Appendix E – Newspaper Articles & Press Coverage

Quail Valley Task Force

Maria Elena Kennedy
Quail Valley Task Force Coordinator

Recently two community meetings were held to keep the residents informed on what the Quail Valley Task Force is doing. Because there are residents in Quail Valley who are more comfortable communicating in Spanish, a community meeting in Spanish was held at Quail Valley Elementary School on August 24.

The meeting was mostly attended by the young families who are residents of the area of Quail Valley known as "the Grid". For many of the residents of the "Grid", this was the first time they were asked to participate in an issue that is vitally important to the residents of Quail Valley. The Quail Valley Task Force is sensitive to the fact that all members of the community of Quail Valley need to be included in the process of exploring options to bring a sewer system to Quail Valley. It is vitally important that not only all of the agencies work together but that all of the residents understand the water quality issues in Quail Valley and work together as well.

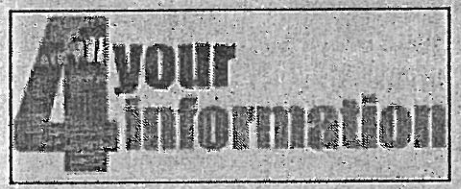
The community meeting was well attended and the residents are eager to become engaged in the city of Menifee. One key question that surfaced during the community meeting was "Should we start saving our money now?" It is evident that the residents of all of Quail Valley are anxious to see a solution to a problem that has festered for years. The meeting was conducted in Spanish by Celeste Cantú General Manager of the Santa Ana Watershed Project Authority SAWPA) and Armando Arroyo, P.E. of Eastern Municipal Water District. The Spanish speaking residents seemed grateful to be (able to participate in a language they are comfortable in. Cantú said she was pleased with the Spanish speaking community's participation. "This meeting was to ensure that everyone, including those who speak Spanish, have an opportunity to participate in the process. The community's commitment to be part of a solution for all of Quail Valley was truly remarkable."On September 10th another community meeting was held, also at Quail Valley Elementary School. At the meeting the residents were updated on the work currently being done by the City of Menifee and the Quail Valley Task Force. The City of Menifee and the Quail Valley Task Force are tentatively concentrating on the area known as "Subarea 9" which runs along Vista Way in Quail Valley. When asked why this area and not "the Grid" was to be sewered, the Quail Valley Task Force members pointed out the relative ease in doing this project because o f the flatter topography than that which is found in "the Grid". In spite of the fact that the meeting had been scheduled to conclude at 6:30 p.m., a group of residents arrived at the conclusion of the meeting. SAWPA Program Manager Jeff Beehler moved the meeting to the school parking lot and briefed the group from the back of his truck. It was past 8:00 p.m. when the impromptu community meeting ended.

The Quail Valley Task Force has been working hard to ensure that all of the residents of Quail Valley are included in the public participation program that is an integral part of bringing a sanitary sewer system to Quail Valley. The community of Quail Valley deserves no less.

CITY CONNECTION

Task force aims to improve area water quality

The City of Canyon Lake has joined forces with the City of Menifee, Eastern Municipal Water District, Elsinore Valley Municipal Water District and Supervisor Jeff Stone's office to launch a water quality improvement project aimed at protecting the water quality in Canyon Lake.



This joint effort will seek funding from various sources in order to ensure that Canyon Lake remains accessible to the community for recreation as well as continues to provide an important source of drinking water. Given the challenges California faces with dwindling water supplies, protecting local water sources is vital to longterm viability and economic strength.

Mayor Pro Tem Nancy Horton has long promoted proactive and collaborative solutions to protecting local water sources. "In April 2009, the City of Canyon Lake met with representatives from the City of Menifee, Elsinore Valley Municipal Water District and Eastern Municipal Water District. There was agreement to begin a collaborative, cooperative process to solve the problem that pollution from Quail Valley presents to Canyon Lake and Lake Elsinore. In the interest of reducing nutrients (pollutants) that find their way into Canyon Lake, we have made some progress with Dr. Michael Anderson's report on the Main Lake. We are waiting for monitoring results over the summer to make some judgments about how to proceed with treating the East Bay. By working to develop a sewage treatment plan for Area 9 in Quail Valley, we will reduce the need to treat Canyon Lake. All of these projects will take time and money, but we are pleased that EMWD is already working on the design and environmental issues, and Santa Ana Watershed Project Authority's (SAWPA) task force will help us with community awareness in Quail Valley and possible funding sources," notes Nancy.

SAWPA has been engaged to recommend sources of revenue that may be available to bring a sanitary sewer system to Quail Valley, which is currently on septic systems. SAWPA is a leader in water planning, bringing innovated solutions to complex situations. SAWPA has tremendous experience in securing funding for large complex projects. In addition to recommending funding options, SAWPA is also conducting a community awareness campaign to ensure that the residents of Canyon Lake and Menifee are fully informed and engaged in this vital project.

Celeste Cantu, General Manager of SAWPA, said she was excited about the project. "Improving water quality in Canyon Lake and Quail Valley will provide multiple benefits to these communities and the environment, but it will require a high level of cooperation and coordination. It is truly a 21st century project requiring new ways of working together," she says.

Mayor Pro Tem Nancy Horton has long promoted proactive and collaborative solutions to protecting our local water sources. "In April 2009, the City of Canyon Lake met with representatives from the City of Menifee, Elsinore Valley Municipal Water District and Eastern Municipal Water District. There was agreement to begin a collaborative, cooperative process to solve the problem that pollution from Quail Valley presents to Canyon Lake and Lake Elsinore. In the interests of reducing nutrients (pollutants) that find their way into Canyon Lake, we have made some progress with Dr. Michael Anderson's report on the main lake. We are waiting for monitoring results over the summer to make some judgments about how to proceed with treating the East Bay. By working to develop a sewerage treatment plan for Area 9 in Quail Valley, we will reduce the need to treat Canyon Lake. All of these projects will take time and money, but we are pleased that EMWD is already working on the design and environmental issues, and SAWPA's Task Force will help us with community awareness in Quail Valley and possible funding sources" notes Nancy Horton, Mayor Pro Tem of the City of Canyon Lake.

The Santa Ana Watershed Project Authority (SAWPA) has been engaged to recommend sources of revenue which may be available to bring a sanitary sewer system to Quail Valley which is currently on septic systems. SAWPA is a leader in water planning; bringing innovated solutions to complex situations.

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Quail Valley residents are still years away from a sewer system

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10:00 PM PDT on Saturday, July 11, 2009

By JULISSA McKINNON
The Press-Enterprise

After four years of lying dormant, the question of what to do about Quail Valley's leaky and aging septic tanks has been resurrected.

Leaders of local water authorities recently hosted the first of several community meetings to hear comments on the problem and brainstorm solutions. Another forum likely will be held within about a month but a date has not been set.

At the first meeting, officials said a new sewer system for the area probably would have to be funded by Quail Valley residents either through an assessment district or by placing liens on properties that would be paid when the property is sold.

The bigger mystery is who would front the approximately $80 million it would cost to build a sewer system for the hilly rural area perched near Canyon Lake.

Several residents who attended the meeting at Quail Valley Elementary School said a multi-year dry spell has prevented the septic overflows often triggered by heavy rains. In a rainy spell in 2005, dozens of septic systems failed simultaneously, causing effluent to flow downhill into Canyon Lake, a drinking water reservoir that serves Elsinore Valley Municipal Water District.

"Do you think we need a rain to motivate people?" asked meeting moderator Celeste Cantu, general manager of the Santa Ana Watershed Authority, a joint powers authority overseeing the Santa Ana Watershed.

Resident Sara Clarke responded that Quail Valley residents are well aware of the trouble spots but it's the big storms and ensuing sewage spills that make "people outside realize there's a problem," she said.

After the 2005 overflows, the county banned new septic systems in the area.

But some experts contend the damage to area leach fields is done. When sewage spills into the ground, "soil pores" become plugged and the land no longer filters wastewater adequately, said Paul Dieges, a longtime civil engineer who ran dozens of percolation tests in Quail Valley in the 1960s during an increase in home building.

