

Work Plan

City of Susanville Sustainable Water Supply and Conjunctive Use Project

Implementing Agency: City of Susanville

Project Description: The City of Susanville provides water to a predominately disadvantaged community of about 10,000 people through its current distribution lines that are over 50 years old. The District is continually experiencing mainline breaks and service leaks throughout the community due to the age of the lines. This proposed project is for development of new infrastructure and renovations of existing infrastructure for the Susanville public water supply system to assure continued reliability of the minimum quality and quantity of water.

This project consists of upgrading the existing surface water supply sources at Cady Springs to continue procurement of the volumes of water historically available, and improvements to the Cady Springs Maintenance Trail to reduce the cost of conveyance pipeline repair and maintenance and to provide recreational benefits, and the replacement of Johnstonville Water Main and Harris Tank Water Line which are currently the City's highest maintenance priority. The Johnstonville Water Main currently leaks 4.3 MG annually and the Harris Tank Line 1.5 MG annually as per the City's Public Works Director report. Both lines are covered in repair bands and are in ill repair. The overall conjunctive use program intended to make combined use of surface and groundwater resources and diversify the water supply portfolio, increase systems reliability, conserve water, support adaption to climate change, and provide an integrated groundwater supply source. The purpose is also to meet water supply and quality needs, ensure compliance with drinking water standards and provide for current users and planned development consistent with the City of Susanville General Plan, thus linking water and land use planning. The facilities are needed to meet critical water supply and quality needs of the community.

The conjunctive use program will provide holistic water management and help the City adapt and respond to potential climate change impacts. The water at Cady Springs is collected by a series of pipes and tunnels and chlorinated just prior to entering the transmission water line. The water main varies from more than 65 years old to approximately 45 years old. Approximately 1-1/2 miles of the pipeline is above ground, exposing it to sunlight and severe weather. Other Sections of the pipe are in shallow trenches. The pipeline is precariously tied to the rock slope crossing (3) shale slides in it alignment from Cady Springs to the City reservoir. It is in response to the need to improve efficient water use as a result of aging infrastructure and leaks, and the need to diversify the supply portfolio. Spring flow has declined over the past 10 years as a result of drought, climate variability and age of the infrastructure used to capture the spring flow from these primary sources. The proposed project will increase the City's capacity to capture more spring water. The existing gravity flow line is an open channel flow, 14" steel pipe. It has a maximum capacity of approximately 1,100 gallons per minute. At this time, it is estimated that 500 to 800 gallons per minute of spring water is not collected and is lost to beneficial use.

Existing facilities have exceeded their useful life and need upgrade and repair. Reduced spring flow has sometime resulted in lower water supply volumes and reduced ability to maintain fire protection flows.

Systems integrity is compromised by falling rocks which have knocked out pipeline and interrupted the surface water supply.

Budget Category (a): Direct Project Administration

Task 1 - Project Management Task Status 0%

Manage grant agreement including compliance with grant requirements, and preparation and submission of supporting grant documents and coordination with IRWM regional manager. Prepare invoices including relevant supporting documentation for submittal to DWR. This task also includes administrative responsibilities associated with the project such as coordinating with partnering agencies, and managing consultants/contractors.

Deliverables:

Financial Statements, Invoices, Other Applicable Project Deliverables

Task 2 - Labor Compliance Program Task Status 0%

Take all measures necessary to ensure compliance with applicable California Labor Code requirements, including, preparation and implementation of a labor compliance program or including any payments to the Department of Industrial Relations under Labor Code Section 1771.3.

Deliverables:

Proof of labor compliance upon request

Task 3 - Reporting Task Status 0%

Prepare progress reports detailing work completed during reporting period as outlined in Exhibit G of this agreement. Submit reports to DWR for review and inclusion in a progress report to be submitted to DWR. Prepare draft Final Project Completion Report and submit to DWR for DWR Project Manager's comment and review no later than 90 days after project completion. Prepare Final Report addressing IRWM regional manager/DWRs comments. The report shall be prepared and presented in accordance with the provision of Exhibit G.

Deliverables:

Quarterly Project Progress Reports, Draft and Final Project Completion Report

Task 4 - Project Monitoring Plan Task Status 0%

Develop and submit a Project Monitoring Plan. Along with the Project Performance Measures Table requirements outlined in the Proposal Solicitation Package, the Project Monitoring Plan will include baseline conditions, a brief discussion of monitoring systems to be used, methodology of monitoring, frequency of monitoring, and location of monitoring points.

Deliverables:

Project Monitoring Plan

Budget Category (b): Land Purchase/Easement

No tasks under this category

Deliverables:

There will be no deliverables under this category.

Budget Category (c): Planning/Design/Engineering/Environmental Documentation

Task 5 - Final Design and Engineering

Sub-Task 5.1: Design for Cady Springs Task Status: 95%

The City contracted with Sunrise Engineering through a grant from the USDA to complete 95% engineering plans and specifications for the Project. The City will complete the remaining 5% for 100% engineering plans and specifications to move forward with project construction.

