



Last Updated: July 2017

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:

Supply and Demand Gap Projects
Water Storage Projects
Conservation, Land Use Planning
Engagement & Innovation Activities
Agricultural Projects
Environmental & Recreation Projects

Gregory.Johnson@state.co.us
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Applicants interested in submitting an ‘Intent to Apply’ in the future are encouraged to check here ☐ and fill in all sections with the best information available at the time. Exhibits may be excluded.

This “Intent to Apply” will help CWCB prioritize Projects that are not ready for fully completed Water Plan Grant Application due to the initial timeframe and required deadlines.

FINAL SUBMISSION: Submit all application materials 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.

Water Project Summary

Name of Applicant	Aurora–Colorado Springs Joint Water Authority	
Name of Water Project	Homestake Arkansas River Diversion Improvements	
CWP Grant Request Amount		\$500,000
Other Funding Sources <u>Colorado Parks and Wildlife</u>		\$500,000
Other Funding Sources _____		\$
Applicant Funding Contribution		\$6,650,000
Total Project Cost		\$7,650,000

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Applicant & Grantee Information	
Name of Grantee(s)	Aurora-Colorado Springs Joint Water Authority
Mailing Address	1521 Hancock Expressway, MC 1821 Colorado Springs, CO 80947-1821
FEIN	84-0948245
Organization Contact	Ron Sanchez
Position/Title	Board Member
Email	rjsanchez@csu.org
Phone	719-668-8611
Grant Management Contact	<u>Ron Sanchez</u>
Position/Title	Board Member
Email	rjsanchez@csu.org
Phone	719-668-8611
Name of Applicant (if different than grantee)	
Mailing Address	
Position/Title	
Email	
Phone	



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Description of Grantee/Applicant
Provide a brief description of the grantee's organization (100 words or less).
<p>The Aurora-Colorado Springs Joint Water Authority (Authority) is an authority formed as a water authority, a body corporate and politic, a separate governmental entity, a political subdivision and a public corporation of the State of Colorado, pursuant to Section 18(2) (a) and 2(b) of Article XIV, Constitution of the State, and to Section 29-1-204.2, Colorado Revised Statutes 1973, as amended (the "Act").</p> <p>The Authority is authorized under CRS to own, operate and maintain real and personal property and facilities in common with others, and to conduct joint, partnership, cooperative, or other operations with others, and to exercise all of the powers granted herein in joint, partnership, or cooperative efforts and operations with others.</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.
X	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.
	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
X	Construction
X	Identified Projects and Processes (IPP)
	Other

Category of Water Project (check all that apply and include relevant tasks)	
X	Supply and Demand Gap Projects - Multi-beneficial projects and those projects identified in basin implementation plans to address the water supply and demand gap. <i>Applicable Exhibit A Task(s): Task 4 Construction</i>
	Water Storage Projects - Projects that facilitate the development of additional storage, artificial recharge into aquifers, and dredging existing reservoirs to restore the reservoirs' full decreed storage capacity. <i>Applicable Exhibit A Task(s):</i>
	Conservation and Land Use Planning Projects - Activities and projects that implement long-term strategies for conservation, land use, and drought planning. <i>Applicable Exhibit A Task(s):</i>
	Engagement & Innovation Projects - Activities and projects that support water education, outreach, and innovation efforts. Please fill out the Supplemental Application available on the website. <i>Applicable Exhibit A Task(s):</i>
	Agricultural Projects - Projects that provide technical assistance and improve agricultural efficiency. <i>Applicable Exhibit A Task(s):</i>
	Environmental & Recreation Projects – Projects that promote watershed health, environmental health, and recreation. <i>Applicable Exhibit A Task(s):</i>



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	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	Chafee County
Latitude	39.026548
Longitude	-106.234907

Water Project Overview

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.

The Applicant shall also provide, in Exhibit A, a detailed Statement of Work, Budget, Other Funding Sources/Amounts and Schedule.