Further compounding the problem is that at least 50 lots in Quail Valley, now with homes on them, initially failed percolation tests, Dieges said in a previous interview. He attributed that to the area's shallow bedrock and clay-rich soils, which may not allow wastewater to filter before it reaches the groundwater table.

On top of these natural obstacles, several residents at the meeting reported that many three to four-bedroom homes are housing 20 or more people, almost guaranteeing an overburdening of the septic tanks.

The complexities of the area's septic dilemma make resident Marc Wilson believe that it's just a matter of time

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Urban areas not immune to septic-tank woes

BACKUPS: Officials say the rain-related problems are more likely in areas of dense development.

08:12 AM PDT on Wednesday, May 18, 2005

By DOUGLAS QUAN / The Press-Enterprise

Septic-tank problems are not confined to developing rural areas such as Quail Valley, but plague some urban pockets, too, environmental-health officials say.

Heavy rains have contributed to septic-tank backups in the Enchanted Heights neighborhood of Perris.

Officials with the Eastern Municipal Water District have applied for federal grants to replace the septic system with a sewer system, said Damian Meins, a deputy director of the Riverside County Department of Environmental Health.

The neighborhood has 562 lots and 446 of them rely on the septic system, he said.

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Urban areas not immune to septic-tank woes

Meins said his department also is keeping an eye on several other residential pockets with similar problems. Those areas include Victoria Avenue near Dufferin Avenue and the far east end of Alessandro Avenue in Riverside; parts of Moreno Valley north of Highway 60; and parts of the Coachella Valley near the Salton Sea.

Meins said the problem in all the areas is the same: underground draining fields swollen from excessive rains cannot absorb the waste, resulting in backed-up septic tanks and the potential for that waste to percolate to the surface.

The only short-term solution is for residents to conserve water use until ground-water levels fall, Meins said.

Steve Van Stockum, another Riverside County Environmental Health deputy director, said in a normal fiscal year his office will receive about 500 to 600 complaints related to septic tanks. So far this year, he's received more than 800, he said.

The good news is that ground-water levels are dropping, he said.

Joan Mulcare, San Bernardino County environmental-health program manager, said she was not aware of any increased septic tank-related problems in her county because of recent heavy rains.

Environmental officials say septic-tank problems are more likely to occur in areas of dense development.

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Quail Valley residents 'tired of living like this'

08:15 AM PDT on Wednesday, May 18, 2005

By JENNIFER BOWLES and LYS MENDEZ / The Press-Enterprise

In Quail Valley, daily life has gotten complicated lately.

Residents, trying to prevent sewage from pooling in their yards and contaminating a nearby lake, are doing anything they can to avoid turning on taps and flushing toilets into their bloated underground septic systems.

Some eat from paper plates and take dirty clothes to the Laundromat. Antonio Palomo even uses a portable toilet in his back yard, allowing his family to use the inside bathroom only in the middle of the night.

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"It hasn't presented any huge obstacles," said Palomo, 52. "But it is a major inconvenience."

Regional water-quality regulators, having dealt with similar problems across the Inland region, say the situation is more than an inconvenience. Septic tanks that are draining into underground fields swollen by near-record rainfall this year and causing household waste to rise in yards, they say, is a public-health crisis.

The bacteria-laden water doesn't just stay in the southwest Riverside County valley, a working-class area of small, mostly manufactured homes.

Gravity-driven, it trickles down natural paths along streets, through fields and dumps into Canyon Lake, a tony enclave whose residents ski and boat in the drinking-water reservoir.

"This is California; this is modern civilization. It looks like a Third World country," said Jose Solorio, a member of the Santa Ana Regional Water Quality Control Board.

He made the comment after viewing photographs of the Quail Valley puddles at a recent meeting where an environmental scientist said he was concerned children could be playing in the tainted water.

Ban Possible

Worried that growth in the rural valley could further reduce the land's ability to soak up the waste, the water board could outright ban septic tanks as early as September after public hearings and workshops are held this summer.

the liquid waste.

But, according to a county survey, 28 percent of the residents polled said they are experiencing some kind of septic-system problem.

While septic tanks can fail anytime of the year for any number of reasons, the current problems were made worse by this year's near-record rainfall that caused the valley's shallow groundwater to rise and, along with it, whatever was in the drain field.

"If the ground is already wet, it has no place to go but up," said Bonnie Dierking, a supervising environmental-health specialist for Riverside County.

Similar problems happened this year in Idyllwild and in a hilly Perris neighborhood known as Enchanted Heights.

The ground is so saturated in parts of Quail Valley that county environmental-health officials have required some residents to use valve systems to prevent waste from leaving the tanks and water from going back into the tank until the ground dries up, Dierking said.

Besides the shallow groundwater, fractured bedrock that doesn't readily absorb liquids underlies the valley, adding to the problem.

"It's not well suited for a septic-type of environment," Dierking said.

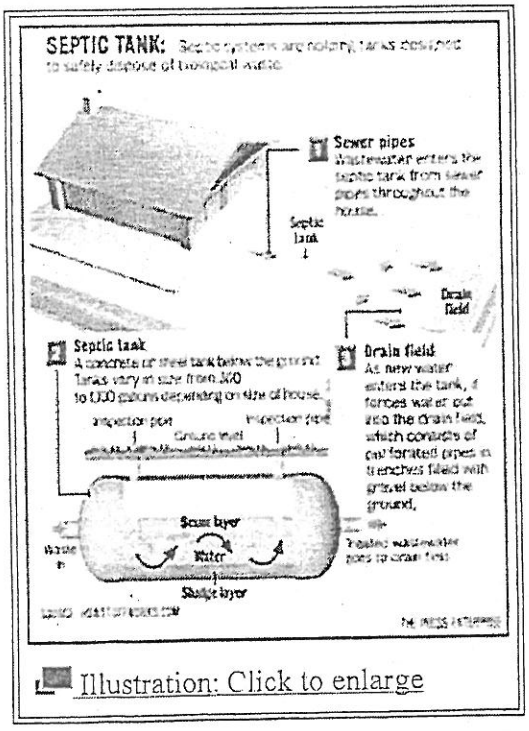

Illustration: Click to enlarge

Closed Lake

Canyon Lake, built nearly 80 years ago to collect water for citrus crops in the Temescal Valley and Corona, is today surrounded by a wealthy community that uses the lake for skiing, boating and fishing.

While the septic-tank runoff is not the only thing that drains into Canyon Lake, its residents are upset the lake was closed almost continuously for five months over the winter because of high bacteria levels.

"Look at all that stuff in the lake," said Judy Weaver, a retired minister, as she stood on her balcony overlooking the murky water where her pontoon is parked. "This is drinking water; would you like to drink it?"

Samples taken in March showed the lake's bacteria count was six times the state recommended level for a recreational lake, said Berchtold, with the regional water board.

While Elsinore Valley Municipal Water District injects chlorine to destroy bacteria before sending water from the lake to homes, contact with any lake with high bacteria levels can pose a health risk, officials say.

"They're sick of living like this," she said.

"They want a permanent solution."

Reach Jennifer Bowles at 951-368-9548 or jbowles@pe.com. Reach Lys Mendez at 951-375-3740 or lmendez@pe.com

Online at: http://www.pe.com/localnews/riverside/stories/PE_News_Local_D_septic18.f485.html

Menifee to Address Quail Valley Septic Tanks

by **Steve**
3/17/2009 10:03:00 AM
The City of Menifee issued the following press release concerning septic tanks in Quail Valley...

The City of Menifee has assumed the leadership role in identifying and addressing the Quail Valley Septic issues. The City announces that it is in the process of developing a cooperative agreement for that purpose. On March 12, representatives from Menifee attended a coordinating meeting assembled by Nancy Horton, Canyon Lake Mayor Pro Tem, Eastern Municipal Water District, Elsinore Valley Municipal Water District, the County of Riverside and the Canyon Lake Property Owners Association. The purpose of the meeting was to immediately address available state and federal grant funds.

