

FINAL REPORT

MUNICIPAL SERVICE REVIEW

Water Service – High Desert Region

Prepared for:

Local Agency Formation Commission

for

Los Angeles County

700 North Central Avenue, Suite 350
Glendale, CA 91203

Prepared by:

Dudek and Associates, Inc.

605 Third Street
Encinitas, CA 92024

August 17, 2004

**Los Angeles LAFCO
Municipal Service Review Report
Water Service – High Desert Region**

TABLE OF CONTENTS

Section

1.0	EXECUTIVE SUMMARY	1
2.0	AGENCY PROFILES	7
3.0	ANALYSIS	10
3.1	Growth and Population	10
3.1.1	Growth/Population Projections	10
3.2	Infrastructure	13
3.2.1	Water Infrastructure	14
3.2.2	Water Supply/Demand	17
3.3	Financing Constraints and Opportunities.....	21
3.3.1	Revenues and Expenses Comparison	21
3.4	Cost Avoidance Opportunities.....	23
3.5	Management Efficiencies	25
3.6	Shared Facilities	26
3.7	Rate Restructuring	27
3.8	Government Structure Options.....	29
3.9	Local Accountability and Governance	31
4.0	DETERMINATIONS	33
	Antelope Valley - East Kern Water Agency (AVEK)	33
	Waterworks District #37 – Acton.....	34
	Waterworks District #40 – Antelope Valley.....	35
	Littlerock Creek Irrigation District	36
	Palm Ranch Irrigation District.....	37
	Palmdale Water District	38
	Quartz Hill Water District	39
	West Valley County Water District.....	40

Los Angeles LAFCO
Municipal Service Review Report
Water Service – High Desert Region

1.0 EXECUTIVE SUMMARY

The High Desert Region, also referred to as the Antelope Valley, is located north of the City of Los Angeles and includes urban and rural areas. It includes the incorporated cities of Lancaster and Palmdale and unincorporated territory,

MSR Determinations

In approving a Municipal Service Review (MSR), LAFCO must adopt written determinations for the following nine factors specified in LAFCO's governing statute. Determinations for each agency are located at the end of this report. The following is a summary, by determination, of the entire report for the High Desert service review region:

1. Infrastructure Needs and Deficiencies

Challenges to service provision in the High Desert region include topography requiring numerous pressure zones and complex systems to ensure adequate pressure and supply. In addition aging systems in some older, established areas are in need of repair and replacement and funding is limited.

One significant issue is groundwater which is the primary water source for the High Desert service review region. However, the Antelope Valley Groundwater Basin is not adjudicated and existing pumpers and overlying landowners have correlative water rights and may pump without limit. To safeguard the basin and provide a reliable water supply for current and future users, a groundwater management program is needed to bring extractions more in line with the safe yield of the basin. According to a study completed in 1991 for Palmdale Water District the accumulated overdraft for the period 1956 to 1990 was 2.5 million acre-feet or 71,400 af/yr. No agencies are providing groundwater recharge although studies have been completed. It is critical that there be a coordinated effort to manage this resource and ensure that future water supply is available.

2. Growth and Population

The High Desert Region is expected to accommodate much of the growth anticipated in Los Angeles County over the next twenty years. The population projections in the body of this report are provided by agency with growth rates ranging from approximately 18% to 4% for the agencies. The numbers are based on SCAG Regional Transportation Plan 2001 growth

Los Angeles LAFCO

Municipal Service Review Report

Water Service – High Desert Region

forecasts and on geographic analysis by Census blocks conducted by the County of Los Angeles Urban Research Division (URD). The growth forecasts for each Census tract is based on SCAG projections of growth within agencies' boundaries.

3. *Financing Constraints and Opportunities*

Generally, the eight water purveyors in the area report adequate funding for existing and future infrastructure. AVEK noted that meeting increased water quality requirements is a financing constraint. Some agencies have aging systems and a limited capacity to finance repairs and improvements.

4. *Cost-Avoidance Opportunities*

The agencies address cost avoidance opportunities through internal processes. One potential cost-avoidance opportunity is the use of excess capacity in the AVEK system during the winter to reduce costs for other agencies and for potential groundwater recharge.

5. *Opportunities for Rate Restructuring*

All agencies review rates regularly.

6. *Opportunities for Shared Facilities*

The efforts of AVEK, Littlerock Creek Irrigation District and Palmdale Water Districts in the joint planning of projects in the Antelope Valley through the Antelope Valley State Water Contractors Association increases the potential for shared facilities in the region. Furthermore, opportunities for shared facilities and/or administrative services between smaller districts, including Quartz Hill and Palm Ranch could be pursued to increase efficiencies.

7. *Government Structure Options*

Regarding governmental structure options, an approximately 1.5 square mile area of the Quartz Hill Water District lies within a portion of Waterworks District #40, between 65th and 80th Streets and Avenues L and M-8. In addition, the service area of Waterworks District #40 consists of several non-contiguous areas. The Quartz Hill CWD and Waterworks Districts #37 and #40 noted that there may be possibilities for adjustments in the agency boundaries and spheres of influence among the agencies that might increase efficiencies and clarify service provision. In addition, agencies should supply a list of out-of-agencies service agreements to LAFCO to ensure consistency with Government Code Section §56133.

Los Angeles LAFCO
Municipal Service Review Report
Water Service – High Desert Region

8. *Management Efficiencies*

Opportunities for management efficiencies are pursued by the agencies through master plans, CIP programs and other internal processes.

