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Colorado Water Conservation Board
Water Plan Grant Application

Instructions

To receive funding for a Water Plan Grant, applicant must demonstrate how the project, activity, or process (collectively referred to as “project”) funded by the CWCB will help meet the measurable objectives and critical actions in the Water Plan. Grant guidelines are available on the CWCB website.

If you have questions, please contact CWCB at (303) 866-3441 or email the following staff to assist you with applications in the following areas:

Water Storage & Supply Projects	Matthew.Stearns@state.co.us
Conservation, Land Use Planning	Kevin.Reidy@state.co.us
Engagement & Innovation Activities	Ben.Wade@state.co.us
Agricultural Projects	Alexander.Funk@state.co.us
Water Sharing & ATM Projects	Alexander.Funk@state.co.us
Environmental & Recreation Projects	Chris.Sturm@state.co.us

FINAL SUBMISSION: Submit all application materials in one email to waterplan.grants@state.co.us in the original file formats [Application (word); Statement of Work (word); Budget/Schedule (excel)]. Please do not combine documents. In the subject line, please include the funding category and name of the project.

Water Project Summary

Name of Applicant	Colorado Master Irrigator	
Name of Water Project	Colorado Master Irrigator Program – San Luis Valley	
CWP Grant Request Amount		\$118,575
Other Funding Sources	RGWCD Sub 1	\$100,000 (cash)
Other Funding Sources	Various Organizations	\$21,625 (in-kind)
Other Funding Sources	_____	\$
Applicant Funding Contribution		\$
Total Project Cost		\$



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Applicant & Grantee Information	
Name of Grantee(s)	Colorado Master Irrigator
Mailing Address	21502 Cty Rd 47, Burlington, CO 80807
FEIN	84-2551760
Organization Contact	Brandi Baquera
Position/Title	Program Coordinator
Email	coloradomasterirrigator@gmail.com
Phone	(719) 343-0099
Grant Management Contact	Greg Peterson
Position/Title	Program Coordinator – San Luis Valley
Email	coagwater@gmail.com
Phone	(720) 244-4629
Name of Applicant (if different than grantee)	Same as Grantee
Mailing Address	NA
Position/Title	NA
Email	NA
Phone	NA
Description of Grantee/Applicant	
Provide a brief description of the grantee’s organization (100 words or less).	
<p>Colorado Master Irrigator is a non-profit organization that delivers an annual 4-day intensive educational program focused on equipping producers in northeastern Colorado with information and a peer-to-peer network they need to successfully implement water and energy conservation- and efficiency-oriented practices on their farms. With this grant request, Colorado Master Irrigator will host a similar annual program in the San Luis Valley. A ~35-member program advisory committee consisting of local producers, CSU Extension, staff, groundwater management district leaders, and other lend ongoing expertise (accounting, fundraising, farming, etc.) to help design and deliver the Colorado Master Irrigator curriculum, guide the messaging of public-facing communications, recruit participants and program sponsors and partners, and support productive, conservation-oriented conversation at local, state, and regional levels.</p> <p>The Colorado Ag Water Alliance (CAWA) is a sub-contractor on this grant. CAWA is an association of agricultural organizations that focuses on education and outreach within the agricultural community. Our goal is to preserve irrigated agriculture by providing farmers and ranchers with information and resources to address water issues and use water to the benefit of their agricultural operations and the state of Colorado.</p>	



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Type of Eligible Entity (check one)	
	Public (Government): Municipalities, enterprises, counties, and State of Colorado agencies. Federal agencies are encouraged to work with local entities. Federal agencies are eligible, but only if they can make a compelling case for why a local partner cannot be the grant recipient.
	Public (Districts): Authorities, Title 32/special districts (conservancy, conservation, and irrigation districts), and water activity enterprises.
	Private Incorporated: Mutual ditch companies, homeowners associations, corporations.
	Private Individuals, Partnerships, and Sole Proprietors: Private parties may be eligible for funding.
X	Non-governmental organizations (NGO): Organization that is not part of the government and is non-profit in nature.
	Covered Entity: As defined in Section 37-60-126 Colorado Revised Statutes .

Type of Water Project (check all that apply)	
	Study
	Construction
X	Other

Category of Water Project (check the primary category that applies and include relevant tasks)			
	<p>Water Storage & Supply - Projects that facilitate the development of additional storage, artificial aquifer recharge, and dredging existing reservoirs to restore the reservoirs' full decreed capacity, multi-beneficial projects, water sharing agreements, Alternative Transfer Methods, and those projects identified in basin implementation plans to address the water supply and demand gap. <i>Applicable Exhibit A Task(s):</i></p> <p>Note: For Water Sharing Agreements or ATM Projects - please include the supplemental application available on the CWCB's website.</p>		
	<p>Conservation and Land Use Planning - Activities and projects that implement long-term strategies for conservation, land use, water efficiency, and drought planning. <i>Applicable Exhibit A Task(s):</i></p>		
	<p>Engagement & Innovation - Activities and projects that support water education, outreach, and innovation efforts. <i>Applicable Exhibit A Task(s):</i></p>		
X	<p>Agricultural - Projects that provide technical assistance and improve agricultural efficiency. <i>Applicable Exhibit A Task(s):</i></p>		
	<p>Environmental & Recreation - Projects that promote watershed health, environmental health, and recreation. <i>Applicable Exhibit A Task(s):</i></p>		
	<table border="1"> <tr> <td>Other</td> <td>Explain:</td> </tr> </table>	Other	Explain:
Other	Explain:		