Menifee Council member Scott Mann and City Manager George Wentz indicated Menifee's willingness to step up to assemble and lead the team. "The citizens of Quail Valley - now citizens of the City of Menifee as well - deserve our immediate attention to this issue," Mann said. "We will pursue multiple funding sources at all levels of local, regional, state and national government in order to get this project going now." Menifee Council member Darcy Kuenzi committed the County to participation in cooperative effort.

Menifee will seek a representative from the Quail Valley community and will be contacting the Regional Water Quality Control Board, City of lake Elsinore, Flood Control District and other agencies to participate.

An informational flyer will be distributed to the Quail Valley community through the volunteer Fire Hall and community forums will be scheduled at the elementary school as well.

The matter will be discussed at on the Menifee City Council agenda on March 17. For further information, contact City Manager George Wentz at the City of Menifee at (951) 672-6777.

Quail Valley is not a wealthy neighborhood. Yet residents need to recognize that money for a new sewer system will not magically appear; the residents who will benefit from a sewer hookup will inevitably have to bear at least part of the expense. Quail Valley may soon face increased costs from proposed state regulations for septic tanks, anyway, and residents would be far better off with a permanent solution.

The worst course would be another four years without progress. Yes, financing a new sewer system will be a challenge. But living conditions that put public health and water supplies at risk are simply intolerable.

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Municipal Water District, Elsinore Valley Municipal Water District, a representative from Supervisor Jeff Stone's office and the water control board held a closed meeting in Riverside to discuss possible solutions to the contamination levels that have plagued Canyon Lake since the rainy season started.

Urban and storm run-off, pouring consistently into the lake since October, has kept the lake closed to body contact for much of the past four months, according to Canyon Lake senior enforcement officer Bob Bohan.

Bohan said the city's hands are tied until Mother Nature reduces bacteria levels with sunlight and wind or until county and state agencies fix the septic tank problem in Quail Valley.

"Any type of measure that would be put into effect would be helpful," Bohan said.

Requiring current septic tank users to install a sewage system would be a lengthy process that would call for the cooperation of both water districts, Berchtold said.

A meeting was scheduled for March 22 to continue discussing the bacteria problems, Berchtold said.

Reach Lys Mendez at (951) 375-3740 or lmendez@pe.com

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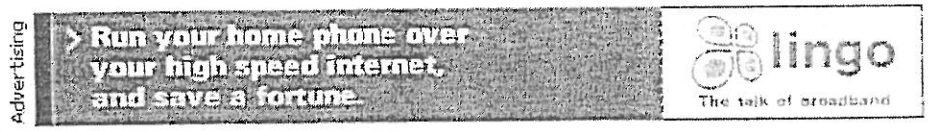

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Appendix F—Additional Materials

DEPARTMENT OF ENVIRONMENTAL HEALTH
MARCH 15, 2005 QUAIL VALLEY SEPTIC SYSTEM SURVEY RESULTS

Total number of houses/lots visited and/or surveyed:	848
Vacant Lots surveyed:	66
Houses vacant or no one home/no answer:	361
Surveys completed with occupant:	413
People claiming to be experiencing problems with their septic systems:	114 (28%)

Houses where greywater discharge was observed: 113 (27 %)

Houses where sewage discharge was observed: 41 (10%)

Houses where occupant refused inspector access : 41 (10%)

Willing to Hook to sewer?:

Yes:	347	(84%)
No:	14	(3%)
Unsure:	28	(7%)
Question not asked/answered:	23	(6%)

Report to the Board of Supervisors for the I-215 Corridor Redevelopment Project Area, Amendment No. 1b – Sun City/Quail Valley Sub-Area

REDEVELOPMENT AGENCY for the COUNTY OF RIVERSIDE

GRC REDEVELOPMENT CONSULTANTS
701 S. Parker Street
Suite 7400
Orange, CA 92868

7.0 SUMMARY OF EXISTING CONDITIONS IN THE PROPOSED AMENDMENT AREA

The following is a summary of the physical and economic conditions in the proposed Amendment Area, as described in Chapter 6.0. Overall, conditions of blight were noted on 4,273 of the 4,303 parcels in the Amendment Area (99%).

- Inadequate septic tanks creates a substantial hazardous condition throughout the Quail Valley Sub-Area
- The Quail Valley Sub-Area suffers from low water pressure and fire flow
- Nearly 60% of fire node locations in the Quail Valley Sub-Area are below standard
- Narrow roads in the Quail Valley Sub-Area, and its proximity to wildfire areas, add to the unsafe conditions
- The Quail Valley Sub-Area is the biggest problem area for code enforcement officers in the entire region
- 15 structures are dilapidated to the point where they could be considered unsafe or unhealthy
- Properties with unsafe or unhealthy structures are assessed 67% lower than those that are structurally sound
- About 600 properties structures likely to contain asbestos and/or lead-based paint
- Properties likely to contain asbestos and/or lead-based paint are assessed 15% lower than those built after the abolition of those materials
- 32% of all structures are in some degree of disrepair

Figures 5-8 show the parcels affected by conditions of physical blight, and Figures 9-11 show the parcels affected by conditions of economic blight. Finally, Figure 12 shows the summary of all properties with at least one condition of physical blight and Figure 13 shows the summary of all properties with at least one condition of economic blight.

The parcel numbers of all properties in the Amendment Area and the reason for inclusion in the project can be found in Tab A.

7.1 ALLEVIATION OF DETRIMENTAL PHYSICAL AND ECONOMIC CONDITIONS

As noted earlier in this Report, there are a number of detrimental physical and economic conditions in the proposed Amendment Area. The Agency proposes to alleviate these conditions by undertaking a comprehensive program of public improvements and by providing a variety of development incentives which will stimulate new development and rehabilitation activities in the Amendment Area. These programs will include, but are not limited to, land acquisition and assembly for proper development, rehabilitation of the County's stock of low- and moderate-income housing, construction of new buildings, and rehabilitation of old and/or obsolete buildings. It is expected that such redevelopment programs will alleviate threats to the public health, safety, and welfare through the elimination or reduction of deteriorated buildings, serious code violations, inadequate parcel shapes and sizes, and other issues.

The costs presented in this Report reflect a best estimate of what will be needed in the immediate future, but the overall cost of making rehabilitation or development practical serves as a good estimate of redevelopment costs. The actual assistance may take the form of public improvements that reduce private sector development costs, or rehabilitation loans, or any of the other techniques available to the Agency through the Redevelopment Plan. But, the overall cost is the cost to make redevelopment of private land in the proposed Amendment Area feasible. Once that assistance is provided, owners and developers will have the incentive to bring their properties up to standard.

estimated cost of $2.5 Million. Of this $2.5 Million, approximately $169,300 is attributed to the EMWD for their parcels contributing flow to the pipes north of Fair Weather Drive. The 10,560 LF of parallel gravity sewer is required whether the District accepts the additional 370 EDUs of flow from Quail Valley or not. At the District's request, Peak Dry Weather flow (PDWF) was utilized in the hydraulic modeling analysis to determine the pipe that require upsizing, instead of the peak wet weather flow (PWWF). The two lift stations are the Continental and the Lighthouse Lift Stations and both are designed with 1 pump operating and 2 pumps standby for PDWF conditions. For PWWF, 2 pumps are operating and 1 pump is standby.

Study Area

From previous modeling tasks, the total number of parcels, both improved and unimproved, that are included in all the subareas of Quail Valley, were identified by EVMWD utilizing their GIS database. These parcels were classified by EVMWD as either the Upper Area or Lower Area, depending on their potential point of connection into EVMWD's Canyon Lake wastewater facilities. Upper and lower area connection points were determined by the direction of surface water flow following the significant rain events in January 2005. All parcels in Canyon Lake that contribute flow to EVMWD wastewater facilities, beginning at the points of connection to the Railroad Canyon WWTP were identified and are illustrated on Figure 1.