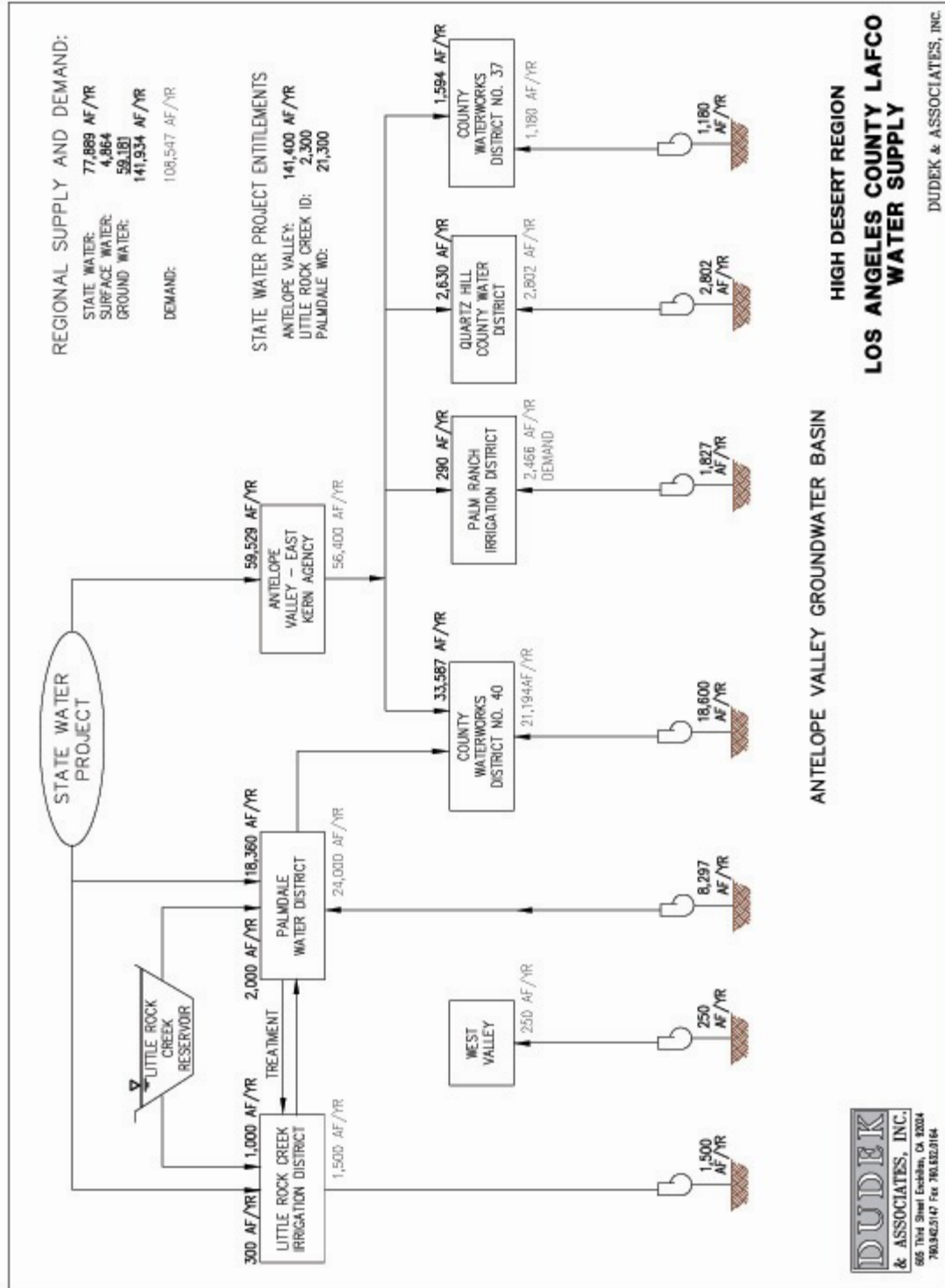
9. *Local Accountability and Governance*

No issues regarding local accountability and governance were noted.

**Los Angeles LAFCO
Municipal Service Review Report
Water Service – High Desert Region**

INSERT MSR STUDY AREA MAP

Los Angeles LAFCO Municipal Service Review Report Water Service – High Desert Region



Los Angeles LAFCO
Municipal Service Review Report
Water Service – High Desert Region

NOTE

In the preceding Executive Summary and the following service review report, the abbreviations NP (Not Provided) and NA (Not Applicable) have been used in some charts and figures.

During the service review process all agencies were contacted and all agencies were sent a Request for Information (RFI). In instances where complete data was not supplied in response to the RFI, agencies were called and were faxed or emailed a copy of the profile to complete. The lack of data in these instances does not detract from the cumulative conclusions of the report.

In instances where NA has been used, the specific information was not applicable to the agency due to size, service area or services provided.

**Los Angeles LAFCO
Municipal Service Review Report
Water Service – High Desert Region**

2.0 AGENCY PROFILES

The High Desert Region, also referred to as the Antelope Valley, is located north of the City of Los Angeles and includes urban and rural areas. The eight water agencies and districts providing water service in the region are shown in *Table 2.1 - High Desert Water Agencies* and are summarized below:

Table 2.1 - High Desert Water Agencies

Los Angeles LAFCO Water District Service Review Agencies	Retail Domestic Potable Water	Wholesale Water	Water Treatment	Recycled Water	Groundwater Management
HIGH DESERT REGION					
1. Antelope Valley – East Kern Water Agency		●	●		
2. Los Angeles County Waterworks District #37	●			●	
3. Los Angeles County Waterworks District #40	●			●	
4. Littlerock Creek Irrigation District	●				
5. Palm Ranch Irrigation District	●				
6. Palmdale Water District	●	●	●		
7. Quartz Hill Water District	●				
8. West Valley County Water District	●				

Antelope Valley – East Kern Water Agency

The Antelope Valley – East Kern Water Agency (AVEK) encompasses 2,300 square miles in the Mojave Desert, northeast of Los Angeles. Its service area includes the cities of Palmdale and Lancaster as well as Edwards Air Force Base, Palmdale Air Force Base, U. S. Borax and a small area in San Bernardino County. AVEK is the largest of three State Water Project (SWP) contractors in the Antelope Valley.

Los Angeles County Waterworks District #37 – Acton

The Los Angeles County Waterworks District #37 service area includes over 17 square miles in the Antelope Valley, south of the cities of Lancaster and Palmdale. The District is operated by

Los Angeles LAFCO

Municipal Service Review Report

Water Service – High Desert Region

the Los Angeles County Department of Public Works (LACDPW), and relies on groundwater sources as well as SWP delivered through AVEK.