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Location of Water Project	
Please provide the general county and coordinates of the proposed project below in decimal degrees . The Applicant shall also provide, in Exhibit C, a site map if applicable.	
County/Countries	Alamosa, Conejos, Costilla, Hinsdale, Mineral, Rio Grande, and Saguache
Latitude	
Longitude	

Water Project Overview
<p>Please provide a summary of the proposed water project (200 words or less). Include a description of the project and what the CWP Grant funding will be used for specifically (e.g., studies, permitting process, construction). Provide a description of the water supply source to be utilized or the water body affected by the project, where applicable. Include details such as acres under irrigation, types of crops irrigated, number of residential and commercial taps, length of ditch improvements, length of pipe installed, and area of habitat improvements, where applicable. If this project addresses multiple purposes or spans multiple basins, please explain.</p> <p>The Applicant shall also provide, in Exhibit A, a detailed Statement of Work, Budget, Other Funding Sources/Amounts and Schedule.</p>
<p>CWP Grant funding will support delivery of an annual, four-day “Colorado Master Irrigator” classroom-based program designed to equip San Luis Valley farmers with science-backed information on strategies and tools primarily relevant to crop management that they can use to remain profitable while reducing on-farm consumptive water use. Colorado Master Irrigator will also prioritize peer-to-peer exchange and partnerships critical for broader management and mindset shifts to take place that increase water and energy conservation/use efficiency, thus helping sustain the region’s agriculture-dependent communities given significant aquifer declines.</p> <p>Each class of 25 participants will represent at least 12,000 irrigated acres (four 120-acre crop circles per participant). Through in-person and online communications, Colorado Master Irrigator will also reach a broader audience across the state and beyond. A 35-member program advisory committee assists the program coordinator with curriculum design and delivery, program communications, and recruiting participants and sponsors, and developing partnerships</p> <p>To graduate, participants must complete all 32 hours, engage with classmates and instructors, and consider committing to using certain management strategies and/or tools covered by the program. With their consent, Colorado master Irrigator will track graduates’ commitment-related progress for three years. Overall, Colorado Master Irrigator aims to increase long-term regional economic and drought-related resilience, support state compact compliance, and provide management-oriented alternatives to mandatory well curtailment.</p>



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Measurable Results	
To catalog measurable results achieved with the CWP Grant funds, please provide any of the following values as applicable:	
	New Storage Created (acre-feet)
	New Annual Water Supplies Developed or Conserved (acre-feet), Consumptive or Nonconsumptive
	Existing Storage Preserved or Enhanced (acre-feet)
	Length of Stream Restored or Protected (linear feet)
	Efficiency Savings (indicate acre-feet/year OR dollars/year)
	Area of Restored or Preserved Habitat (acres)
	Quantity of Water Shared through Alternative Transfer Mechanisms or water sharing agreement
	Number of Coloradans Impacted by Incorporating Water-Saving Actions into Land Use Planning
	Number of Coloradans Impacted by Engagement Activity
X	<p>Other</p> <p>Explain: Each Colorado Master Irrigator class cohort will have 25 participants, representing around 12,000 irrigated acres (about 1/50th) of the Rio Grande Basin’s total irrigated acres. Through peer-to-peer exchange, network building, and outreach efforts, the program is expected to reach hundreds of people each year, potentially influencing many more irrigated acres within and beyond the region.</p> <p>Each class of Master Irrigator participants will be asked to share some key water-use data from their operations, for example, crop production reported in bushels produce/acre-inch of water applied. At the conclusion of the course, each participant will be asked to define a target goal (or goals, e.g. increasing water use efficiency, learning to use irrigation scheduling, interpreting soil moisture probe data, efforts that will be made to improve soil health, etc.) that will demonstrate their application of knowledge gained or refined due to participating in this program. Master Irrigator Program staff will track the progress that program graduates make related to these commitments on an annual basis for the next three growing seasons, cataloging a wide variety of quantitative and qualitative data (that can be anonymized) if necessary to understand and share information such as: producer perspectives related to management and mindset shifts; how farmers determine the value of water, energy use efficiency, and conservation; reductions in consumptive water use; and/or how to increase profitability for each acre-inch of applied irrigation water pumped from the aquifer.</p>

Water Project Justification
Provide a description of how this water project supports the goals of Colorado’s Water Plan , the Analysis and Technical Update to the Water Plan , and the applicable Roundtable Basin Implementation Plan and Education Action Plan . The Applicant is required to reference specific needs, goals, themes, or Identified Projects and Processes (IPPs), including citations (e.g. document, chapters, sections, or page numbers).



