

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

April 22, 2016

Staff Report

ITEM: 9

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 waste discharges from septic tank-subsurface disposal systems (septic systems) in a portion of south western Riverside County known as Quail Valley. The Quail Valley 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. Pursuant to the Prohibition, new septic systems are allowed only if the sewerage agency makes progress on providing sewer service to high density lots in subareas 4 and 9 of Quail Valley.

On March 11, 2016, Board staff provided an update on the status of the Quail Valley Prohibition, including efforts by the sewerage agency, Eastern Municipal Water District (EMWD) to provide sewer service to the area. Comments were received from property owners who expressed their frustration that the Prohibition prevents them from building on their properties. At the conclusion of testimony, the Regional Board directed staff to provide additional information on the following:

- A. Activities that have taken place after the Prohibition became effective;
- B. Conditions in Quail Valley after the Prohibition became effective including an update of Canyon Lake and Quail Valley water quality data;
- C. Options for amending the prohibition;
- D. Options for exemption criteria; and
- E. Basin Plan Amendment Timeline

A. Quail Valley 2007 – 2016 Milestones

Various agencies including Regional Board staff, EMWD, the County of Riverside and the City of Menifee have been working to address the requirements of the Quail Valley Prohibition. Most notably, as discussed at the March 11, 2016 Board meeting and accompanying Staff Report, EMWD has pursued funding for design and construction of sewer systems for subareas 4 and 9. Table 1 summarizes the actions taken by these various agencies to address requirements of the Prohibition.

Table 1: Summary of Actions Related to Quail Valley Waste Discharge Prohibition

Date	Agency	Activity
12/20/2004	Regional Board	Adoption of Lake Elsinore/Canyon Lake Nutrient TMDLs – Resolution No. R8-2004-0037: (septic discharges given load allocation and required reduction)
9/5/2005	USEPA	USEPA approval of Lake Elsinore/Canyon Lake Nutrient TMDLs – effective date of Nutrient TMDLs
2/7/2006	Regional Board	\$54,133 SEP** funding directed to EMWD
10/2005	EMWD	Prepared the Quail Valley Sewer Improvements Alternatives Study (PBS&J Study)
2/7/2006	Regional Board	\$9,250 SEP** funding directed to EMWD
3/6/2006	Regional Board	\$118,447 SEP** funding directed to EMWD
4/14/2006	Regional Board	\$98,498 SEP** funding directed to EMWD
10/6/2006	Regional Board	Regional Board adoption of Quail Valley Waste Discharge Prohibition (Resolution No. R8-2006-0024)
12/15/2006	Regional Board	\$10,500 SEP** funding directed to EMWD
8/20/2007	Regional Board	Effective date of Quail Valley Waste Discharge Prohibition
11/16/2007	EMWD	EMWD submits application to SWRCB for grant funds for design, project cost of \$3M.
6/3/2009	EMWD	EMWD Board approves funding the preliminary design and environmental documentation for Subarea 9
6/6/2009	SWRCB	SWRCB approves \$180,000 for preliminary design of Subarea 9
07/23/2010	EMWD	EMWD completes preliminary design and environmental documentation
1/7/2010	Menifee	City applied for \$30,000 federal education grant from Office of Environmental Justice. Grant not funded.
3/4/2011	Regional Board	Regional Board staff Prohibition status update
1/28/2013	Watershed MS4 Agencies	Submittal of Comprehensive Nutrient Management Plan (CNRP) to comply with Lake Elsinore/Canyon Lake Nutrient TMDLs (contains plans for reducing nutrient discharges from septic systems)
6/25/2013	EMWD	EMWD submits application to SWRCB for planning grant
7/19/2013	Regional Board	Regional Board approval of CNRP (Resolution No. R8-2013-0044)
12/13/2013	SWRCB	SWRCB approves a \$500,000 grant planning grant to EMWD