Los Angeles County Waterworks District #40 – Antelope Valley

The Los Angeles County Waterworks District #40 maintains a service area of over 554 square miles. The District in its present form is the result of a consolidation of a number of waterworks districts in the region. It is now comprised of eight regions serving customers in the communities of Lancaster and Palmdale (Region Nos. 4 and 34), Pear Blossom (Region No. 24), Littlerock (Region No. 27), Sun Village (Region No. 38), North East Los Angeles County (Region No. 35), Lake Los Angeles (Region No. 38) and Rock Creek (Region No. 39). Regions 4 and 34 (Lancaster and Palmdale) are integrated and operate as one system. Similarly, Regions 24, 27 and 33 are integrated and operate as one system. CWW District #40 has a total of approximately 42,000 service connections for all eight regions. The District is operated by the Los Angeles County Department of Public Works (LACDPW) and is supplied water from AVEK, Palmdale WD and groundwater sources.

Littlerock Creek Irrigation District

The Littlerock Creek Irrigation District service area includes over 17 square miles with approximately 1,130 active service connections. While a majority of the district consists of unincorporated land east of the City of Palmdale, a small portion of the city is within the District's boundaries. Littlerock Creek Irrigation District is the smallest of the three SWP contractors in the region. Through an agreement with Palmdale Water District, Littlerock's entitlement is delivered to Palmdale for treatment.

Palm Ranch Irrigation District

The Palm Ranch Irrigation District service area covers 1.76 square miles with approximately 1,600 service connections in the unincorporated area south of the City of Lancaster and north of the City of Palmdale. It is almost entirely surrounded by Quartz Hill Water District. Palm Ranch Irrigation District receives water from AVEK and from groundwater sources.

Palmdale Water District

The Palmdale Water District (PWD) boundaries encompass approximately 187 square miles. Approximately 35 square miles are directly served by PWD and an additional two square miles are served through agreements with AVEK. A majority of the remaining area is within the boundaries of the Angeles National Forest and is unlikely to require water service in the future. Less than 20 square miles of unserved properties remain within PWD's boundaries. PWD maintains over 24,000 service connections and includes more than 30 non-contiguous tracts of

Los Angeles LAFCO

Municipal Service Review Report

Water Service – High Desert Region

land within the City of Palmdale and outlying unincorporated areas. The District is a SWP contractor and provides wholesale and retail water delivery, resource conservation of surface and ground water, recreation programs (associated with surface reservoirs) as well as electrical generation and distribution. Palmdale Water District also provides treatment of local surface water and State Water Project water to Littlerock Creek Irrigation District for potable use within their district. Palmdale Water District relies on three sources to meet customer water needs: SWP, local groundwater sources, and surface water from two reservoirs (Palmdale Lake and Littlerock Creek Reservoir).

Quartz Hill Water District

The Quartz Hill Water District is an independent special district with a service area of about 4.5 square miles located in the Antelope Valley, including portions of both the cities of Lancaster and Palmdale as well as unincorporated county land between the two. Approximately 40% of the District's service area is undeveloped. The District receives SWP water from AVEK and provides service to approximately 4,800 active meters.

West Valley County Water District

The West Valley County Water District service area includes approximately three square miles in the northwestern area of the Antelope Valley, with approximately 185 active meters. West Valley relies solely on groundwater sources.

INSERT SERVICE AREA MAP – AVEK

Antelope Valley – East Kern Water Agency

Agency Information		Service Area Information	
Address:	6500 West Ave. N Palmdale, California 93551	Service Area	2,300 sq mil
Contact:	Russell E. Fuller, General Manager	Population Served:	350,000
Phone:	(661) 943-3201	Projected Population:	
Email/Website:	avekwa@aol.com	2010	NP
Type:	Wholesale Water	2015	NP
		2020	NP

System Information	
No. of Employees:	NP
No. of Connections per Employee	NP
Average Daily Demand (MGD)	47.6 MGD
Maximum Day Demand (MGD)	83.3 MGD (est.)
No. of filed Complaints in past 12 Months	3
Miles of Pipe:	116
No. of Pump Stations:	10
No. of Pressure Zones:	NP
Storage Capacity	0

Financial Information (FY 2002-2003) (in thousands)							
Revenues:	\$14,131	Expenses:	\$11,041	Reserves:	\$36,236	CIP:	\$1,248

Wholesale Rates			
Treated	\$231 / AF	Untreated	\$189 / AF

Service Connections	Within Boundary	Outside Boundary/Within Sphere	Outside Sphere	Total
Domestic	49	2	1	52
Agriculture	66	0	0	66
Recycled	0	0	0	0
Other	0	0	0	0
Total	115	2	1	118

Supply Information (AF/Yr)						
	Existing	2005	2010	2015	2020	
Imported	59,529	NP	NP	NP	NP	
Groundwater	0	0	0	0	0	
Surface	0	0	0	0	0	
Recycled	0	0	0	0	0	
Total	59,529	NP	NP	NP	NP	

Average Annual Demand Information (AF/Yr)						
	Existing	2005	2010	2015	2020	
Residential	NP	NP	NP	NP	NP	
Comm/Ind.	NP	NP	NP	NP	NP	
Landscape/Irr	NP	NP	NP	NP	NP	
Other**	NP	NP	NP	NP	NP	
Total	56,400	NP	NP	NP	NP	

NP – data not provided by agency

INSERT SERVICE AREA MAP – LACWWD #37 ACTON

Los Angeles County Waterworks District #37 - Acton

Agency Information		Service Area Information	
Address:	1000 South Fremont Avenue, Suite A-9E Alhambra, California 91802	Service Area	17.6 sq mil
Contact:	Greg Even, Senior Civil Engineer	Population Served:	160,000 (all WWD combined)
Phone:	(626) 300-3331	Projected Population:	
Email/Website:	geven@ladpw.org , www.ladpw.org/services/water	2010	NP
Type:	Retail Water	2015	NP
		2020	NP