The Arkansas River Diversion (ARD) is located on the Arkansas River below the town of Granite, Colorado. It was constructed in 1965 as the original intake for the Otero Pump Station as part of the Homestake Project. The ARD has a rockfill diversion dam with steel sheet pile and articulated concrete armoring. In the 1980's, the intake pipeline was extended to Twin Lakes. The ARD has since operated as a backup facility, and over time, it has deteriorated. The current conditions present a river navigation hazard that requires recreational whitewater users to portage.

The ARD Improvement Project (Project) will reconstruct the diversion and intake to provide a robust and reliable river intake, provide fish passage, and reduce risk to recreational users by minimizing entrapment risk and reducing retentive hydraulic conditions. In its current configuration, the Project includes a reconstructed lateral intake, diversion dam, spillway, engineered fish passage, and appurtenant structures. The Project will also improve approximately 600 LF of river frontage, while restoring 1.37 riparian acres.

The CWCB Grant funding is specifically for **a multi-objective project that includes a boat chute** allowing for improved navigability through the ARD site. The Authority has worked with CPW and AHRA to evaluate their desire for improved navigability. The Authority has invested significant funding to validate the results of typical engineering design and numerical modeling and commissioned a scaled physical model of the ARD with a boat chute to validate the technical feasibility prior to requesting grant funding. To meet our fiduciary responsibility to our rate payers we are seeking grant funding of the difference in cost for ARD with the boat chute versus without. This comprises approximately 20% of the Project. This request for CWP Grant funding is less than 10% of the entire expenditure that will be covered by the Authority.

Measurable Results



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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)	
Up to 20,000 acre-feet	New Annual Water Supplies Developed or Conserved (acre-feet), Consumptive or Nonconsumptive	
	Existing Storage Preserved or Enhanced (acre-feet)	
600 LF	Length of Stream Restored or Protected (linear feet)	
	Efficiency Savings (indicate acre-feet/year OR dollars/year)	
1.37	Area of Restored or Preserved Habitat (acres)	
	Quantity of Water Shared through Alternative Transfer Mechanisms	
	Number of Coloradans Impacted by Incorporating Water-Saving Actions into Land Use Planning	
X	Other	Explain: River Restoration will incorporate fish passage, improved river intake and spillway structure, portage, and navigable boat passage improvements

Water Project Justification
<p>Provide a description of how this water project supports the goals of Colorado's Water Plan, the most recent Statewide Water Supply Initiative, 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).</p> <p>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;)</p>



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Water Project Justification

The proposed project supports several goals and themes of Colorado Water Plan Section 6.2: Meeting Colorado's Water Gaps, which are summarized below. The proposed project also satisfies criteria of SWSI 2010, such as project proponents will utilize the project to meet the water supply needs of its customers by 2050. The proposed project has preliminary planning, design, water rights, and is identified in Arkansas Basin Roundtable Basin Implementation Plan (April 2015) under Identified Projects & Processes in Chaffee County (ARK-2015-0024).

- **Identify additional projects and processes to meet the water supply gap for municipalities while balancing the needs of agriculture, the environment, and recreation across the state.**

The Project will rehabilitate a deteriorated river diversion structure and will incorporate multi-objective improvements that facilitate river navigability for fish and recreational boaters. The diversion structure is an important component of the Homestake Water Project which supplies a large portion of municipal water to Aurora and Colorado Springs communities. The proposed project goes beyond a simple rehabilitation of the original structure by including improvements that consider environmental and recreational needs.

The Project will help meet existing and future municipal water needs by improving the reliability and resiliency of the Homestake Water Project. The Project is a supply side measure for maintaining and improving the ability to deliver water through existing infrastructure to Aurora and Colorado Springs.

