

California Regional Water Quality Control Board
Santa Ana Region

November 1, 2013

Staff Report

ITEM: 12

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 on septic tank-subsurface disposal systems (septic systems) in a portion of southwestern Riverside County known as Quail Valley. The prohibition became effective on August 20, 2007 after it was approved by the State Water Resources Control Board and the Office of Administrative Law.

QUAIL VALLEY AND TRIBUTARY AREAS

At the time of adoption of the septic system 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 on the next page, 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 for impairment 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 Basin Plan amendment 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 areas¹ 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.

¹ A new development at the border of Canyon Lake and Quail Valley had installed sanitary sewers.

Most residents 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 residents had sewage or grey water discharges to the ground surface during 2005. These systems were failing mostly because of: (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 residents using septic systems in the Quail Valley area.



Figure No. 1

As soon as 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 Owners 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 impairment of 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 prohibits the installation of new septic systems in Quail Valley with one exception discussed below. Further, should a sewer system be built in the area, then all new and existing septic systems would be prohibited and those new and existing septic systems are required to connect to the sewer system. EMWD conducted a study, "Quail Valley Sewer Improvements Alternatives Study". In this study, the Quail Valley area was divided into 9 subareas (see Figure 2 on the next page). Of these, subareas 4 and 9 had the highest density of septic systems and the highest septic system failure rates. Because of the terrain and the hydrogeologic conditions in the area, preliminary studies by the sewer agency indicated that it may not be feasible to provide sewer service to the entire Quail Valley area.

The exception to the prohibition specifies that new septic systems in subareas 1, 2, 3, 6, 7 and 8 need not be prohibited if reasonable progress towards installation of sewer service for both subareas 4 and 9 were made by August 2012 (within five years of the effective date of the 2007 Basin Plan amendment). 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.

