



COLORADO WATER CONSERVATION BOARD



WATER SUPPLY RESERVE ACCOUNT APPLICATION FORM

Today's Date: May 10, 2016

Grand Valley Project - Government Highline Canal Top 500 Feet
Lining Project - Canyon Canal Improvement

Name of Water Activity/Project

Grand Valley Water Users Association (GVWUA)

Name of Applicant

Colorado River Basin
Roundtable

Amount from Statewide Account:

\$285,000

Amount from Basin Account(s):

\$15,000

Total WSRA Funds Requested:

\$300,000

Approving Basin Roundtable(s)

(If multiple basins specify amounts in parentheses.)

FEIN: 84-0402700

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Required Exhibits

- A. Statement of Work, Budget, and Schedule
- B. Project Map
- C. As Needed (i.e. letters of support, photos, maps, etc.)

Appendices - Reference Material

- 1. Program Information
- 2. Insurance Requirements
- 3. WSRA Standard Contract Information (Required for Projects Over \$100,000)
- 4. W-9 Form (Required for All Projects Prior to Contracting)

Water Supply Reserve Account – Application Form

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Instructions

To receive funding from the Water Supply Reserve Account (WSRA), a proposed water activity must be approved by the local Basin Roundtable **AND** the Colorado Water Conservation Board (CWCBC). The process for Basin Roundtable consideration and approval is outlined in materials in Appendix 1.

Once approved by the local Basin Roundtable, the applicant should submit this application **with a detailed statement of work including budget and schedule as Exhibit A** to CWCBC staff by the application deadline.

WSRA applications are due with the roundtable letter of support 60 calendar days prior to the bi-monthly Board meeting at which it will be considered. Board meetings are held in January, March, May, July, September, and November. Meeting details, including scheduled dates, agendas, etc. are posted on the CWCBC website at: <http://cwcb.state.co.us> Applications to the WSRA Basin Account are considered at every board meeting, while applications to the WSRA Statewide Account are only considered at the March and September board meetings.

When completing this application, the applicant should refer to the WSRA Criteria and Guidelines available at: <http://cwcb.state.co.us/LoansGrants/water-supply-reserve-account-grants/Documents/WSRACriteriaGuidelines.pdf>. In addition, the applicant should also refer to the [Supplemental Scoring Matrix](#) applied to Evaluation Criteria Tiers 1-3 for Statewide Account requests .

The application, statement of work, budget, and schedule **must be submitted in electronic format** (Microsoft Word or text-enabled PDF are preferred) and can be emailed or mailed on a disk to:

Craig Godbout - WSRA Application
Colorado Water Conservation Board
1313 Sherman St., Room 721
Denver, CO 80203
Craig.godbout@state.co.us

If you have questions or need additional assistance, please contact Craig Godbout at: 303-866-3441 x3210 or craig.godbout@state.co.us.

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Part I. - Description of the Applicant (Project Sponsor or Owner);

1.	Applicant Name(s):	Grand Valley Water Users Association (GVWUA)		
	Mailing address:	1147 24 Road Grand Junction, CO 81505-9639		
	FEIN #:	84-0402700		
	Primary Contact:	Mark Harris	Position/Title:	General Manager
	Email:	mharris@gvwua.com		
	Phone Numbers:	Cell: 970-261-1616	Office:	970-242-5065
	Alternate Contact:	Angie Fowler, SGM	Position/Title:	Project Manager
	Email:	angief@sgm-inc.com		
	Phone Numbers:	Cell: 970-618-9973	Office:	970-384-9027

2. Eligible entities for WSRA funds include the following. What type of entity is the Applicant?

- ☐ Public (Government) – municipalities, enterprises, counties, and State of Colorado agencies. Federal agencies are encouraged to work with local entities and the local entity should be the grant recipient. 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 are eligible for funding from the Basin Accounts but not for funding from the Statewide Account.
- ☐ Non-governmental organizations – broadly defined as any organization that is not part of the government.

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3. Provide a brief description of your organization

The Grand Valley Water Users Association is the managing entity for a portion of the federally owned Grand Valley Project. These Grand Valley Project facilities include the Grand Valley Diversion Dam, also known as the Roller Dam, on the Colorado River in DeBeque Canyon, the 55-mile-long Government Highline Canal, 150 miles of project operated laterals, 100 miles of drainage ditches and a hydroelectric power plant. In recent years, approximately 130 miles of the laterals have been re-constructed into pressure piped laterals.

GVWUA first delivered water in 1917 to Reclamation's Grand Valley Project and since then has furnished a full supply of irrigation water to approximately 23,500 irrigated acres under the Government Highline Canal and over 15,000 irrigated acres under the Mesa County, Palisade, and Orchard Mesa Districts and diverts the water for the Grand Valley Power Plant year round. It is important to recognize that this project also supports the delivery of water to the urban and suburban populations in the Grand Valley.

4. If the Contracting Entity is different then the Applicant (Project Sponsor or Owner) please describe the Contracting Entity here.

Not Applicable

5. Successful applicants will have to execute a contract with the CWCB prior to beginning work on the portion of the project funded by the WSRA grant. In order to expedite the contracting process the CWCB has established a standard contract with provisions the applicant must adhere to. A link to this standard contract is included in Appendix 3. Please review this contract and check the appropriate box.

