



**COLORADO**

Colorado Water  
Conservation Board

Department of Natural Resources

## Colorado Water Conservation Board

# Water Supply Reserve Fund

### Water Project Summary

Name of Applicant	Redlands Water and Power Company
Name of Water Project	Redlands Water and Power Company Hydroelectric Power Plant and Main Pump Station System Optimization Review (SOR)
Basin Account Request Subtotal	\$33,237.00
Applicant Cash Match	\$34,000.00
Applicant In-Kind Match	\$24,600.00
Basin Requests	
<i>Gunnison</i>	\$33,237.00
Sources of Funding	
<i>United States Bureau of Reclamation</i>	\$100,000.00
<i>Colorado River District</i>	\$33,236.00

### Grant Details

#### Water Project Justification

This project directly supports many of the Gunnison River Basin Implementation Plan (BIP) and Colorado Water Plan goals, explained in the list below (reference RWPC SOR USBR Application Report, Sections 1.3-1.7, 2.0, 2.1). Redlands Water and Power Company (RWPC) is committed to providing irrigation water for the multiple and varied beneficial uses in its service area. This Hydro Plant and Pump Station System Optimization Review (SOR) is the critical next step in a comprehensive modernization process for RWPC (RWPC SOR USBR Application Report Section 3.0). The outcomes and next steps support the update of RWPC's Water Conservation and Management Plan (RWPC SOR USBR Application Report Sections 1.8 and 1.9), which is guided by the Colorado Water Plan goals and objectives.

This System Optimization Review project supports the Gunnison BIP goals in the following ways:

Goal 1. Protect existing water uses in the Gunnison Basin.

RWPC SOR aims to:

- Conserve the use of the 850 cfs senior, non-consumptive, power generation water right by modernizing and preserving the hydroelectric power generation capability.
- Conserve 780 cfs of consistent return flow that supports the established endangered species fish and wildlife habitat along the 3-mile-long tailrace channel between the power plant and the confluence with the Colorado River.

2. Discourage the conversion of productive agricultural land to all other uses within the context of private property rights.

- Land uses within the RWPC service area have transitioned over the years towards residential. However, many hobby farms, orchards, vegetable gardens, and small pastures exist and are still irrigated with the water RWPC provides. RWPC is part of innovative community conversations to encourage homeowners to maintain beneficial uses of irrigation water on their properties, for example growing food and raising livestock. Residential irrigation

also supports urban ecological habitats that can be enhanced with native vegetation to support a diverse ecosystem of wildlife within urban, suburban, and rural residential areas.

4. Identify and address municipal and industrial water shortages.

RWPC SOR aims to:

- Protect municipal water supplies by maintaining flow at diversion locations through conserving the power generation water right.
- Maintain the supply of non-potable irrigation water to water users for outdoor use, reducing the burden on municipal water supplies and water treatment facilities.

5. Quantify and protect environmental and recreational water uses.

RWPC SOR aims to:

- Preserve existing endangered species habitat and nature viewing path (recreation) along tailrace.
- Maintaining this 850 cfs non-consumptive water right at the end of the Gunnison River system provides instream flows that support river-based recreation and fishing recreation activities in the reaches of the Gunnison River above the RWPC diversion.

6. Maintain or, where necessary, improve water quality throughout the Gunnison Basin.

RWPC SOR aims to :

- Conserve 850 cfs of instream flows in the whole Gunnison River above the point of diversion because of this large non-consumptive power generation water right at the location just above the confluence. This maintains greater instream flows in the reach which decreases pollutant concentrations and keeps water temperatures lower.

8. Restore, maintain, and modernize critical water infrastructure, including hydropower.

- This project directly supports this goal. The objective of the SOR is to modernize the aging hydroelectric power plant and pump station infrastructure.
- The RWPC SOR aims to conserve the existing 1.5 MW hydroelectric renewable energy resource and potentially increase power output due to hydraulic efficiency improvements and component upgrades.