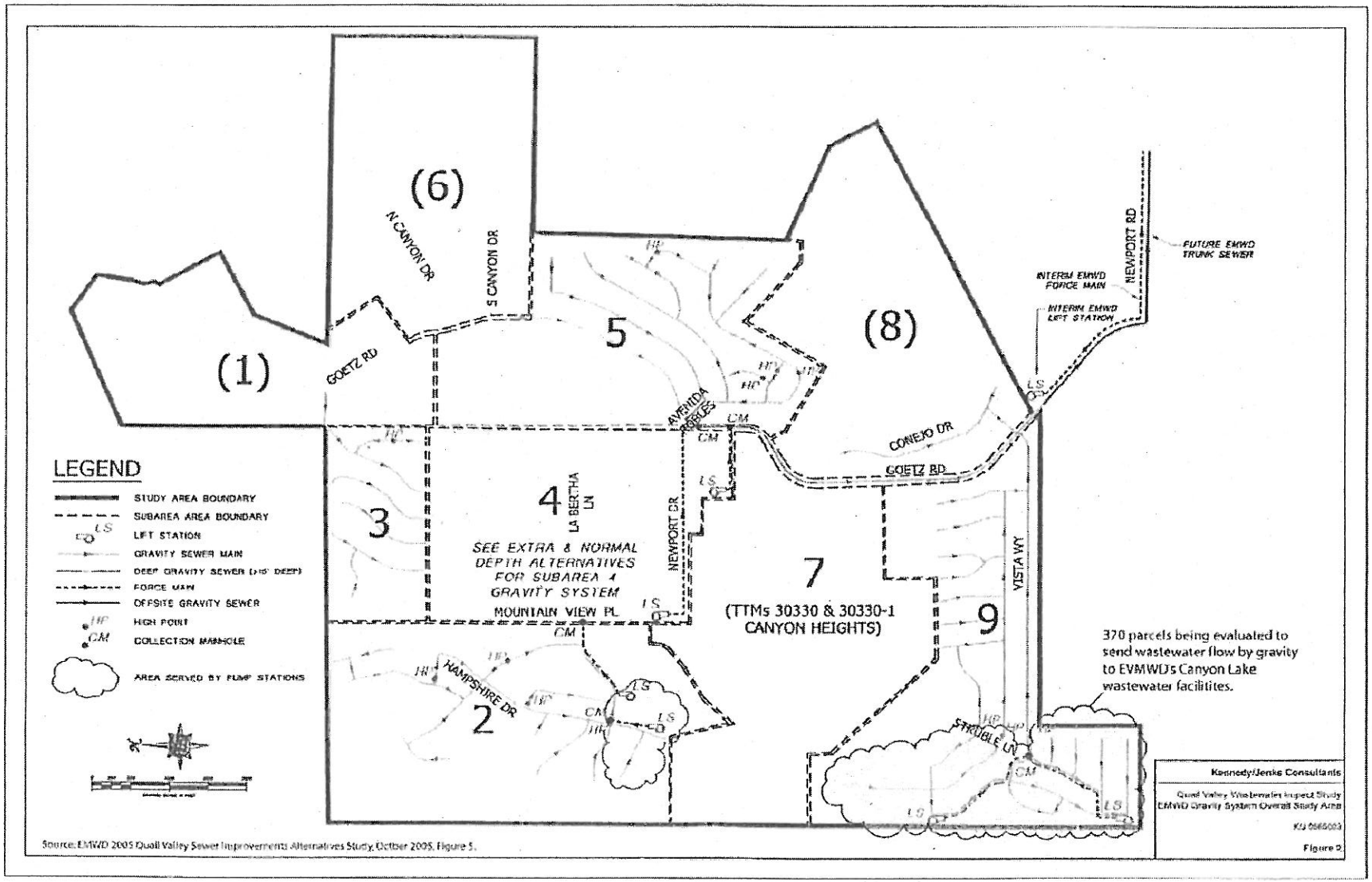
One alternative that was recommended for evaluation in the *Quail Valley Study* was a low-lying area in the western portion of Subarea 9, which could flow by gravity to EVMWD's system. Alternatively, it would have to be pumped to be served by EMWD. The low-lying area includes about 370 parcels. Therefore, this Technical Memorandum (TM) studies the impact that the 370 DUs located in the western portion of Subarea 9 will have upon the existing wastewater collection facilities in EVMWD. Figure 2 identifies the western portion of Subarea 9 that is being evaluated.

Wastewater Flow Projections

The methodology developed by K/J for the *2002 Wastewater Master Plan* was utilized along with the *Quail Valley Study* assumptions for the purposes of developing projected wastewater flows for the proposed development of the western portion of Subarea 9 in Quail Valley.

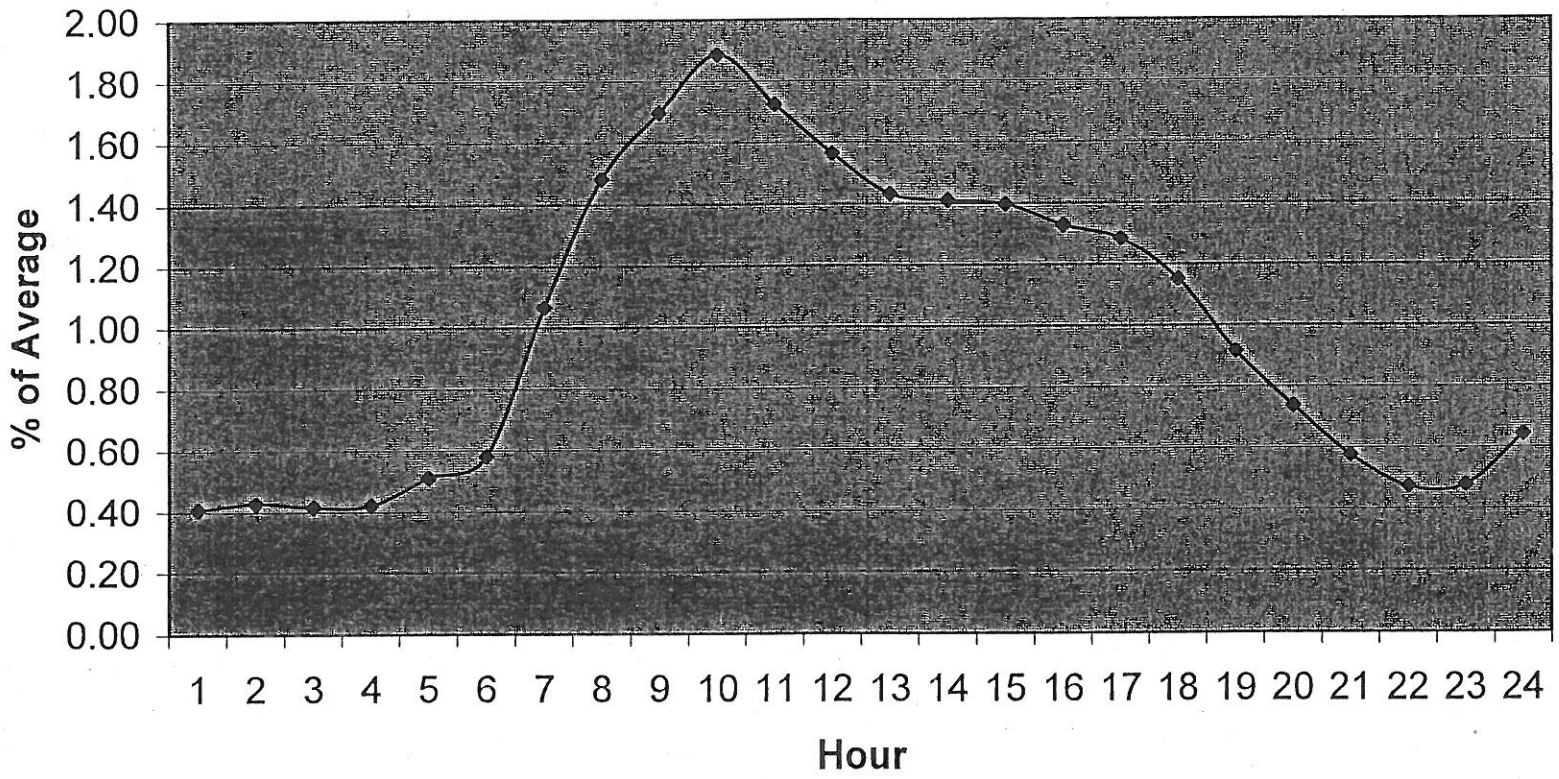
Average Wastewater Flow

Following the assumption in the *Quail Valley Study*, each improved and unimproved parcel in the western portion of Subarea 9 in Quail Valley was assumed to contribute one EDU to both the existing and ultimate (buildout) Canyon Lake wastewater collection facilities. Each EDU was assumed to contribute 300 gallons per day (gpd) of average dry weather wastewater flow. Table 1 illustrates the projected average dry weather flows attributed to the proposed development of the western portion of Subarea 9 in Quail Valley.