Table 1: Summary of Actions Related to Quail Valley Waste Discharge Prohibition

Date	Agency	Activity
04/23/2014	EMWD	Public Meeting held to request Right-of-Entry Forms
06/06/2014	EMWD	Submitted request EPA and SWRCB for \$8M to construct Subarea 9 – Phase 1
7/2014	SWRCB	Changes to Prop 1 Funding requirements – applications were resubmitted. Now, cost to resident must be 2% of their Median Household Income.
7/7/2014	Regional Board	\$175,800 SEP** funding directed to EMWD
09/17/2014	EMWD	Amendment to the environmental document approved due to reduced grant funds available. Subarea 9 is now phased and force main and pump station incorporated with adjacent developer project.
9/23/2014	Quail Valley Environmental Coalition (city support)	\$21,000 grant application to Office of Environmental Justice for outreach program. Grant request denied
11/1/2014	Regional Board	Regional Board staff Prohibition status update
11/13/2014	EMWD	Obtained \$1.93M grant from SAWPA to design sewer for Subarea 9 – Phase 1
07/31/2015	EMWD	Preliminary Design Report for Subarea 9 – Phase I completed.
10/23/2015	EMWD	EMWD Board approves Final Design for Subarea 9 – Phase 1, currently at 30% completion.
3/11/2016	Regional Board	Regional Board staff Prohibition status update

** SEP – Supplemental Environmental Program. Regional Board directs funds obtained through enforcement actions to environmental projects.

B. Conditions in Quail Valley Post-Prohibition

In 2005, there were approximately 1,400 residences using septic systems in the Quail Valley area. During the 2004-2005 winter season, rainfall as measured in Menifee exceeded 24 inches (see Table 2). This amount of rainfall resulted in the failure of the septic systems in the Quail Valley area at an alarming rate. Approximately 37% of the Quail Valley area residences had sewage or grey water discharges to the ground surface during 2005 prompting the Regional Board to adopt the Prohibition. 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. As shown on Table 2, rainfall in subsequent years has generally been below 15 inches and has not approached the extreme 24 inches of rainfall that occurred in the 2004-2005 winter season.

Both the County of Riverside and the City of Menifee record Quail Valley septic system failures. Since 2007, the County has recorded 15 sewage/septic system complaints in the Quail Valley area; the City of Menifee indicates that since their incorporation in 2008, they have no reports of any complete septic system failures in Quail Valley.

Table 2: Menifee, California Precipitation Summary

Season ^a	Precipitation	
	inches	mm
2004-2005 ^b	24.75"	(628.6 mm)
2005-2006	6.64	(168.6 mm)
2006-2007	3.01	(76.4 mm)
2007-2008	8.55	(217.1 mm)
2008-2009	7.10	(180.3 mm)
2009-2010	10.82	(274.8 mm)
2010-2011	15.19	(385.8 mm)
2011-2012	6.68	(169.6 mm)
2012-2013	5.84	(148.3 mm)
2013-2014	4.99	(126.7 mm)
2014-2015	6.55	(166.3 mm)
2015-2016	4.74"	(120.4 mm)

source: <http://weathercurrents.com/menifee/ArchivePrecipitation.do>

^a Normal season: July 1 through June 30

^b Actual season start date: October 24, 2004

Update of Canyon Lake and Quail Valley Water Quality Data

At the time of the development of the Prohibition, Regional Board staff conducted sampling in both the Quail Valley area and drainage from Quail Valley to Canyon Lake. The results compared to existing water quality and public health standards showed elevated levels of bacterial indicators.

In 2016, as a result of the issues raised by Quail Valley property owners, Regional Board staff initiated an assessment of the current water quality in the Quail Valley area and Canyon Lake to determine if bacterial indicator concentrations remain elevated. The Grid Area of Quail Valley does not have storm drain systems. Therefore, surface runoff from the area either ponds in land depressions or flows into ephemeral streams in the area and ultimately into Canyon Lake. In addition, drainages along streets or impoundments are accessible to Quail Valley residents and represent areas of potential exposure to septic system discharges.

The following locations listed in Table 3 and shown in Figure 1 were sampled.

Table 3: 2016 Sampling Locations

Site No	Site Description/Location	Reason for Sampling
1	San Jacinto Rd.	Drainage within Quail Valley
2	La Bertha Ave. b/w Connecticut Dr. & Nevada Dr.	Drainage within Quail Valley
3	Goetz Dr. & Mountain View Ln.	Drainage within Quail Valley
4	Elsinore Dr. & Mountain View Ln.	Drainage within Quail Valley
5	Lassen Dr. and Vacation Dr.	Drainage to Canyon Lake
6	Green Place Dr. and Vacation Dr.	Drainage to Canyon Lake

Applicable Water Quality Objectives

The Basin Plan specifies water quality objectives for a number of parameters that are indicative of septic system effluent. These include bacterial indicators and nutrients. Bacterial indicator objectives are expressed in the Basin Plan as total and *E.coli* bacteria as shown in Table 4.