☒ The Applicant will be able to contract with the CWCB using the Standard Contract

☐ The Applicant has reviewed the standard contract and has some questions/issues/concerns. Please be aware that any deviation from the standard contract could result in a significant delay between grant approval and the funds being available.

6. The Tax Payer Bill of Rights (TABOR) may limit the amount of grant money an entity can receive. Please describe any relevant TABOR issues that may affect the applicant.

Not Applicable

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Part II. - Description of the Water Activity/Project

1. What is the primary purpose of this grant application? (Please check only one)

- | | |
|-------------------------------------|--|
| <input type="checkbox"/> | Nonconsumptive (Environmental or Recreational) |
| <input type="checkbox"/> | Agricultural |
| <input type="checkbox"/> | Municipal/Industrial |
| <input type="checkbox"/> | Needs Assessment |
| <input type="checkbox"/> | Education |
| <input checked="" type="checkbox"/> | Other |

Explain:

2. If you feel this project addresses multiple purposes please explain.

This Canal Lining Project (Project) will address non-consumptive needs, including Recovery Program issues; environmental concerns; water supply and water rights issues, including significant quantities of Pre-Compact water; Compact compliance and related obligations; commercial agricultural use; as well as, urban, suburban, and municipal/industrial uses. This Project will also directly benefit Mesa County, Palisade, and Orchard Mesa Irrigation Districts. This Project is one of many that GVVUA has initiated using a collaborative approach in an effort to address the pressing issues facing all of these areas and those with the Colorado River. Sustains and facilitates the use of the Orchard Mesa Check Case.

3. Is this project primarily a study or implementation of a water activity/project? (Please check only one)

- | | |
|--------------------------------|--|
| <input type="checkbox"/> Study | <input checked="" type="checkbox"/> Implementation |
|--------------------------------|--|

4. To catalog measurable results achieved with WSRA funds can you provide any of the following numbers?

- | | |
|-------------------------------------|--|
| <input type="checkbox"/> | New Storage Created (acre-feet) |
| <input type="checkbox"/> | New Annual Water Supplies Developed, Consumptive or Nonconsumptive (acre-feet) |
| <input type="checkbox"/> | Existing Storage Preserved or Enhanced (acre-feet) |
| <input type="checkbox"/> | Length of Stream Restored or Protected (linear feet) |
| <input checked="" type="checkbox"/> | Length of Pipe/Canal Built or Improved (linear feet) |
| <input checked="" type="checkbox"/> | Efficiency Savings (acre-feet/year OR dollars/year – circle one) |
| <input type="checkbox"/> | Area of Restored or Preserved Habitat (acres) |
| <input checked="" type="checkbox"/> | Other -- Explain: <input type="text" value="Canal lining; See #5 below"/> |

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4. To help us map WSRA projects please include a map (Exhibit B) and provide the general coordinates below:

Latitude: 39.18897

Longitude: -108.28126

See also Exhibit B for Project Area Maps and Figures.

5. Please provide an overview/summary of the proposed water activity (no more than one page). Include a description of the overall water activity and specifically what the WSRA funding will be used for. A full **Statement of Work** with a detailed budget and schedule is required as **Exhibit A** of this application.

The Grand Valley Water Users Association (GVWUA) is the managing entity for the federally owned Grand Valley Project. The Grand Valley Project facilities include the Grand Valley Diversion Dam, known as the Roller Dam, on the Colorado River in DeBeque Canyon; an attendant headgate diversion structure; five miles of Canyon Canal and related facilities, including endangered fish recovery facilities; the Stub Ditch pump station; the 55-mile-long Government Highline Canal; 150 miles of project laterals; 100 miles of drainage ditches; and the Grand Valley Hydroelectric Power Plant (GVPP) which is operated under a Lease of Power Privilege (LOPP) with Bureau of Reclamation (Reclamation). These facilities 1) provide irrigation water to Orchard Mesa Irrigation District (OMID), Palisade Irrigation District (PID), Mesa County Irrigation District (MCID) with combined acreages of over 15,000; 2) deliver water through GVWUA's Government Highline Canal which provides irrigation water to approximately 23,500 acres in the Gravity Division of the Grand Valley Project; 3) deliver water year round water to the 3.5 megawatt (MW) GVPP; and 4) maintain critical stream flows in the 15 Mile Reach of the Colorado River, which is critical habitat for four species of endangered fish.

GVWUA and OMID are proposing to improve the hydraulic efficiency of the top 500 feet of the Canyon Canal by installing a PVC liner and a shotcrete wear surface. These improvements are expected to result in the accommodation of at least 100 cfs more of the legal water rights adjudicated for this structure and increase the diversion ability and efficiency during times of river flow below 2,250 cfs. Significant project planning has been completed including design work and National Environmental Policy Act (NEPA) related compliance issues.

The overarching benefits realized through this project include, but are not limited to:

- Complying with obligations to those that receive water from the Roller Dam: OMID, PID, and MCID; and the GVPP and with the Orchard Mesa Check case which benefits Grand Valley Irrig. Co. (GVIC).
- Allowing GVWUA to better maintain adequate flows in the 15 Mile Reach.
- Providing consistent and uniform delivery of water throughout the 50 mile Grand Valley system.
- Complying with contractual obligations of GVWUA to Reclamation for adequate O&M.
- Reducing Compact issues by supporting a sustainable balance between Lakes Powell and Mead.
- Helping implement provisions of the CRCA and benefits all of the signers.
- Staying above the power generation level in Powell benefits not just irrigation users, but all power users in the West.
- Supporting Colorado River recreation opportunities by moving irrigation water down the Grand Valley and beyond.
- Improving wildlife habitat through conservation of water at the Roller Dam and in the Colorado River.