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The proposed water project shall be evaluated based upon how well the proposal conforms to Colorado's Water Plan Framework for State of Colorado Support for a Water Project (CWP, Section 9.4, pp. 9-43 to 9-44;)

Communities living in the Rio Grande Basin have some access to surface water, but many agricultural operations depend on groundwater for supplemental water or for all of their irrigation water. Agriculture, and irrigated agriculture in particular, is the region's primary economic driver, supporting extensive crop and livestock production (mainly potatoes, barley, alfalfa, forage, lettuce, quinoa, and cattle) and many agriculture-related businesses. The Direct and secondary economic contribution from farming and ranching in the basin is estimated to be \$668 million annually. The agricultural industry provides 5,500 jobs and \$202 million in labor compensation in the basin (2019 CWP Technical Update 2.9.3). The region is experiencing significant groundwater declines due predominantly to agricultural-related withdrawals that exceed natural recharge through precipitation. Farmers here must find ways to reduce their consumptive water use if they are to extend agriculturally productive use of the aquifer resource longer into the future, help ensure their communities' economic viability and drought resilience, and meet interstate Rio Grande River compact obligations. (2019 CWP Technical Update 4.8.1, 4.8.4).

CWP Water Plan grant funds requested in this proposal will support the expansion of the "Colorado Master Irrigator" program, which will:

a) offer a high-quality, in-person, 4-day (32-hour) interactive educational course once a year that has been designed expressly to encourage the understanding and use of profitable, conservation-oriented and water/energy-use efficient management tools and strategies (CWP Table 6.3.1-1 5b, 6.3.4); and

b) engage a wide range of partners from across the state and beyond, thus fostering the collaborative capacity and encouraging dialogue required to spur wider and faster adoption of conservation and water/energy-use efficient practices in the region. Even small improvements in agricultural water management can translate into significant savings of acre-feet of aquifer water left in the ground for future use, thus helping to maintain Colorado's agricultural economy, limit permanent dry-up of some irrigated acres, Sustain the confined and unconfined aquifers in accordance with Senate Bill 04-222 and operate within the State Engineer's new Rules and Regulations for the San Luis Valley" identified in the Rio Grande Basin Implementation Plan (CWP 6.2, 6.4, 6.5.1, 6.5.2; RG BIP 3.0 measurable outcomes 1-4, 4.6.2, 5.5.3, 5.4.4, RG BIP 3.3).

Colorado Master Irrigator is a locally adapted replication of a highly successful program offered since 2016 in Texas by the North Plains Groundwater Conservation District (NPGCD):

<http://northplainsgcd.org/conservationprograms/communityedu/master-irrigator/>.

With 83 graduates and over 260,000 acres influenced to date in the northern Texas Panhandle, an area that also overlies and depends upon the Ogallala aquifer, NPGCD's Master Irrigator program has proven to be a successful model for irrigation conservation education. In 2018, this program received the Texas Environmental Excellence Award, the highest environmental honor in the state.

Related Studies



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Please provide a list of any related studies, including if the water project is complementary to or assists in the implementation of other CWCB programs.

In 2020, Colorado Master Irrigator launched its inaugural 32-hour course. The course provided instruction to a class cohort of 25 students irrigating over 20,000 acres in the Republican River Basin, covering a range (simple to advanced, low to higher cost) conservation- and irrigation efficiency-related management tools and techniques, such as but not limited to: irrigation scheduling, deficit irrigation, the use of energy audits to optimize the function of irrigation and pumping systems, planting less water-demanding crops and crop varieties, learning to interpret and trust data from soil moisture probes, adding telemetry to pivots, and strategies for improving soil health (CWP 6.5.2; SPBR BIP 5.3.2)

The course curriculum has been taught by highly knowledgeable, dynamic, and effective instructors from Colorado and adjacent states including farmers, university academic and Extension staff, state and Federal agency personnel, representatives from different ag industries, crop consultants, and others. Colorado Master Irrigator program developers, teachers and class members represent targeted audiences within the Rio Grande Roundtable including agricultural, academic, and Roundtable stakeholders (RG BIP 7.2) represent a diverse and important network to engage to support Colorado's Water Plan goals (CWP Technical Update 2019 5.3.5.).

