

Project Description – Sonoma Valley Enhanced Groundwater Recharge Study

1. Construction of two multi-level (or nested) groundwater monitoring wells: one well in a localized area of groundwater level decline which will also be used for monitoring during the aquifer test (see number 2 below), and the other well in an area of saline water intrusion;
2. Performance of an aquifer test using an existing inactive municipal supply well to initially assess ASR feasibility;
3. Geochemical modeling of water quality and aquifer matrix geochemistry to assist in designing an aquifer storage and recovery pilot study;
4. Construction of four shallow groundwater monitoring wells to evaluate potential sites for stormwater recharge projects.

Objectives of the Project

- To further assess the feasibility of aquifer storage and recovery using wintertime Russian River water and local stormwater infiltration as techniques for enhancing groundwater recharge in the Sonoma Valley;
- To further assess and monitor groundwater levels and water quality in the southern Sonoma Valley in localized areas of groundwater level declines and where potential saline water intrusion is a concern;
- To improve the groundwater-level and groundwater quality monitoring network in Sonoma Valley, which will help meet the objectives for the California Statewide Groundwater Elevation Monitoring (CASGEM) program and Salt and Nutrient Management Planning being undertaken in Sonoma Valley;
- To improve the understanding of hydrostratigraphic conditions in southern Sonoma Valley.