



**TO:** Colorado Water Conservation Board Members

**FROM:** Mara MacKillop, Water Supply Planning Section

**DATE:** September 20-21, 2017 Board Meeting

**AGENDA ITEM:** 12a-i. Water Plan Grants - Engagement & Innovation  
Initial Consideration

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**This item is for consideration only. No Action is required at this time**

### Introduction

The Engagement & Innovation category has \$1 million in available funds. In the first round of applications, the CWCB received 11 applications totaling \$879,525. The CWCB also received seven Intent to Apply notices totaling \$849,662.

Staff moved one application to the Water Conservation and Land use category and considered the remaining 10 applications. Due to the large total grant request received in the first round, staff approached the review process by identifying the tasks in each application that aligned best with Colorado's Water Plan and then worked with each applicant to modify the request. Staff's goal was to reduce the total Engagement & Innovation funding request to provide funding for future grant application rounds while still supporting the high-quality, innovative, and effective projects from the first round. As a result, staff is supporting nine applications with a reduced total funding request of \$619,775. If the Board approves all nine applications, there will be \$380,225 available for future rounds of grant funding.

Applicant	Project Name	Request	% of Project	Staff Support
a. Arkansas River Basin Water Forum	Implementing the Education & Outreach Goals of the Arkansas Basin Implementation Plan through Education to Action Projects/Programs	\$29,400	40%	\$24,350
b. Colorado Cattlemen's Association	Agriculture Water Collaborative	\$152,400	25%	\$76,200
c. Colorado Foundation for Agriculture	Understanding Water Activity Book	\$65,000	98%	\$64,000
d. Colorado Foundation for Water Education	Deepening Water Engagement through Expansion of the Water Educator Network	\$174,000	51%	\$110,000



e. Colorado Open Lands	Enhancing the Colorado Water Plan through Comprehensive Education and Outreach	\$85,750	19%	\$61,750
f. Denver Botanic Gardens	Water in the West: Exhibition & Outreach through the Gardens	\$44,750	47%	\$44,750
g. Geothermal Greenhouse Partnership, Inc.	Community Garden and Innovation Greenhouses	\$186,000	65%	\$174,500
h. Open Water Foundation	TAP-IN	\$60,000	77%	\$54,000
i. One World One Water Center at MSU Denver	WaterWise Circa 2018: Water Theatre Company	\$10,225	65%	\$10,225

See attached Data Sheets for locations and summaries.

### Staff Review and Comments

- a. Arkansas River Basin Water Forum - Implementing the Education & Outreach Goals of the Arkansas Basin Implementation Plan through Education to Action Projects/Programs

This project is to support the implementation of projects and programs within the Arkansas Basin Implementation Plan (ArkBIP), Education Action Plan, and Colorado's Water Plan (CWP) through education, outreach, communication, and participation utilizing various types of collaborations and partnerships throughout the entire Arkansas Basin. This application includes seven different tasks involving many partners. The projects/programs include:

1. Arkansas Valley Conduit Outreach and Education Meetings
2. Arkansas River Basin Water Forum Education & Outreach Programs
3. Support the PEPO Coordinator
4. Development of a Community or Children Water Festival
5. Creek Week on the Purgatoire River
6. State of the Purgatoire Event
7. Arkansas River Watershed Collaborative (ARWC) Outreach Program

The project received a letter of support from the Arkansas Basin Roundtable, Southeastern Colorado Water Conservancy District, and Purgatoire Watershed Partnership. The applicant has 26% cash match.

Staff recommends Board approval.

- b. Colorado Cattlemen's Association - Agriculture Water Collaborative

This project will utilize multiple proven outreach methods to engage and inform ag water right holders and non-ag water interests about contemporary ag water issues, including the direct and indirect benefits of irrigated agriculture and how agriculture and other water interests can benefit from mutual

collaboration. The project uses a variety of educational tools: webinars, workshops, presentations, tours, videos, publications, and media outreach.

The Colorado Water Plan calls for maintaining Colorado's agricultural productivity (Section 6.5) and elevating the awareness of Colorado's citizens when it comes to water issues affecting the state (Section 9.5). This application focuses on providing information to producers on water conservation, irrigation efficiency, water rights and ATMs in order to help the agricultural industry become more efficient, resilient, and able to sustainably share water with other water interests using a market-driven approach.