Additionally, Colorado Springs is pursuing alternative transfer methods (ATMs) to traditional "buy and dry" of agricultural water rights and is actively engaged in a program to acquire temporary use waters in order to meet its current and future water needs, consistent with the goals of the recently issued Colorado Water Plan. A key component of Colorado Springs' efforts to acquire and use these supplies involves delivery from Pueblo Reservoir to upstream diversions, including the ARD, through water exchanges. In Water Court Case No. 05CW96 (Div. 2), Colorado Springs was awarded a conditional right of exchange which will allow releases of temporary use waters at Pueblo Reservoir or the mouth of Fountain Creek while diverting upstream at the ARD up to a rate of 105.2 cfs. and not to exceed 20,000 acre-feet per year from Pueblo Reservoir or 8,615 acre-feet per year from the confluence of Fountain Creek. Colorado Springs' need for future water supplies, such as temporary use waters, was evaluated in the 2005 Raw Water Yield Study. The Study concluded that, as of 2005, Colorado Springs had an existing firm yield of 119,000 acre-feet of water per year; and that, based on population growth estimates by the State Demography Office, Colorado Springs would require a firm yield of 197,512 acre-feet of water to meet future demand in 2046. The Study identified a number of water supply and infrastructure projects, including the SDS Pipeline project. But even with a complete build-out of the SDS Pipeline project, which the Study projected would increase Colorado Springs' firm yield by an additional 38,000 acre-feet of water per year by 2046, the Study showed that Colorado Springs would face a gap of approximately 40,000 acre-feet of water per year by 2046 between existing firm yield and required firm yield. The additional supply provided through 05CW96 that can be delivered to the ARD will meet part of this future demand gap. The 05CW96 Engineering Report showed an annual simulated exchange potential to the ARD of 32,790 acre-feet, which was the greatest exchange potential for the identified diversion locations. Therefore, the ARD potentially allows for an increase in future yield of up to 20,000 acre-feet through the 05CW96 exchange of temporary use waters. This amount of new supply from ATMs is also within the recommendation of Colorado Springs' recent Integrated Water Resources Plan, as shown in the Balanced Portfolio and further described in the Future Water Resources Strategies section.

- **Develop a viable rotating fallow and/or leasing program between agriculture and municipal interests to address drought and provide risk management for agriculture.**

The conditional water rights of 05CW96 obtained by Colorado Springs Utilities fosters participation in a



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Water Project Justification

program that utilize temporary use agreement waters, such as those from a rotational fallow/leasing program. The rights afforded in 05CW96 allow exchange of temporary use agreement waters to the river diversion structure within the proposed project. Colorado Springs Utilities currently has an agreement with Arkansas Groundwater Users Association that allows water trading to agricultural entities in times of excess in exchange for the ability to obtain water in lieu of payment at times that it is needed for municipal use. Colorado Springs Utilities is also in ongoing discussions with Lower Arkansas Valley Water Conservancy District - Super Ditch Company about their rotational fallow/leasing program.

- **Meet community water needs during periods of drought.**

The river diversion structure within the proposed project is one of two ways to operate Homestake Water Project pipeline. The river diversion structure is well suited to divert water supplies during times of drought and may potentially be the only way to divert Homestake water to the communities when Twin Lakes storage levels are low, which is the location of the other water intake.

- **Protect and enhance economic values to local and statewide economies that rely on environmental and recreational water uses, such as fishing, boating, waterfowl hunting, wildlife watching, camping, and hiking.**

The proposed project enhances recreational opportunities at the site that include boat navigability and fish passage at the project site. This improvement will allow navigability along this reach of the Arkansas River between the towns of Granite and Buena Vista without having to portage around the project site during reasonable recreational flows. In addition, improving the fish passage will enhance fish passage upstream for spawning improving fishing recreation throughout the Arkansas River. The project enhances economic opportunities for commercial rafting and fishing guide companies and fishing habitat that contributes to the economies of the region.

- **Support the development of multi-purpose projects and methods that benefit environmental and recreational water needs, as well as water needs for communities or agriculture.**

The multi-objective project improves operation of the intake and diversion which is owned and operated by the Authority for the benefit of the Cities of Aurora and Colorado Springs. The incorporation of fish and boat passages benefits both the environmental and recreational needs of the Arkansas River basin communities.