System Information	
No. of Employees:	NP
No. of Connections per Employee	NP
Average Daily Demand (MGD)	NP
Maximum Day Demand (MGD)	NP
No. of filed Complaints in past 12 Months	60 – all LACWW Districts
Miles of Pipe:	80
No. of Pump Stations:	4
No. of Pressure Zones:	6
Storage Capacity	3.73 MG

Financial Information (FY 2002-2003) all LACWW Districts (in thousands)							
Revenues:	\$44,868	Expenses:	\$43,444	Reserves:	\$22,784	CIP:	\$17,614

Typical Monthly Residential Water Bill (3/4" meter, 20 ccf)			
Meter Charge	\$10.54	Water Charge:	\$10.35
		Monthly Bill:	\$20.89

Service Connections	Within Boundary	Outside Boundary/Within Sphere	Outside Sphere	Total
Domestic	NP	NP	NP	NP
Agriculture	NP	NP	NP	NP
Recycled	NP	NP	NP	NP
Other	NP	NP	NP	NP
Total	NP	NP	NP	NP

Supply Information (AF/Yr)						
	Existing	2005	2010	2015	2020	
Imported	1,594	NP	NP	NP	NP	
Groundwater*	1,180	NP	NP	NP	NP	
Surface		NP	NP	NP	NP	
Reclaimed		NP	NP	NP	NP	
Total	2,774	NP	NP	NP	NP	

* Groundwater Basin: Antelope Valley Basin

Average Annual Demand Information (AF/Yr)						
	Existing	2005	2010	2015	2020	
Residential	2,402	NP	NP	NP	NP	
Comm/Ind.	NP	NP	NP	NP	NP	
Landscape/Irr	NP	NP	NP	NP	NP	
Other**	NP	NP	NP	NP	NP	
Total	2,402	NP	NP	NP	NP	

NP – data not provided by agency

INSERT SERVICE AREA MAP – LACWWD #40 ANTELOPE VALLEY

Los Angeles County Waterworks District #40 – Antelope Valley

Agency Information		Service Area Information	
Address:	1000 South Fremont Avenue, Suite A-9E Alhambra, California 91802	Service Area	554 sq mil (includes SOI)
Contact:	Greg Even, Senior Civil Engineer	Population Served:	128,000
Phone:	(626) 300-3331	Projected Population:	
Email/Website:	geven@ladpw.org , www.ladpw.org/services/water	2010	293,800
Type:	Retail Water	2015	328,050
		2020	362,300

System Information	
No. of Employees:	NP
No. of Connections per Employee	NP
Average Daily Demand (MGD)	NP
Maximum Day Demand (MGD)	NP
No. of filed Complaints in past 12 Months	60 – all LACWW Districts
Miles of Pipe:	770
No. of Pump Stations:	33
No. of Pressure Zones:	26
Storage Capacity	56.43 MG

Financial Information (FY 2002-2003) all LACWW Districts (in thousands)							
Revenues:	\$44,868	Expenses:	\$43,444	Reserves:	\$22,784	CIP:	\$17,614

Typical Monthly Residential Water Bill (3/4" meter, 20 ccf)			
Meter Charge	\$7.85	Water Charge:	\$7.75
		Monthly Bill:	\$15.60

Service Connections	Within Boundary	Outside Boundary/Within Sphere	Outside Sphere	Total
Domestic	39,258	0	0	39,258
Agriculture	530	0	0	530
Recycled	0	0	0	0
Other	0	0	0	0
Total	41,736	0	0	41,736

Supply Information (AF/Yr)					
	Existing	2005	2010	2015	2020
Imported	33,587	57,764	77,404	83,860	90,726
Groundwater*	21,194	14,441	19,351	20,965	22,681
Surface	-	-	-	-	-
Recycled**	-	-	-	-	-
Total	54,781	72,205	96,755	104,826	113,407

* Groundwater Basin: Antelope Valley Basin

** NA – Recycled water supplied by LA County Sanitation District to cities of Palmdale and Lancaster

Average Annual Demand Information (AF/Yr)					
	Existing	2005	2010	2015	2020
Residential	43,052	58,846	78,855	85,433	92,417
Comm/Ind.	3,932	5,777	7,740	8,386	9,073
Landscape/Irr	1,474	2,166	2,403	3,145	3,402
Other**	3,686	5,415	7,257	7,862	8,506
Total	49,133	72,205	96,755	104,826	113,407

NP – data not provided by agency

INSERT SERVICE AREA MAP – LITTLE ROCK CREEK ID

Littlerock Creek Irrigation District

Agency Information		Service Area Information	
Address:	35141 87 th St. East Littlerock, California 93543	Service Area	17.2 sq mil
Contact:	Brad Bones	Population Served:	2,800
Phone:	(661) 944-2015; fax (661) 944-3668	Projected Population:	
Email/Website:		2010	NP
Type:	Retail Water	2015	NP
		2020	NP

System Information	
No. of Employees:	NP
No. of Connections per Employee	NP
Average Daily Demand (MGD)	NP
Maximum Day Demand (MGD)	NP
No. of filed Complaints in past 12 Months	NP
Miles of Pipe:	NP
No. of Pump Stations:	NP
No. of Pressure Zones:	NP
Storage Capacity	5 MG

Financial Information (FY 2002-2003) (in thousands)							
Revenues:	\$1,507	Expenses:	\$1,473	Reserves:	\$3,881	CIP:	\$227

Typical Monthly Residential Water Bill (3/4" meter, 20 ccf)			
Meter Charge	\$23.65	Water Charge:	\$14.20
		Monthly Bill:	\$37.85

Service Connections	Within Boundary	Outside Boundary/Within Sphere	Outside Sphere	Total
Domestic	1,000	0	0	1,000
Agriculture	70	0	0	70
Recycled	0	0	0	0
Other	60	0	0	60
Total	1,130	0	0	1,130

