and impacts associated with curtailments that may otherwise be needed to meet the Upper Division's Colorado River Compact obligations both for water users which rely on pre-compact water supplies and to reduce adverse consequences to Colorado agriculture in the absence of a water bank. This study is a collaborative effort involving diverse interests on a project of statewide importance.

The application indicates a cash match of $135,000 which is 40% of the total. At a recent Water Bank Feasibility Study meeting, there was some discussion by the Coalition members on which entities will contribute the cash match and how much funds each entity will contribute. These discussions are ongoing, and although the division of this responsibility may change, the Coalition members are committed to this cash match.

Issues/Additional Needs:
The application indicates that the cash match is $135,000. Prior to contracting with the State of Colorado, letters of commitment from contributing entities indicating their contribution to the project should be received by the CWCB.

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 Criteria and Guidelines of the Alternative Agricultural Water Transfer Methods Competitive Grant Program, 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.

Alternative Agricultural Water Transfer Methods – Competitive Grant Program
Water Activity Summary Sheet
Agenda Item 30.g.

Applicant: Lower South Platte Water Conservancy District

Water Activity Name: Northeast Colorado Water Cooperative Implementation

Water Activity Purpose: Nonstructural Activity

Drainage Basin: South Platte River

Water Source: South Platte River

Amount Requested: $198,900

Matching Funds: $22,100

Staff Recommendation
Staff recommends approval of up to $173,900 from the Alternative Agricultural Water Transfer Methods Program to help fund the Northeast Colorado Water Cooperative Implementation project contingent upon resolution of the items in the issues/additional needs section of this summary.

Water Activity Summary:
The water cooperative would create a mechanism for moving augmentation credits from plans with unused credits into plans that need additional credits. Initial quantification and analysis of periodically occurring, unused augmentation credits and exchange potential were completed as part of previous work conducted under a previous ATM grant. In this effort, the preliminary quantification of unused augmentation credits and exchange capacity was favorable, and the water users interested in the cooperative (a.k.a. the steering committee) decided that additional research and outreach to potential stakeholders and participants was warranted. During 2010, committee members met with numerous ditch and reservoir companies, irrigation districts, augmentation groups and conservancy districts to discuss whether there was sufficient interest in organizing the water cooperative. Since responses to the water cooperative idea were positive and in order to research and address issues raised, the steering committee prepared a work plan to outline a course of action. The primary goals of the work plan were to: 1) develop an organizational structure for the water cooperative, 2) develop a detailed draft operational plan, and 3) request necessary funding to accomplish this work.

The steering committee applied for and was awarded two grants to research organizational and operational aspects of the water cooperative. Work under a grant through the Water Supply Reserve Account (WSRA) focuses primarily on research and development of an organizational structure for the Water Cooperative. An Alternative Transfer Methods grant was awarded to the steering committee to research operational aspects of the cooperative.

The project described in this grant application will build upon and will make extensive use of the work conducted under previous grants awarded. The goal of the current project is to implement the water cooperative in 2014. Before the cooperative can be implemented, engineering work must be conducted and the water accounting system must be customized to reflect the specific members of the water cooperative. A general description of the objectives and elements of work in this grant application are described below:

- Engineering: evaluate the supplies, demands, and delivery strategies for the specific initial participants in the Northeast Colorado Water Cooperative (NECWC). (i.e. exchange capacity tool, the operational planning model, etc.). The work will culminate in an Engineering Report that can be used to support a Substitute Water Supply Plan (SWSP) and Water Court application for the cooperative.

- Accounting: The objective of the accounting phase will be to refine and implement an accounting system to track the movement of water among cooperative members. Work on the accounting system will involve acquisition and input of necessary data and information from participating augmentation plans, ditch companies, water providers, etc. and testing of the accounting system.
- The project team will consult with the Division Engineer to ensure that the accounting protocols are appropriate. Grant funds are also being sought to cover the costs of conducting the actual water accounting for the first year of cooperative operation.
- Implementing the Northeast Colorado Water Cooperative.