Sub-Task 5.2: Design for Waterline Johnstonville and Harris Tank: Task Status 0%

The City will contract with an Engineering firm to complete 100% engineering plans and specifications for the remaining Project which will include surveying, and design of Johnstonville and Harris Tank water line.

Deliverables:

100% Engineering Plans and Specifications Documents

Task 6 - Environmental Documentation Task Status: 5%

A CEQA Notice of Exemption will need to be applied with the Lassen County Clerk. This project will repair existing infrastructure thus qualifying for a CEQA Cat X but will need to be applied for.

Deliverables:

CEQA Documentation - Categorical Exemption

Budget Category (d): Construction/Implementation

Task 7 Construction Contracting Task Status 0%

The City will prepare a construction bid package for advertisement to procure a Construction Contractor using public bidding procedures. These policies and procedures will be used to identify the construction contractor from the pool of bidders. Preconstruction activities include standard bid procedures in accordance with the applicable Public Contract Codes.

Deliverables:

Advertisement for bids; pre-bid contractors meeting; contract addenda; evaluation of bids; award contract; Review Contractor Submittals; Notice to Proceed

Task 8 Construction/Implementation Task Status 0%

8.1 Mobilization and Site Preparation The selected contractor will mobilize equipment to the site and a staging area for materials and equipment will be established. The site will be graded to construction specifications and water pollution control will be implemented.

8.2 Project Construction In accordance with Best Management Practices developed for the project, the selected Construction Contractor will arrange traffic control, fill and cap abandoned pipes and excavate and install new water lines. Approximately 4,108 feet of 14-inch replacement pipeline will be installed

along service laterals, within existing road rights-of-way and utility easements. Trench lines will be backfilled according to geotechnical standards and City Inspector will confirm all activities For the Cady Springs component: complete pumping station, connect pipeline at highway crossings, connect pipeline to pumping station, inspect and re-coat tank, add system controls (SCADA, altitude valves, PRV's).

8.3 Performance Testing and Demobilization All lines and Cady Springs infrastructure will be tested and verified to meet City standards. Upon completion of work the selected Construction Contractor will dismantle the staging area and demobilize equipment from the site.

Deliverables:

Installation, sanitation, and testing of all required infrastructure; Waterline replacements completed; Final performance testing

Task 9 Environmental Compliance Task Status 0%

The selected Construction Contractor will prepare an erosion control plan to ensure that soil exposed during project activities will not be transported if a rain event should occur during implementation. Before construction implementation, the NPDES permit program requirements will be met. A Storm Water Pollution Prevention Plan will be completed and a Notice of Intent to Discharge will be obtained under the Regional Water Quality Control Board's California Construction General Permit regulations.

Deliverables:

Develop Erosion Control Plan; Develop Storm Water Prevention Plan; Notice of Intent to Discharge

Task 10 Construction Administration Task Status 0%

City staff will serve as construction managers for the project, as they have for similar projects successfully completed by the City. Supervision activities will include: ensuring implementation of pre-construction plans including coordination with appropriate agencies such as CHP and Caltrans, on-site observations and inspections, inspection of materials prior to installation, conducting construction progress meetings as required, review of project status (percent complete versus percent spent), preparation and processing of change orders, review and approval of progress payments and recommendations for payment (as required), in-field problem solving, and other related activities.

Deliverables:

Supervision and documentation of all project construction activities; Customer notices and information releases; Water System Operations; Completion of final report & as-built drawings

Work Plan

Spalding CSD Closure of Wastewater Retention Pond

Implementing Agency: Spalding CSD

Project Description: California is experiencing the fourth year of severe drought and many wells within our District (Spalding Community Services District) have gone dry over the past several years. Our District needs to be good stewards of our natural resources and water is a very vital and precious resource today given the drought that we are currently experiencing. Our objective is to eliminate the need to pump ground water to be used simply as ballast for our wastewater pond liners.

Since our Wastewater system was installed in 2007, it has been difficult to keep sufficient amounts of effluent in each of our three wastewater ponds. The ponds are lined with a thick polyurethane black plastic that creates heat and speeds up evaporation of effluent.

Typically we have pumped water two or three times, multiple days at a time (500,000 gallons per day), in the summer to keep ballast in the ponds for the liner. With the water issues and drought situation in our area, this can be controversial

To keep from using water for ballast, we will need about 2000 feet of 12" tubing and the cement slurry to fill the tubing. These tubes would be placed on the base of the slope at the bottom of the pond. This method has been successfully used at the overflow ponds at the South Tahoe Public Utility District.

Budget Category (a): Direct Project Administration

Task 1 - Project Management

Manage grant agreement including compliance with grant requirements, and preparation and submission of supporting grant documents and coordination with IRWM regional manager, City of Susanville. Prepare invoices including relevant supporting documentation for submittal to DWR via City of Susanville. This task also includes administrative responsibilities associated with the project such as coordinating with partnering agencies, and managing consultants/contractors.

