Pump Station 2 System Improvement

RD784-05

I. Project Sponsor Contact Information

Lead Agency/Organization	Reclamation District 784
Name of Primary Contact(s)	Steve Fordice, General Manager / Patrick Meagher, Field Superintendent
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II. General Project Information

Project Title	Pump Station 2 System Improvement
Project Total Budget	$525,000.00
Project Funding Match	Serves Disadvantaged Communities
Project Funding Request	$525,000.00
Can a detailed cost estimate be provided upon request?	This is an estimate only. If funds are awarded the project will be bid out with more cost details available after bid results are in.
Project Location:	80 County Rd. 512, Olivehurst CA
Latitude	39.0956° N
Longitude	121.5522° W
Could you provide a map of the project location including boundaries upon request?	Yes
Project Location Description:	Approximately 2 miles West of County Rd. 512 along the Levee
County	Yuba County
City/Community	Plumas Lake
Watershed/subwatershed	Yuba River
Groundwater Basin	Yuba Groundwater Basin/South Yuba Sub-basin
Project Type	Facility Construction

III. Project Description

Phase I: ($25,000) Installation of one Sonitrol PTZ (Point, Tilt, Zoom) security camera to enable personnel to capture video and still photo footage of the area to enhance security as well as provide remote monitoring of the pump station equipment and surrounding conditions, especially during flood season. Additionally, during the design phase I of the project, the feasibility of reclaiming storm water for agricultural and municipal use as well as the project's possible contribution to groundwater recharge will be considered, assessed and determined.

Phase II: ($500,000) Installation of a 4th Pump. This existing pump station currently comprises 3 pumps but has the capacity to add a 4th pump to allow more drainage for future water runoff expected from anticipated continued development in the lower Plumas Lake Area.

IV. Project Rationale/Issues Statement

This project replaces aging drainage infrastructure which enhances flood management, and protects water conveyance, several wastewater management and ground water recharge facilities that serve Linda and Olivehurst, two Disadvantaged Communities (DACs). Additionally, the project considers the possibility of reclaiming storm water for agricultural and municipal reuse. The project specifically addresses the following regional issues:

- Upgrading infrastructure;
- Mitigating urban, agricultural and sediment run-off;
- Water use efficiency/water conservation;
- Improving flood management;
- Ensuring regulatory compliance;
- Adapting to climate change.

V. Goals/Objectives/Performance Metrics

Goals Addressed by the Project	**Goal 1:** This project protects water supplies by upgrading flood management infrastructure and promoting disaster preparedness. **Goal 2:** The project protects water quality by mitigating for impacts from flood and in managing for urban, agricultural and sediment run-off. **Goal 5:** The project protects public safety by upgrading aging flood management infrastructure, promoting disaster preparedness and reducing the costs and difficulty of achieving regulatory compliance. **Goal 6:** This project responds to climate vulnerabilities by increasing the capacity of existing flood control infrastructure to receive increased levels of run-off in storm events.
Objectives Addressed by Project	1.1 Promote and implement policies and practices to increase water use efficiency *and* water conservation in municipal and agricultural sectors; 1.2 Promote water conservation and water use efficiency by instituting various techniques including, but not limited to, groundwater recharge, conjunctive management, irrigation efficiencies, municipal water conservation, water recycling and reuse; 1.4 Promote disaster preparedness and conservation planning efforts; 1.5 Maintain and enhance flood control infrastructure to protect water supplies; 2.1 Protect and improve water quality by mitigating for urban, agricultural and sediment run-off; 2.2 Minimize water quality impacts from flood, effluent discharge and

	wastewater spills; 5.1 Improve integrated flood management to ensure emergency preparedness, increase flood protection and enhance regional and inter-regional collaboration; 6.3 Increase system flexibility and resiliency to adapt to climate variability
What performance metrics will be used to demonstrate that objectives are being met? Wherever possible, provide a quantitative measurement reflecting successful project outcomes.	▪ Increased use of irrigation tail water by recycling back to agricultural users whenever possible ▪ Increased security and protection of water supply systems ▪ Lowering Flood / Danger / Risk

VI. Resource Management Strategies

Increase Water Supply	
Conjunctive Management and Groundwater	A policy of retaining water in detention basins at the end of winter seasons for later release or possible groundwater recharge is being considered.
Recycled Municipal Water	Determine feasibility of recycling stormwater for agricultural and municipal use.
Improve Operational Efficiency and Transfers	
Conveyance—Regional/Local	Returns stormwater to the river
Practice Natural Resources Stewardship	
Land Use Planning and Management	Part of internal drainage system necessary for development of residential, commercial and industrial lands.
Recharge Areas Protection	Protects basin infrastructures.
Improve Flood Management	
Flood Risk Management	Internal Drainage Flood Management that protects water treatment, water conveyance and ground water recharge facilities.

VII. Statewide Priorities

Drought Preparedness

- Promote water conservation, conjunctive use, reuse and recycling
- Achieve long term reduction of water use

Use and Reuse Water More Efficiently

- Increase urban and agricultural water use efficiency measures such as conservation and recycling

Climate Change Response Actions

- Adaptation to Climate Change: Use and reuse water more efficiently
- Adaptation to Climate Change: Water management system modifications that address anticipated climate
- Reduce Energy Consumption: Water recycling
- Reduce Energy Consumption: Water system energy efficiency

Practice Integrated Flood Management

- Better emergency preparedness and response
- Improved flood protection
- More sustainable flood and water management systems

Protect Surface and Groundwater Quality

- Protecting and restoring surface water and groundwater quality to safeguard public and environmental health and secure water supplies for beneficial uses

Climate Change Adaptation

The project will consider modifications to allow for reclaiming storm water for agricultural and municipal use contributing to a more reliable water supply in response to projected climate variability and anticipated drought conditions.

GHG Emissions Reduction

The 4th pump would not only serve as a redundant pump in the event of primary pump failure but could possibly be used to recycle irrigation tail water during irrigation seasons for agriculture reuse.

The camera system would increase site security and enhance the ability to operate the facility from offsite remotely, increasing operational efficiency and reducing emissions.

VIII. Project Status and Schedule

Project Stage	Description of Activities in Each Project Stage	Planned/Actual Start Date	Planned/Actual Completion Date
Planning	Phase 1-Done (excepting system modifications related to water recycling) Phase 2- Preliminary		

Design	Phase1- Done (excepting system modifications related to water recycling) Phase 2- Preliminary		
Environmental Documentation (CEQA/NEPA)	Phase 1- N/A Phase 2- Existing infrastructure		
Permitting	Phase 1- N/A		
Tribal Consultation (if not applicable, indicate by N/A)	N/A		
Construction/ Implementation	Pending Funds	Pending Funds	Unknown

IX. Project Technical Feasibility

a. List the water planning documents that specifically identify this project.	▪ Yuba County General Plan ▪ RD 784 Master Drainage Plan
b. List the adopted planning documents the proposed project is consistent with (e.g., General Plans, UWMPs, GWMPs, Water Master Plans, Habitat Conservation Plans, etc.)	▪ Yuba County General Plan ▪ RD 784 Master Drainage Plan
c. List technical reports and studies supporting the feasibility of this project.	Studies and assessment included in Master Drainage Plan