- **Protect, maintain, and improve conditions of streams, lakes, wetlands, and riparian areas to promote self-sustaining fisheries and functional riparian and wetland habitat, and to promote long-term sustainability.**

In collaboration with Colorado Parks and Wildlife, the proposed project will restore a 600 foot section below the town of Granite and Clear Lake that provides for brown and rainbow trout passage along this stretch of the Arkansas River. The proposed project will restore 1.37 acres along the river and improve the overall condition of the river at the project site.

- **Maintain or improve boating opportunities, including kayaking, and other non-motorized and motorized boating.**

The proposed project incorporates a boat passage structure that is designed to improve boating opportunities by creating a safe, navigable river passage for kayaks and other non-motorized boating at a wide range of river flows.

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Related Studies
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.
<p>Recent Studies include the following:</p> <p>*Raw Water Yield Update, MWH 2005</p> <p>Homestake System Condition Assessment Project – Condition Assessment and Improvement Report for Transmission System Arkansas River Diversion, CH2M HILL, 2007</p> <p>Homestake System Condition Assessment Project – Feasibility Study and Report: Rehabilitation Alternatives for Arkansas River Diversion Facility, CH2M HILL, 2008</p> <p>Preliminary Design Report: Homestake System Arkansas River Diversion, Recreational Engineering and Planning, 2009</p> <p>Homestake System Condition Assessment Project – Review of the Arkansas Headwaters Recreation Association Preliminary Design Report – Arkansas River Diversion, CH2M HILL, 2010</p> <p>Arkansas River Diversion– Pre-Alternative Refinement Evaluation, Merrick & Company, 2014</p> <p>Arkansas Basin Roundtable Basin Implementation Plan, 2015 April</p> <p>ARD Hydro-technical Design Review Report (Technical Review of previous studies), SG1 Water Consulting Ltd., 2016</p> <p>* Preliminary Engineering Analysis of Exchange Potential for 05CCW96, MWH 2016</p> <p>* ARD Basis of Design Report, SG1 Water Consulting Ltd., 2016</p> <p>* Basis of Design Report for Homestake Arkansas River Diversion Improvements (30% DRAFT), Deere and Ault Consultants, Inc., 2017</p> <p>*Colorado Springs Utilities Integrated Water Resources Plan, February 2017</p> <p><i>* Assists in the implementation of Arkansas Basin Roundtable Basin Implementation Plan (April 2015), Identified Projects & Processes in Chaffee County (ARK-2015-0024)</i></p>

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Related Studies

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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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Previous CWCB Grants, Loans or Other Funding

Colorado Springs Utilities

2014 The Species Grant CWCB Contract# C154224: \$500,000

1. Colorado Springs Utilities
2. 2014 The Species Grant CWCB, \$500,000
3. N/A
4. N/A
5. CWCB Contract No. C154224
6. 0%

2016 The North to North NRCS (75%) CWCB (12 ½%) grant Contract# CTGG12016-22: \$945,000

1. Colorado Springs Utilities
2. 2016 The North to North Wellington Gulch NRCS/CWCB Grant
3. N/A
4. N/A
5. CWCB Contract No. CTGG12016-22
6. 12.5%

Aurora Water

Prairie Waters:

1. City of Aurora
2. Prairie Waters Conveyance System
Construction Fund Loan for \$75,750,000 at 3.75% interest
Paid off in 2016 by the 2016 Water Revenue Refunding bonds issue
3. N/A
4. November 20, 2007
5. Loan Contract No.: C150243
6. 0%

Lost Creek ASR Pilot Project:

1. City of Aurora
2. Lost Creek Underground Storage Pilot Project
\$100,000 CWCB Construction Fund Non-reimbursable Project Investment Grant
3. N/A
4. May 18, 2017
5. POGG1 PDAA 201700001081
6. 0%

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.