Deliverables:

Financial Statements, Invoices, Other Applicable Project Deliverables

Task 2 - Labor Compliance Program

Take all measures necessary to ensure compliance with applicable California Labor Code requirements, including, preparation and implementation of a labor compliance program or including any payments to the Department of Industrial Relations under Labor Code Section 1771.3.

Deliverables:

Proof of labor compliance upon request

Task 3 - Reporting

Prepare progress reports detailing work completed during reporting period as outlined in Exhibit G of this agreement. Submit reports to City of Susanville for review and inclusion in a progress report to be submitted to DWR. Prepare draft Final Project Completion Report and submit to DWR via City of Susanville for DWR Project Manager's comment and review no later than 90 days after project completion. Prepare Final Report addressing City of Susanville/DWRs comments. The report shall be prepared and presented in accordance with the provision of Exhibit G.

Deliverables:

Quarterly Project Progress Reports, Draft and Final Project Completion Report

Budget Category (b): Land Purchase/Easement

No tasks under this category

Deliverables:

There will be no deliverables under this category.

Budget Category (c): Planning/Design/Engineering/Environmental Documentation

Task 4 - Design and Engineering

Complete preliminary design including final engineering drawings that detail: ballast tube specifications, concrete fill specifications, and installation techniques demonstrating ability to protect existing pond liner against damage during construction.

Deliverables:

Updated Project Cost Estimate, Final Design Documents

Budget Category (d): Construction/Implementation

Task 5 Construction Contracting

Develop advertisement for bids and contract documents; conduct pre-bid contractors meeting; perform evaluation of bids; award contract

Deliverables:

Summary of Bids and Contract Award

Task 6 Construction

1. Initiate project construction, Keep daily records of construction activities, inspection, and progress; 2. Conduct project construction photo-monitoring; 3. Construct project components

Deliverables:

Summary of construction activities in monthly progress report; Photo documentation; Construction completed

Task 7 Construction Project Close Out, Inspection & Demobilization

Inspect project components and establish that work is complete. Test the operation of the ballast system. Verify that all project components have been installed and are functioning as specified will be

conducted as part of construction inspection and project closeout. Conduct project completion photo monitoring. Prepare record drawings.

Deliverables:

As-Built and Record Drawings; Project completion site photos

Task 8 Project Performance Monitoring

After project completion, the Spalding CSD Staff will monitor the ballast systems performance to ensure the expected benefits are realized.

Deliverables:

Monthly logs

Work Plan

Lassen Land & Trails Trust Small Water System Assessment Project

Implementing Agency: Lassen Land & Trails Trust

Project Description: This project is in the planning and design phase, which will allow the Trust and the communities of Ravendale and Madeline to assess the best way to continue to provide municipal water supplies. This will be achieved in three main capacity assessments: technical, managerial, and financial. The primary goal of this project will be to plan and design a system that will ensure that these rural communities have access to safe and reliable water, through water quality improvements. The secondary goal will be to explore options for water-saving enhancements or recycling opportunities.

Budget Category (a): Direct Project Administration

Task 1 - Project Management

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Deliverables:

Financial Statements, Invoices, Other Applicable Project Deliverables

Task 2 - Labor Compliance Program

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Deliverables:

Proof of labor compliance upon request

Task 3 - Reporting

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Deliverables:

Quarterly Project Progress Reports, Draft and Final Project Completion Report

Budget Category (b): Land Purchase/Easement

No tasks under this category

Deliverables:

There will be no deliverables under this category.

Budget Category (c): Planning/Design/Engineering/Environmental Documentation

Task 4 - Water System Capacity Assessment

This assessment will generally follow the Technical, Managerial, and Financial (TMF) method of assessment for small water systems, with additional technical engineering input from the water systems engineer including recommendations for holistic system upgrades and system mapping.

The technical assessment the physical and operational ability of the system to serve customers now and in the future will be assessed. This analysis will work to verify that the system's source can meet current and anticipated demand, and that the system's source is adequately protected, treated, and sampled. To the extent possible within budget constraints that the team will also attempt to verify the system infrastructure is in good condition.

Managerial capacity will analyze the systems administrative and organizational ability to be successful now and in the future. This will include analysis of the Operations Plan, and include a cursory review of any other existing system plans. (Master Plans, Capital Improvements Plans, Asset Management Plans) The review a plans will be an attempt to identify planning deficiencies. The analysis will also look ensure proper and ongoing training for water system operation, and planning efforts.

Financial capacity will look at the system's budgets and ability to generate or obtain enough funds to maintain the system and pay for future improvements.

Deliverables:

Report on technical, managerial, and financial capacity of the systems; system mapping; recommendations for system improvements

Budget Category (d): Construction/Implementation

No tasks under this category

Deliverables:

There will be no deliverables under this category.