Distribution System and Hydrants

SALYER MUTUAL WATER COMPANY (SMWC) A NON-PROFIT, TAX-EXEMPT MUTUAL BENEFICIAL CORPORATION















STATEMENT OF THE PROBLEM

Since 1998, the California Department of Public Health has maintained a standing boil order advisory for water users in the SMWC service area because the unfiltered source water does not meet Safe Drinking Water Act requirements. SMWC took over the operations in 2012 after regulatory violations, deferred maintenance resulting in leaks, low water pressure, and lack of proper chlorination led to abandonment of system by previous owners.

Power outages and frequent leaks, both detected and undetected, result in water outages and require extreme water conservation to avoid shortages, including bottled water purchases and bulk water deliveries. The system is insufficient for fire protection and Salyer is considered at high risk from wildland fires.

PROJECT GOALS

- 1. Water supply safety and reliability
- 2. Adequate flow for fire safety

THE SOLUTION

This project will build a dedicated distribution system and replacement of water mains that are beyond their useful life; installation of fire hydrants for fire protection and install/replace shutoff valves to reduce leaks and water shortages.

PROJECT IMPLEMENTATION

SMWC's distribution system project includes:

• Abandonment of the water system's existing distribution lines (approximately

10,000 feet) Installation of new PVC piping. Trenching will be properly bedded and backfilled to reduce drainage problems and breaks caused by traffic loads. Surface will be restored to its original condition in accordance with environmental requirements. There will be adequate separation between raw water lines and septic lines/systems.

- Connection of residential services to new distribution system.
- Installation of fire hydrants for fire protection and main flushing.
- Results of implementation of project:
- Reduced water shortages and outages; reduced energy use
- Reduced water waste and water unnecessarily pumped from river
- Preserving water flows in river downstream; protection of salmon habitat

PROJECT BUDGET

IRWM funds: TOTAL \$200,000 **\$200,000**

BENEFITS

Economic

- Approximately \$14,750 per year for reduced costs of hazard insurance
- Approximately \$759 per year for avoided costs of bottled water purchases associated with short-term water outages

- Approximately \$2,360 per year for avoided costs of bulk water purchases associated with long-term water outages
- Approximately \$1,600 per year for avoided costs associated with reduced energy demands
- Approximately \$1,267 over 40 years from avoided costs of climate change due to reduced carbon emissions
- Approximately \$4,090 per year from avoided costs associated with emergency repairs
- Approximately \$720 per year in reduced uncompensated water loss — the current distribution system crosses properties haphazardly and it is difficult to detect and prove theft; project proponents estimate the water system has at least two unauthorized users
- Approximately \$2,000 per year in avoided costs associated with operations and maintenance
- Approximately \$3,510 per year in reduced water treatment costs
- Approximately \$616 per year in increased instream flows for environmental purposes

Water Supply

 Increased water supply reliability for a disadvantaged community

Watershed Rehabilitation

- · Improved fish and wildlife habitat
- Increased instream flows of 8 acre-feet per year will improve salmonid and other wildlife habitat

Jobs and Local Economy

- About \$210,000 will be spent locally using local labor and supplies when possible, contributing to State goals for environmental justice and social equity
- Trinity Valley Consulting Engineers is a local firm who hires and/or contracts with local people as needed. Water operator will assist in planning and continue maintenance/treatment responsibilities.
- Reduction/elimination of outside water purchases and reduction in fire insurance costs
- Reduced risk of fire damage and loss of life
- Reduced costs associated with boil water advisory

NEXT STEPS & RECOMMENDATIONS

Salyer Mutual has two stand-alone infrastructure improvement projects that together assure a safe water supply. The CDPHproject focuses on surface water treatment and finished water storage and this NCIRWMP project focuses on the distribution system that will deliver water.

CONTACT

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