Throughout the delivery of the Colorado Master Irrigator curriculum, discussion of practical economics regarding how to maintain or increase market advantage and support yields and profitability even if/as less water is applied through irrigation will be prioritized. The course also provides an overview of regional hydrology--past, present, and anticipated future conditions that account for climate change related pressures--that will help participants contextualize and evaluate the potential benefits of participating in regional state and Federally supported programs that aim to reduce consumptive water use. Overall, Colorado Master Irrigator aims to increase participants' understanding of how their land-use and watermanagement decisions will impact their operations and the aquifer over the short- and long-term, and encourage their active collaboration in proactive management of the current and projected water gaps they face (CWP 2019 Technical Update, 4.2.1). Course content and related conversations, for example, assist producers in evaluating where and whether it makes sense to retire certain wells, and the short- and long-term return on investment potential of different water- and energy-use efficiency and conservation focused practices for their operations.

CO Master Irrigator participants are asked to come prepared to share information on water use and target yield goals for the operations on which they work, and to reflect on their current management practices in light of the material covered during the course. The course format encourages social norming (CWP 6.3.1) by fostering peer-to-peer exchange among classmates and with farmer instructors who share their insights they've gained through steps they've taken to increase water and energy-use efficiency and conservation on their operations. The curriculum also features topical, interactive games that require participants to work together to pencil out the impacts (on a farm's bottom line, on the aquifer) of different management decisions given different hypothetical scenarios. Colorado Master Irrigator's flexible, creative, and engaging approach accommodates and recognizes differences among operations in terms of pumping capacity, soil type, and producers' engagement to date with integrating conservation and efficiency-oriented tools and practices. By "meeting producers where they are at," the program can effectively arm them with information they need and a knowledgeable social network on which they can rely as they sort out which tools and strategies might be doable, affordable, and specifically relevant to their production goals.

A highly engaged and collaborative, ~35-member program advisory committee (PAC) of Basin stakeholders representing local producers, crop and ag tech consultants, groundwater management district representatives, Colorado State University Extension, state and Federal agency staff and others supports the Colorado Master Irrigator program coordinator, working to ensure the program offers a worthwhile, high-quality learning experience that ultimately encourages wider social acceptance with regard to water conservation and builds local expertise necessary for the region to address the serious



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water-related challenges it currently faces (CWP 6.3, 9.5; RG BIP 7.2). The PAC provides input during monthly meetings and via emails related to curriculum and program design, public-facing communications, and encouraging community “buy-in” to this innovative program through recruitment of program participants and sponsors (CWP 6.2).

In addition to outreach (in person and online) activities, Colorado Master Irrigator program is designed to encourage participation in a few other ways. The course cost will be \$100-200 (TBD), an amount that requires a certain commitment by participants yet is modest/non-prohibitive. Another key feature of the program, for which CWP funds are being requested in particular, is a “participation stipend” of \$2000 per operation to be offered to program graduates. To graduate from Colorado Master Irrigator, participants MUST complete and actively engage in all 32 hours of the course. This stipend idea, which originated with Republican River Basin producers serving on the PAC, has received strong support by the PAC at-large. The logic for offering a stipend is as follows: time is money, and farmers are likely to hesitate to devote family or staff time away from the farm to something new like Colorado Master Irrigator if they aren’t sure what value will come from it to their operations. A participation stipend, to be awarded after graduation, defines a clear value that compensates producers for their time dedicated to the program that compliments the in-depth professional development experience offered through this course.

The PAC is confident that offering a participation stipend does more than just help eliminate the producer hesitancy to enroll; it also helps with the recruitment of individuals that represent some of the region’s most influential farms. Successful program establishment and quicker diffusion of the practices/concepts covered by Master Irrigator depends on engaging these kinds of participants, whose actions carry a lot of weight in the region’s communities. People are likely to follow these influencers’ lead if they see economic and practical advantages in doing so. PAC members also aim to recruit younger farmers, who may be more amenable to making certain kinds of management shifts and system upgrades if improving their agricultural water management will lend them an economic edge, especially given tight margins, high production costs, finicky markets, and the fact that they are faced with keeping their farms viable for decades to come even as the water resource they depend upon is dwindling, a situation expected to be exacerbated by climate change (CWP Technical Update 2019 Planning Scenarios Key Drivers Figure ES.1)

A key PAC responsibility and program activity is to engage in and foster dialogue with regional partners, for two reasons. First, as a non-regulatory entity that involves the collaboration of a diverse group of water management focused stakeholders, the Colorado Master Irrigator organization has the social connections and learning-oriented mission necessary to support conversations about finding ways to combine and boost the impact of activities by individuals and groups in the region that currently operate rather independently even if their goals of sustaining farming in this region very much align. The second goal of this type of engagement with partners will be to try to organize a range of externally-supported opportunities and incentives that can encourage Colorado Master Irrigator graduates pursue and realize their energy and water-use efficiency and/or conservation-oriented goals (CWP 6.2, 9.4), such as:

- Offering access to other professional development and training opportunities
- Setting up discounts available through local dealers for inputs, tools, and irrigation system upgrades, and/or favorable terms with ag lenders
- Enhancing eligibility of program graduates for state and Federal grants, loans, and cost-share programs

When participants graduate from Colorado Master Irrigator, they are asked to evaluate the strengths and weaknesses of the program and offer suggestions for improvement. Input is used to update and improve the program each year. Graduates will also be encouraged to identify a commitment (or commitments) based on information covered during the course which they are interested in pursuing on their operations and about which they are willing to share information about their actions/progress for the following three years by Colorado Master Irrigator staff. These commitments generate qualitative and/or quantitative insights that can be anonymized if needed and will be of interest to individuals and groups (farmers, groundwater management districts, academics, state and Federal agency staff, crop consultants,



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tech industry and commodity group representatives, etc.) that seek to encourage and deeply understand what leads to successful integration of conservation and efficiency-oriented agricultural practices (CWP 6.3). Graduates will also be offered an opportunity to compete for a special cash payout of up to \$2000 (supported through funds other than those from the CWP) that will be awarded by the PAC to the farmer or two who submits a written bid deemed to represent an especially significant commitment to making management shifts that can lead to reduced consumptive use along with a willingness to share lessons learned with others.

Looking ahead, the collection of Colorado Master Irrigator graduates' commitment-related data could help inform policy development that aims to Manage water use to sustain optimal agricultural economy throughout the Basin's communities. (CWP 6.4, 5.2; RG BIP 3.0). It is also the hope of the Colorado Master Irrigator PAC and staff that if commitments monitored by Colorado Master Irrigator lead to greater, demonstrable water savings within both the Republican and Rio Grande River Basins.

This expansion of the Colorado Master Irrigator will be offered once a year to participants from the Rio Grande River Basin area. Class size will be limited to 25 people to maximize exchange and in-depth engagement. Beyond the three initial years of the program, Colorado Master Irrigator could be offered more than once per year according to demand. Overall, this program's outreach efforts (in-person, print, website, and social media) and messaging will also help reach diverse audiences across the state and beyond (RG BIP 7.2; RG 2016 EAP), including through Colorado Master Irrigator's ongoing participation in a multi-state working group active since 2018 that is focused on adapting and replicating this program format and launching programs in other states.

Switching to more efficient water use practices in response to shrinking water supplies is absolutely necessary to stem and/or avoid future economic disruption in the Rio Grande River Basin. Current and anticipated market- and climate-change pressures demand faster and broader implementation of strategies and tools that can help producers stay profitable and that build a long-term regional foundation for economic resilience and community viability. As a non-regulatory entity, Colorado Master Irrigator will have the unique ability to foster new collaborative partnerships, constructive discussion, and the testing and implementation of creative management-oriented ideas that can reduce consumptive water use, including the development of new state-sanctioned pathways and/or policy mechanisms aimed at supporting a sustainable aquifer that go beyond fallowing land and retiring wells, representing actualization of the "Cooperative Growth" and "Adaptive Innovation" scenarios described in the 2019 CWP Technical Update. By supporting the development of peer network which will champion and demonstrate what successful profitable conservation-oriented practices look like, the impacts of Colorado Master Irrigator are likely to reach and resonate with agricultural communities elsewhere in Colorado and other states and benefit municipalities, industry groups, and wildlife populations that also depend on the aquifer resources (CWP Technical update 2019, Table 4.8.2). Planning for the future will be served by investing in the professional development of producers and facilitating social and formal connections that prioritize and incentivize conservation. By doing so, economic disruption related to water limitations can be dampened, and other efforts to sustain agriculture in this region, including developing new markets and processing capacity for higher value crops that may need less water to grow can be pursued.

Previous CWCB Grants, Loans or Other Funding

List all previous or current CWCB grants (including WSRF) awarded to both the Applicant and Grantee. Include: 1) Applicant name; 2) Water activity name; 3) Approving RT(s); 4) CWCB board meeting date; 5) Contract number or purchase order; 6) Percentage of other CWCB funding for your overall project.



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Taxpayer Bill of Rights

The Taxpayer Bill of Rights (TABOR) may limit the amount of grant money an entity can receive. Please describe any relevant TABOR issues that may affect your application.

No TABOR related-constraints are known or anticipated.

Submittal Checklist

X	I acknowledge the Grantee will be able to contract with CWCB using the Standard Contract .
Exhibit A	
X	Statement of Work ⁽¹⁾
X	Budget & Schedule ⁽¹⁾
	Engineer’s statement of probable cost (projects over \$100,000)
X	Letters of Matching and/or Pending 3 rd Party Commitments ⁽¹⁾
Exhibit C	
	Map (if applicable) ⁽¹⁾
	Photos/Drawings/Reports
	Letters of Support (Optional)
	Certificate of Insurance (General, Auto, & Workers’ Comp.) ⁽²⁾
	Certificate of Good Standing with Colorado Secretary of State ⁽²⁾
	W-9 ⁽²⁾
	Independent Contractor Form ⁽²⁾ (If applicant is individual, not company/organization)
Water Sharing Agreements and Alternative Transfer Methods ONLY	
	Water Sharing Agreements and Alternative Transfer Methods Supplemental Application ⁽¹⁾

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(1) Required with application.