Discussion:
Staff is very encouraged that over the last couple of years, that the project sponsors and participants have been able to identify the opportunity with the excess augmentation credits, work hard at analyzing the institutional and operational considerations and factors and develop a program that addresses the needs within the confines of Colorado water law. Staff has followed this project closely and is very impressed with the management of this project as well as the ability of the sponsors to work collaboratively with the various water interests in the lower South Platte River.

Issues/Additional Needs:
The applicant states in Tasks 2 and 7 that the project team will meet with the Division Engineer staff to review the draft proposed accounting system and to identify potential differences that might arise with the Alluvial Aquifer Accretion/Depletion Analysis Tool (AAADAT) and collaborate on solutions to potential differences. Staff is pleased that the applicant recognizes the potential overlap with the AAADAT work but would like to see the applicants work more collaboratively with the AAADAT team to minimize duplication of effort, maximize the efficiency of state funds and ensure that the best tool(s) are being developed.

The Division of Water Resources has just recently begun the Alluvial Aquifer Accretion/Depletion Analysis Tool (AAADAT) project. CWCB staff requests that the NECWC team work with the AAADAT project team (DWR and CWCB) to develop an agreed upon approach for incorporating NECWC's needs into the AAADAT or developing a separate accounting tool that is complementary to the AAADAT.

Task 6 reserves $25,000 for the compensation of attorneys and engineers in meetings with potential objectors. While staff strongly believes in the proactive engagement of these individuals, staff recommends that the CWCB not fund this task and encourages project participants to contribute additional funds for this purpose.

Staff Recommendation:
Staff recommends approval of up to $173,900 from the Alternative Agricultural Water Transfer Methods Program to help fund the Northeast Colorado Water Cooperative Implementation study.

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 Criteria and Guidelines of the Alternative Agricultural Water Transfer Methods Competitive Grant Program, 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.

Alternative Agricultural Water Transfer Methods – Competitive Grant Program
Water Activity Summary Sheet
Agenda Item 30.h.

Applicant: Dedicated General Consulting (DGC)

Water Activity Name: Colorado Water Central Exchange

Water Activity Purpose: Non-Structural

Drainage Basin: South Platte

Water Source: South Platte

Amount Requested: $150,000

Matching Funds: $15,000 (cash)

Staff Recommendation
Staff recommends that the Board not approve the grant request of $150,000 from the Alternative Agricultural Water Transfer Methods Program to help fund the "Colorado Water Central Exchange" project.

Water Activity Summary:
The stated purpose of this project is to research the feasibility of conserving water resources through sustainable alternative transfer methods from agricultural uses to municipality uses by establishing a sustainable central CO water market. This market would follow well established commercial law but with limited water management aspects producing tax revenue for the state administration.
No known previous studies have been conducted in this region or in the proposed method.

The stated project goals of this project are to:

1.) Create a central water district initially encompassing the area including and surrounding subdivision 8 of the South Platte River Basin. Mainly the area including and immediately surrounding, but not limited to, the east and west fork of the southernmost portion of Cherry Creek.

a. Create a sustainable water market for municipal, agricultural, industrial and private waterusers.
b. Create a profitable market from water resources for water communities.
c. Create a template ATM that can be reasonably administered by the state of CO.
d. Produce tax revue from profits that can be taxed in conventional commercial methods to offset minimum administrative function.

2.) Preserve the natural resources available to CO property owners (traditionally agricultural)

a. Harness existing hydrology as much as possible to create a transfer system between cherry creek and municipal users (Woodmoor, Elbert, Peyton Monument)
b. Build necessary containment areas for water storage (permanent and semi-permanent)
    i. Consider the potential for open and closed storage
    ii. Specifically research the possibility for boring out cisterns in the areas including and surrounding near Elbert, CO, Herring and Black Forest Rd, and vicinity of the corner of SE Cherry Creek Rd and E Jones Rd.

Discussion:
Staff believes that the proposal is not well developed and should not receive funding from the ATM program at this time.

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 Criteria and Guidelines of the Alternative Agricultural Water Transfer Methods Competitive Grant Program, 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.