Source: EMWD 2005 Quail Valley Sewer Improvements Alternatives Study, October 2005, Figure 5.

Figure 4 - Non-Residential Dirunal Pattern



Lift Stations Requirements

Lift Stations should be sized for PWWF with manufacturer's recommended cycling times for pumping equipment and should be sized based upon the following criteria as provided by the District:

- Lift stations should be capable of meeting PWWF with the largest capacity pump serving as standby and PDWF with the two largest capacity pumps serving as standby.
- 60 percent pump efficiency should be assumed, except where other information is available.
- 90 percent motor efficiency should be assumed.

Continental and Lighthouse Lift Station Expansions

Two of the existing lift stations (LS) in the Canyon Lake area have been expanded since the *2002 Master Plan* was completed. These two lift stations are the Continental and the Lighthouse. According to the Preliminary Design Report (PDR) for each of the lift stations (both of which were completed by Krieger & Stewart in September 2001), for PWWF each station includes 3 pumps, with 2 pumps operating and the third being for standby. For PWWF conditions, a 1,500 gpm (2.2 mgd) pump was modeled for the Continental LS and a 1,175 gpm (1.69 mgd) pump was modeled for the Lighthouse LS. Each LS and downstream pipeline facilities were modeled assuming the entire 1,500 gpm and 1,175 gpm of flow for the Continental and Lighthouse Lift Stations, respectively, would be exiting the LS.

For PDWF conditions, the model was run with only 1 pump operating and 2 pumps for standby. Therefore, for the Continental LS, a 1,050 gpm (1.51 mgd) pump was input to the model for PDWF and a 765 gpm (1.1 mgd) was modeled for the Lighthouse LS for PDWF.

Hydraulic Modeling Results

The *2002 Wastewater Master Plan* modeled the LS flows as pass-through flows – whatever flows came into the LS, exited the LS. The updated hydraulic model for this TM takes into consideration the time of concentration and affects of the wetwell storage. Therefore, lift stations are modeled based on the pump sizes with one pump operating for PDWF and two pumps operating for PWWF.

Existing, 2005, 2010, and ultimate (buildout) scenario were created to evaluate the impact of the proposed development in the western portion of Subarea 9 in Quail Valley. The model scenarios are identical to the flow scenarios developed for EVMWD in the *2002 Wastewater Master Plan,* except for the following:

1. The LS changes described previously.

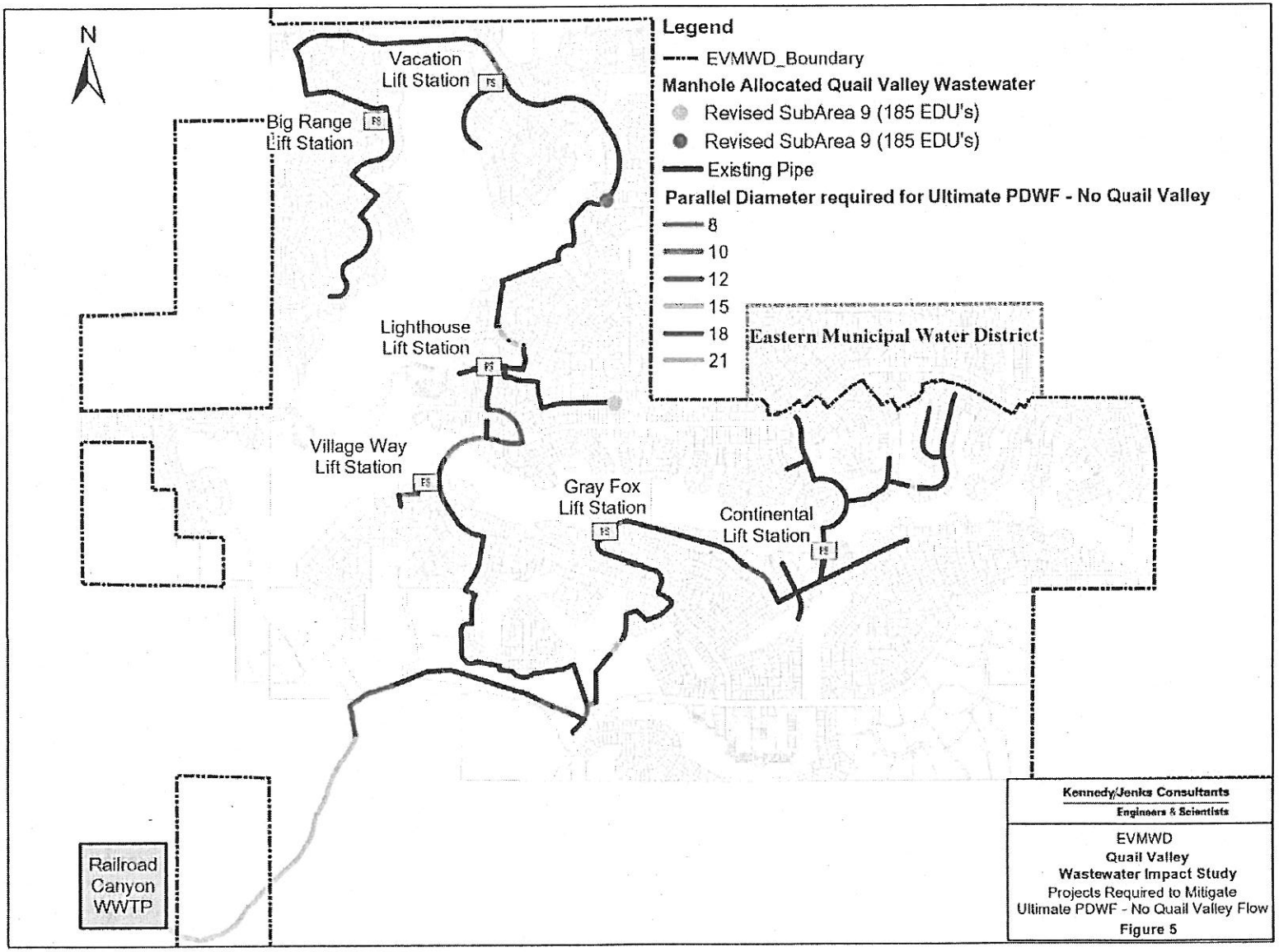
Table 2
Recommended Improvement Projects for
PDWF with NO Quail Valley Flow