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- **Supporting economic development in the Grand Valley via efficient irrigation water systems.**

Part III. – Threshold and Evaluation Criteria

1. Describe how the water activity meets these **Threshold Criteria**. (Detailed in Part 3 of the Water Supply Reserve Account Criteria and Guidelines.)

- a) The water activity is consistent with Section 37-75-102 Colorado Revised Statutes.¹

This project is consistent with Section 37-75-102 of the Colorado Revised Statutes.

- b) The water activity underwent an evaluation and approval process and was approved by the Basin Roundtable (BRT) and the application includes a description of the results of the BRT's evaluation and approval of the activity. At a minimum, the description must include the level of agreement reached by the roundtable, including any minority opinion(s) if there was not general agreement for the activity. The description must also include reasons why general agreement was not reached (if it was not), including who opposed the activity and why they opposed it. Note- If this information is included in the letter from the roundtable chair simply reference that letter.

Pending CBRT approval and letter.

- c) The water activity meets the provisions of Section 37-75-104(2), Colorado Revised Statutes.² The Basin Roundtable Chairs shall include in their approval letters for particular WSRA grant applications a description of how the water activity will assist in meeting the water supply needs identified in the basin roundtable's consumptive and/or non-consumptive needs assessments.

¹ 37-75-102. Water rights - protections. (1) It is the policy of the General Assembly that the current system of allocating water within Colorado shall not be superseded, abrogated, or otherwise impaired by this article. Nothing in this article shall be interpreted to repeal or in any manner amend the existing water rights adjudication system. The General Assembly affirms the state constitution's recognition of water rights as a private usufructuary property right, and this article is not intended to restrict the ability of the holder of a water right to use or to dispose of that water right in any manner permitted under Colorado law. (2) The General Assembly affirms the protections for contractual and property rights recognized by the contract and takings protections under the state constitution and related statutes. This article shall not be implemented in any way that would diminish, impair, or cause injury to any property or contractual right created by intergovernmental agreements, contracts, stipulations among parties to water cases, terms and conditions in water decrees, or any other similar document related to the allocation or use of water. This article shall not be construed to supersede, abrogate, or cause injury to vested water rights or decreed conditional water rights. The General Assembly affirms that this article does not impair, limit, or otherwise affect the rights of persons or entities to enter into agreements, contracts, or memoranda of understanding with other persons or entities relating to the appropriation, movement, or use of water under other provisions of law.

² 37-75-104 (2)(c). Using data and information from the Statewide Water Supply Initiative and other appropriate sources and in cooperation with the on-going Statewide Water Supply Initiative, develop a basin-wide consumptive and nonconsumptive water supply needs assessment, conduct an analysis of available unappropriated waters within the basin, and propose projects or methods, both structural and nonstructural, for meeting those needs and utilizing those unappropriated waters where appropriate. Basin Roundtables shall actively seek the input and advice of affected local governments, water providers, and other interested stakeholders and persons in establishing its needs assessment, and shall propose projects or methods for meeting those needs. Recommendations from this assessment shall be forwarded to the Interbasin Compact Committee and other basin roundtables for analysis and consideration after the General Assembly has approved the Interbasin Compact Charter.

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Pending CBRT approval and letter.

- d) Matching Requirement: For requests from the Statewide Fund, the applicants will be required to demonstrate a **25 percent** (or greater) match of the total grant request from the other sources, including by not limited to Basin Funds. A minimum match of 5% of the total grant amount shall be from Basin funds. A minimum match of 5% of the total grant amount must come from the applicant or 3rd party sources. Sources of matching funds include but are not limited to Basin Funds, in-kind services, funding from other sources, and/or direct cash match. Past expenditures directly related to the project may be considered as matching funds if the expenditures occurred within 9 months of the date the contract or purchase order between the applicant and the State of Colorado is executed. Please describe the source(s) of matching funds. (NOTE: These matching funds should also be reflected in your Detailed Budget in **Exhibit A** of this application)

Table 1 provides a breakdown of the proposed project budget (also included in Exhibit A).

Table 1. Summary of Project Funds.

Funding Sources	Funding Amount
Non-Federal entities	
GVWUA Cash	\$42,000 (5.25%)
GVWUA In-Kind Services	\$12,000 (1.50%)
Colorado Water Supply Reserve Account Loan	\$150,000 (18.7%)
Colorado Water Supply Reserve Account Grant	\$300,000 (37.5%) (\$15,000 Basin Funds+ \$285,000 Statewide Funds)
<i>Non-Federal Subtotal:</i>	\$504,000
Other Federal Entities	
N/A	\$0
Requested Reclamation Funding	
Requested Reclamation Funding (<i>Pending</i>)	\$296,000 (37%)
<i>TOTAL PROJECT FUNDING</i>	\$800,000

The Reclamation WaterSMART Grant for \$296,000 is in the process of being secured. The application was submitted in January 2016. Notification of award is anticipated in June 2016. The Colorado Water Supply Reserve Account Loan for \$150,000 has not formally been approved although funding staff at the CWCB have expressed interest in assisting GVWUA and have toured the facility this past summer. Should funding from the grants fall through additional funding sources may be approached and/or additional loan amounts will be requested from the CWCB.