Table 4: Applicable Bacterial Indicator Water Quality Objectives

Beneficial Use	Bacterial Indicator Water Quality Objectives	Nutrient Water Quality Objectives
MUN (Municipal and domestic supply)	Total coliform for streams and lakes: less than 100 organisms/100 mL	Total Inorganic Nitrogen: 8 mg/L
REC1 and REC2 (Non-contact water recreation)	Geomean: <126 <i>E. coli</i> organisms per 100 mL Single sample maximum**: < 235 <i>E. coli</i> organisms per 100 mL	Algae: Waste discharges shall not contribute to excessive algal growth in receiving waters
WARM (Warm water Aquatic Habitat)	not applicable	Algae: Waste discharges shall not contribute to excessive algal growth in receiving waters Dissolved Oxygen: > 5 mg/L

** The Single Sample Maximum Values are not Water Quality Objectives, but are an alternative method for assessing probable compliance with the *E. coli* Objective in Freshwaters Designated REC1 when insufficient data are available to calculate a Geometric Mean. As such, they are referenced here as guidelines to evaluate if the data indicate likely exceedance of the geomean *E. coli* water quality objective.

California Department of Health Draft Guidelines

The Department of Public Health (CADPH) has established draft guidelines for posting and closure of freshwater public beaches (CADPH, 2011). These guidelines recommended beach posting to warn against water contact recreation when indicator organisms exceed any of the following levels in a single sample:

- Total coliforms: 10,000 per 100 mL
- Fecal coliforms: 400 per 100 mL
- Either Enterococcus: 61 per 100 mL, or *E. coli*: 235 per 100 mL

2016 Water Quality Results

Samples were analyzed for bacterial indicators, including total coliform, *E. coli*, and enterococcus as well and total inorganic nitrogen and are compared to applicable Basin Plan objectives and/or CADPH posting guidelines. Sample results are presented in Table 5.

Table 5 – 2016 Bacterial Indicator Sampling Results^a

Location	Date	<i>E. Coli</i> (MPN/100 ml)	Enterococcus (MPN/100 ml)	Total Coliform (MPN/100 ml)	Total Inorganic Nitrogen (mg/L)
WQ Objective or CADPH Guideline		Geo-mean:126 SSM: 235	61	10,000	8.0
Lassen Dr. and Vacation Dr. 30-day Geo-Mean	1/12/2016	23	220	920	ND
	2/26/2016	1.8	79	170	1.57
	3/1/2016	1.8	350	240	0.09
	3/4/2016	1.8	23	140	ND
	3/8/2016	540	1600	920	ND
	3/14/2016	6.8	26	470	ND
	--	7.3	--	--	--
	3/8/2016 ^b				
	3/14/2016 ^b				
Green Place and Vacation Dr. 30-day Geo-Mean	1/12/2016	4.5	350	1600	0.08
	2/26/2016	1.8	79	540	0.08
	3/1/2016	2	49	130	ND
	3/4/2016	1.8	23	610	ND
	3/8/2016	2	79	49	0.09
	3/14/2016	6.8	22	110	0.08
	--	2.4	--	--	--
	3/8/2016 ^b				
	3/14/2016 ^b				
Goetz Dr. and MountainView Pl. 30-day Geo-Mean	1/12/2016	220	5400	9200	1.3
	2/26/2016	33	540	5400	0.10
	3/1/2016	49	70	140	0.21
	3/4/2016	11	110	5400	0.09
	3/8/2016	2	140	280	0.24
	3/14/2016	2	170	2400	.011
	--	9.3	--	--	--
	3/8/2016 ^b				
	3/14/2016 ^b				
Elsinore Ln. and Mountain View Ln.	1/12/2016	17	5400	280	0.96
	2/26/2016	11	350	540	0.16
	3/1/2016	4.5	79	920	0.11
	3/4/2016	49	13	330	0.56
	3/8/2016 ^b	14	280	350	0.11
	3/14/2016 ^b	11	170	110	0.11