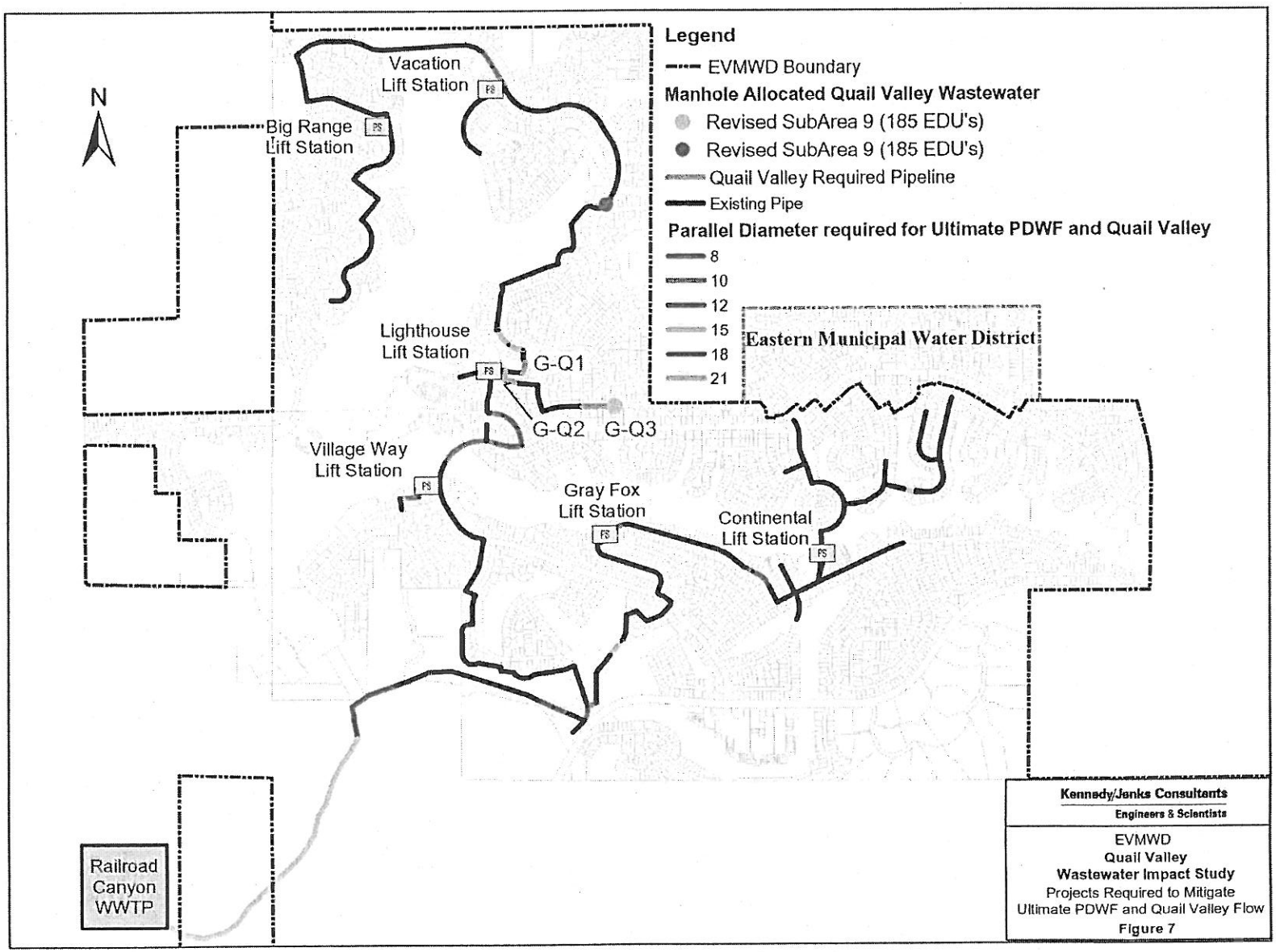
Project Number	Existing Diameter (in)	2005 and 2010 Time Period		Ultimate Time Period	
		Length (ft)	Parallel Pipe Diameter [a] (in)	Length (ft)	Parallel Pipe Diameter [a] (in)
G8	8	1,456	8	1,432	8
G10	10	1,430	10	1,430	10
G12	12-21	1,715	12	1,958	12
G15	8-15	1,262	15	1,286	15
G18	8-21	478	18	317	18
G21	21	3,975	21	4,136	21
	TOTAL	**10,317**		**10,560**	

(a) Parallel Pipe Diameter is assumed to be the diameter of a parallel pipe constructed next to the existing pipeline.

For PWWF conditions, the model predicts that for ultimate conditions (with No Quail Valley flow), approximately 19,184 feet of pipeline needs to be upsized as summarized in Table 3 and illustrated on Figure 6. For 2005 and 2010 conditions (with No Quail Valley flow), the same upgrades as listed for the ultimate conditions are required with the following exceptions:

- For 2005, approximately 200 feet of 8-inch parallel pipe is not required.
- For 2005 and 2010, approximately 125 feet of 18-inch parallel pipe is not required.
- One segment of pipe (approximately 70 feet) can be paralleled with an 8-inch pipe instead of 10-inch pipe.
- One segment of pipe (approximately 12 feet) can be paralleled with an 8-inch pipe instead of 15-inch pipe.
- Two segments of pipe (totaling approximately 350 feet) can be paralleled with a 30-inch pipe instead of 33-inch pipe.
- Two segments of pipe (totaling approximately 500 feet) can be paralleled with a 12-inch pipe instead of 15-inch pipe.


N
Vacation Lift Station
Big Range Lift Station
Lighthouse Lift Station
Village Way Lift Station
Gray Fox Lift Station
Continental Lift Station
Railroad Canyon WWTP
Eastern Municipal Water District
Legend
EVMWD_Boundary
Manhole Allocated Quail Valley Wastewater
Revised SubArea 9 (185 EDU's)
Revised SubArea 9 (185 EDU's)
Existing Pipe
Parallel Diameter required for Ultimate PDWF - No Quail Valley
8
10
12
15
18
21
Kennedy/Jenks Consultants
Engineers & Scientists
EVMWD
Quail Valley
Wastewater Impact Study
Projects Required to Mitigate
Ultimate PDWF - No Quail Valley Flow
Figure 5


N
Vacation Lift Station
Big Range Lift Station
Lighthouse Lift Station
G-Q1
G-Q2
G-Q3
Village Way Lift Station
Gray Fox Lift Station
Continental Lift Station
Railroad Canyon WWTP
Eastern Municipal Water District
Legend
EVMWD Boundary
Manhole Allocated Quail Valley Wastewater
Revised SubArea 9 (185 EDU's)
Revised SubArea 9 (185 EDU's)
Quail Valley Required Pipeline
Existing Pipe
Parallel Diameter required for Ultimate PDWF and Quail Valley
8
10
12
15
18
21
Kennedy/Jenks Consultants
Engineers & Scientists
EVMWD
Quail Valley
Wastewater Impact Study
Projects Required to Mitigate
Ultimate PDWF and Quail Valley Flow
Figure 7

Per the District's direction, the PDWF is used as the criteria to determine when the pipes require upsizing. Therefore, Table 2 presents the required improvements recommended for the ultimate time period to mitigate deficiencies associated with Regional growth in the Canyon Lake area. Table 4 presents the required improvements to mitigate deficiencies associated with the proposed development for the western portion of Subarea 9 in Quail Valley. The total costs associated with the gravity main Capital Improvement Projects required to mitigate deficiencies associated with the proposed development for the western portion of Subarea 9 in Quail Valley and the Regional growth in Canyon Lake are $2.6 Million and are presented in Table 6. The portion of these costs that are attributed to EMWD is $312,300 as detailed in Table 6. EMWD costs are based on the percentage of flow being transported in the pipeline from EMWD parcels. EVMWD's portion of the costs is $2,290,700.