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2. For Applications that include a request for funds from the **Statewide Account**, describe how the water activity/project meets all applicable **Evaluation Criteria**. (Detailed in Part 3 of the Water Supply Reserve Account Criteria and Guidelines and repeated below.) Projects will be assessed on how well they meet the Evaluation Criteria. **Please attach additional pages as necessary.**

Evaluation Criteria – the following criteria will be utilized to further evaluate the merits of the water activity proposed for funding from the Statewide Account. In evaluation of proposed water activities, preference will be given to projects that meet one or more criteria from each of the three “tiers” or categories. Each “tier” is grouped in level of importance. For instance, projects that meet Tier 1 criteria will outweigh projects that only meet Tier 3 criteria. The applicant should also refer to the Supplemental Scoring Matrix applied to Evaluation Criteria Tiers 1-3 for Statewide Account requests. WSRA grant requests for projects that may qualify for loans through the CWCB loan program will receive preference in the Statewide Evaluation Criteria if the grant request is part of a CWCB loan/WSRA grant package. For these CWCB loan/WSRA grant packages, the applicant must have a CWCB loan/WSRA grant ratio of 1:1 or higher. Preference will be given to those with a higher loan/grant ratio.

Tier 1: Promoting Collaboration/Cooperation and Meeting Water Management Goals and Identified Water Needs

- a. The water activity addresses multiple needs or issues, including consumptive and/or non-consumptive needs, or the needs and issues of multiple interests or multiple basins. This can be demonstrated by obtaining letters of support from other basin roundtables (in addition to an approval letter from the sponsoring basin).

This Project supports commercial agriculture, benefits non-consumptive water users; and encourages collaborative solutions to water sustainability issues.

Commercial agriculture - While all of these efforts are of great value to multiple beneficiaries, the Grand Valley Project (GVP) continues to deliver significant volumes of water to commercial agriculture. The fresh fruit, vegetable, wine, nursery, corn, wheat, dry bean, seed, alfalfa, pasture grass, beef, and equine industries in the Grand Valley all depend upon reliable, consistent deliveries of irrigation water in face of the challenges of climate change, periods of drought, and population pressure. The efficiencies and flexibility gained by the Canyon Canal Improvement Project support the GVP’s continued delivery of the most fundamental supporting input to production agriculture in the Grand Valley water.

Non-consumptive water uses - The Canyon Canal Improvement Project assures continued delivery of significant water to the 15 Mile Reach and beyond. The Grand Valley Project system has been successful in far exceeding the expected forgone diversions from the improvements that have been made to the system, while at the same time not reducing system deliveries. To continue to do will require increased attention to all facets of canal facilities, management, and operations in the future such as this Canyon Canal Improvement Project. These deliveries to the Colorado River through the 15 Mile Reach also benefit recreational use, wildlife habitat, and the beauty and overall aesthetic value of a large section of the Grand Valley that is receiving increasing attention from the community.

Encouraging collaborative solutions to water sustainability issues – GVVUA is working to address water supply sustainability in the face of changing demographic and environmental concerns exacerbated by increasing urbanization locally and regionally. Water conservation and the concerns over increasing pressure on water supplied by the Colorado River require that GVVUA stay ahead of the demands and plan for demographic changes and drought and climate changes.

GVVUA and OMID must blend the need for improvements to the Grand Valley Project and the needs and potential benefits of other resource and economic communities. By developing comprehensive, prioritized, flexible water management and facilities improvements GVVUA and OMID can protect the interests of the Grand Valley Project while expanding the number of water users who benefit from improvements in the facilities and operations of the Grand Valley Project. Such benefits may be of sufficient magnitude that they are of monetary value to others. Improved canal facilities, administration, and operations can lead to maximizing water availability for all the Grand Valley Project partners and beneficiaries. Maximizing effectiveness, efficiency, and stewardship of water management have long term positive benefits to the environment, recreation and irrigation users, and the economies and general social and civic well-being of the entire Grand Valley, and indeed the entire Colorado River system and those who rely upon it.

GVVUA and OMID want to continue their progress in incorporating their rights and responsibilities into the goals and objectives of Reclamation, the Colorado River Cooperative Agreement and other contractual and policy obligations, and of others who may be potential beneficiaries of improved water practices. They also want to prepare our organizations, and those who depend upon our productive management of the water resources in our trust, for the environmental, social, and political changes taking place in Colorado Basin.

- b. The number and types of entities represented in the application and the degree to which the activity will promote cooperation and collaboration among traditional consumptive water interests and/or non-consumptive interests, and if applicable, the degree to which the water activity is effective in addressing intrabasin or interbasin needs or issues.

GVVUA, Reclamation, Recovery Program staff, OMID, PID, MCID, Grand Valley water users, Colorado Water Conservation Board, Colorado River Water Conservation District, and Colorado Basin Roundtable stakeholders coordinate regularly regarding the overarching needs of the Colorado River Basin both within Colorado and the entire Upper and Lower Basin system. The coordination focused on meeting the objectives of the various stakeholders, while realizing the importance of the Basin Study's action items, in addition to the Colorado Water Plan's objectives and needs. The design of this project is an attempt to take action on meeting the multiple objectives of the various stakeholders.

- c. The water activity helps implement projects and processes identified as helping meet Colorado's future water needs, and/or addresses the gap areas between available water supply and future need as identified in SWSI or a roundtable's basin-wide water needs assessment.