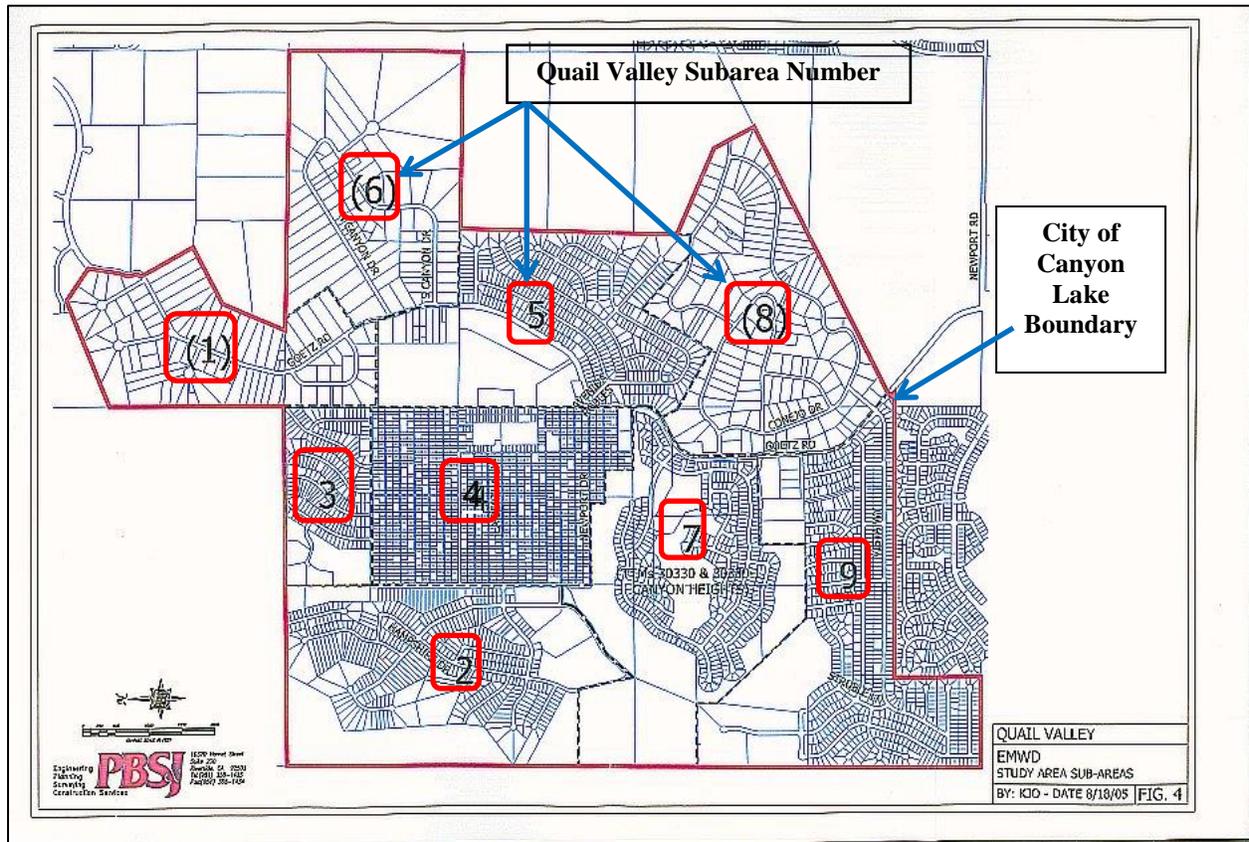


Figure No. 2

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. Given the very poor hydrogeologic conditions for the use of septic systems throughout most areas of Quail Valley, discharges from new septic systems within the areas of larger lots has the potential to contribute to the surfacing septic system effluent in subareas 4 and 9 during periods of heavy rainfall, resulting in continued water quality degradation and threats to public health. If areas 4 and 9 were to be completely sewered, new and existing septic systems in other subareas of Quail Valley would not be a significant water quality problem, provided that site conditions are appropriate for their use. Under this scenario, new septic systems could be approved in other subareas. This was based on the expectation that the seweraging agencies in the area would be able to procure sufficient funding for the sewer project in the Quail Valley area and they should 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, the sewerage agencies have not made significant progress towards constructing a sewer system for both subareas 4 and 9. Under this condition, new septic systems cannot be permitted in any other subarea of Quail Valley unless the Basin Plan is amended to allow for exemptions to the prohibition.

PROGRESS ON SEWERING THE 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 subareas 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 recently secured commitments for \$2.43 million in grant funding from the State and from the Santa Ana Watershed Project Authority (SAWPA)² to advance, but not complete, the planning, design, and construction of sewer facilities for subarea 9 (approximately 230 lots). An estimated additional \$6 million will be needed to fund construction and connection fees for these 230 lots. EMWD plans to submit an application later this year to the State Water Resource Control Board for a Clean Water State Revolving Fund (CWSRF) Principal Forgiveness Grant to obtain the \$6 million needed for the sewerage facilities. EMWD anticipates completing the sewerage of the 230 lots in subarea 9 within 5 years.

EMWD is also pursuing a preliminary sewer design for subarea 4. However, funds to design and construct a sewer system in subarea 4 have not yet been obtained. EMWD has not informed the Regional Board of a schedule for completion of the sewer system design/construction for subarea 4.

The Regional Board, through its Supplemental Environmental Projects (SEP) program, has provided \$290,500 to EMWD for addressing the water quality problems stemming from the failing septic systems in Quail Valley area. This SEP fund has remained in trust by EMWD to be used to defray residents' costs to connect to the sewer, once sewer service becomes available.

CONTINUING ISSUES

Periodically, Regional Board staff have received enquiries from existing or prospective property owners in Quail Valley about whether an exception to the prohibition could be

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

made in order for them to install a new septic system on a larger lot. The prohibition, as indicated above, does not allow for any new septic system installation within any portion of Quail Valley unless and until reasonable progress on constructing a sewer system has not been made. Reasonable progress has not been made for the construction of sewer service to both subareas 4 and 9. Considering the hydrogeological conditions of Quail Valley and the fact that subsurface drainage tributary to subarea 4 represents a significant portion of Quail Valley, the sewer system planned for subarea 9 would have minimal impact on reducing the influence from the surrounding larger lots on subsurface drainage of septic wastes into Canyon Lake from subarea 4. Another above average winter storm cycle has the potential to cause the failing septic system conditions experienced in 2004-2005.

ALTERNATIVES

Take No Action

The Board could leave the prohibition in place in its current form. This would mean that no new septic systems could be installed in any subareas of Quail Valley until sewer system design is completed for subareas 4.

Allow Exemptions

The Board could allow new development on larger lots in Quail Valley by modifying the prohibition in order to allow for exemptions under specific conditions. This action would require an amendment to the Basin Plan, and would trigger an environmental review in accordance with the California Environmental Quality Act (CEQA) requirements.

RECOMMENDATION

At this time, in order to protect public health and downstream beneficial uses in Canyon Lake, staff recommends that the Board take no action to modify the prohibition. Staff further recommends that the Board annually review the progress toward providing sewer service to the Quail Valley area.