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None

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⁾ (<i>Spreadsheet</i>)
X	Letters of Matching and/or Pending 3 rd Party Commitments ⁽¹⁾
Exhibit C	
X	Map (if applicable) ⁽¹⁾
X	Photos/Drawings/Reports
X	Letters of Support (Support letter from Basin Roundtable encouraged)
X	Certificate of Insurance (General, Auto, & Workers' Comp.) ⁽²⁾
	Certificate of Good Standing with Colorado Secretary of State ⁽²⁾
X	W-9 ⁽²⁾
	Independent Contractor Form ⁽²⁾ (If applicant is individual, not company/organization)
Engagement & Innovation Grant Applicants ONLY	
	Engagement & Innovation Supplemental Application ⁽¹⁾

(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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Water Plan Grant - Exhibit A

Statement of Work

Date:	10/01/2017
Name of Applicant:	Aurora Colorado Springs Joint Water Authority (ACJWA)
Name of Water Project:	Arkansas River Diversion
Funding Source:	Environmental and Recreation Program Grant

Water Project Overview: Please provide a summary of the proposed water project (200 words or less). The same summary can be used from Page 5 of the CWP Grant Application.

The Homestake Arkansas River Diversion (ARD) below the town of Granite, Colorado on the Upper Arkansas River was constructed in 1965 as the original point of diversion for the Homestake Project. The ARD is a rockfill diversion dam with steel sheet pile and articulated concrete mat armoring at the crest. In the 1980s, the intake pipeline was extended to Twin Lakes and the ARD was retained as a backup facility. Since the 1980s, the diversion dam and intake have deteriorated including failure of portions of the articulated concrete armoring and erosion of the rockfill. In its current condition, the ARD presents a hazard to navigation due to exposed rebar and sheet pile and powerful hydraulic conditions on the downstream face. The current condition of this structure requires that recreational whitewater users portage to continue downriver.

The ARD Improvements Project (Project) will reconstruct the diversion and intake to provide a robust and reliable river intake, provide fish passage for Brown and Rainbow Trout, and reduce risk to recreational users by minimizing entrapment risk and reducing retentive hydraulic conditions. In its current configuration, the Project includes a reconstructed lateral intake, diversion dam, spillway, an engineered fish passage, and appurtenant structures. The project will improve approximately 600 LF of river frontage and restore approximately 1.37 acres.

Objectives: List the objectives of the project.

1. **Improve river user safety**
2. **Improve the reliability of the diversion facility**
3. **Improve structural stability of intake and diversion weir**
4. **Manage Sediment and debris at the intake**
5. **Provide upstream fish passage**
6. **Provide recreational boat passage**



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Tasks
Provide a detailed description of each project task using the following format:
Task 1 – Preliminary Design
Description of Task:
Complete Basis of Design Report (30% Design) Report to refine design criteria for the Arkansas River Diversion structure that includes an intake, diversion weir, spillway, fish passage, and boat chute.
Method/Procedure:
Grantees Engineering Consultant will conduct the following analysis and design elements to refine requirements for final design. <ul style="list-style-type: none">• Hydraulic and Hydrology Analysis• Geomorphology and Sediment Transport Analysis• Fish Passage Criteria Refinement and Design• Boat Passage Criteria Refinement and Design• Numerical Analysis• Scaled Physical Modeling• 30% Design and Cost Estimating One and two-dimensional analysis will be developed utilizing preliminary design criteria to refine design parameters to be developed for scaled physical modeling. Physical modeling will be conducted to analyze flow characteristics to validate design criteria to ensure technical feasibility of all design elements. Modifications to the scaled physical model to refine desirable flow characteristics during flow testing will be the basis for revising 30% Design drawings and Basis of Design Report.
Grantee Deliverable: Describe the deliverable the grantee expects from this task
Basis of Design Report and 30% Design Drawings.
CWCB Deliverable: Describe the deliverable the grantee will provide CWCB documenting the completion of this task
Grantee will provide an electronic copy of 30% Design and Basis of Design Report.