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The success of the Upper Canal Lining Project provides continued support for the protection of the Cameo Call and the Grand Valley Project facilities. The protection of the Cameo Call is viewed as a Top Basinwide Project as identified in the Basin Implementation Plan (BIP) of the Colorado Basin Roundtable and GVVUA has received funds to begin planning future upgrades to the Roller Dam and Canyon facilities to avoid a water-related conflict and litigation over Colorado River water availability and issues. The protection and maintenance of the Cameo Call is also critical for the success of the water banking and system conservation efforts discussed in other sections of this grant application.

Tier 2: Facilitating Water Activity Implementation

- d. Funding from this Account will reduce the uncertainty that the water activity will be implemented. For this criterion the applicant should discuss how receiving funding from the Account will make a significant difference in the implementation of the water activity (i.e., how will receiving funding enable the water activity to move forward or the inability obtaining funding elsewhere).

Funding from the Basin and Statewide Accounts will reduce the uncertainty that this Project will be implemented in that it will allow GVVUA and OMID to fund other rehabilitation needs of the Dam and Canyon facilities. It should also be noted that this Project was identified as the top need in the ongoing Dam and Canyon Facilities Master Plan project. The Master Plan is the first step to understanding the rehabilitation needs of the Dam and Canyon facilities which aims to: 1) identify and prioritize the rehabilitation needs (structural, cosmetic, additional hydropower potential, environmental, etc.) and 2) develop implementation plans for each prioritized need, specifically addressing the costs, funding opportunities, timeline, and list of potential teaming partners and sponsors. Implementation of this Project will support further rehabilitation of these facilities.

- e. The amount of matching funds provided by the applicant via direct contributions, demonstrable in-kind contributions, and/or other sources demonstrates a significant & appropriate commitment to the project.

The table below outlines the matching funds planned for this Project.

Funding Sources	Funding Amount
Non-Federal entities	
GVVUA Cash	\$42,000 (5.25%)
GVVUA In-Kind Services	\$12,000 (1.50%)
Colorado Water Supply Reserve Account (WSRA) Loan	\$150,000 (18.7%)
Colorado Water Supply Reserve Account Grant	\$300,000 (37.5%)
<i>Non-Federal Subtotal:</i>	\$504,000
Other Federal Entities	
N/A	\$0
Requested Reclamation Funding	
Requested Reclamation Funding	\$296,000 (37%)
<i>TOTAL PROJECT FUNDING</i>	\$800,000

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Tier 3: The Water Activity Addresses Other Issues of Statewide Value and Maximizes Benefits

- f. The water activity helps sustain agriculture & open space, or meets environmental or recreational needs.

This Project supports commercial agriculture, non-consumptive, and sustainable solutions.

Commercial agriculture - While all of these efforts are of great value to multiple beneficiaries, the Grand Valley Project (GVP) continues to deliver significant volumes of water to commercial agriculture. The fresh fruit, vegetable, wine, nursery, corn, wheat, dry bean, seed, alfalfa, pasture grass, beef, and equine industries in the Grand Valley all depend upon reliable, consistent deliveries of irrigation water in face of challenges of climate change, periods, of drought, and population pressure. The efficiencies and flexibility gained by the Canyon Canal Improvement Project support the GVP's continued delivery of the most fundamental supporting input to production agriculture in the Grand Valley water.

Non-consumptive water uses - The Canyon Canal Improvement Project assures continued delivery of significant water to the 15 Mile Reach and beyond. The Grand Valley Project system has been successful in far exceeding the expected forgone diversions from the improvements that have been made to the system, while at the same time not reducing system deliveries. To continue to do will require increased attention to all facets of canal facilities, management, and operations in the future such as this Canyon Canal Improvement Project. These deliveries to the Colorado River through the 15 Mile Reach also benefit recreational use, wildlife habitat, and the beauty and overall aesthetic value of a large section of the Grand Valley that is receiving increasing attention from the community.

Encouraging collaborative solutions to water sustainability issues – GVVUA is working to address water supply sustainability in the face of changing demographic and environmental concerns exacerbated by increasing urbanization locally and regionally. Water conservation and the concerns over increasing pressure on water supplied by the Colorado River require that GVVUA stay ahead of the demands and plan for demographic changes and drought and climate changes.

- g. The water activity assists in the administration of compact-entitled waters or addresses problems related to compact entitled waters and compact compliance and the degree to which the activity promotes maximum utilization of state waters.

This Project provides water and water rights benefits to multiple parties. The efficient management and use of Grand Valley Project water protects a large volume of Pre-Compact rights, promotes Compact compliance, furthers Intrabasin agreements to which the State of Colorado is obligated, and improves reservoir management for the Historic Users Pool (HUP) in Green Mountain Reservoir and the efficient management of all related reservoirs on the Colorado system, while causing no damage to water rights and water users within or without Grand Valley Project. This Upper Canal Lining Project also supports and protects the Fish Recovery Program (see section h below for more information).

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All water users within the Grand Valley Project (all Pre-Compact water rights) will benefit from the Canyon Canal Improvement Project. The Irrigation Districts are direct beneficiaries of the improved hydraulic efficiencies created. Via the Orchard Mesa Check Case Grand Valley Irrigation Company is the indirect beneficiary of increased Canyon Canal and related hydraulic efficiencies.

