



COLORADO

**Colorado Water
Conservation Board**

Department of Natural Resources

1313 Sherman Street, Room 718
Denver, CO 80203

September 28, 2015

Grand Valley Water Users Association
Attn: Mr. Mark Harris, General Manager
1147 24 Road
Grand Junction, CO 81505-9639

RE: **Official Notice to Proceed** - WSRA Grant – POGG1 2016-394 GV Roller Dam
Rehabilitation Phase 1 Project in the Colorado River Basin

Dear Mark,

This letter is to inform you that the purchase order to assist in the above WSRA grant project was approved on September 28, 2015. This email documentation serves as the original contracting documents.

With the executed purchase order, you are now able to proceed with the project and invoice the State of Colorado for costs incurred through October 1, 2016 according to the Schedule in Exhibit A.

Please provide the project name, purchase order number, and basin when corresponding with or invoicing the State of Colorado for your project. Upon receipt of your invoice(s), the State of Colorado will provide payment no later than 30 days after review and signed approval by the project manager. I wish you much success in your project.

If you have any questions or concerns regarding the project, please contact me. You can contact Dori Vigil at 303-866-3441 ext. 3250 for invoicing and payment disbursement questions.

Sincerely,

//s//

Anna Mauss, P.E.

Water Project Loan Program

Finance Section

O 303.866.3441 x 3224 | F 303.894.2578

1313 Sherman St, Room 718, Denver, CO 80203

anna.mauss@state.co.us | www.cwcb.state.co.us

Attachments





STATE OF COLORADO
Department of Natural Resources

ORDER		** IMPORTANT **				
Number: POGG1 PDAA 20160000000000000394		The order number and line number must appear on all invoices, packing slips, cartons and correspondence				
Date: 09/28/15						
Description: PDAA 2500 WSRA Grand Valley Roller Dam Rehab Phase I		BILL TO COLORADO WATER BOARD CONSERVATION 1313 SHERMAN STREET, ROOM 718 DENVER, CO 80203				
Effective Date: 09/28/15 Expiration Date: 10/01/16						
BUYER		SHIP TO				
Buyer:		COLORADO WATER BOARD CONSERVATION				
Email:		1313 SHERMAN STREET, ROOM 718 DENVER, CO 80203				
VENDOR		SHIPPING INSTRUCTIONS				
GRAND VALLEY WATER USERS ASSN 1147 24 RD GRAND JUNCTION, CO 81505-9639		Delivery/Install Date: F.O.B:				
Contact: . Phone: .		VENDOR INSTRUCTIONS:				
Line Item	Commodity/Item Code	UOM	QTY	Unit Cost	Total Cost	MSDS Req.
1	G1000		0	0.00	\$42,700.00	<input type="checkbox"/>
Description: PDAA 2500 WSRA Grand Valley Roller Dam Rehab Phase I						
Service From: 09/28/15 Service To: 10/01/16						
TERMS AND CONDITIONS https://www.colorado.gov/osc/purchase-order-terms-conditions						
DOCUMENT TOTAL = \$42,700.00						

June 15, 2015

EXHIBIT A

Grand Valley Water Users Association
Mark Harris 1147 24 Road
Grand Junction, Colorado 81505-9639

Orchard Mesa Irrigation District
Max Schmidt 668 38 Road
Palisade, Colorado 81526

Re: Scope of Work to Develop a Master Plan for the Roller Dam Rehabilitation Project (Dam and Canyon Facilities Master Plan)

Dear Mark and Max:

SGM is pleased to provide this scope of work to support Grand Valley Water Users Association (Association) and the Orchard Mesa Irrigation District (OMID) with the development of the Dam and Canyon Facilities Master Plan as part of the initial phase for the Grand Valley Roller Dam Rehabilitation project. The Colorado Basin Implementation Plan (BIP) identified the Grand Valley Roller Dam Rehabilitation project as a "Top" Basinwide project, specifically aimed at protecting one of the major water rights on the Colorado River, the "Cameo Call". Attachment A includes a copy of the Information Sheet that outlines important elements of the project.

