State of California
California Regional Water Quality Control Board
Santa Ana Region

January 29, 2016

Staff Report

**ITEM: 10**

**SUBJECT:** Update on the Status of the Prohibition on Septic System Use in the Quail Valley Area and Plans for Sanitary Sewer Systems for the Area

## INTRODUCTION

On October 3, 2006, the Regional Board adopted Resolution No. R8-2006-0024 that amended the Water Quality Control Plan for the Santa Ana River Basin (Basin Plan) to establish a prohibition of discharges from septic tank-subsurface disposal systems (septic systems) in a portion of southwestern Riverside County known as Quail Valley. The Quail Valley Prohibition (Prohibition) became effective on August 20, 2007 after it was approved by the State Water Resources Control Board and the California Office of Administrative Law.

## QUAIL VALLEY AND TRIBUTARY AREAS

At the time of adoption of the Prohibition, Quail Valley was in an unincorporated area of Riverside County. On October 1, 2008, the Quail Valley area was incorporated into the City of Menifee. As shown in Figure 1 , the Quail Valley area is located northeast of the City of Canyon Lake. Surface drainage from the area is tributary to Canyon Lake, a municipal drinking water supply source. Overflows from Canyon Lake are discharged into Lake Elsinore through the San Jacinto River. Canyon Lake is listed on the Regional Board's Clean Water Act Section 303(d) list of impaired water bodies due, in part, to high bacteria levels in the lake. Both Lake Elsinore and Canyon Lake are also listed as impaired for nutrients.

## BACKGROUND

The Regional Board adopted the Quail Valley Prohibition in 2006 based on evidence of adverse water quality and public health and nuisance problems caused by failing septic systems in the area. There is no sanitary sewer service available to most areas[1] of Quail Valley. Eastern Municipal Water District (EMWD) provides sewer service to most areas of the City of Menifee, and Elsinore Valley Municipal Water District (EVMWD) provides sewer service to the City of Canyon Lake.

Most residents[1] in Quail Valley use septic systems. During the heavy storm events in 2004 and 2005, the septic systems in the Quail Valley area were failing at an alarming rate. Approximately 37% of the Quail Valley area residences had sewage or grey water discharges to the ground surface during 2005. In general, these systems were failing due to: (1) high groundwater; (2) poor soil conditions; (3) shallow impermeable strata; and (4) poor maintenance of septic systems. In 2005, there were approximately 1,400 residences using septic systems in the Quail Valley area.


Figure No. 1 – Quail Valley Location

[1] A new development at the border of Canyon Lake and Quail Valley has sanitary sewers.

When Regional Board staff became aware of the severity of the situation in Quail Valley, it was recognized that surfacing septic tank effluent not only posed a threat to public health, but was also impacting the beneficial uses of Canyon Lake. In response, a working group was formed (made up of staff from Riverside County Health, Eastern Municipal Water District, Elsinore Valley Municipal Water District, the City of Canyon Lake, the Canyon Lake Property Owner's Association, the County Board of Supervisors and Regional Board) to explore solutions.

If septic systems were to be installed on all the buildable lots in Quail Valley, the total number of septic systems in the area could reach approximately 3,900. Septic systems can be an effective method for wastewater management when their use is balanced against a number of environmental factors such as septic system density, beneficial uses of the waters into which they discharge, depth to groundwater, and soil type. The septic systems must be properly engineered, installed and maintained, and the soil characteristics must be appropriate. Quail Valley, as indicated above, has soils that generally have low percolation rates and the groundwater in the area is high, making the conditions unsuitable for septic system use. These conditions, combined with the high density of septic systems in the area, were causing violations of the Basin Plan water quality objectives and impairing beneficial uses. They were also causing or contributing to conditions of pollution, contamination and nuisance. Because of these conditions, after a number of public workshops and a public hearing, the Regional Board adopted a Basin Plan amendment prohibiting the discharge of wastes from septic systems in the Quail Valley area.

## OVERVIEW OF THE QUAIL VALLEY SEPTIC SYSTEM PROHIBITION

The Basin Plan amendment, Resolution No. R8-2006-0024, amended Chapter 5 of the Basin Plan. This amendment prohibits the discharge of wastes from new and existing septic systems in the Quail Valley area if a sewer to serve the lot is constructed. In its early attempts to explore the feasibility of providing sewer service to the area, EMWD conducted a study, "Quail Valley Sewer Improvements Alternatives Study". As shown in Figure 2, in this study, the Quail Valley area was divided into 9 subareas. Of these, subareas 4 and 9 had the highest density of septic systems and the highest septic system failure rates.