Table 5 – 2016 Bacterial Indicator Sampling Results^a

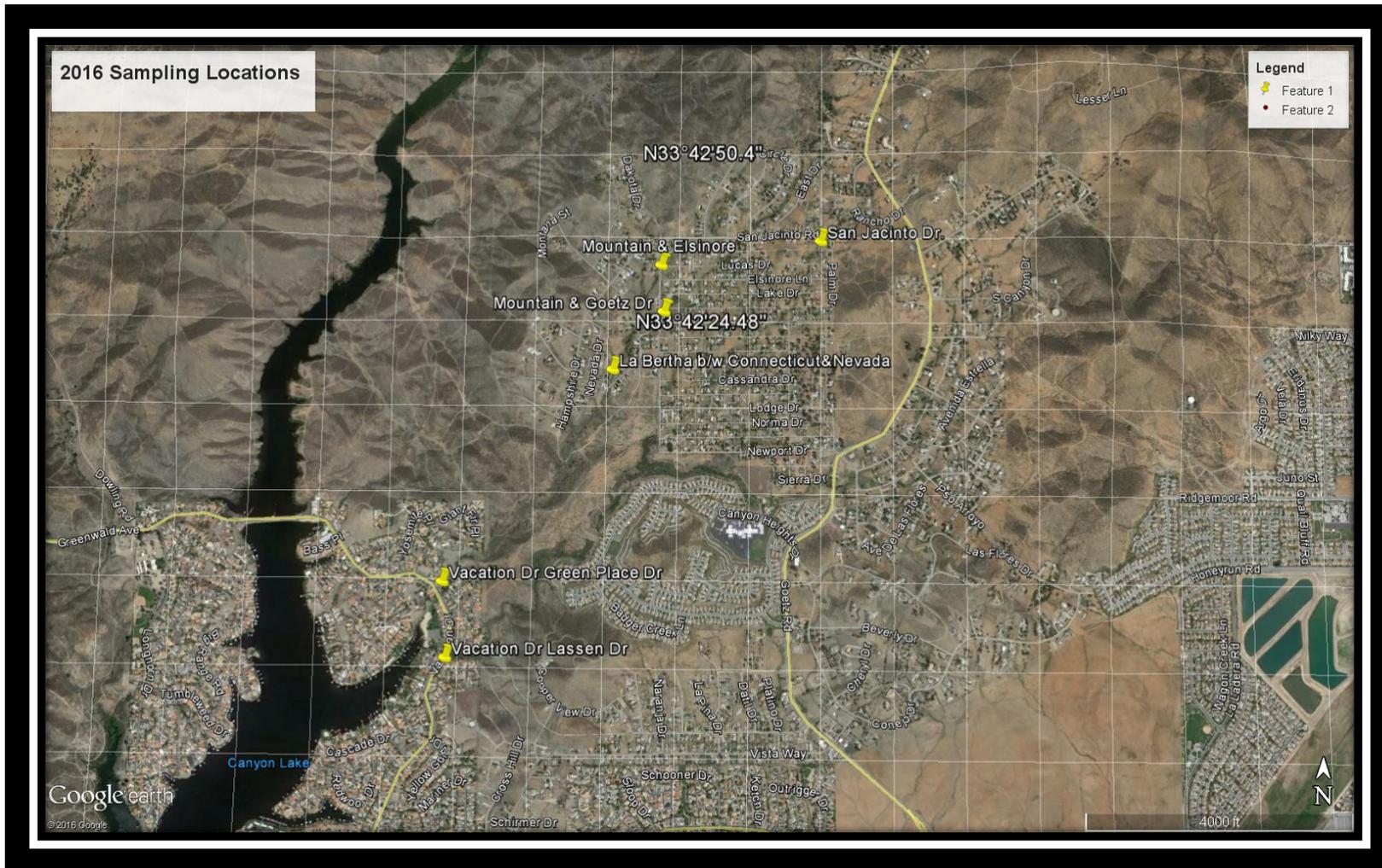
Location	Date	<i>E. Coli</i> (MPN/100 ml)	Enterococcus (MPN/100 ml)	Total Coliform (MPN/100 ml)	Total Inorganic Nitrogen (mg/L)
30-day Geo-Mean	--	13.0	--	--	--
	3/18/2016				
	3/23/2016				
San Jacinto Rd. 30-day Geo-Mean	1/12/2016	17	1600	5400	0.33
	2/26/2016	ns	ns	ns	ns
	3/1/2016	ns	ns	ns	ns
	3/4/2016	ns	ns	ns	ns
	3/8/2016	ns	ns	ns	ns
	3/14/2016	ns	ns	ns	ns
	--	na	--	--	--
	3/8/2016 ^b				
	3/14/2016 ^b				
La Bertha Ave. b/w Connecticut and Nevada Dr. 30-day Geo-Mean	1/12/2016	ns	ns	ns	ns
	2/26/2016	2	33	110	0.11
	3/1/2016	2	23	2400	0.08
	3/4/2016	1.8	4.5	11000	0.07
	3/8/2016 ^b	2	110	1200	0.17
	3/14/2016 ^b	1.8	22	330	0.09
	--	1.9	--	--	--
	3/8/2016 ^b				
	3/14/2016 ^b				