Supply Information (AF/Yr)					
	Existing	2005	2010	2015	2020
Imported	300	NP	NP	NP	NP
Groundwater*	1,400	NP	NP	NP	NP
Surface	0	NP	NP	NP	NP
Recycled	0	NP	NP	NP	NP
Total	1,700	NP	NP	NP	NP

* Groundwater Basin: Antelope Valley Basin

Average Annual Demand Information (AF/Yr)					
	Existing	2005	2010	2015	2020
Residential	NP	NP	NP	NP	NP
Comm/Ind.	NP	NP	NP	NP	NP
Landscape/Irr	NP	NP	NP	NP	NP
Other**	NP	NP	NP	NP	NP
Total	NP	(20% increase)	NP	(40% increase)	NP

NP – data not provided by agency

INSERT SERVICE AREA MAP – PALM RANCH IRRIGATION DISTRICT

Palm Ranch Irrigation District

Agency Information		Service Area Information	
Address:	42116 50 th Street West, Suite D Quartz Hill, California 93536	Service Area	1.76 sq mil
Contact:	Mr. Phillip R. Shott, General Mgr.	Population Served:	NP
Phone:	(661) 943-2469	Projected Population:	
Email/Website:	palmranchid@aol.com	2010	NP
Type:	Retail Water	2015	NP
		2020	NP

System Information	
No. of Employees:	4
No. of Connections per Employee	800
Average Daily Demand (MGD)	2.2 MGD
Maximum Day Demand (MGD)	4 MGD
No. of filed Complaints in past 12 Months	0
Miles of Pipe:	30
No. of Pump Stations:	2; 7,900 GPM capacity
No. of Pressure Zones:	3
Storage Capacity	4 MG

Financial Information (FY 2002-2003) (in thousands)							
Revenues:	\$951	Expenses:	\$874	Reserves:	\$3,424	CIP:	\$222

Typical Monthly Residential Water Bill (3/4" meter, 20 ccf)			
Meter Charge	\$NP	Water Charge:	\$NP
		Monthly Bill:	\$NP

Service Connections	Within Boundary	Outside Boundary/Within Sphere	Outside Sphere	Total
Domestic	1,549	1	0	1,549
Agriculture	0	0	0	0
Recycled	0	0	0	0
Other	51	0	0	51
Total	1,600	1	0	1,600

Supply Information (AF/Yr)					
	Existing	2005	2010	2015	2020
Imported	137	N/P	N/P	N/P	N/P
Groundwater*	1,558	N/P	N/P	N/P	N/P
Surface	0	N/P	N/P	N/P	N/P
Recycled	0	N/P	N/P	N/P	N/P
Total	1,695	N/P	N/P	N/P	N/P

* Groundwater Basin: Antelope Valley Basin

Average Annual Demand Information (AF/Yr)					
	Existing	2005	2010	2015	2020
Residential	N/P	N/P	N/P	N/P	N/P
Comm/Ind.	N/P	N/P	N/P	N/P	N/P
Landscape/Irr	N/P	N/P	N/P	N/P	N/P
Other**	N/P	N/P	N/P	N/P	N/P
Total	N/P	N/P	N/P	N/P	N/P

NP – data not provided by agency

INSERT SERVICE AREA MAP – PALMDALE WATER DISTRICT

Palmdale Water District

Agency Information		Service Area Information	
Address:	2029 East Avenue Q Palmdale, California 93550	Service Area	187 sq mil
Contact:	Dennis D. LaMoreaux, General Mgr.	Population Served:	93,420
Phone:	(661) 947-4111 Ext. 117	Projected Population:	
Email/Website:	dla-moreaux@palmdalewater.org	2010	130,570
Type:	Wholesale and Retail Water	2015	146,019
		2020	161,467

System Information	
No. of Employees:	74
No. of Connections per Employee	324
Average Daily Demand (MGD)	20.9 MGD
Maximum Day Demand (MGD)	34.1 MGD
No. of filed Complaints in past 12 Months	5,600 in 2002
Miles of Pipe:	356; plus one 8-mile open canal
No. of Pump Stations:	18; plus 3,460 hp capacity
No. of Pressure Zones:	7
Storage Capacity	18 storage tanks = 40.5 mg; 2 raw water reservoirs = 7,750 af

Financial Information (FY 2002-2003) (in thousands)							
Revenues:	\$15,000	Expenses:	\$17,238	Reserves:	\$29,500	CIP:	\$40,810

Typical Monthly Residential Water Bill (3/4" meter, 20 ccf)			
Meter Charge	\$11.67	Water Charge:	\$17.70
		Monthly Bill:	\$29.37

Service Connections	Within Boundary	Outside Boundary/Within Sphere	Outside Sphere	Total
Domestic	24,002	0	7	24,009
Agriculture	0	0	0	0
Recycled	0	0	0	0
Other	0	0	0	0
Total	24,002	0	7	24,009

Supply Information (AF/Yr)					
	Existing	2005	2010	2015	2020
Imported	18,360	17,777	19,560	23,100	26,640
Groundwater*	8,297	11,851	13,040	15,400	17,760
Surface	0	0	0	0	0
Recycled	0	0	0	0	0
Total	26,657	29,628	32,600	38,500	44,400

* Groundwater Basin: Antelope Valley Basin

* Projections based on 2010 and 2020 data and on statement from District that groundwater supply will account for 40% of future supplies

Average Annual Demand Information (AF/Yr)					
	Existing	2005	2010	2015	2020
Residential	N/P	N/P	N/P	N/P	N/P
Comm/Ind.	N/P	N/P	N/P	N/P	N/P
Landscape/Irr	N/P	N/P	N/P	N/P	N/P
Other**	N/P	N/P	N/P	N/P	N/P
Total	24,000	28,700	33,400	39,250	45,100