9. Create and maintain active, relevant and comprehensive public education, outreach and stewardship processes involving water resources in the six sectors of the Gunnison Basin

- RWPC is continuously educating its shareholders and community members about water conservation practices. RWPC shares current events within the Colorado and Gunnison River watersheds and how they impact our community. RWPC is working to educate shareholders about the importance of investing in irrigation system upgrades to maintain this service and improve its resiliency to adapt to unforeseen changes and challenges in the future.

### Applicant & Grantee Information

Name of Grantee: Redlands Water and Power Company  
Mailing Address: 2216 South Broadway Grand Junction CO 81507  
FEIN: 840,301,010

Organization Contact: Kyle Vanderberg  
Position/Title: General Manager / Superintendent  
Phone: (970) 243-2173  
Email: kylev@redlandswpc.com

Organization Contact - Alternate: Katie Radavich  
Position/Title: Grant Consultant  
Email: radeeartholutions@gmail.com

Phone: 2623520560

Grant Management Contact: Kyle Vanderberg

Position/Title: General Manager / Superintendent

Email: kylev@redlandswpc.com

Phone: (970) 243-2173

Grant Management Contact - Alternate: Katie Radavich

Position/Title: Grant Consultant

Email: radeeartholutions@gmail.com

Phone: 2623520560

#### Agency Information

Agency Type	Ditch Company
Current Assessment	\$210.00
Number of Shareholders or Customers	1,114
Number of Shares	5,764.00
Number of Taps	
Average Monthly Water Bill	
Annual Water Delivery (acre-feet)	24,974

#### Description of Grantee/Applicant

The Corporation is organized to be and constitute a special purpose non-profit mutual irrigation Corporation pursuant to §7-42-101 et seq, C.R.S. and §7-121-101 et seq, C.R.S.

#### Location of Water Project

Latitude	39.067397
Longitude	-108.592885
Lat Long Flag	Precise coordinates: Project coordinates are readily definable and precisely define the location of the project
Water Source	Gunnison River
Basins	Gunnison
Counties	Mesa
Districts	42-Lower Gunnison River

#### Water Project Overview

Major Water Use Type	Environmental
Type of Water Project	Planning
Scheduled Start Date - Design	10/1/2023
Scheduled Start Date - Construction	

#### Description

Redlands Water and Power Company (RWPC) is proposing to conduct a System Optimization Review (SOR) to modernize the hydroelectric power plant and main pump station, critical and aging infrastructure in the RWPC system. This project will engage a multi-disciplinary team to holistically consider all issues with these facilities and create an actionable plan to implement upgrades strategically. This approach is necessary due to the connectivity and complexity of the issues and risks to be addressed at the hydro plant and pump station. Attempts to upgrade components independently would likely result in potential safety concerns, wasted money, and unacceptable operational disruptions. The first objective of the SOR is to determine the best future configuration for the site of the hydro plant and pump station. Options to be investigated include retrofitting the existing facilities with new components, constructing new facilities on the existing or alternate sites, or decommissioning the existing hydro plant in favor of other renewable energy sources. The second objective is to

produce an action plan for the selected option, with phased schedules, scopes, and planning-level cost estimates to implement the Modernization Plan.

Measurable Results	
0	New Storage Created (acre-feet)
0	New Annual Water Supplies Developed or Conserved (acre-feet), Consumptive or Nonconsumptive
0	Existing Storage Preserved or Enhanced (acre-feet)
0	New Storage Created (acre-feet)
11,350	Length of Stream Restored or Protected (linear feet)
	Length of Pipe, Canal Built or Improved (linear feet)
	Efficiency Savings (dollars/year)
	Efficiency Savings (acre-feet/year)
15	Area of Restored or Preserved Habitat (acres)
0	Quantity of Water Shared through Alternative Transfer Mechanisms or water sharing agreement (acre-feet)
	Number of Coloradans Impacted by Incorporating Water-Saving Actions into Land Use Planning
66,000	Number of Coloradans Impacted by Engagement Activity
Other	
The population of the City of Grand Junction (66,000) will be benefitted due to the project's goals to protect municipal water supplies, preserve 3 miles of existing riparian wildlife habitat, and preservation of a clean energy resource (hydroelectricity).	
Water savings and efficiency values are left blank above because approximate values are unknown and will be quantified more accurately during this project.	