ns = not sampled
 na = not applicable
 nd = non-detect

^a shaded values indicate values which approach or exceed Basin Plan Objectives or CADPH Draft Guidelines

^b results for samples collected on 3/18/2016 and 3/23/2016 are not yet available.

Figure 1 – 2016 Water Quality Sampling Locations



C. Prohibition Options

As directed by the Board, Staff have identified a number of options to address property owners' concerns with the Prohibition. These options as well as an evaluation of the benefits and constraints of each are presented in Table 4. Board staff will be discussing these options in more detail at the April 22, Regional Board meeting.

Table 6: Options to the Quail Valley Prohibition

Option No.	Option Title	Description	Benefits	Constraints
1a	No Action	<p>Do not amend Prohibition. Continue to prohibit the installation of septic systems in all subareas of Quail Valley until such time as sewer system design is completed for subareas 4 and 9.</p>	<ul style="list-style-type: none"> • ensures continued protection of public health and downstream Canyon Lake water quality • ensures sewerage, targeted in high priority subareas • does not require BP Amendment 	<ul style="list-style-type: none"> • 10 years since Prohibition and no sewer system has been built • property owners in lower priority subareas prevented from developing
1b	No Action - Conditional	<p>Do not amend Prohibition (conditional) Continue to prohibit the installation of septic systems in all subareas of Quail Valley until such time as sewer system design is completed for subareas 4 and 9.</p> <p>Allow the County to consider Alternative Systems (holding tanks) in subareas 1, 2, 3, 5, 6 and 8.</p>	<ul style="list-style-type: none"> • ensures continued protection of public health and downstream Canyon Lake water quality • ensures sewerage, targeted in high priority subareas • does not require BP Amendment • allows for property owners to develop provided they install holding tanks 	<ul style="list-style-type: none"> • requires routine pumping commitment from property owners • County regulations would need to be modified to allow for alternative systems • County and/or City of Menifee resources needed to approve and provide oversight of alternative systems • County and/or City of Menifee resources needed to inspect and enforce alternative system maintenance

Table 6: Options to the Quail Valley Prohibition (cont.)

Option No.	Option Title	Description	Benefits	Constraints
2a	Amend Prohibition - Incorporate Exemption Process	<p>Amend Prohibition Continue to prohibit the installation of septic systems in all subareas of Quail Valley until such time as sewer system design is completed for subareas 4 and 9 as the default action.</p> <p>Incorporate exemption process and criteria to allow septic systems for subareas 1, 2, 3, 5, 6, and 8.</p>	<ul style="list-style-type: none"> • allows for property owners to install septic systems if certain criteria met • exemption criteria consistent with Statewide Onsite Wastewater Treatment System Policy (OWTS)** Tier 1 requirements 	<ul style="list-style-type: none"> • May prolong sewerage effort timeline • Could result in increased hydraulic loading in QV resulting in additional underflow reaching subareas 4 and 9 • Public health and/or downstream Canyon Lake quality could be put at risk • Requires BP Amendment including CEQA analysis and Peer Review • Requires demonstration that amendment conforms with Antidegradation Policy (Res No. 68-16) • Would require County permitting and oversight of installation of septic systems
2b	Amend Prohibition - Incorporate Exemption Process and increased maintenance program	<p>(Same as 2a) Amend Prohibition Continue to prohibit the installation of septic systems in all subareas of Quail Valley until such time as sewer system design is completed for subareas 4 and 9 as the default action.</p> <p>Incorporate exemption process and criteria to allow septic systems for subareas 1, 2, 3, 5, 6 and 8</p> <p>Require increased maintenance protocols for existing systems in subareas 4 and 9.</p>	<p>(Same as 2a)</p> <ul style="list-style-type: none"> • allows for property owners to install septic systems if certain criteria met • exemption criteria consistent with Statewide Onsite Wastewater Treatment System Policy (OWTS)** Tier 1 requirements • Increased maintenance may address hydraulic loading under most climatic conditions 	<ul style="list-style-type: none"> • May prolong sewerage effort timeline • Would require County permitting and oversight of installation of septic systems • Public health and/or downstream Canyon Lake quality could be put at risk • Requires BP Amendment including CEQA analysis and Peer Review • Requires demonstration that amendment conforms with Antidegradation Policy (Res No. 68-16) • Would require increased maintenance by all septic systems owners in subareas 4 and 9