Project Background

The Grand Valley Project Diversion Dam (commonly referred to as the "Roller Dam") diverts water into the Government Highline Canal for irrigation and hydropower purposes under very senior water rights. The irrigation water is provided to four irrigation entities: Grand Valley Water Users Association (Association) and the Orchard Mesa, Palisade and Mesa County Irrigation Districts, which in turn provide irrigation water to approximately 41,000 acres of land in the Grand Valley.

A portion of the water diverted at the Roller Dam is used to produce hydropower at the Grand Valley Power Plant (GVPP), which has a capacity of approximately 800 cfs and an electrical generation capacity of about 3 megawatts (MW). Return flows from the power plant return to the Colorado River at the head of the 15-Mile Reach, which helps maintain flows in that reach for endangered fish. The Roller Dam, which was constructed in the early 1900's, is in need of extensive rehabilitation and upgrades. In addition, repairs and upgrades to the upper portion of the Highline Canal (Upper Canal) immediately below the Roller Dam are needed to allow the canal to reliably convey water diverted at the Roller Dam. The continued operation of these facilities will provide multiple benefits, justifying a cost share approach to project financing commensurate with the derived benefits.

Project Purpose

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.

Scope of Work

The overall approach for the Dam and Canyon Facilities Master Plan project is founded upon a collaborative process among potential participants that support the implementation of multi-purpose/multi-benefit projects. The potential partners of these projects may support one or more of the following needs, including but not limited to: structural and operational improvements required to maintain and enhance the water delivered by the Roller Dam and related facilities; Roller Dam and Grand Valley Power Plant (GVPP) operations; capital and operational costs, etc.

The following tasks support the development of the Dam and Canyon Facilities Master Plan.

Task 1. Identify and Prioritize Rehabilitation Needs

Description of Task

SGM will research and document the rehabilitation needs of the Roller Dam and Canyon facilities. This information will be categorized according to the type of need including, but not limited to the following: cosmetic, structural integrity, risk mitigation, safety, demand, cost/benefit, and/or environmental.

There are several project partners that will provide input and feedback throughout the implementation of this task including, but not limited to, Grand Valley Water Users Association, Orchard Mesa Irrigation District, Mesa County Irrigation District, Palisade Irrigation District; The Nature Conservancy, the Environmental Defense Fund, American Rivers, and Colorado River Water Conservation District, to name a few.

Method/Procedure

The following subtasks outline the approach for implementation of Task 1.

Subtask 1.1 – Inventory Existing Information

SGM will review the Bureau of Reclamation's (BOR) Project Work Sheets. These Project Work Sheets document identified rehabilitation needs of the Roller Dam and Canyon facilities per input of the BOR staff and will serve as the baseline for documentation of the existing rehabilitation needs. SGM will also review the following existing studies and reports:

- **Association Water Management Plan** -The Association recently received a Water Supply Reserve Account Grant in the amount of \$45,000 to fund a comprehensive update to the Water Management Plan, a critical component to long term maintenance, asset management, water stewardship, and most importantly, creating a funding plan to accomplish those projects – whose costs will be in the millions.
- **Upper Canal Improvements** -One component of the Roller Dam Master Plan has already been designed, the Upper Canal Improvements Project. This project addresses the rehabilitation of the top 500' of the canal, immediately below the dam. The BOR provided the design work and attendant pricing estimates for reshaping the canal prism and replacing the concrete liner currently in place. The BOR will continue to provide technical and professional assistance, ultimately delivering construction drawings and specifications. Construction is planned to be complete in the spring of 2016 should the entire length of canal be undertaken; should the project be bifurcated for logistical reasons, the work would be completed in the fall of 2016 or the spring of 2017.

Deliverable

SGM will summarize the information collected in a brief technical memorandum, specifically outlining the types and initial prioritization of these needs. This memorandum will be shared with the Work Session participants prior to the first meeting.