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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.

COLORADO
DEPARTMENT OF NATURAL RESOURCES

COLORADO WATER CONSERVATION BOARD

Alternative Agricultural Water Transfer Methods
Criteria and Guidelines for the Competitive Grant Program

Introduction and Background

As Colorado's population continues to grow in the coming decades, it is likely that increased transfers of agricultural water rights will occur in order to satisfy increased M&I water demands. While it is expected that Colorado's future water demands will be met through all of the "four legs of the stool" (conservation, new supply, identified projects and processes, and agricultural transfers), the CWCB through the SWSI 2010 report and other analyses has indicated in the coming decades, irrigated acreage is expected to decline throughout the state due to a variety of reasons:

- Urbanization;
- Planned agricultural to municipal transfers;
- Additional agricultural to municipal transfers necessary to address the M&I water supply gap; and
- Other reasons, including compact compliance (e.g., Republican River) and augmentation requirements.

The CWCB found that the water providers' identified projects and processes that are planned for implementation to meet future water demands could yield approximately 500,000 acre-feet if 100 percent successful. Even if completely successful, there still remains a water supply gap. Over the past several years, many of these water projects have been proceeding through the federal permitting process with no guarantee of success. Considering the difficulty of successfully permitting water projects, the alternative for many water providers is likely to be the transfer of agricultural water rights. The CWCB has found that if the "Status Quo" development trend continues, the South Platte Basin is estimated to lose 301,000 to 424,000 acres of currently irrigated land by 2050.

Due to the likelihood that increased transfers of agricultural water rights will occur in the coming decades, there is an urgency to implement alternatives to traditional transfers resulting in permanent dry-up in order to minimize the negative socioeconomic impacts to rural communities that so often result from such transfers. Rotational fallowing, interruptible supply agreements, water banks, purchase and lease backs, deficit irrigation, and changing crop type are the kinds of options that are available as alternatives to permanent agricultural transfers. The Colorado General Assembly through support of past CWCB "Projects Bills" has tasked the CWCB with finding and facilitating viable alternatives to the buy-and-dry approach to agricultural water transfers. To date, the Legislature has provided funding through the 2007, 2009, and the 2012 CWCB Projects Bills for a total of $4 million to assist in numerous ATM studies and pilot projects that have helped move these important water supply management options forward.

Through this program and CWCB's efforts, significant progress has been made towards making ATMs a viable option for municipalities. Since 2011, several pilot projects have been initiated to determine how some of these projects could be implemented on a large scale. Partnerships between the cities, farmers, land conservancies, funding partners, and environmentalist have been created through this program and appear to have great potential for success.
Basin roundtables recognize the need to focus on basin level planning and look for ways to increase the flexibility within the system through alternative transfers, cooperative agreements, drought plans, and additional infrastructure while respecting Colorado Water Law and individual property rights. While there is much work to be done, there is reason to believe that alternative water transfers will provide a viable option for municipal water providers in the not so distant future.

To date the ATM grant program has provided funding for 15 projects (see *Alternative Agricultural Water Transfer Methods Grant Program Summary and Status Update*, November 2012). Some projects have moved toward conceptual implementation of ATMs, while others have been of a research nature. Solutions to some of the barriers to implementation have been recommended through the findings of the ATM grant projects, but more work is needed to fully realize the goals of the grant program. Certain barriers to implementation, such as infrastructure needs (especially with regard to associated funding issues) and water quality have received limited attention. The objective of this grant program should transition into an application and integration phase that will more fully integrate the findings of the first two rounds of ATM grant funding to achieve the dual objectives of overcoming the barriers to implementation and establishing realistically implementable ATM programs. Considering differences between basins and the different projects that have been funded through this and other programs, below is a set of targeted recommendations for the South Platte, Arkansas, and West Slope.

South Platte River Basin

- Recognizing that each municipal water system and each ditch company are unique, the CWCB should continue to promote and facilitate agreements between irrigators and municipal water providers.

- Continue to support demonstration/pilot projects to determine the feasibility of new concepts or techniques as needed.