(2) Required for contracting. While optional at the time of this application, submission can expedite contracting upon CWCB Board approval.

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ENGAGEMENT & INNOVATION GRANT FUND SUPPLEMENTAL APPLICATION

Introduction & Purpose

Colorado’s Water Plan calls for an outreach, education, public engagement, and innovation grant fund in Chapter 9.5.

The overall goal of the Engagement & Innovation Grant Fund is to enhance Colorado’s water communication, outreach, education, and public engagement efforts; advance Colorado’s water supply planning process; and support a statewide water innovation ecosystem.

The grant fund aims to engage the public to promote well-informed community discourse regarding balanced water solutions statewide. The grant fund aims to support water innovation in Colorado. The grant fund prioritizes measuring and evaluating the success of programs, projects, and initiatives. The grant fund prioritizes efforts designed using research, data, and best practices. The grant fund prioritizes a commitment to collaboration and community engagement. The grant fund will support local and statewide efforts.

The grant fund is divided into two tracks: engagement and innovation. The Engagement Track supports education, outreach, communication, and public participation efforts related to water. The Innovation Track supports efforts that advance the water innovation ecosystem in Colorado.

Application Questions

*The grant fund request is referred to as “project” in this application.

Overview (answer for both tracks)
In a few sentences, what is the overall goal of this project? How does it achieve the stated purpose of this grant fund (above)?
Who is/are the target audience(s)? How will you reach them? How will you involve the community?
Describe how the project is collaborative or engages a diverse group of stakeholders. Who are the partners in the project? Do you have other funding partners or sources?



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Describe how you plan to measure and evaluate the success and impact of the project?
What research, evidence, and data support your project?
Describe potential short- and long-term challenges with this project.

Please fill out the applicable questions for either the Engagement Track or Innovation Track, unless your project contains elements in both tracks. If a question does not relate to your project, just leave it blank. Please answer each question that relates to your project. Please reference the relevant documents and use chapters and page numbers (Colorado's Water Plan, Basin Implementation Plan, PEPO Education Action Plan, etc.).

Engagement Track
Describe how the project achieves the education, outreach, and public engagement measurable objective set forth in Colorado's Water Plan to "significantly improve the level of public awareness and engagement regarding water issues statewide by 2020, as determined by water awareness surveys."
Describe how the project achieves the other measurable objectives and critical goals and actions laid out in Colorado's Water Plan around the supply and demand gap; conservation; land use; agriculture; storage; watershed health, environment, and recreation; funding; and additional.
Describe how the project achieves the education, outreach, and public engagement goals set forth in the applicable Basin Implementation Plan(s).
Describe how the project achieves the basin roundtable's PEPO Education Action Plans.



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Innovation Track
Describe how the project enhances water innovation efforts and supports a water innovation ecosystem in Colorado.
Describe how the project engages/leverages Colorado's innovation community to help solve our state's water challenges.
Describe how the project helps advance or develop a solution to a water need identified through TAP-IN and other water innovation challenges. What is the problem/need/challenge?
Describe how this project impacts current or emerging trends; technologies; clusters, sectors, or groups in water innovation.



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Colorado Water Conservation Board
Water Plan Grant - Exhibit A

Statement Of Work	
Date:	6/11/2021
Name of Grantee:	Colorado Master Irrigator
Name of Water Project:	Colorado Master Irrigator Program – San Luis Valley
Funding Source:	Agricultural
Water Project Overview:	
<p>CWP Grant funding will support delivery of an annual, four-day “Colorado Master Irrigator” classroom-based course designed to equip San Luis Valley Colorado farmers with science-backed information on strategies and tools they can use to reduce on-farm consumptive water use, increase water and energy conservation/use efficiency, and stay profitable. Colorado Master Irrigator will also prioritize peer-to-peer exchange and partnerships critical for broader management and mindset shifts to take place that can help sustain the region’s agriculture-dependent communities given significant declines in the confined and unconfined aquifers.</p> <p>Each class of 25 participants will represent at least 12,000 irrigated acres (four 120-acre crop circles per participant). Through in-person and online communications, Colorado Master Irrigator may reach a broader audience across the state and beyond. A ~35-member program advisory committee assists the program coordinator with curriculum design and delivery, program communications, and recruiting participants and sponsors.</p> <p>To graduate, participants must complete all 32 course hours, engage with classmates and instructors, and consider committing to using certain management strategies and/or tools covered by the program. With their consent, Colorado Master Irrigator will track graduates’ commitment-related progress for three years. Overall, Colorado Master Irrigator aims to increase long-term regional economic and drought-related resilience, support state compact compliance, and provide management-oriented alternatives to mandatory well curtailment.</p>	
Project Objectives:	