Table 6: Options to the Quail Valley Prohibition (cont.)

Option No.	Option Title	Description	Benefits	Constraints
3	Amend Prohibition to address all existing systems	<p>Amend Prohibition Continue to prohibit the installation of septic systems in all subareas of Quail Valley until such time as sewer system design is completed for subareas 4 and 9.</p> <p>AND</p> <p>If no sewer provided in subareas 4 and 9 by 2021, require all <u>existing</u> septic systems to be eliminated and alternate disposal methods to be installed (this was contemplated option in 2006 Staff Report with 5 year timeline)</p>	<ul style="list-style-type: none"> • ensures continued protection of public health and downstream Canyon Lake Water Quality • ensures sewerage targeted in high priority subareas • would conform with Antidegradation Policy (Res No. 68-16) 	<ul style="list-style-type: none"> • 10 years since Prohibition and no sewer system has been built • property owners in less priority subareas prevented from developing • costly option for existing systems owners • Requires BP Amendment including CEQA analysis and Peer Review • Requires demonstration that amendment conforms with Antidegradation Policy (Res No. 68-16)
4	Remove Prohibition; rely on OWTS Policy	<p>Remove Prohibition in entirety Allow for septic system installation in all subareas of Quail Valley</p> <p>Require compliance with OWTS Policy</p>	<ul style="list-style-type: none"> • allows for property owners to install septic systems provided OWTS Policy criteria met (Tiers 1, 2 or 4) 	<ul style="list-style-type: none"> • Requires BP Amendment including CEQA analysis and Peer Review • Requires demonstration that amendment conforms with Antidegradation Policy (Res No. 68-6) • Does not ensure protection of public health and/or downstream Canyon Lake Water Quality. Will result in higher potential for sewage discharge to surface waters. • Removes requirement for existing systems to connect to sewer when available

D. Potential Exemption Process/Criteria

1. Options 2a and 2b (above) would allow for exemptions to the Quail Valley Prohibition in subareas outside of 4 and 9, if certain criteria were met. Consistent with the Water Quality Control Policy for Siting, Design, Operation and Maintenance of Onsite Wastewater Treatment Systems (OWTS Policy)¹, Regional Board staff have identified the following factors and minimum requirements, all of which should be met to support an exemption to the Prohibition for proposed septic systems in subareas 1, 2, 3, 5, 6 and 8.

A. Qualified Professional (OWTS Policy, Tier 1, Section 7.1)

Septic systems in Quail Valley subareas 1, 2, 3, 5, 6, and 8 can be installed provided the following requirements are met.