The project received a letter of support from the Colorado River District, Colorado Water Institute, Metro Roundtable, The Nature Conservancy, Walton Family Foundation, and Arkansas PEPO group. The applicant has 50% cash match for their grant request.

Staff recommends Board approval.

c. Colorado Foundation for Agriculture - Understanding Water Activity Book

This project will update the Understanding Water Activity Book and print and distribute 40,000 copies. The book is free to any Colorado educator that requests it. It will be made available for the PEPO groups and Basin Roundtables as well, which will aid them in the implementation of their Education Action Plans and BIPs. The book is used as the textbook on water for many third- and fourth- grade classrooms statewide.

This project helps achieve the education and outreach goal in CWP in Chapter 9.5 as it targets third through sixth grade students and provides high-quality, interactive education resources.

The project received a letter of support from the Metro Roundtable, Arkansas PEPO group, and St. Vrain and Left Hand Water Conservancy District. The applicant has 1.5% cash match for their grant request. This project does not meet the suggested cash match requirements, but involves a large group of statewide partners who have invested in-kind resources for years, including \$20,000 in-kind from the Colorado Foundation for Agriculture. The \$65,000 total project cost will produce 40,000 books (each with 76-pages), resulting in a cost of \$1.60 per book. It is high-quality of significant value to K-12 education.

Staff recommends Board approval.

d. Colorado Foundation for Water Education - Deepening Water Engagement through Expansion of the Water Educator Network

This project expands one of the CFWE's most far-reaching programs, the Water Educator Network (WEN), which exists to both coordinate activities and increase the capacity of local water educators. It will build capacity to provide resources, trainings and collaboration opportunities that are easily accessible and simple to implement, as well as develop an online water resource directory for educators. The project supports three years of WEN programming.

This project helps achieve the three main goals in Chapter 9.5 of CWP: Create a new outreach, education and public engagement grant fund, Create a data-based water education plan, and Improve the use of existing state resources, as well as the measurable objectives in the plan by improving the water awareness, appreciation, and sophistication of community members to be

able to “speak fluent water” in order to foster improved stewardship and participation in local decision making and stakeholder processes related to water.

The project received a letter of support from the Colorado Basin Roundtable, Southwest Basin Roundtable, and Metro Roundtable. The applicant has 18% cash match for their grant request.

Staff recommends Board approval.

e. Colorado Open Lands - Enhancing the Colorado Water Plan through Comprehensive Education and Outreach

The goal of this project is to expand the Rio Grande Basin’s outreach efforts by incorporating key topics from CWP and the BIP. It includes targeting youth, educators, community members, ag producers and elected officials through mentoring, teacher workshops, project tours, seminars, and education and engagement tools.

The project helps achieve CWP goal in Chapter 9.5 to “significantly improve the level of public awareness and engagement regarding water issues statewide by 2020,” as well as the BIP and Education Action Plan. This project addresses the 14 Rio Grande Basin Goals and the objectives that the BIP identifies: Outreach, Education and Participation through collaboration across demographics and audiences.

The project received a letter of support from the Rio Grande Basin Roundtable. The applicant has 44% cash match.

Staff recommends Board approval.

f. Denver Botanic Gardens - Water in the West: Exhibition & Outreach through the Gardens

This project supports the development and implementation of a new, comprehensive exhibition within the Denver Botanic Gardens’ Science Pyramid venue to educate Coloradans and visitors to the state about water in the West, highlighting Colorado’s water issues and needs for conservation, reuse, and preservation/enhancement of natural environments. The digital learning space offers an ideal forum for discovery and presents multiple ways for participants to understand how water, through its presence or absence, affects people, plants, and animals in all of Colorado’s life zones, from steppe to alpine. The Gardens will include new methods for data visualization to illustrate impacts of water scarcity and educate about best practices for stewardship.

This project helps achieve CWP Section 9.5, pg. 9-59: “Work closely with organizations that specialize in the facilitation of public education and outreach programs in order to leverage existing resources within each basin and increase overall impact.” The exhibition and education project also addresses the priority topics noted in the same section, including Colorado’s water challenges, solutions, and the need to be adaptable to changing conditions; connection between climate change and water; water conservation and reuse; integration of land use and water supply; and water quality.