Subtask 1.2 – Coordinate and Facilitate Partner Work Sessions

SGM will work with the Association and OMID to plan and facilitate two (2) Project Partner Work Sessions. The purpose of these Work Sessions will be to 1) educate potential partners about the identified rehabilitation needs of the Dam and Canyon Facilities and 2) obtain feedback and input from these partners regarding potential multi-benefit projects.

Assumptions

SGM assumes:

- The Association/OMID will obtain the BOR Project Work Sheets for use in executing this task; and
- The Association/OMID will assist in compiling the list of potential project partners.

Deliverable

SGM will summarize the information obtained during the Work Sessions in a document that will support the development of the top five conceptual project Implementation Plans (Task 2).

TASK 2 – Develop Project Implementation Plans

Description of Task

SGM will develop up to five project Implementation Plans. The five Implementation Plans will be identified as a result of Task 1. The Implementation Plans will outline an approach, schedule, budget, constraints, project partners and potential funding mechanisms for the top five projects. Specific sections of these plans will include, but not be limited to recognizing the need for:

- Future engineering studies and investigations
- Permitting requirements
- Funding plan
 - Primary beneficiaries
 - Funding options/sources
 - Economic viability of hydropower

Method/Procedure

SGM will work closely with the Association, OMID and identified project partners to develop the project Implementation Plans. The coordination will occur through phone calls, in-person meetings and/or specific project Working Sessions and will be decided based upon the make-up of the specific project partners.

Deliverable

SGM will develop up to five Conceptual Project Implementation Plans that outline the approach, schedule, budget, constraints, project partners and potential funding mechanisms for the identified top project needs (Task 1).

TASK 3 – Master Plan

Description of Task

SGM will compile the information developed in Tasks 1 and 2 into one comprehensive Master Plan document. The Master Plan will also outline recommendations and next steps for the Roller Dam Rehabilitation Project based upon the implementation of this project. This task will be dependent upon the information developed in Task 2 and the development of the Colorado Basin Roundtable activities, implementation of the Water Management Plan and the Upper Canal construction project.

Method/Procedure

SGM will work closely with the Association and OMID to document the next phases of the Roller Dam Rehabilitation Project.

Deliverable

Master Plan document that includes recommendations and next steps for the Roller Dam Rehabilitation Project based upon the implementation of Tasks 1 and 2, our knowledge of other projects and activities in the basin and input from the Association and OMID.

TASK 4 – Project Management

SGM will provide the necessary communications and coordination necessary to support efficient, effective, and timely project execution, specifically:

- Hold one internal project kickoff meeting and initiate QA/QC process.
- Provide monthly project status updates with the invoices
- Conduct monthly project budget and schedule checks and review invoices
- Communicate with the Association and OMID staff, as needed, on project progress, etc.

- Internal coordination and communication

Cost Estimate

We will complete these tasks on a time-and-materials basis, cost not-to-exceed basis. The total cost of the scope of work presented above is \$47,700. A breakdown of the costs by task is presented in Table 1.

Table 1. Breakdown of Labor and Costs by Task.

Task and Task Description	SGM Labor (Hours)	Other Direct Costs (Dollars)	TOTAL1 (Dollars)
Task 1 – Identify and Prioritize Rehabilitation Needs			
Task 1.1 – Inventory Existing Information	68		9,380
Task 1.2 – Coordinate and Facilitate Partner Work Sessions	76	500	10,860
Task 2 – Develop Project Implementation Plans	128		17,920
Task 3 – Master Plan	48		6,880
Task 4 – Project Management	16		2,160
Totals	336	500	47,700

¹ Note that the values represented in this table have been rounded to the nearest dollar.

SGM has assumed an eight month project schedule to complete this work (July 2015 through December 2015).

We are available to discuss this scope of work and fee estimate with you at your earliest convenience. Please call me at 970-384-9027 or email me at angief@sgm-inc.com to schedule a time to meet. We look forward working with you on the successful implementation of this project.

Truly yours,

Angie Fowler, PE
Senior Water Resources Engineer
Project Manager