1. A Qualified Professional has performed all necessary soil and site evaluations.
2. The Qualified Professional is an individual licensed or certified by a State of California agency to design OWTS and practice as professionals for other associated reports, as allowed under their license or registration. **AND**

B. Allowable Density (OWTS Policy, Tier 1: Section 7.8. Table 1)

Septic systems in Quail Valley subareas 1, 2, 3, 5, 6, and 8 can be installed provided the lot size density is 2.5 acres/single family dwelling unit. **AND**

C. Percolation Tests (OWTS Policy, Tier 1: Section 7.4)

1. Septic systems in Quail Valley subareas 1, 2, 3, 5, 6, and 8 can be installed provided that the average of 4 percolation test results in the effluent disposal areas are not faster than 1 minute per inch (1 MPI) or slower than 120 minutes per inch (120 MPI).
2. Percolation tests must be continuously monitored by the Qualified Professional. **AND**

D. Minimum Depth (OWTS Policy, Tier 1:Section 7.3, Table 2)

Septic systems in Quail Valley subareas 1, 2, 3, 5, 6, and 8 can be installed provided the minimum depth to the anticipated highest level of groundwater below the bottom of the leaching trench, and the native soil depth immediately below the leaching trench, are less than the following requirements. **AND**

¹ The OWTS Policy implements levels (tiers) of requirements based upon the potential threat to water quality that may be caused by the onsite system. **Tier 1- Low-Risk New or Replacement OWTS** provides a conditional waiver of waste discharge requirements for new or replacement systems that comply with specific low risk siting and design criteria intended to be protective of water quality and where there is not an approved Local Agency Management Program (LAMP). The criteria are intentionally conservative to ensure that use of such systems, without specific monitoring, will not result in water quality impairment.

Percolation Rate (MPI)	Minimum Depth (feet)
> 1 MPI ≤ 5 MPI	20 feet
> 5 MPI ≤ 30 MPI	8 feet
> 30 MPI ≤ 120 MPI	5 feet

MPI = minutes per inch as measured in a properly conducted percolation test

E. Setbacks (OWTS Policy, Tier 1, Section 7.5)

Septic systems in Quail Valley subareas 1, 2, 3, 5, 6, and 8 can be installed provided that the minimum horizontal setbacks from any OWTS treatment component and dispersal systems are as follows:

1. 5 feet from parcel property lines and structures;
 2. 100 feet from water wells and monitoring wells, unless regulatory or legitimate data requirements necessitate that monitoring wells be located closer;
 3. 100 feet from any unstable land mass or any areas subject to earth slides identified by a registered engineer or registered geologist; other setback distance are allowed, if recommended by a geotechnical report prepared by a qualified professional.
 4. 100 feet from springs and flowing surface water bodies where the edge of that water body is the natural or levied bank for creeks and rivers, or may be less where site conditions prevent migration of wastewater to the water body;
 5. 200 feet from vernal pools, wetlands, lakes, ponds, or other surface water bodies where the edge of that water body is the high water mark for lakes and reservoirs, and the mean high tide line for tidally influenced water bodies;
 6. 150 feet from a public water well where the depth of the effluent dispersal system does not exceed 10 feet;
 7. Where the effluent dispersal system is within 1,200 feet from a public water systems' surface water intake point, within the catchment of the drainage, and located such that it may impact water quality at the intake point such as upstream of the intake point for flowing water bodies, the dispersal system shall be no less than 400 feet from the high water mark of the reservoir, lake or flowing water body.
 8. Where the effluent dispersal system is located more than 1,200 feet but less than 2,500 feet from a public water systems' surface water intake point, within the catchment of the drainage, and located such that it may impact water quality at the intake point such as upstream of the intake point for flowing water bodies, the dispersal system shall be no less than 200 feet from the high water mark of the reservoir, lake or flowing water body.
2. If any of the criteria specified under 1.A – 1.E, cannot be met, septic systems in Quail Valley subareas 1, 2, 3, 5, 6, and 8 can be installed provided pathogen advanced treatment systems is installed and the minimum setback requirements are met:

A. Setbacks (OWTS Policy, Tier 1, Section 7.5 and Tier 3, Section 10.8.2)

Comply with the setback requirements specified under 1.E **AND**

B. Pathogens (OWTS Policy, Tier 3, Section 10.10)

- a. Supplemental treatment components designed to perform disinfection shall provide sufficient pretreatment of the wastewater so that effluent from the supplemental treatment components does not exceed a 30-day average TSS of 30 mg/L and shall further achieve an effluent fecal coliform bacteria concentration less than or equal to 200 Most Probable Number (MPN) per 100 milliliters.
- b. The minimum soil depth and the minimum depth to the anticipated highest level of groundwater below the bottom of the dispersal system shall not be less than three (3) feet. All dispersal systems shall have at least twelve (12) inches of soil cover.