NP – data not provided by agency

INSERT SERVICE AREA MAP – QUARTZ HILL WATER DISTRICT

Quartz Hill Water District

Agency Information		Service Area Information	
Address:	P.O. Box 3218 Quartz Hill, California 93586	Service Area	7.0 sq mil
Contact:	David E. Meraz, General Manager	Population Served:	4,384
Phone:	(661) 943-3170	Projected Population:	
Email/Website:	dmeraz@qhwd.org	2010	5,892
Type:	Retail Water	2015	6,830
		2020	7,920

System Information	
No. of Employees:	16
No. of Connections per Employee	299
Average Daily Demand (MGD)	4.85 MGD
Maximum Day Demand (MGD)	12.12 MGD (est.)
No. of filed Complaints in past 12 Months	29
Miles of Pipe:	NP
No. of Pump Stations:	3; 2,575 GPM
No. of Pressure Zones:	NP
Storage Capacity	6.15 MG

Financial Information (FY 2002-2003) (in thousands)							
Revenues:	\$1,891	Expenses:	\$2,293	Reserves:	\$NP	CIP:	\$3,710

Typical Monthly Residential Water Bill (3/4" meter, 20 ccf)			
Meter Charge	\$NP	Water Charge:	\$NP
		Monthly Bill:	\$NP

Service Connections	Within Boundary	Outside Boundary/Within Sphere	Outside Sphere	Total
Domestic	4,788	0	2	4,788
Agriculture	0	0	0	0
Recycled	0	0	0	0
Other	0	0	0	0
Total	4,788	0	2	4,788

Supply Information (AF/Yr)					
	Existing	2005	2010	2015	2020
Imported	2,630	2,937	2,655	2,400	2,169
Groundwater*	2,802	2,495	3,171	4,030	4,933
Surface	NP	NP	NP	NP	NP
Recycled	NP	NP	NP	NP	NP
Total	5,432	5,432	5,826	6,430	7,102

* Groundwater Basin: Antelope Valley Basin

Average Annual Demand Information (AF/Yr)					
	Existing	2005	2010	2015	2020
Residential	5,432	5,602	6,282	7,132	8,945
Comm/Ind.	NP	NP	NP	NP	NP
Landscape/Irr	NP	NP	NP	NP	NP
Other	NP	NP	NP	NP	NP
Total	5,432	5,602	6,282	7,132	8,945

NP – data not provided by agency

INSERT SERVICE AREA MAP – WEST VALLEY COUNTY WATER DISTRICT

West Valley County Water District

Agency Information		Service Area Information	
Address:	25315 West Ideal Avenue Lancaster, California 93536	Service Area	3 sq mil
Contact:	Kathleen Rener, General Manager	Population Served:	300
Phone:	(661) 724-1860	Projected Population:	
Email/Website:	wvcwd@qnet.com	2010	NP
Type:	Retail Water	2015	NP
		2020	NP

System Information	
No. of Employees:	NP
No. of Connections per Employee	NP
Average Daily Demand (MGD)	NP
Maximum Day Demand (MGD)	NP
No. of filed Complaints in past 12 Months	1
Miles of Pipe:	24
No. of Pump Stations:	1; 680 gpm
No. of Pressure Zones:	NP
Storage Capacity	2; 590,000 gal

Financial Information (FY 2002-2003) (in thousands)							
Revenues:	\$156	Expenses:	\$138	Reserves:	\$118	CIP:	NP

Typical Monthly Residential Water Bill (3/4" meter, 20 ccf)			
Meter Charge	\$NP	Water Charge:	\$NP
		Monthly Bill:	\$NP

Service Connections	Within Boundary	Outside Boundary/Within Sphere	Outside Sphere	Total
Domestic	185	0	0	185
Agriculture	0	0	0	0
Recycled	0	0	0	0
Other	0	0	0	0
Total	185	0	0	185

Supply Information (AF/Yr)					
	Existing	2005	2010	2015	2020
Imported	NP	NP	NP	NP	NP
Groundwater*	250	NP	NP	NP	NP
Surface	NP	NP	NP	NP	NP
Recycled	NP	NP	NP	NP	NP
Total	250	NP	NP	NP	NP

* Groundwater Basin: Antelope Valley Basin

Average Annual Demand Information (AF/Yr)					
	Existing	2005	2010	2015	2020
Residential	NP	NP	NP	NP	NP
Comm/Ind.	NP	NP	NP	NP	NP
Landscape/Irr	NP	NP	NP	NP	NP
Other**	NP	NP	NP	NP	NP
Total	250	350	N/P	450	450

NP – data not provided by agency

Los Angeles LAFCO
Municipal Service Review Report
Water Service – High Desert Region

3.0 ANALYSIS

3.1 Growth and Population

3.1.1 Growth/Population Projections

The High Desert Region, which includes the incorporated cities of Lancaster and Palmdale, as well as large unincorporated, rural areas, is expected to accommodate much of the growth anticipated in Los Angeles County over the next twenty years due to the inventory of developable land and affordability. Los Angeles County experienced a 12% population increase from 1990 to 2000, with SCAG projecting a 19% increase through 2020. The growth projections shown below are derived from two sources: data submitted by the districts and data generated by SCAG. There are discrepancies between the two forecasts. The SCAG figures are based on SCAG Regional Transportation Plan 2001 growth forecasts. To establish district-level projections, the population in 2000 was estimated based on geographic analysis conducted by the County of Los Angeles Urban Research Division (URD) and represents the sum of population in each Census block within the district's boundaries. The projected population is based on SCAG's growth forecasts for each Census tract and represents the SCAG projection of growth in the Census tracts within the District's boundaries. Appropriate adjustment was made for Census tracts that are partially within the district's boundaries.

Typically population projections are provided by regional agencies for cities only. Los Angeles LAFCO is one of the few LAFCOs in California to provide population and growth projections for all agencies including special districts. This may help smaller special districts to coordinate the demand for future water service with other agencies.

