

Pump Station 1 Reconstruction RD784-04

I. Project Sponsor Contact Information

Lead Agency/Organization	Reclamation District 784
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II. General Project Information

Project Title	Pump Station 1 Reconstruction
Project Total Budget	\$500,000
Project Funding Match	Local Match funds would be provided by RD 784
Project Funding Request	\$375,000
Can a detailed cost estimate be provided upon request?	Yes
Project Location:	Algodon Road east of Hwy 70 at the East end of the Plumas Lake Canal
Latitude	
Longitude	
Could you provide a map of the project location including boundaries upon request?	Yes
County	Yuba
City/Community	Linda
Watershed/subwatershed	Yuba River
Groundwater Basin	Yuba Groundwater Basin/ South Yuba Sub-basin
Project Type	Facility Construction Best Management Practices

III. Project Description

Currently, one of the two pumps is not operational and the pump station cannot be controlled remotely. The site is also vulnerable to theft and vandalism. The project would repair the inoperable pump, add a SCADA motor control system for both pumps and add security features including a CCTV camera and a motion activated camera based intrusion alarm system. This pump station lifts water out of the Plumas Lake Canal at the East end and into the Algodon Canal. This pump Station protects the Plumas Lake Golf Club, farmland, commercial, government and residential properties including the Plumas Lake communities.

Additionally, during the design phase 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.

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

<p>Goals Addressed by the Project:</p>	<p>Goal 1: This project protects water supplies by upgrading flood management infrastructure and promoting disaster preparedness.</p> <p>Goal 2: The project protects water quality by mitigating for impacts from flood and in managing for urban, agricultural and sediment run-off.</p> <p>Goal 4: The project enhances regional economic development by protecting agricultural lands from the impacts of flooding.</p> <p>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.</p> <p>Goal 6: The project reduces greenhouse gas emissions and improves flood protection.</p>
<p>Objectives Addressed by Project:</p>	<p>1.1 Promote and implement policies and practices to increase water use efficiency <i>and</i> water conservation in municipal and agricultural sectors;</p> <p>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</p>

	<p>water conservation, water recycling and reuse;</p> <p>1.4 Promote disaster preparedness and conservation planning efforts;</p> <p>1.5 Maintain and enhance flood control infrastructure to protect water supplies;</p> <p>2.1 Protect and improve water quality by mitigating for urban, agricultural and sediment run-off;</p> <p>2.2 Minimize water quality impacts from flood, effluent discharge and wastewater spills;</p> <p>4.5 Protect and restore working landscapes, particularly ranch/ag lands, and the watershed benefits they provide;</p> <p>4.6 Promote regulations that support local and regional economic resiliency by working with and among regulatory agencies to 1) reduce regulatory conflicts, 2) ensure consistent enforcement of regulations, and 3) reduce costs and difficulty of meeting regulatory compliance;</p> <p>5.1 Improve integrated flood management to ensure emergency preparedness, increase flood protection and enhance regional and inter-regional collaboration;</p> <p>6.1 Support efforts to reduce greenhouse gas emissions in the region, particularly those related to water management operations;</p> <p>6.3 Increase system flexibility and resiliency to adapt to climate variability</p>
<p>What performance metrics will be used to demonstrate that objectives are being met? Wherever possible, provide a quantitative measurement reflecting successful project outcomes.</p>	<ul style="list-style-type: none"> ▪ Decreased flood risk ▪ Lower FEMA flood insurance premiums

VI. Resource Management Strategies

Improve Operational Efficiency and Transfers	
Conveyance—Regional/Local	Returns stormwater to the river.
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.
Practice Natural Resources Stewardship	
Agricultural Lands Stewardship	Protects AG lands and farm product processing infrastructures.
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; assesses the facility's contribution to groundwater recharge.
Improve Water Quality	
Matching Water Quality to Use	The project aims to determine the feasibility of reclaiming stormwater for non-potable agricultural irrigation.
Improve Flood Management	
Flood Risk Management	Internal Drainage flood management facility that protects schools, residences, commercial and industrial infrastructures including a golf course.

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 repair of one pump, the addition of the SCADA system and the security improvements would assure the pump station's ability to protect a large residential community as well as schools, farm product processing facilities and farms. The pump station is part of the RD784 Master Drainage plan and is part

of an internal drainage stormwater protection system needed to certify the urban basin levee system to the 100 and 200 year stormwater safety. Additionally, 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 construction of this basin and pump station would replace two older pumps and less efficient electrical motors to be replaced with new, cleaner technology. A SCADA system would allow offsite control and allow for off-peak operation unless overcome by heavy storms. Emergency generator power would be added to enhance reliability.

VIII. Project Status and Schedule

Project Stage	Description of Activities in Each Project Stage	Planned/Actual Start Date	Planned/Actual Completion Date
Planning	Done		
Design	Done (excepting design considerations for modifying system for reclaimed water capability)		
Environmental Documentation (CEQA/NEPA)	Awaiting Funding		
Permitting	Awaiting funding	Awaiting Funding	
Tribal Consultation (if not applicable, indicate by N/A)	N/A	N/A	
Construction/ Implementation	Awaiting Funding	Awaiting Funding	Unknown

IX. Project Technical Feasibility

a. List the water planning documents that specifically identify this project.	<ul style="list-style-type: none"> ▪ 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.)	<ul style="list-style-type: none"> ▪ Yuba County General Plan ▪ RD 784 Master Drainage Plan
c. List technical reports and studies supporting the feasibility of this	Studies and assessment included in Master Drainage Plan

project.	
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