Local municipal providers will continue to have increasing benefits from a steady supply of irrigation water for their customers thus reducing the need for collection and treatment of increased amounts of domestic water.

Improved identification measurement, management, and stewardship of Project water supplies will help assist GVVUA in the search for productive solutions to the pressing problems created by population growth and climate change. The Canyon Canal Improvement Project supports continued and enhanced benefits for environmental interests, Recovery program objectives, wildlife, and those seeking to preserve the scenic beauty of the Colorado River.

Overall, this Project will reduce Compact issues by supporting a sustainable balance between Lake Powell and Lake Mead.

- h. The water activity assists in the recovery of threatened and endangered wildlife species or Colorado State species of concern.

This Project will benefit the four endangered fish federally-recognized in the 15 Mile Reach of the Colorado River (

Table 2). This Project will directly support the recovery of threatened or endangered species or address designated critical habitats.

Table 2. Endangered Fish in the 15 Mile Reach.

Species	Listing
Colorado pikeminnow <i>Ptychocheilus Lucius</i>	Endangered
Humpback chub <i>Gila cypha</i>	Endangered
Bonytail <i>Gila elegans</i>	Endangered
Razorback sucker <i>Xyrauchen texanus</i>	Endangered

Overall, this Project will allow GVVUA and OMID to better maintain adequate flows in the 15 Mile Reach to aid in the Colorado River Endangered Fish Recovery Program and to support and protect the current and continuing investments the state is making in the Program and to enable continued investments in the future.

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- i. The water activity provides a high level of benefit to Colorado in relationship to the amount of funds requested.

This water activity does provide a high level of benefit to Colorado as described in Criteria g above.

- j. The water activity is complimentary to or assists in the implementation of other CWCB programs.

This Project is complimentary to many CWCB, regional and Colorado Basin system-wide planning efforts including, but not limited to:

- Colorado Basin Implementation Plan (BIP) 2013
(<https://www.colorado.gov/pacific/sites/default/files/CBIP-April-17-2015.pdf>)
- Colorado Water Plan (CWP) 2015 (<http://coloradowaterplan.com/>)
- Colorado Drought Mitigation and Response Plan (DMRP) 2012
(<http://www.usbr.gov/lc/region/programs/crbstudy.html>)
- Colorado River Basin Water Supply and Demand Study (Study) under Reclamation's Basin Study Program 2013 (<http://www.usbr.gov/lc/region/programs/crbstudy.html>)
- GVWUA Water Management Plan 2015
- Reclamation's Sustainable Energy Mission 2012
(<https://www.usbr.gov/power/Reclamation%20Sustainable%20Energy%20Strategy%20.pdf>)
- Colorado River Cooperative Agreement 2013
(<http://www.denverwater.org/SupplyPlanning/Planning/ColoradoRiverCooperativeAgreement/>)
- Master Plan for the (BIP) Roller Dam Rehabilitation 2015
- GVPP Rehabilitation Project

Colorado Basin Implementation Plan (BIP) 2013

The Colorado BIP identified how future municipal, industrial, agricultural, recreational and environmental water needs will be met through existing or new projects, policies, and processes to the year 2050. The CBRT members worked alongside citizens and Colorado River Basin stakeholders to identify top projects across the basin and within each of the seven subregions. Projection of the Cameo Call and rehabilitation of the Roller Dam and facilities was one of the top projects. This Project is one of the first steps in meeting the needs of the Colorado Basin users and protecting the Cameo Call.

Colorado Water Plan (CWP) 2015

The CWP is a roadmap that leads to a productive economy, vibrant and sustainable cities,

productive agriculture, a strong environment, and a robust recreation industry. It sets forth the measurable objectives, goals, and actions by which Colorado will address its projected future water needs and measure its progress—all built on our shared values. Just as it was created, this plan will be implemented by working collaboratively with the basin roundtables, local governments, water providers, other stakeholders, and the general public. It includes a set of policies and actions that all Coloradans and their elected officials can support and help implement. The benefits of this Project were realized through the process that developed the CWP.

Colorado Drought Mitigation and Response Plan (DMRP) 2012

Drought is real and the reality of water supply planning in the Project area. The DMRP was developed in response to drought conditions, Federal agencies and stakeholders throughout the Basin have been working together to find creative ways to reduce the effects of the drought on the people and resources that rely on water from the Colorado River. GVVUA is part of these conversations and efforts. The 2013 DMRP is incorporated into the Colorado Water Plan which is a blueprint for how to mitigate drought impacts. This Project was initiated as a result of these realizations (of drought) and the need to promote protection of the Cameo Call in light of the pending reality of less water.

Colorado River Basin Water Supply and Demand Study (Study) under Reclamation's Basin Study Program 2013

This Project meets the four actions that must take place to move closer towards implementing solutions to resolve imbalances in the Basin. These are summarized below:

- First, significant uncertainties related to water conservation, reuse, water banking, and weather modification concepts must be resolved in order to adequately implement these approaches.

This Project promotes the implementation of this action by addressing the water efficiency and conservation of water diverted at the Roller Dam which will promote firming of water rights associated with the Cameo Call, which will provide benefits for and assist the Recovery Program, water quality improvements and water banking efforts.

- Second, costs, permitting issues, and energy needs relating to large-capacity augmentation projects need to be identified and investigated through feasibility-level studies.

