

**Alternative Agricultural Water Transfer Methods – Competitive Grant Program**  
**Water Activity Summary Sheet**  
**May 21-22, 2014**  
**Agenda Item 16**

**Applicant:** Colorado River Water Conservation District

**Water Activity Name:** No Chico Brush Agricultural Water Research Project

**Water Activity Purpose:** Demonstrate the feasibility of different methods of deficit irrigation

**Drainage Basin:** Gunnison

**Water Source:** Uncompahgre Valley Water Users Association

**Amount Requested:** \$173,080.17

**Matching Funds:** \$65,000 total cash match – 37.6% of total grant request (\$35,000 from the Gunnison Basin Account, & \$30,000 cash match by 3<sup>rd</sup> party participants)

<b>Staff Recommendation</b>
Staff recommends approval of up to \$173,080.17 from the Alternative Agricultural Water Transfer Methods Program to help fund the “No Chico Brush Agricultural Water Research Project.”

**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, data-loggers, 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:**

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 Alternative Agricultural Water Transfer are 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.

The No Chico Brush group, via the Colorado River Water Conservation District, received a WSRA Gunnison Basin Account grant for \$35,000 from the CWCB during the March 2014 meeting. The group, due to Statewide Account funding shortfall, was unable to proceed with a \$50,000 WSRA Statewide Account request during the March 2014 CWCB meeting, and has opted to submit an ATM application in its place. However, if the CWCB does not approve this ATM Grant request, the No Chico Brush group requests that the CWCB consider their \$50,000 Statewide Account request at a later date.

**Issues/Additional Needs:**

No issues or additional needs have been 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 – Grant Application Form

October 2010

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**Colorado Water Institute**

1033 Campus Delivery  
Fort Collins, Colorado 80523-1033  
Phone 970-491-6308

Dear Colorado Water Conservation Board and Staff:

This letter is written in support of the grant application being submitted to the Colorado Water Conservation Board by a grassroots group called No Chico Brush.

The Colorado Water Institute has recently been awarded a grant from USDA-NIFA to investigate opportunities for agricultural water conservation in the Colorado River Basin ([www.crbagwater.colostate.edu](http://www.crbagwater.colostate.edu)). Specifically, we will be working with agricultural producers and water managers to demonstrate how water can be conserved from a technological and management perspective and then identify the obstacles—economic, social, and legal—that keep agricultural producers from employing those tools. Finally, we will be working with local producers, agricultural water managers, policy makers, and other stakeholders to try to find ways to work through those obstacles.

Recent conversations with No Chico Brush have shown us that they are determined to accomplish work that overlaps with our research project. This group impresses us as having a diversity of players—both agricultural and environmental—who are on the right track in their plan to assess how agricultural water can be conserved for the benefit of improved ag production in the valley, as well as for environmental benefits.

No Chico Brush is a very important group for us to work with as we reach out to engage agricultural producers at a grass roots level in our project. We are committed to assist them in establishing research design and protocol for the data collection they are planning to accomplish with the grant they are proposing. We believe this work will benefit the entire Gunnison Basin as it attempts to meet the basin's water challenges. Therefore, we wish to convey via this letter that we hope the Gunnison Basin Roundtable determines to fund the grant proposal of No Chico Brush.

Sincerely,

Reagan Waskom  
Director

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Western Division Program  
2424 Spruce St.  
Boulder, CO 80302

Tel (719) 850-0320 nature.org

May 1, 2012

Colorado Water Conservation Board  
1313 Sherman St., Room 721  
Denver, CO 80203  
ATTN: Craig Godbout

Mr. Godbout,

This letter is in support of a grant application to the Alternative Agricultural Water Transfer Methods (ATM) Program from the NoChicoBrush collaborative, of which The Nature Conservancy is a partner. The Conservancy is strongly committed to this farmer led effort to research the benefits of agricultural water system and irrigation system improvements and share those results with other local producers. To that end, we have committed \$10,000 of our funds to the project, in addition to significant staff time.

We believe this effort will drive wide scale modernization to assist in alleviating pressures from water shortages on agricultural water producers while providing environmental benefit. Addressing multiple uses is an important objective of the ATM program and the current efforts under the State Water Plan.

We strongly encourage you and the Board to support this important project. Thank you for your consideration.

Sincerely,

A handwritten signature in black ink that reads "Aaron Derwingson".

Aaron Derwingson  
Agricultural Coordinator  
Colorado River Program

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May 1, 2012

Colorado Water Conservation Board  
1313 Sherman St., Room 721  
Denver, CO 80203  
ATTN: Craig Godbout

Mr. Godbout,

The intent of this letter is to inform the CWCB board and staff of Trout Unlimited's contributions and intention of continued support for the NoChicoBrush group.

Over the past year TU has supported the group by providing financial assistance to fund the project manager position held by Steve Schrock and for seed money to assist with the on farm research. TU has spent nearly \$15,000 on the project to date and will provide an additional \$10,000 match for the on farm efficiency research.

We hope the CWCB board will see the same promise in the NoChicoBrush work as we do and will award funding to the project.

Regards,



Cary Denison  
Gunnison Basin Project Coordinator  
125 Colorado Ave.  
Montrose CO 81403