Tasks
Provide a detailed description of each project task using the following format:
Task 2 – Final Design



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Tasks
Description of Task:
<p>Homestake Water Project/ACJWA Engineering Consultant will prepare contract documents that include final design drawings and specifications for the construction of the proposed project. The contract documents specify the requirements of the facility. Key components of the project include the following:</p> <ul style="list-style-type: none">- Concrete intake structure with steel debris screen- Grouted boulder spillway, diversion weir, divider wall- Grouted boulder Fish passage- Concrete and grouted boulder boat chute passage- Short segments of steel pipeline- Isolation valve- Portage trails- Site Restoration
Method/Procedure:
<p>This task will develop the basis of design from task 1 into construction contract documents. The design criteria developed in Task 1 define the requirements for fish passage, spillway, intake, and boat chute hydraulic characteristics under various flow conditions to ensure project objectives such as structure stability and fish passage are met. Grantee's Engineering Consultant will use BODR to develop 60%,90% and 100% progress design drawings with an anticipated completion date of March 2018. Refinement of design from conceptual to final will include one and two-dimensional numerical modeling, scaled physical modeling, and various engineering analyses and calculations to ensure project objectives are met.</p>
Grantee Deliverable: Describe the deliverable the grantee expects from this task
<p>Construction drawings and specifications suitable for bidding and construction that meet criteria defined in the Basis of Design Report.</p>
CWCB Deliverable: Describe the deliverable the grantee will provide CWCB documenting the completion of this task
<p>Grantee will provide an electronic copy of Final Design Report, Final Design Drawings and Specifications, and Contract Documents.</p>

Tasks



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Tasks
Provide a detailed description of each task using the following format:
Task 3 – Easements and Permitting
Description of Task: Grantee will prepare supporting documents and applications in support of land acquisition and permitting applications for the project. Easement acquisition documents will be prepared that will encompass the foot print of the proposed structure and any ingress and egress requirements for portage around the proposed facility by river users. Permits to be acquired are those necessary to authorize the project to proceed and not those required by the contractor to complete the work which are included in Task 4.
Method/Procedure: Grantee will assemble and submit required application and documentation to appropriate agencies in support of the following permits to be acquired: Temporary Construction Easements Permanent Easements Chafee County 1041 Permit Chafee County Floodplain Development Permit USACE Section 404 Permit Supporting studies and environmental surveys will be completed in support of the permitting requirements. Land surveying and legal descriptions will be prepared for easement acquisitions.
Grantee Deliverable: Describe the deliverable the grantee expects from this task
Grantee will provide executed copies of all permits required to authorize construction of the project. Grantee will provide copies of easement documents required for the project.
CWCB Deliverable: Describe the deliverable the grantee will provide CWCB documenting the completion of this task
Grantee will provide a summary map and letter describing all permits and easements necessary to authorize construction. Copies of easements and authorization letters will be prepared for CWCB records.