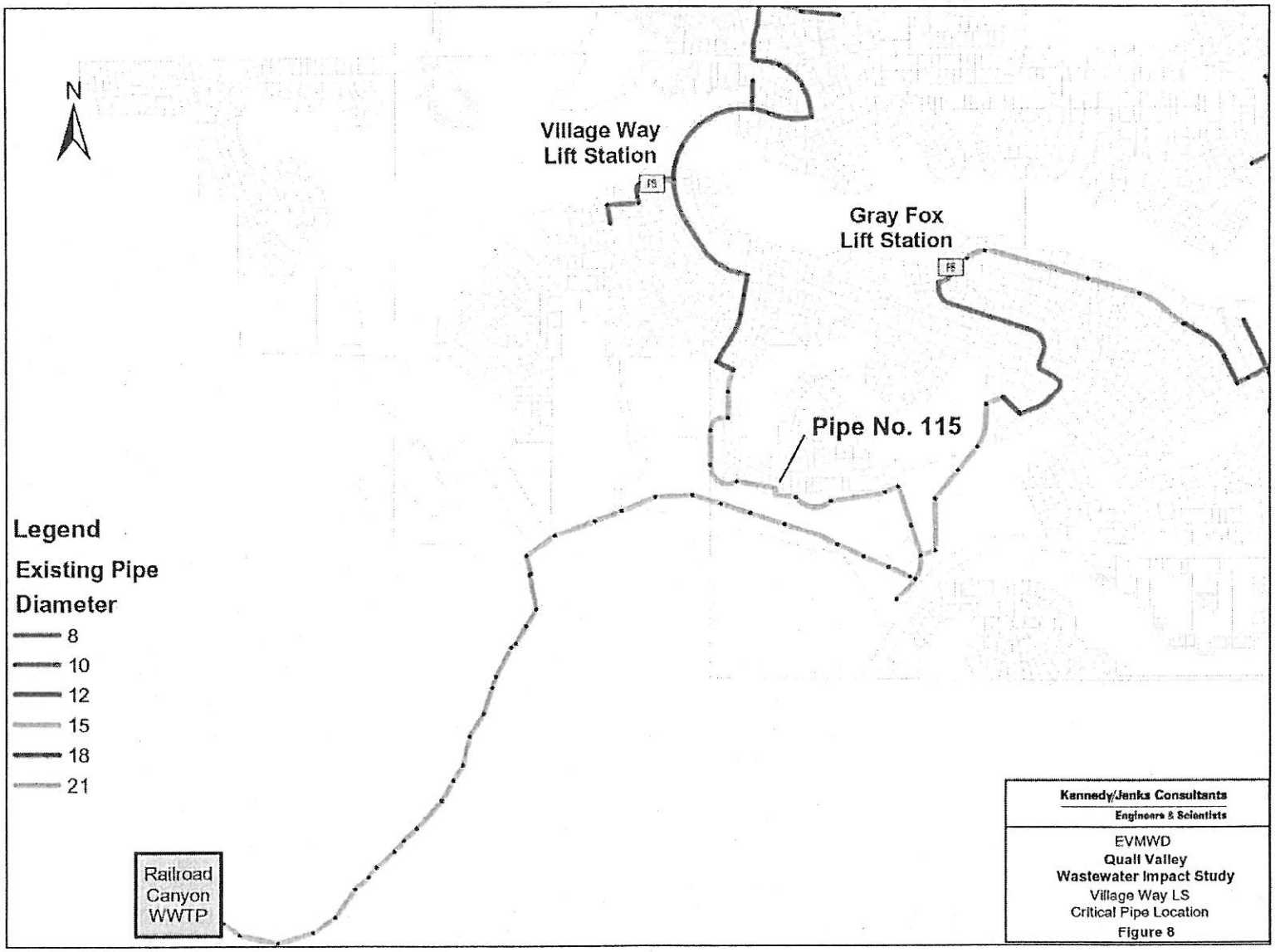
Table 6
Cost for Improvement Projects for Canyon Lake Area and Western Portion of Subarea 9 in Quail Valley

Project Number	Existing Diameter (in)	Length (ft)	Parallel Pipe Diameter [a] (in)	Total Cost ($)	EMWD Cost ($)	EVMWD Cost ($)
G8	8	1,432	8	$193,000	$8,400	$184,600
G10	10	1,430	10	$250,000	$0	$250,000
G12	12-21	1,958	12	$411,000	$40,200	$370,800
G15	8-15	1,286	15	$283,000	$23,000	$260,000
G18	8-21	317	18	$82,000	$6,500	$75,500
G21	21	4,136	21	$1,241,000	$91,200	$1,149,800
	SUBTOTAL	**10,560**		**$2,460,000**	**$169,300**	**$2,290,700**
G-Q1, G-Q3	8	775	8	$104,000	$104,000	$0
G-Q2	12	185	12	$39,000	$39,000	$0
TOTAL		**11,519**		**$2,603,000**	**$312,300**	**$2,290,700**

[a] Parallel Pipe Diameter is assumed to be the diameter of a parallel pipe constructed next to the existing pipeline.

Village Way Lift Station Maximum Flow

For the Village Way LS, the maximum flow that can be discharged downstream of the LS was determined for the following two conditions: (1) d/D = 1 and (2) d/D = 0.67. The results are summarized in Table 7 and show that for PWWF (2 pumps operating and 1 pump on standby), the maximum flow with (1) d/D ratio of 0.67 is 1.66 mgd and (2) d/D ratio of 1.0 is 2.15 mgd. The flow results are slightly higher for PDWF (1 pump operating and 2 pumps on standby) conditions.


N
Village Way
Lift Station
Gray Fox
Lift Station
Pipe No. 115
Legend
Existing Pipe
Diameter
8
10
12
15
18
21
Railroad
Canyon
WWTP
Kennedy/Jenks Consultants
Engineers & Scientists
EVMWD
Quail Valley
Wastewater Impact Study
Village Way LS
Critical Pipe Location
Figure 8

septic systems in Areas 4 and 9. This Basin Plan amendment is consistent with the proposed County regulations.

8. Surface and groundwater samples collected from Quail Valley and surrounding areas confirmed the presence of high bacteria levels, indicative of septic system effluent.

9. The surface flows from Quail Valley, including surfacing septic system effluent, are adversely impacting public health of residents in the area and water resources in the area, including water quality in Canyon Lake, a downstream drinking water supply source.

10. In 2005, during the rainy season, County Health was notified of over 50 septic system failures in the Quail Valley area.

11. Board staff conducted an investigation of the septic system failures in the Quail Valley area and presented its initial findings to the Board on April 15, 2005. The Board directed staff to evaluate the problem and to make recommendations to the Board to address the problem.

12. Board staff conducted further investigations of the septic system problems in Quail Valley and held two public meetings (on June 6, 2005 and December 8, 2005) to discuss findings and proposed solutions and to seek public input.

13. Board staff prepared a staff report that indicates that there is a serious public health and water quality threat from the failing septic systems in Quail Valley. Surface runoff from Quail Valley area is tributary to Canyon Lake. The designated beneficial uses of Canyon Lake include municipal and domestic supply and water contact recreation. These uses are impaired due to high bacteria levels resulting, at least in part, from surface runoff from the Quail Valley area that is commingled with surfacing septic tank effluent. Accordingly, Canyon Lake is included on the list of impaired waterbodies under Section 303(d) of the Clean Water Act.

14. Canyon Lake is included on the 303(d) list of impaired waters as the result of nutrients, as well as bacteria. High concentrations of bacteria and nutrients are found in septic system effluent. Board staff monitored surface runoff from Quail Valley area and determined that it contained high concentrations of bacteria, indicators of septic system effluent. The surface runoff from Quail Valley, commingled with surfacing septic system effluent from the area, is adversely impacting public health and the beneficial uses of the Lake.

15. The Clean Water Act requires that control measures, generally referred to as total maximum daily loads or TMDLs, be developed for pollutants causing the water quality impairment. The Board has established a nutrient TMDL for Canyon Lake (Resolution No. R8-2004-0037). This TMDL identifies septic systems as a source of nitrogen to the Lake and includes load allocations for septic systems that require reductions in nutrient inputs. Board staff is currently investigating different sources of bacteria in Canyon

Board directed staff to prepare the appropriate Basin Plan amendment and related documentation to incorporate a septic system prohibition for Quail Valley.

24. Board staff prepared and distributed written reports (staff reports) regarding adoption of the Basin Plan amendment in accordance with applicable state and federal environmental regulations (California Code of Regulations, Section 3775, Title 23, and 40 CFR Parts 25 and 131).

25. The Secretary for Resources has certified the basin planning process as exempt from the requirement of the California Environmental Quality Act (Public Resources Code Section 21000 et seq.) to prepare an Environmental Impact Report or Negative Declaration. The Basin Plan amendment package includes staff report, response to comments, an Environmental Checklist, an assessment of the potential environmental impacts of the Basin Plan amendment, an economic analysis, and a discussion of alternatives. The Basin Plan amendment, Environmental Checklist, staff report, and supporting documentation are functionally equivalent to an Environmental Impact Report or Negative Declaration.

26. On October 3, 2006, the Board held a Public Hearing to consider the Basin Plan amendment. Notice of the Public Hearing was given to all interested persons and published in accordance with Water Code Section 13244.