- The CWCB should continue its support of coupling conservation easements with interruptible supply agreements has the potential to provide a reliable source of water and preserve agricultural productivity in perpetuity. This strategy should be examined in more detail including an analysis of which lands and/or ditches are most amenable to this approach, the identification of funding partners (e.g. Great Outdoors Colorado, Colorado Department of Revenue/Tax Credits, etc.) and terms of the conservation easement deeds and interruptible supply agreement.

- The South Platte Basin Roundtable and interests could also address other important issues such as the development of a South Platte Basin water bank and infrastructure sharing. As part of South Platte Basin planning, an infrastructure evaluation would need to take into account the Aurora Water Prairie Waters Project pipeline, the United Water infrastructure, the East Cherry Creek Valley (ECCV) pipeline, the proposed pipeline from the Poudre River basin to Thornton, and other infrastructure needs. There may be possible ways to share pipelines, storage, and pumping plants that could result in some benefits and cost savings.

- Water quality issues and concerns could also be considered by this group since treatment will be an important part of an ATM program. There may be ways to partner in this area as treatment plant costs are a significant part of any municipal water supply. The results of the Zero Liquid Discharge program (funded through the Water Supply Reserve Account [WSRA] program) should be evaluated.

Arkansas River Basin

The Arkansas Basin is facing the second largest threat in the state with respect to agricultural dry-up. As municipalities turn to agriculture for additional supplies, efforts of the Super Ditch have led the state's ATM efforts. The next phase for the Arkansas is for their basin planning efforts to focus on the needs of the basin and implementation of the ATM. Following are recommendations for the Arkansas Basin.

- Advance the Super Ditch's efforts to implement pilot projects to lease water in 2013 using a temporary approval by the State Engineer under 37-92-308 (5). The authority to approve these under this statute has been challenged in water court.

- The CWCB should continue its support of coupling conservation easements with interruptible supply agreements has the potential to provide a reliable source of water and preserve agricultural productivity in perpetuity. This strategy should be examined in more detail including an analysis of which lands and/or ditches are most amenable to this approach, the identification of funding partners (e.g. Great Outdoors Colorado, Colorado Department of Revenue/Tax Credits, etc.) and terms of the conservation easement deeds and interruptible supply

- Complete the study by the Upper Arkansas Water Conservancy District (UAWCD) to develop a set of tools (Administration Tool) to simplify the engineering and reduce the costs related to a rotational fallowing ATM. If and when completed, support the promulgation of rules determining how the Administration Tool can be applied in administrative approvals and/or water court cases.

- Support the Arkansas Basin Roundtable efforts in basin planning, analysis of varying hydrologies, native and imported water, future municipal, agricultural and nonconsumptive needs, existing, planned and needed infrastructure to help meet their future water supply needs.

West Slope

The West Slope presents a unique opportunity with respect to ATM. On the West Slope the use of ATM can be used for both municipal supply and to address a Colorado River compact curtailment. Following are the recommendations for the ATM program for the West Slope, which includes efforts in the Colorado, Gunnison, Southwest and Yampa Basins.

- Advance the Colorado River Compact Water Banking study and its focus on rotational fallowing by integration using the results from the Aspinall Water Bank study and Yampa ATM study.

- Continue the Yampa ATM study to determine the acceptability by ranchers of an ATM and the concurrent benefits to fish habitat. These identified lands and associated water can also be used for the Compact Water Banking project and should be integrated.
- Continue the study by CSU and others on the suitability of pasture grass for rotational fallowing.