**Los Angeles LAFCO
Municipal Service Review Report
Water Service – High Desert Region**

Table 3-1: Growth and Population Projections

Agency	Data Source	2000 Population Estimates*	2005 Population Estimates*	2010 Population Estimates*	2015 Population Estimates*	2020 Population Estimates*	Annual Growth Rate
AVEK	Agency	350,000	NP	NP	NP	NP	
	SCAG	202,758	248,121	315,261	380,375	476,889	6.8%
District # 37	Agency	NP	NP	NP	NP	NP	
	SCAG	4,811	7,132	9,310	11,473	14,078	9.6%
District #40	Agency	128,000	210,900	293,800	328,050	362,300	9.2%
	SCAG	151,906	177,130	221,062	262,355	321,320	5.6%
Littlerock Creek	Agency	2,800	NP	NP	NP	NP	
	SCAG	3,842	4,844	5,670	6,666	8,125	5.6%
Palm Ranch**	Agency	NP	NP	NP	NP	NP	
	SCAG	4,568	5,316	5,769	6,748	8,248	4.0%
Palmdale	Agency	93,420	111,995	130,570	146,020	161,500	3.6%
	SCAG	94,970	108,918	127,309	141,175	162,480	3.6%
Quartz Hill	Agency	4,384	5,082	5,892	6,830	7,920	4.0%
	SCAG	14,626	17,225	20,226	23,755	29,209	5.0%
West Valley	Agency	300	NP	NP	NP	NP	
	SCAG	392	731	981	1,285	1,796	17.9%

(*) Data sources include data reported in the LAFCO Request for Information, Parts I, II and III. Additional information was obtained from Urban Water Management Plans and/or Water Master Plans provided for County Waterworks District No. 40, Palmdale Water District, and Quartz Hill County Water District.

(**) Palm Ranch ID noted that the growth projected by SCAG exceeds expected population increases; the PRID service area is built-out with little or no vacant land available.

NP – data not provided by agency

Antelope Valley – East Kern Water Agency (AVEK)

According to the agency, AVEK does not perform its own analysis but relies on the retail water purveyors in the Antelope Valley for forecasting population.

County Waterworks District #37 and #40 – Acton and Antelope Valley

District #40 serves a large portion of the City of Lancaster, which is anticipated to grow by an estimated 213,856 residents between the years 2000 and 2025.

Littlerock Creek Irrigation District

Littlerock Creek Irrigation District reports that the land use plans and growth patterns are generally not affecting service demand in their area. In addition to approximately 7,000 un-serviced acres within the district boundaries, there are areas south of the service area, which are in low-lying foothills. While there are no other providers to serve these areas, the distance to Littlerock Creek facilities and the increased elevation would make serving them expensive.

Palm Ranch Irrigation District

A 1999 Addendum was made to the 1998 Master Plan Update on the basis that the potential for future development was found to be sporadic. It is anticipated that future development will be

Los Angeles LAFCO Municipal Service Review Report Water Service – High Desert Region

less than ten to twelve equivalent dwelling units (EDU), and likely one to two units, at any given time.

Palmdale Water District

The Palmdale Water District serves a portion of the City of Palmdale. The district population is projected to reach 161,500 by the year 2020.¹ This projection is lower than previous projections presented in the 1996 Water System Master Plan, reflecting the reduced development rate experienced in the area in the last five years.

Quartz Hill Water District

The Update of Master Plan of Improvements prepared in May 2003 for Quartz Hill Water District uses an annual growth rate of 3.0%, slightly less than that used in the UWMP. . The District is seeing former farmlands that utilized their own wells slowly being replaced with residential units, which indicates an increase in population density.² Approximately 40% of the service area is undeveloped.

West Valley County Water District

The West Valley CWD area reported a slow growth increase overall although data supplied by LAFCO projected an annual growth rate of nearly 18%. The District only serves three square miles and should review the adopted land use plan, zoning and developable property to determine an accurate growth projection.

¹ Palmdale Water District Urban Water Management Plan, December 2000, page 4

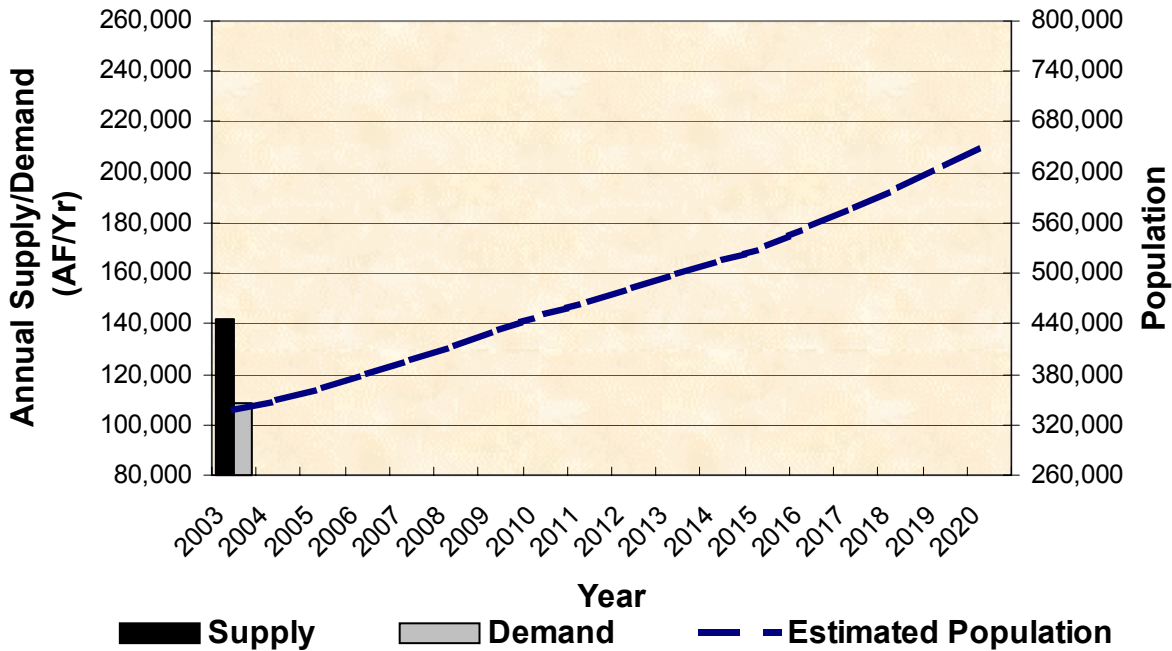
² Quartz Hill Water District 2002 Urban Water Management Plan (draft), page 9