This Project promotes the implementation of this action through continued investigations and feasibility studies, specifically efforts to promote the capacity of the Grand Valley Power Plant and associated Canyon Canal and Power Canal

efficiencies.

- Third, opportunities to advance and improve the resolution of future climate projections should be pursued and enhancements to the operational and planning tools used in the Colorado River system to better understand the vulnerabilities of the water-dependent uses, including environmental flows, should be explored.

This Project promotes the implementation of this action through its Water Banking conversations and improvements to the delivery of allocated water.

- Fourth, as projects, policies, and programs are developed, consideration should be given to those that provide a wide-range of benefits to water users and healthy rivers for all users.

This Project promotes the implementation of this action through continued investigations and feasibility studies, active involvement in the Colorado Basin Roundtable and Statewide Colorado Water Plan implementation through the Water Management Plan, Master Plan, and GVPP projects.

GVWUA Water Management Plan

The goal of this WMP is to evaluate the prioritized facility needs and potential operational enhancements of GVWUA within the Gravity Division of the Grand Valley Project. This Project is addressing both the facility needs and considers the benefits of providing additional water via improve Canyon Canal efficiencies to the Grand Valley Project.

Reclamation's Sustainable Energy Strategy FY 2013-2017

Reclamation has developed six long-term strategic objectives to further Reclamation's Sustainable Energy Mission including Strategic Objective #1 – Increase Renewable Energy Generation from Reclamation Projects. This Project supports the objectives of this study through the continued rehabilitation of the GVP.

Colorado River Cooperative Agreement 2013

This agreement provides for:

- Resolution of historic conflicts and a holistic approach to resolving Colorado water disputes.
- Cooperative, long-term efforts to improve the health of the Colorado River mainstem and its tributaries.
- Additional water supply for those who live, work and play on the West Slope and for customers of Denver Water.

- **Complies with CRCA commitments by signatories to engage in actions leading to improved water efficiency, conservation, and improved water resource stewardship.**

This Project aligns with the Colorado River Cooperative Agreement and GVWUA and OMID are both signatories to the agreement.

Master Plan for the (BIP) Roller Dam Rehabilitation 2015

The overall purpose of this project is to protect the water rights associated with the “Cameo Call” by outlining and prioritizing the rehabilitation needs of the Roller Dam and the portion of the Government Highline Canal immediately below the Roller Dam (collectively referred to as the ‘Dam and Canyon facilities’). Exercise of these water rights and the continued operation of the Dam and Canyon facilities provide predictability to river flows and associated environmental and cultural benefits. These benefits include more reliable flows in the upper portions of the Colorado River which improves water quality in the lower portions of the basin. The flows generated by the Cameo Call help provide water for recreational activities on the Colorado River and for riparian habitat and aesthetic values along the entire Colorado River corridor. Flows generated by the Cameo Call also assist the state in complying with its obligations under the Colorado River Compact and in maintaining acceptable lake levels in Lake Powell.

The Dam and Canyon Facilities Master Plan is the first step to understanding the rehabilitation needs of the Dam and Canyon facilities which aims to 1) identify and prioritize the rehabilitation needs (structural, cosmetic, additional hydropower potential, environmental, etc.); and 2) develop implementation plans for each prioritized need, specifically addressing the costs, funding opportunities, timeline, and list of potential teaming partners and sponsors.

This Project is the first rehabilitation need being addressed as part of the Master Plan.

GVPP Rehabilitation Project

The purpose of the Grand Valley Hydroelectric Power Plant (GVPP) feasibility project is to restore the facility to an economically and operationally sustainable condition. The maximum production at the plant currently is limited to 3.5 MW due to the current interconnect and power sales agreements. Sorenson Engineering, Inc. was retained in 2015 to provide recommendations for increasing the maximum generation output from 2.75 MW to 4.1MW without requiring additional flows. The increased generation will be a result of the increased turbine and generator efficiencies, as well as the increased head on the power plant due to reducing the tailrace elevation by one foot. This project included collaboration among stakeholders including Reclamation, GVWUA, and OMID. The project is currently in the NEPA planning process and is anticipated to be constructed during the 2017-2018 winter season, concurrently with other Grand Valley Projects.

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Part IV. – Required Supporting Material

1. **Water Rights, Availability, and Sustainability** – This information is needed to assess the viability of the water project or activity. Please provide a description of the water supply source to be utilized, or the water body to be affected by, the water activity. This should include a description of applicable water rights, and water rights issues, and the name/location of water bodies affected by the water activity.

This Project is expected to result in the accommodation of at least 100 cubic feet per second (cfs) more of the legal water rights adjudicated for this structure and increase the diversion ability and efficiency during times of river flow below 2,250 cfs.

The water rights of the Grand Valley irrigation systems that comprise the “Cameo Call” are diverted from the Colorado River and, along with the water rights of the Shoshone Hydropower Plant upstream near Glenwood Springs, control administration of the Colorado River basin within Colorado. The flows generated by the “Cameo Call” help provide water for recreational activities on the Colorado River and for riparian habitat and aesthetic values along the entire Colorado River corridor. Flows generated by the Cameo Call also assist the state in complying with its obligations under the Colorado River Compact and in maintaining acceptable lake levels in Lake Powell. Water rights comprising the Cameo Call are for irrigation; power and domestic use as described in Table 2. Irrigation water is tied to specific lands within the Grand Valley Project and provides full and supplemental service. The domestic water right is a small water right primarily used for livestock watering purposes during non-irrigation season and has not been needed to be used for several years.