Application Process, Eligibility and Evaluation Criteria

Purpose

The purpose of this grant program is to further examine and assist in developing/implementing alternate transfer methods to traditional purchase and transfer of agricultural water. The grant program seeks to both allow the free marketing of water supplies and to advance alternatives to traditional purchase and transfer of agricultural water. **It is expected that these monies should fund projects that build upon work performed in past funding cycles and encourage more "on-the-ground" projects (i.e. pilot/demonstration projects, facilitating agreements between municipal water providers and irrigators, etc.). Preference will be given to projects that provide usable and transferable information that will increase our understanding of how to successfully design transfer programs that provide a long-term reliable water supply while sustaining meaningful production agriculture. Further, projects funded from this grant program should build upon work performed in the initial funding round.**

The grant program is available to applicants/projects statewide. The ultimate number of grants funded will depend on the number and quality of applications received. Staff will initially receive grant applications for consideration at the May 2013 CWCB meeting. **The deadline to submit grant applications is April 15, 2013.** The CWCB Board will consider the grants and recommendations by staff and will decide whether to fund, not fund or partially fund the grant requests. If funds are not exhausted, staff will consider applications at any board meeting until the funds are exhausted.

Application forms are available electronically at http://cwcb.state.co.us.

Eligibility Requirements

In order for a project to be eligible to receive funding from the grant program it must meet the requirements described in this section. If a project meets the eligibility requirements it will then undergo further analysis to determine how well it meets the Evaluation Criteria described in the following section.

In order to be eligible for funding, the project must include:

1. A completed application form.
2. A description of how, if implemented, it will protect property and water rights.
3. The project must at a minimum conceptually describe the technical, institutional, or legal elements of alternative agricultural water transfers.
4. If grant monies are proposed for use for legal or engineering assistance then the use of those funds shall be oriented toward advancing the knowledge of alternative agricultural water transfer methods and techniques; not for preparation of a specific water court case.
5. A minimum of a 10 percent cash match of total project costs is required. Cash and in-kind matches above this amount are preferred.

Evaluation Criteria

The following grant evaluation criteria will be used by the CWCB to evaluate and make recommendations to fund, partially fund or not fund a grant application. The criteria are aimed at advancing alternative transfer methods from the literature and studies to actual on the ground projects/programs that provide reliable water supply and sustain key elements of the agricultural area from which the water is transferred. The applicant should fully address and explain in detail in the application how, and the extent to which, the proposed project/program meets each of the criteria. However, it should be noted that the project does not have to meet all of the criteria to be eligible to receive funding and the criteria below are not listed in any order of important or priority.

1. The proposed project/program builds upon the work of former alternative water transfer methods efforts and addresses key areas that have been identified. For more detailed information on this work, please refer to the draft report: *Alternative Agricultural Water Transfer Methods Grant Program Summary and Status Update*, November 2012.
2. The proposed project addresses one or more key recommendation(s) in the report: *Alternative Agricultural Water Transfer Methods Grant Program Summary and Status Update*, November 2012.
3. Preference will be given to projects that provide additional matching resources in the form of cash, past expenditures and in-kind contributions that are in addition to the required 10% cash match.
4. The proposed project/program has the ability/potential to produce a reliable water supply that can be administered by the State of Colorado, Division of Water Resources.

5. The proposed project/program produces information that is transferable and transparent to other users and other areas of the state (i.e., would provide an example "template" or roadmap to others wishing to explore alternate transfer methods).
6. The proposed project/program addresses key water needs identified in SWSI 2010 or as identified in a basin's needs assessment.
7. The proposed project/program advances the preservation of high value agricultural lands. Value can be viewed as: the value of crops produced, the value the agriculture provides to the local community, and the value the agricultural area provides for open space and wildlife habitat.
8. The proposed project/program addresses water quality, or provides other environmental benefits to rivers, streams and wetlands.
9. The proposed project/program increases our understanding of and quantifies program/project costs. This could include: institutional, legal, technical costs, and third party impacts.
10. The proposed project/program does not adversely affect access to other sources of water (not subject to/participating in the program) where owners of these water rights may wish to pursue traditional transfer of their rights to other users.
11. The proposed project/program provides a perpetual water supply for the new and/or alternate use and preserves agricultural production and/or helps sustain the area's economy from which the transfer is occurring.
12. The quantity of water produced by the proposed project/program. Preference will be given to programs that can address larger water supply needs.

For additional information about the program and to obtain an application form please visit the CWCB website at http://cwcb.state.co.us or contact Todd Doherty at (303) 866-3441 ext. 3210 or by email at todd.doherty@state.co.us.