

Santa Cruz Integrated Regional Water Management

Project: Fire Hardening of Critical Water Supply Infrastructure
Grantee: Regional Water Management Foundation
Lead: San Lorenzo Valley Water District
Location: San Lorenzo Valley
Funders: California Department of Water Resources (Prop. 1 Integrated Regional Water Management Implementation Grant Program); Santa Cruz County
Amount: \$305,000 (DWR Grant); \$305,000 (local matching funds)
Year: 2023-2027
Status: Proposition 1 Round 2 Implementation Grant Awarded May 2023

Purpose: This project aims to protect critical water-supply infrastructure from future wildfires by reducing fire risk by “fire hardening” infrastructure by replacing flammable materials (e.g., wood shingle roofs) with inflammable and/or fire resistant materials at up to 13 structures that house water supply distribution system infrastructure, specifically the facilities that house booster pumps (known as “pump houses”).

Issues Addressed: Mitigation of future wildfire risks.

Summary: The San Lorenzo Valley Water District (SLVWD) distribution and treatment system consists of 190 miles of mainline, 55 storage tanks, 32 booster pump stations, 35 pressure zones, 7 well heads, and 2 surface water treatment plants. Wildfires pose high risk to SLVWD’s community, infrastructure, and to its ability to provide reliable water supply to the public and for fire suppression efforts. To mitigate future wildfire risks, SLVWD is seeking to better protect its critical water supply infrastructure by replacing flammable materials (e.g., wood shingle roofs) with inflammable and/or less flammable materials and related improvements to reduce wildfire vulnerability. The proposed project will focus on the following elements:

- Fire hardening up to 13 structures that house critical water supply distribution system infrastructure, specifically the facilities that house booster pumps will include:
 - Seven pump houses – those with wood roofs and concrete walls – fire hardening will involve replacement of the wood roofs with steel roofs.
 - Six pump houses – those that have both wooden roofs and walls – fire hardening treatments will involve a full retrofit to include steel roofs, 12-gauge tube steel framing, galvanized 24-gauge corrugated sheathing for roof and wall paneling, and concrete masonry unit walls.

Results: The 13 booster pump structures proposed for fire hardening are integral to the operation of the SLVWD water supply system. These booster pump stations provide potable and fire suppression water to 2,918 connections (2,918 habitable structures) and a population of about 9,500. Project benefits include improved water supply reliability for the District, protecting 651 acre feet per year (AFY) from potential impacts of wildfire. Hardening the pump house structures’ wood supports and roofing to fire resistant materials will substantially increase fire protection and will support the overall goal of wildfire resiliency throughout the SLVWD system, ensuring water security for both public supply and firefighting.