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Tasks
Provide a detailed description of each task using the following format:
Task 4 – Construction
Description of Task: Construction of the proposed facility is expected to span 2018 through 2020. A notice to proceed date is anticipated for July 2018 with in river construction occurring over two seasons: September 2018 through April 2019, and September 2019 through March 2020. Commissioning of the facility is scheduled for April 2020. Major work items are delineated as follows: Mobilization Demobilization Dewatering and Temporary Structures Construction Diversion Intake Facility and Pipeline Fish Passage Spillway and Divider Wall Boat Chute
Method/Procedure: Means and Methods of construction will be determined by the selected contractor and construct the proposed facility per the contract documents. The work is anticipated to occur over two fall - winter construction seasons to facilitate in-river construction of half the structure per season. The use of temporary cofferdams is anticipated to facilitate phased construction. The first season of construction will construct the main spillway, diversion weir and fish passage. The second year of construction will consist of the intake structure, pipeline and boat chute. Work will be monitored for the duration of the project by the design engineer. Quality assurance and quality control will be ensured by the Owner's staff and oversight by an independent expert in recreational hydraulics. Work will be invoiced to the HWP/ACJWA as a percentage of work completed for the duration of the project. Each category of work described above will be further broken down by a schedule of values to track progress for major components of work associated with major categories of work above. Completion of work described in the schedule of values will be summarized as a percentage of work completed and invoiced to the Authority.
Grantee Deliverable: Describe the deliverable the grantee expects from this task
Grantee expects monthly payment application from the selected contractor to reflect percent complete progress of the project.
CWCB Deliverable: Describe the deliverable the grantee will provide CWCB documenting the completion of this task
Monthly construction progress updates will be provided to CWCB documenting construction progress and associated portion of the grant funding will be highlighted as part of the update and pay request.



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Tasks
Provide a detailed description of each task using the following format:
Task 5 – Construction Management and Closeout
Description of Task: Engineer will provide Engineering Services During Construction to ensure constructed work is in conformance to design plans and specifications and of good quality.
Method/Procedure: Engineer will provide project management services in support of the constructed project. Services include: <ul style="list-style-type: none">• Bidding assistance,• Construction Contract Administration,• Contract Change Management including: Change Orders, Work Change Directives, Claims, etc.• Site and Construction Progress Meetings,• Reviews of Submittals and Requests for Information (RFIs),• Processing applications for payment• Resident Project Representatives Services:<ul style="list-style-type: none">○ Daily observation of construction activity,○ review and monitoring of work schedules,○ monitoring of contractor performance,○ preparation of daily inspection reports,○ review of materials, and○ preparation of as-built documentation• Participation in substantial and final inspections and preparation of close out documentation.
Grantee Deliverable: Describe the deliverable the grantee expects from this task
Deliverables will include: Monthly Progress report Review of monthly pay application Construction completion report Electronic project record utilizing cloud based PM software.
CWCB Deliverable: Describe the deliverable the grantee will provide CWCB documenting the completion of this task
Grantee will provide construction completion report document, as-built drawing, and final pay application.



COLORADO

Colorado Water
Conservation Board

Department of Natural Resources

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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. The CWCB may withhold reimbursement until satisfactory progress reports have been submitted.

Final Report: At completion of the project, the applicant shall provide the CWCB a Final Report on the applicant's letterhead that:

- Summarizes the project and how the project was completed.
- Describes any obstacles encountered, and how these obstacles were overcome.
- Confirms that all matching commitments have been fulfilled.
- Includes photographs, summaries of meetings and engineering reports/designs.

The CWCB will withhold disbursement the last 10% of the budget until 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.

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COLORADO

Colorado Water
Conservation Board

Department of Natural Resources

Colorado Water Conservation Board

Water Plan Grant - Exhibit A Budget and Schedule

Date: 10/1/2017

Name of Applicant: Aurora-Colorado Springs Joint Water Authority (Contact: Ron Sanchez)

Name of Water Project: Homestake Arkansas River Diversion Improvements

Task No.	Task Description	Start Date ⁽¹⁾	End Date	Water Project Funding Category	Grant Funding Request	Match Funding	Total
1	Preliminary Design	1/1/2014	12/31/2016			\$249,300	\$249,300
2	Final Design	1/1/2017	3/31/2018			\$628,000	\$628,000
3	Land Acquisition and Permitting	10/1/2017	3/31/2018			\$275,000	\$275,000
4	Construction	7/1/2018	4/30/2020	Supply/Demand	\$500,000	\$5,257,700	\$5,757,700
5	Constuction Management and Project Closeout	7/1/2018	6/1/2020			\$740,000	\$740,000
							\$0
							\$0
							\$0
							\$0
							\$0
							\$0
							\$0
							\$0
							\$0
Total					\$500,000	\$7,150,000	\$7,650,000

(1) Start Date for funding under \$100K, minimum 45 Days from Board Approval; Start Date for funding over \$100K, minimum 90 Days from Board Approval.