E. Basin Plan Amendment Timeline

As noted above, if the Board were to direct staff to amend the Quail Valley Prohibition pursuant to Option 2a, 2b, 3 or 4 (or some combination thereof), a Basin Plan Amendment would be required. Board staff have developed the following tentative timeline for completion of a Basin Plan amendment. Major activities associated with the Basin Plan Amendment process are provided. The tentative timeline as shown in Table 7, assumes one Regional Board staff person is available on a part-time basis to complete the necessary amendment process. This also assumes that Board staff would start the amendment process by July 1, 2016. It is estimated that the amendment could be approved by early 2020.

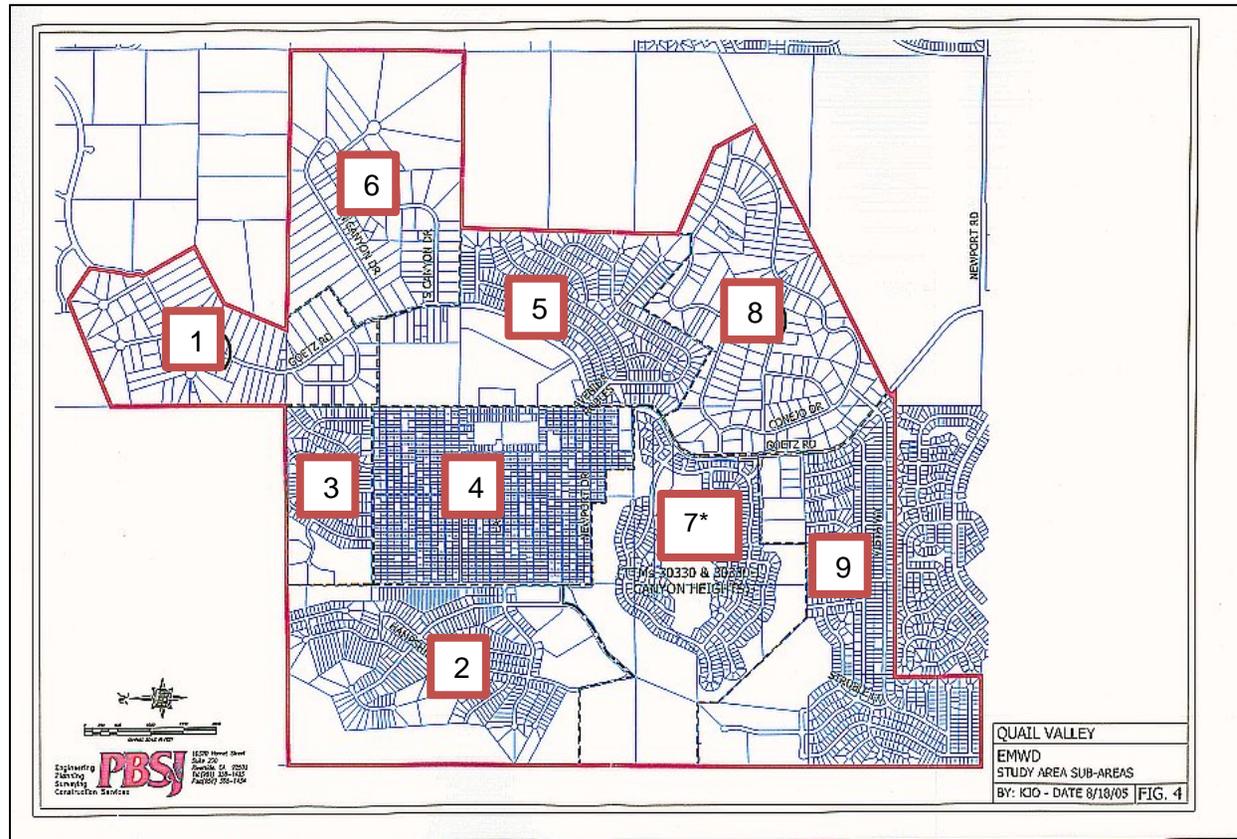
STAFF RECOMMENDATION

Solicit comments from the public and from Eastern Municipal Water District, the City of Menifee and Riverside County on preferred options.

Figure 2: Quail Valley Location



Figure 3: Quail Valley Subareas



*Note: Sewers have been installed in Subarea 7