The Basin Plan amendment prohibits the discharge of wastes from new or existing septic systems in all areas of Quail Valley if a sanitary sewer system is built to serve the area. However, because of the terrain and the hydrogeologic conditions in the area, preliminary studies by the sewering agencies indicated that it may not be feasible to provide sewer service to the entire Quail Valley area. So the amendment included a provision that new septic systems need not be prohibited outside of subareas 4 and 9, if reasonable progress is made towards providing sewer service to both subareas 4 and 9. Reasonable progress per the Basin Plan amendment requires that at a minimum, a sewer system design for subareas 4 and 9 must be completed in order for new systems to be permitted in subareas other than 4 and 9.

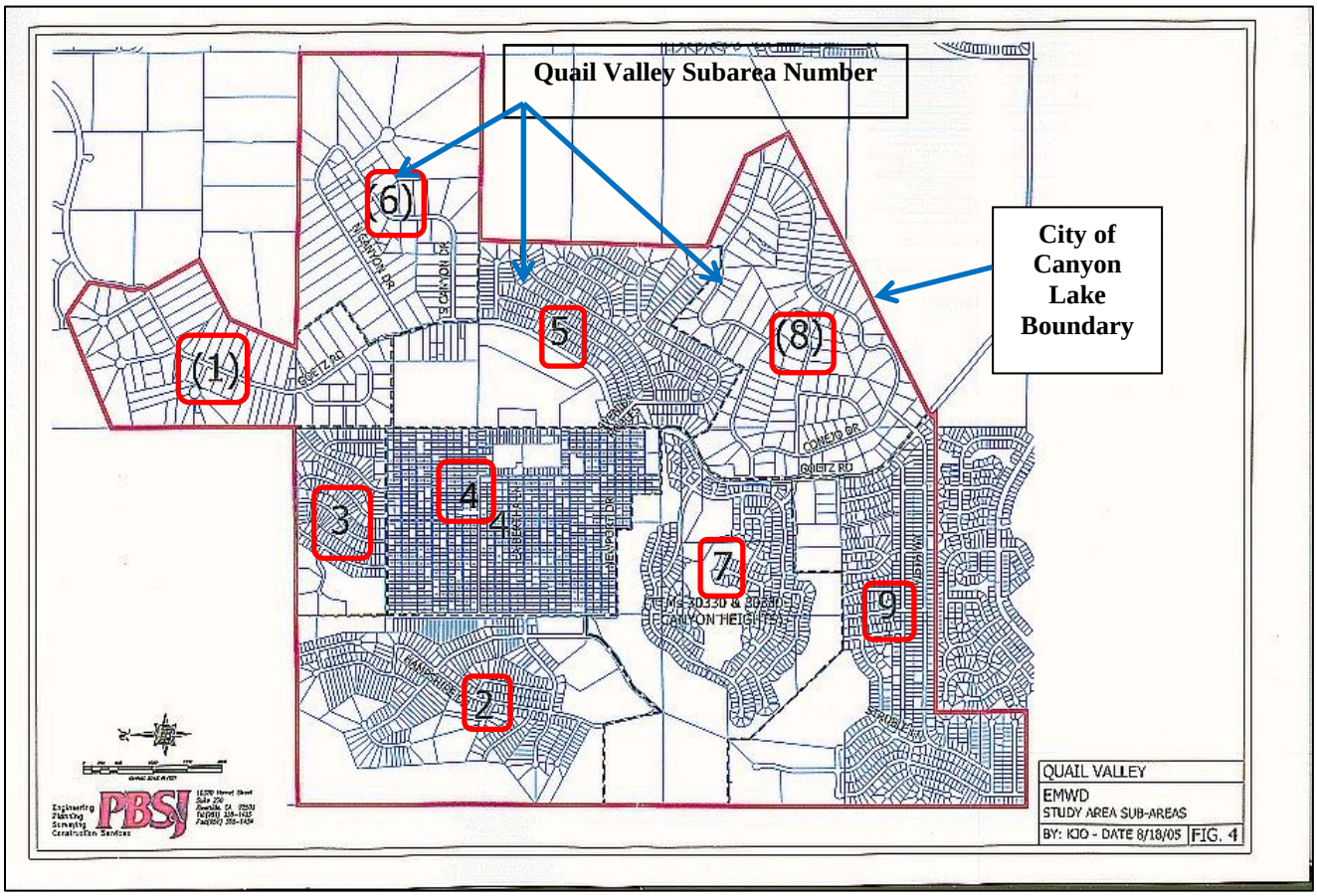


Figure No. 2 – Quail Valley Subareas

As indicated above, subareas 4 and 9 had the highest density of septic system use and the most failures. Most other subareas have larger lots. If areas 4 and 9 were to be completely sewered, properly engineered new and existing septic systems in other subareas of Quail Valley would not be a significant water quality problem. Under this scenario, the Prohibition provides that new septic systems could be approved in other subareas. This was based on the expectation that the sewering agencies in the area would be able to procure sufficient funding for the sewer project in the Quail Valley area and would be able to provide sewer service at least to subareas 4 and 9. In addition, the Basin Plan amendment did not provide for any exemption process to allow approval of new systems on individual lots in any subareas of Quail Valley.