27. The Basin Plan amendment must be submitted for review and approval by the State Board and OAL. Once approved by the State Board, the amendment is submitted to OAL. The Basin Plan amendment will become effective upon approval by OAL. A Notice of Decision will be filed.

28. The Notice of Filing, the staff report, environmental checklist, and the draft amendment were prepared and distributed to interested individuals and public agencies for review and comment, in accordance with state and federal regulations (23 CCR §3775, 40 CFR 25 and 40 CFR 131).

NOW, THEREFORE BE IT RESOLVED THAT:

1. The Board adopts the amendment to the Water Quality Control Plan for the Santa Ana River Basin (Region 8), as set forth below:

   Chapter 5, Waste Discharge Prohibitions, Section D, "Prohibitions Applying to Groundwaters": add the following at the end of Subsection 2.

4. If, during its approval process, the State Board or OAL determines that minor, non-substantive corrections to the language of the amendment are needed for clarity or consistency, the Executive Officer may make such changes, and shall inform the Board of any such changes.

5. The Executive Officer is authorized to sign a Certificate of Fee Exemption in lieu of payment of the California Department of Fish and Game filing fee.

I, Gerard J. Thibeault, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of a resolution adopted by the California Regional Water Quality Control Board, Santa Ana Region, on October 3, 2006.

Gerard J. Thibeault
Executive Officer

SMALL COMMUNITY WASTEWATER GRANT
INITIAL SCOPE OF WORK FORM
FOR THE REGIONAL WATER QUALITY CONTROL BOARD
COMPETITIVE PROJECT LISTS

Project Title: QUAIL VALLEY SEWER SYSTEM DESIGN

Type of Grant Assistance Needed (check all that apply): Planning ☒ Design ☒ Construction ☐

Estimated Total Project Cost: $70M Estimated Construction Cost: $60M

Applicant: Eastern Municipal Water District

Mailing Address: PO BOX 8300 Perris, CA 92572-8300

Telephone Number: (951) 928-3777 Ext 4453 Fax Number: (951) 928-6146

Contact Name: John Ward

Contact Title: Engineering Program Manager E-mail Address: wardj@emwd.org

Project Description: The community of Quail Valley is located in southwestern Riverside County, immediately north of Canyon Lake. The current population of Quail Valley is estimated at approximately 4,400 in 1,400 homes. All residences within Quail Valley utilize individual septic systems which are failing resulting in septic effluent running through the community and downstream to Canyon Lake. The Small Community Wastewater Grant will address this documented health concern and advance this project to a "funding ready" status by providing full environmental documentation, 30% (Preliminary) design for the entire project area and 100% (Final) Design of Area 9 which is located closest to the Canyon Lake Reservoir.

system (the same volume that potentially could contaminate Canyon Lake). Additional design activity that will be funded by this grant include the Final Design of Area 9 (see attached map Figure 5). This area is located along the south edge of the community and closest to the Canyon Lake water body. Major work items for Final Design include the completion of Plan and Profile Construction Drawings, Development of the Construction Specification Documents, and Final Cost Estimate. The deliverable of this effort will be "Construction Ready" documents for approximately 6 miles of gravity sewer pipelines.

Water Body Effluent Discharges to: This project is a Watershed Management Area (WMA) Targeted Project. Is consists of environmental documentation and the design of a sanitary sewer system to reduce or remove the water-borne pathogen threat posed by discharges from failing on-site subsurface disposal systems (OSDS) to beneficial uses of surface waters in the Lake Elsinore and San Jacinto River WMA, principally in the Quail Valley area of Riverside County. This project also addresses the measurable reductions in the loads of sediments, nutrients and pathogens reaching Canyon Lake and Lake Elsinore.

Description of Existing Wastewater Facility: The wastewater generated by this project will be transported to EMWD's Perris Valley Regional Wastewater Facility. The facility is currently treating 11 Million Gallons per Day (MGD) with a capacity of 11 MGD. Currently, this wastewater facility is in the process of a $160M expansion increasing the capacity to 22 MGD.

Age and Condition of Facility: The facility was constructed in 1982 and expanded multiple times. The facility is planned for expansion in 2007 and 2010.

Will this project benefit a community currently lacking an adequate sewer system? Quail Valley has been identified as a source of pollutants (nutrients and pathogens) for Canyon Lake. This project will implement Total Maximum Daily Loads (TMDL) adopted for Canyon Lake and Lake Elsinore by the Santa Ana Regional Water Quality Control Board in 2005 (Resolution No. R8-2004-0037). Both lakes are listed as water quality limited in accordance with Section 303(d) of the Clean Water Act. The replacement of the failing Quail Valley septic systems with a sewer system will eliminate the flow of contaminants from Quail Valley.

Anticipated Project Milestones:

Task	Anticipated Completion Date	Date Completed
a. Hire Consultant	10/~~05~~07	
b. Submit Facilities Plan (Includes: Feasibility Report, Environmental (CEQA) Documents, Draft Revenue Program, Operations Evaluation)	~~05~~/08 10	
c. Submit Final Plans & Specifications (P&S) Area 9 Only	~~01~~/09 6	
d. Start Construction (pending future funding) Area 9 Only	~~11/09~~ 4/10	

Signature of Authorized Representative

11/5/07
Date

*Please submit the completed form to your local Regional Water Quality Control Board. You must also include a copy of all existing enforcement actions.

Figure 3 - There is inadequate land and leaching surface to accommodate the volume of effluent produced in the Quail Valley area. Therefore, septic effluent ponds and subsequently migrates down-gradient through yards and along streets toward Canyon Lake, a potable water reservoir.

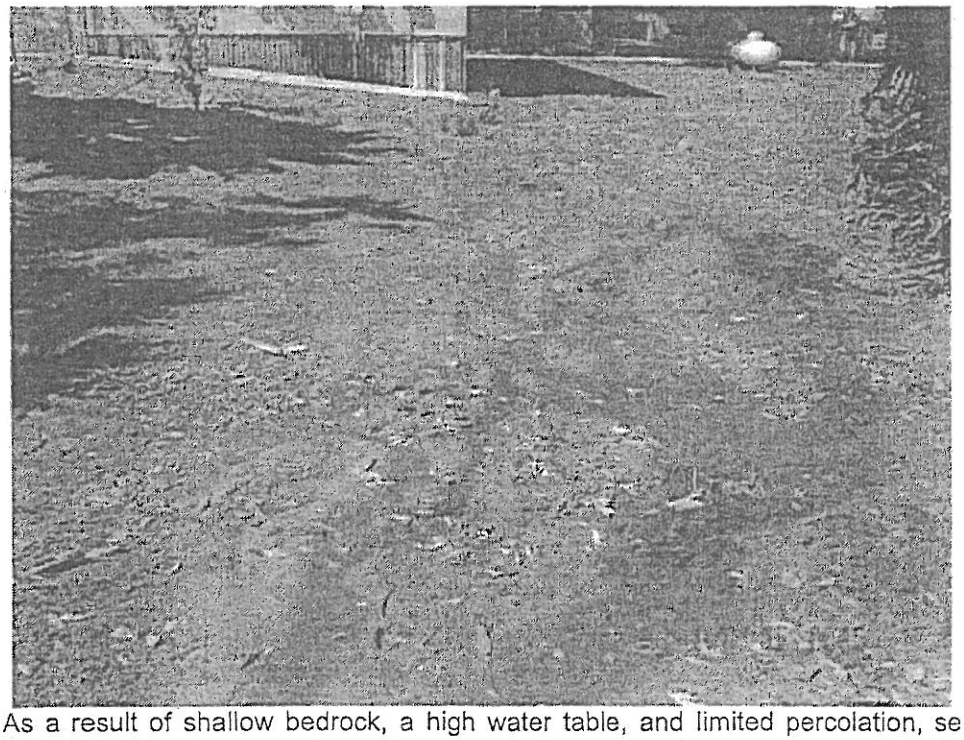


Figure 4 - As a result of shallow bedrock, a high water table, and limited percolation, septic effluent ponds and migrates down-gradient through yards and along streets toward Canyon Lake, a potable water reservoir.