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1. Successfully launch, run, and continue to improve a high-quality 4-day interactive educational course in early 2022, 2023, and 2024 for 25 participants each year
2. Shift mindsets and encourage/help catalyze faster adoption of water and energy conservation and efficiency oriented management practices in the Rio Grande River Basin
3. Foster wider understanding among regional water stakeholders with regard to the potential hydrological impact (positive/negative) of different ag water management strategies on the confined and unconfined aquifers
4. Facilitate peer-to-peer network building and exchange among producers as well as among other local, regional, state, and Federal water stakeholders
5. Engage in collaborative conversations and partnerships with local, state, regional and Federal entities to support policy development and state-sanctioned alternatives to fallowing/well curtailment that can keep farmers farming, irrigating, and profitable.
6. Line up long-term support for Colorado Master Irrigator to extend the program beyond its initial 3-year establishment period

Tasks
Task 1 - Annual program delivery and evaluation
Description of Task:
The program coordinator, supported by the program advisory committee (PAC) will ensure smooth, effective function of the 4-day Colorado Master Irrigator program.
Method/Procedure:
<ol style="list-style-type: none"> a. Line up course instructors and arrange reimbursements to cover their travel costs if/as needed. b. Reserve/rent a facility in which to hold the course c. Organize refreshments for each day of the course, and coordinate with private sponsors who will cover costs for lunches d. Arrange for 4-5 PAC members to be present and assist with managing logistics for day of the course (to serve as greeters/social icebreakers and/or panelists), help with AV equipment, help lead interactive games, etc.) e. Print and compile topical information in binders (one for each day of the course) to be provided to Master Irrigator Program participants f. Distribute the program evaluation survey (printed questionnaire) at the end of the course and compile the information gathered. g. Prepare and award program graduates with their certificates of course completion that they can furnish to CWCB to be allotted their participation stipend.
Deliverable:



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1. A fully staffed program curriculum involving excellent, dynamic teachers (including producers) who will present a wide range of topics
2. Binders with printed materials (digital copies will also be made available) for participants including the Colorado Master Irrigator course agenda and resource information pertinent to topics covered each day.
3. Printed survey questionnaire and a report/analysis of compiled program evaluation survey data that will be used by the PAC and program coordinator to continue to develop and improve the program.
4. Connect program graduates with CWCB

Tasks
Task 2 – Communications
Description of Task:
The program coordinator will schedule, facilitate, and disseminate clear and regular internal and public-facing communications as needed to support Colorado Master Irrigator development and delivery.
Method/Procedure:
<ol style="list-style-type: none"> a. Convene and lead monthly program advisory committee meetings used to discuss and engage in creative collaboration to support program development, delivery and advertising b. Maintain transparent online documentation of the program development process using Google Drive c. Provide program instructors, consultants, partners, sponsors, and others with timely contextual information on the program’s format and goals that support their effective engagement with Colorado Master Irrigator via email and printed brochures d. Advertise Colorado Master Irrigator course and registration online, through area newspapers/press releases, and at local events e. Organize other promotional materials that highlight the program and stories/testimonials from graduates, including large weather-proof signs celebrating program graduates that they can put up along the road somewhere on their farms f. Take photos and video during the 4-day course
Deliverable:



Last Updated: May 2021

1. Log of PAC member hours contributed, monthly/recurring meeting agendas, meeting notes and action items achieved/added to the worklist
2. Promotional materials (print/digital, field signs, PowerPoint presentations)
3. Press releases and other text provided to media outlets and other organizations as necessary to advertise the program
4. Information (text, photos and video clips) organized for use in sharing the Colorado Master Irrigator development and adaptation process with other groups within and outside of Colorado also interested in adapting/replicating the Master Irrigator program format.
5. Development of written stories, video, and testimonials featuring course participants that can be shared online (via Colorado Master Irrigator's website and social media) that breakdown different aspects (practical and mindset related) of adopting conservation oriented, water- and energy use efficient strategies