·Round values up to the nearest hundred dollars.

·Reimbursement eligibility commences upon the grantee's receipt of a Notice to Proceed (NTP)

·NTP will not be accepted as a start date. Project activities may commence as soon as grantee enters contract and receives formal NTP if prior to the listed "Start Date".

·The applicant shall provide a progress repost every 6 months, beginning from the date of contract execution.

·CWCB will withhold disbursement of the last 10% of the total grant amount until a Final Report is completed to the satisfaction of CWCB staff (2017 CWP Grant Guidelines).



COLORADO

Parks and Wildlife

Department of Natural Resources

SE Region Office
4255 Sinton Rd.
Colorado Springs, CO 80907
P 719.227.5200 | F 719.227.5297

Ronald Sanchez

Steering Committee Member/Board Member

Homestake Water Project/Aurora-Colorado Springs Joint Water Authority

1521 Hancock Express Way, MC 1821

Colorado Springs, CO 80947

September 28, 2017

Re: CWCB Grant Application - Arkansas River Diversion w/ Navigable Boat Chute

This letter of support has been prepared to express Colorado Parks and Wildlife's (CPW) support of the Homestake Water Project and Aurora-Colorado Springs Joint Water Authority (HWP/ACSJWA) proposed Multi-Objective Arkansas River Diversion Project. The project includes improvements to the diversion intake, fish-way passage, spillway and diversion weir, navigable boat passage and associated appurtenances.

This project will support the Environmental & Recreation objective by promoting watershed health, environmental health, and recreation through development of a fish passage, improved stream channel stabilization, and improved boating opportunities. This project will also be multi-beneficial by addressing the Water Supply & Demand Gap objective, as it is identified in the Arkansas Basin Implementation Plan, through a more reliable diversion intake that can meet the future needs of HWP/ACSJWA.

Thank you for your ongoing partnership to improve recreational fishing and boating opportunities in this of reach of the Arkansas River. CPW supports the proposed project that includes a boat chute and believes it will provide added value to many Arkansas River Basin stakeholders. This letter is to confirm our capital match in the amount of \$500,000 (\$150,000 for FY 2017/18 and \$350,000 for FY 2018/2019) to be applied specifically to support the boat chute as part of the constructed project. CPW understand that additional grant funding sources are being pursued in support of the boat chute option and fully endorse this project that will benefit the Arkansas Basin.

Regards,

Brett Ackerman

SE Deputy Regional Manager

Colorado Parks and Wildlife





Homestake System - Arkansas River Diversion Project Area

Section 8, T12S, R79W; 6th PM

UTM NAD 83: Zone 13N; 392320mE, 4320454mN

Latitude, Longitude: 39.026504°N, 106.243982°W

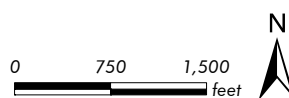
USGS South Peak, CO Quadrangle

Chaffee County, Colorado

Figure 1 Vicinity Map

Prepared for: McLaughlin Water Engineers
File: 5940 Figure 1.mxd [dlH]
November 6, 2014

ERO
ERO Resources Corp.



Current Conditions



Existing Conditions, Looking Downstream. Rockfill diversion crest is between the historic Midland Railway piers. Intake is on river left upstream from the diversion. Clear Creek Dam is visible in the background.

Current Conditions



Existing Conditions, Looking Downstream at intake on left (east) bank. Note the tops of gate frames and accumulation of woody debris.

Current Conditions



Existing Conditions, from left (east) bank looking west. The articulated concrete cap for the rockfill diversion has failed and the rockfill diversion is eroding.

Current Conditions



Existing Conditions, detail of articulated concrete slabs used for armoring the rockfill diversion structure.