The project received a letter of support from Randi Brazeau, member of the Metro Roundtable. The applicant has 53% cash match for their grant request.

Staff recommends Board approval.

g. Geothermal Greenhouse Partnership, Inc. - Community Garden and Innovation Greenhouses

This project is to construct and build-out the Community and Innovation Domes, which will facilitate community and regional outreach, education and innovation activities. The Community Dome will be a gathering space to grow food and community with local energy, anchored in water conservation principles. The Innovation Dome will be an aquaponic growing environment, demonstrating high yields of food and extreme water conservation.

This Geothermal Greenhouse Partnership (GGP) Project supports CWP by helping achieve the education and outreach goal, and to help meet the state's projected 2050 water supply gap. The GGP Project will work toward narrowing that gap by using a water right to develop a beneficial- and multi-use agricultural project, as well as an environmental education project. In addition, water savings from the GGP Project will result from the closed-system dome structures, which significantly reduces evaporative losses. Moreover, the use of drip irrigation systems requires less water and yields more crops per gallon. In general, growing domes use 1/3 less water than conventional methods. It also supports the goals of the Southwest Basin Roundtable BIP under *New Multi-Purpose, Cooperative, and Regional Projects & Processes*.

The project received a letter of support from the Archuleta Board of County Commissioners, Archuleta School District, Colorado Energy Office, Board of Colorado Garden Foundation, Southwest Basin Roundtable, Region 9 Economic Development District of SW Colorado, Santa Fe Community College, and Town of Pagosa Springs. The applicant has 32% cash match for their grant request.

Staff recommends Board approval.

h. Open Water Foundation - TAP-IN

TAP-IN is the first of its kind water reverse pitch innovation challenge in Colorado, and was born out of Colorado's Water Plan. The CWCB grant funding will be used to support TAP-IN's programs in 2018. These programs include a water-focused Trout Tank Pitch Accelerator in partnership with the Denver Metro Chamber of Commerce, Denver Water, and Colorado State University; two reverse pitch events; a water investment/financing training and dialogue event; and a water innovation symposium and solutions showcase. This funding will help support marketing, communications, and outreach for each program/event, as well as data collection to measure success/impact and improve future offerings.

TAP-IN is the initiative CWP called for under the 3<sup>rd</sup> action in Chapter 9.5: "The CWCB will work with stakeholders to identify five water challenges that Colorado's innovation community could help solve, develop an award program, and engage Coloradans in the challenge" and "will work with Colorado's innovation community, education and outreach experts, research institutions, and the governor's Colorado Innovation Network (COIN) to address Colorado's water challenges with innovation and outside the box creativity" (pg. 9-61).

The project received a letter of support from Denver Water, Colorado State University, John Stulp, Nick Rancis (a water entrepreneur), and the Metro Roundtable. The applicant has 16% cash match for their grant request.

Staff recommends Board approval.

i. One World One Water Center at MSU Denver - WaterWise Circa 2018: Water Theatre Company

This project will continue the WaterWise Theatre Company developed in 2014 by One World One Water Center at Metropolitan State University (MSU) of Denver, the Theatre Department at MSU Denver, Aurora Water, the City of Boulder, and Denver Water. MSU Denver students learn about current Colorado water issues and water supply concepts and create a 20-minute ensemble performance about protecting and conserving Colorado's water. The project received the "2015 Innovation in Environmental Education" award from the Colorado Alliance for Environmental Education. This project will fund three performances at the Aurora, Boulder and Denver Water Festivals that reach over 3,000 students in 2018.

The project helps achieve CWP goal in Section 9.5 by enhancing and promoting watershed education for a critical age group - college students and 5th and 6th grade students. Colorado's Water Plan identifies the OWOW Center at MSU Denver as groups leading campus communities on water supply planning, research, dialogue, and education. Bringing together water providers in the Denver metro area allows for unique opportunities to spearhead programs that will incorporate Colorado's Water Plan priorities and campus educational outreach goals.

The project received a letter of support from the Theatre Department at MSU Denver, Aurora Water, the City of Boulder, and Denver Water. The applicant has 23% cash match.

Staff recommends Board approval.