Tasks
Task 3 – Collaborative engagement with partners
Description of Task: The Colorado Master Irrigator program coordinator and PAC will help arrange and participate in conversations and partner with a wide range of individuals and groups to help support the program in particular and efforts regionally to sustain irrigated agriculture and increase water conservation.
Method/Procedure: <ol style="list-style-type: none"> a. The PAC is responsible for outreach to program sponsors, who can support master irrigator in a variety of ways including: i) cover lunch costs for a day of the course (in exchange for a 15-minute elevator talk about their organization's product or mission- otherwise, the Colorado Master Irrigator course will try to avoid promoting specific brands or tools); ii) leveraging relationships with local dealers to set up discounts that will be made available to Colorado Master Irrigator Program graduates for inputs, tools, and irrigation system upgrades, and/or favorable terms with ag lenders. b. Pursue and cultivate relationships/conversation, grant opportunities, and creative opportunities to collaborate with local, state, regional, and Federal groups working on improving agricultural water management.
Deliverable: <ol style="list-style-type: none"> 1. Lunch costs covered/sponsored by area industry/ag groups 2. A few/several discounts opportunities set up to be made available to Colorado Master Irrigator Program graduates for inputs, tools, and irrigation system upgrades, and/or favorable terms with ag lenders, which will also help improve program brand recognition in the community 3. Progress on identifying/securing funding to support Colorado Master Irrigator and continue to improve the program beyond its initial 3-year establishment period. 4. Progress towards identifying and removing knowledge-related and structural/policy related barriers that currently limit and/or disincentivize wider and faster adoption of conservation- and efficiency-oriented practices within the region.

Tasks
Task 4 – Monitoring CO Master Irrigator graduate mindset shifts and practice oriented commitments
Description of Task:



Last Updated: May 2021

The program coordinator will schedule, facilitate, and disseminate clear and regular internal and public-facing communications as needed to support Colorado Master Irrigator development and delivery.
Method/Procedure:
<ul style="list-style-type: none"> g. Convene and lead monthly program advisory committee meetings used to discuss and engage in creative collaboration to support program development, delivery and advertising h. Maintain transparent online documentation of the program development process using Google Drive i. Provide program instructors, consultants, partners, sponsors, and others with timely contextual information on the program’s format and goals that support their effective engagement with Colorado Master Irrigator via email and printed brochures j. Advertise Colorado Master Irrigator course and registration online, through area newspapers/press releases, and at local events k. Organize other promotional materials that highlight the program and stories/testimonials from graduates, including large weather-proof signs celebrating program graduates that they can put up along the road somewhere on their farms l. Take photos and video during the 4-day course
Deliverable:
<ul style="list-style-type: none"> 6. Log of PAC member hours contributed, monthly/recurring meeting agendas, meeting notes and action items achieved/added to the worklist 7. Promotional materials (print/digital, field signs, PowerPoint presentations) 8. Press releases and other text provided to media outlets and other organizations as necessary to advertise the program 9. Information (text, photos and video clips) organized for use in sharing the Colorado Master Irrigator development and adaptation process with other groups within and outside of Colorado also interested in adapting/replicating the Master Irrigator program format. 10. Development of written stories, video, and testimonials featuring course participants that can be shared online (via Colorado Master Irrigator’s website and social media) that breakdown different aspects (practical and mindset related) of adopting conservation oriented, water- and energy use efficient strategies

Budget and Schedule

This Statement of Work shall be accompanied by a combined Budget and Schedule that reflects the Tasks identified in the Statement of Work and shall be submitted to CWCB in excel format.

Reporting Requirements

Progress Reports: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of issuance of a purchase order, or the execution of a contract. The progress report shall describe the status of the tasks identified in the statement of work, including a description of any major issues that have occurred and any corrective action taken to address these issues.



Last Updated: May 2021

Payment

Payment will be made based on actual expenditures and must include invoices for all work completed. The request for payment must include a description of the work accomplished by task, an estimate of the percent completion for individual tasks and the entire Project in relation to the percentage of budget spent, identification of any major issues, and proposed or implemented corrective actions.

Costs incurred prior to the effective date of this contract are not reimbursable. The last 10% of the entire grant will be paid out when the final deliverable has been received. All products, data and information developed as a result of this contract must be provided to as part of the project documentation.

Performance Measures

Performance measures for this contract shall include the following:

(a) Performance standards and evaluation: Grantee will produce detailed deliverables for each task as specified. Grantee shall maintain receipts for all project expenses and documentation of the minimum in-kind contributions (if applicable) per the budget in Exhibit B. Per Water Plan Grant Guidelines, the CWCB will pay out the last 10% of the budget when the Final Report is completed to the satisfaction of CWCB staff. Once the Final Report has been accepted, and final payment has been issued, the purchase order or grant will be closed without any further payment.

(b) Accountability: Per Water Plan Grant Guidelines full documentation of project progress must be submitted with each invoice for reimbursement. Grantee must confirm that all grant conditions have been complied with on each invoice. In addition, per Water Plan Grant Guidelines, Progress Reports must be submitted at least once every 6 months. A Final Report must be submitted and approved before final project payment.

(c) Monitoring Requirements: Grantee is responsible for ongoing monitoring of project progress per Exhibit A. Progress shall be detailed in each invoice and in each Progress Report, as detailed above. Additional inspections or field consultations will be arranged as may be necessary.

(d) Noncompliance Resolution: Payment will be withheld if grantee is not current on all grant conditions. Flagrant disregard for grant conditions will result in a stop work order and cancellation of the Grant Agreement.