As discussed further below, EMWD, the primary sewering agency in Quail Valley, has not yet been able to secure sufficient funding to make progress towards designing and

constructing a sewer system for both subareas 4 and 9. Under this condition, the Prohibition does not allow new septic systems to be permitted in any other subarea of Quail Valley unless the Basin Plan is amended to allow for an exception to the Prohibition.

## PROGRESS ON SEWERING QUAIL VALLEY AREA

A preliminary study for providing municipal sewer service to Quail Valley was commissioned by EMWD in 2006. The feasibility of various alternatives of serving the area was examined. The study concluded that sewer service was feasible to the more densely populated portions of Quail Valley, e.g., subareas 4 and 9, but at a substantial cost. The estimated cost of providing sewer service for all of the Quail Valley community was estimated to be $89 million. This translates to an approximate cost, including connecting to the sewer and abandoning the septic tank, of $30,000 per lot.

There was a period of time when both EMWD and the City of Menifee were actively seeking grant funds to construct sewer facilities in subareas 4 and 9. However, the City has now decided to have EMWD entirely handle the matter. EMWD has received $1.93 million in grant funding from the Santa Ana Watershed Project Authority (SAWPA)[2] to complete the final planning and design, of sewer facilities for approximately 215 lots in subarea 9. This project includes only a portion of the lots in subarea 9. Final sewer system design for these lots within subarea 9 is expected to be completed by the end of 2016. An estimated additional $8 million will be needed to fund the construction and connection fees for these 215 lots. EMWD has submitted an application to the State Water Resource Control Board for Clean Water State Revolving Fund (CWSRF) Principal Forgiveness Grant to obtain the $8 million needed for the sewering facilities; final execution of the Grant is pending.

EMWD is also pursuing a preliminary sewer design for subarea 4. However, at this time, EMWD has been unable to identify a source of funds to design and/or construct a sewer system in subarea 4.

The Regional Board, through its Supplemental Environmental Projects (SEP) program, has provided approximately $500,000 to EMWD for addressing the water quality problems stemming from the failing septic systems in Quail Valley area. These SEP funds have remained in trust by EMWD to be used to defray residents' costs to connect to the sewer, once sewer service becomes available.

## STATEWIDE WATER QUALITY CONTROL POLICY FOR SITING, DESIGN, OPERATION AND MAINTENANCE OF ONSITE WASTEWATER TREATMENT SYSTEMS

[2] SAWPA administers Proposition 84 grant funds through their One Water One Watershed process.

On June 12, 2012 the State Board adopted the Statewide Water Quality Control Policy for Siting, Design, Operation and Maintenance of Onsite Wastewater Treatment Systems (OWTS Policy). The OWTS Policy, which was approved by OAL on November 13, 2012 and became effective on May 13, 2013, conditionally waives the requirements for owners of OWTS to apply for and receive Waste Discharge Requirements in order to operate their systems, provided that they meet the conditions established in the Policy. However, as stated in the Policy preamble, **"**Nothing in this Policy supersedes or requires modification of Total Maximum Daily Loads or Basin Plan prohibitions of discharges from OWTS". The OWTS Policy further requires of OWTS owners/operators the following: "All new, replacement, or existing OWTS within an area that is subject to a Basin Plan prohibition of discharges from OWTS, must comply with the prohibition. If the prohibition authorizes discharges under specific conditions, the discharge must comply with those conditions and the applicable provisions of the Policy." (OWTS Policy, Section 2.1). As previously indicated, the Quail Valley Prohibition became effective in 2007; therefore, the Quail Valley Prohibition remains in effect and is applicable to the regulation of septic systems discharges in the Quail Valley area.

## CONTINUING ISSUES

The Quail Valley Prohibition was adopted to address excessive septic system failure rates and the resulting wastewater discharges within Quail Valley and downstream to Canyon Lake. Periodically, Regional Board staff receives inquiries from existing or prospective property owners in Quail Valley about whether an exception to the Prohibition could be granted in order for them to install a new septic system on larger lots. The Prohibition, as indicated above, currently does not allow for any new septic system installation within any portion of Quail Valley if reasonable progress on constructing a sewer system has not been made. This effectively prohibits new development on any parcels within all subareas of Quail Valley at the present time.

It is important to note that an above average winter storm cycle, such as is expected for 2016, could result in another high level of septic system failures, similar to those that occurred in 2004-2005. For these reasons, staff believes that the Prohibition should remain in effect to ensure protection of public health and to protect Canyon Lake beneficial uses.