GVWUA was a co-Applicant in Case No. 91CW247 (“Check Case”), District Court, Water Division. The other co-applicants were OMID and the United States. Details of the Check Case are available upon request.

All water users within the Grand Valley Project will benefit from better management of the Grand Valley Project, including the lining of the top 500 feet of the Canyon Canal. The Irrigation Districts will see additional benefits with this project as it aims to maintain the critical delivery of water to their users. The Grand Valley Irrigation Providers directly impacted by this project include:

- Grand Valley Water Users Association
- Mesa County Irrigation District
- Orchard Mesa Irrigation District
- Palisade Irrigation District

The Historical Users Pool (HUP) and Reservoir operations will potentially benefit from the Upper Canal Lining Project through improved management of hydraulic enhancements to the Canyon Canal.

Table 3. Summary of Cameo Water Rights.

Owner	Amount (cfs)	Adjudication Date	Appropriation Date	Use
GVWUA/United States	730	7/22/1912	2/27/1908	Irrigation
GVWUA/United States	400/800	7/25/1941	2/27/1908	Hydro-electric Power
GVWUA/United States	220	7/25/1941	2/27/1908	Domestic & Livestock
Orchard Mesa Irrigation District	450	7/22/1912	10/25/1907	Irrigation
Orchard Mesa Irrigation District	10.2	7/22/1912	10/1/1900	Irrigation
Palisade Irrigation District	23.5	7/25/1941	6/1/1918	Irrigation
Palisade Irrigation District	80	7/22/1912	10/01/1889	Irrigation
Mesa County Irrigation District	40	7/22/1912	7/6/1903	Irrigation

2. Please provide a brief narrative of any related studies or permitting issues.

The following provides a summary of the existing and expected agreements, easements, and permits for this project. Note some of this information is subject to change pending the NEPA process and cultural findings.

Existing Agreements

- **Lease of Power Privilege – GVWUA and OMID worked directly with Reclamation to obtain a LOPP and Funding Agreement from Reclamation**
- **Several Reclamation operation agreements**

Permits and Approvals

- **Environmental Assessment**

The Reclamation and GVWUA have developed a Memo of Understanding (MOU) detailing the identified environmental and regulatory compliance requirements. Due to the cultural sensitivities of the canal facilities additional cultural assessments may be required. Post July 1, 2015, a cultural assessment was conducted to assess the culturally sensitive areas with further cultural assessment work expected as the project nears final design and construction.

Depending on final design of the canal the Reclamation identified potential mitigation efforts may

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be required on the historically significant features. Permitting with U.S. Army Corp of Engineers as well as habitat assessments remain as potential environmental components of the project and are currently in progress.

- State of Colorado via Mesa County Building Permit for Electrical

GVWUA is going to trench the overhead powerline as part of this project and will need to coordinate with Mesa County Building Department and the State of Colorado Electrical inspector as part of this activity.

Cultural Assessment

The results from a Class III project inventory conducted by Alpine Ecological Consultants, Inc. (2015) resulted in additional documentation to two linear sites and the rerecording of four, temporally associated structures that are now consolidated under one Smithsonian site number. This report is available upon request.

3. Statement of Work, Detailed Budget, and Project Schedule

The statement of work will form the basis for the contract between the Applicant and the State of Colorado. In short, the Applicant is agreeing to undertake the work for the compensation outlined in the statement of work and budget, and in return, the State of Colorado is receiving the deliverables/products specified. **Please note that costs incurred prior to execution of a contract or purchase order are not subject to reimbursement.** All WSRA funds are disbursed on a reimbursement basis after review invoices and appropriate backup material.

Please provide a detailed statement of work using the template in Exhibit A. Additional sections or modifications may be included as necessary. Please define all acronyms and include page numbers.

See Exhibit A.

REPORTING AND FINAL DELIVERABLE

Reporting: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of the executed contract. The progress report shall describe the completion or partial completion of the tasks identified in the statement of work including a description of any major issues that have occurred and any corrective action taken to address these issues.

Final Deliverable: At completion of the project, the applicant shall provide the CWCB a final report that summarizes the project and documents how the project was completed. This report may contain photographs, summaries of meetings and engineering reports/designs.

PAYMENT

Payment will be made based on actual expenditures and invoicing by the applicant. Invoices from any other entity (i.e. subcontractors) cannot be processed by the State. The request for payment must include a description of the work accomplished by major task, and estimate of the percent completion for individual tasks and the entire water activity in relation to the percentage of budget spent, identification of any major issues and proposed or implemented corrective actions. The last 10 percent of the entire water activity budget will be withheld until final project/water activity documentation is completed. All products, data and information developed as a result of this grant must be provided to the CWCB in hard copy and electronic format as part of the project documentation. This information will in turn be made widely available to Basin Roundtables and the general public and help promote the development of a common technical platform.

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The above statements are true to the best of my knowledge:

Signature of Applicant: 

Print Applicant's Name: Mark Harris

Project Title: General Manager, GVVUA

Date: May 13, 2016

Return an electronic version (hardcopy may also be submitted) of this application to:

Craig Godbout – WSRA Application
Colorado Water Conservation Board
1313 Sherman St., Room 721
Denver, CO 80203
303-866-3441, ext. 3210 (office)
303-547-8061 (cell)
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