**Los Angeles LAFCO
Municipal Service Review Report
Water Service – High Desert Region**

3.2 Infrastructure

The following figure, *Figure 3.1 Supply/Demand Forecast - Based on Population Projections*, shows the estimated supply and demand based on data reported by the water agencies in the High Desert service review region as well as SCAG population projections. . The questionnaire submitted to the agencies by LA LAFCO did not request projections for supply and demand; therefore the data has been obtained from UWMPs, master plans and follow up communications with agency staff. It is recommended that the agency profiles in Section 2.0 be updated annually in order to maintain accurate projections on future supply and demand. The 2020 water demand was estimated using the current ratio of water demand to current population and extrapolating demand to 2020 based on SCAG’s 2020 population estimates

**Figure 3.1 – High Desert Region
Supply/Demand Forecast Based on Population Projections**



Projected 2020 Demand based on existing ratio of Population to Demand of 3.12 people per AF/Yr. 2020 Population based on projections for: Palmdale Water District, Antelope Valley-East Kern Agency, County Waterworks No. 37 and West Valley Agency.

**Los Angeles LAFCO
Municipal Service Review Report
Water Service – High Desert Region**

3.2.1 Water Infrastructure

The High Desert Region includes infrastructure for both potable and recycled water. Challenges in the region include landforms and topography requiring numerous pressure zones and complex systems to ensure adequate pressure and supply, as well as aging systems in some older, established areas. Recycled water is provided within the region by Los Angeles County Sanitation Districts and used for agriculture and landscapes. Infrastructure for each of the eight water districts in the High Desert Region is summarized in *Table 3.2 – Infrastructure Summary* below:

Table 3.2 - Infrastructure Summary

	Antelope Valley – East Kern Water Agency	Waterworks District #37 – Acton (1)	Waterworks District #40 – Antelope Valley (2)	Littlerock Creek ID	Palm Ranch ID	Palmdale Water District	Quartz Hill Water District	West Valley CWD
Number of Connections	118	N/P	41,736	1,130	1,600	24,009	4,788	185
Length of Pipe (miles)	116	80	770	N/P	30	356	N/P	24
Wells	0	3	43	4	4	30	N/P	1
Pump Stations	10	4	33	3	2	18	3	1 (construction pending)
Tanks*	0	4	55	5	19	18	0	2
Reservoirs**	0	0	0	0	2	2	4	N/P
Total Available Storage (MG)	0	3.73	56.43	5	4	40.5 (potable) 7,750 af (raw)	6.15	0.59
Treatment Plant Capacity (MGD)	93	NA	NA	NA	NA	28	NA	0
SWP Connections	1	0	0	1	0	1	0	0
Interties with Neighboring Districts	N/P	N/P	0	1	2	3	0	0

* Tanks are defined as above ground storage facilities.

** Reservoirs are described as in ground storage facilities.

NP – data not provided by agency; NA – not applicable

(1) Information was provided for County Waterworks Districts as a combined total. Therefore, it is not reportable for individual district numbers 21, 29, 36 and 37.

(2) A separate Urban Water Management Plan was submitted for County Waterworks District No. 40. However, detail re: infrastructure is not included.

Antelope Valley – East Kern Water Agency (AVEK)

While predominately a wholesale water distributor, AVEK may provide retail water on a supplemental basis. Of the limited water service connections noted in Table 3-2 above, 49 are

Los Angeles LAFCO

Municipal Service Review Report

Water Service – High Desert Region

domestic and 66 are agricultural connections; all are located within the agency boundaries. Three additional domestic water connections are located outside the agency boundaries. The 116 miles of pipe consist of 12 transmission feeders. An additional feeder, the South Feeder Parallel Pipeline, will be completed in 2004. AVEK maintains four treatment plants with capacities from 4 to 65 million gallons per day (MGD) each. It does not maintain storage facilities.

AVEK provides service to one Mojave Water Agency customer in San Bernardino County because the District's facilities are closer than Mojave's. AVEK also provides service to three areas belonging to Palmdale Water District that are islands within AVEK's boundaries: West Side Park MWC, El Dorado MWC, and a housing tract served by LACWWD. AVEK provides service because its facilities are closer than PWD's facilities.

County Waterworks District # 37 and #40

Waterworks District #40's ability to use AVEK supplies is currently limited to certain portions of the District's service area due to transmission facility restrictions. The maximum quantity of water that can currently be purchased from AVEK for direct delivery to LACWWD customers is about 60% of demand.³ Reclaimed water is available in the cities of Lancaster and Palmdale through the County Sanitation Districts of Los Angeles County.

Littlerock Creek Irrigation District

Littlerock Creek Irrigation District (LCID) has an agreement with Palmdale Water District regarding its SWP entitlement and Littlerock Creek Reservoir. In exchange for control, Palmdale provides treated water to the District. LCID's 2003-2004 approved budget shows a line item for \$220,000 in capital expenditures for new wells.

Palm Ranch Irrigation District

Palm Ranch treated approximately 1,850 acre-feet of groundwater in 2002 with chlorination. The District's 1999 Master Plan Update Addendum notes that before 170.8 GPM is added to the district's maximum daily demand (MDD), emergency power (pumping) provisions should be installed. In addition, it is suggested that the type of future uses must be tracked to determine when a new well will be needed. Finally, new storage capacity will be needed when future development adds 316.6 GPM to the total district MDD. Since the Addendum was prepared, the District has installed emergency power provisions and drilled a new well.

³ Los Angeles County Department of Public Works District 40, 2000 Urban Water Management Plan, page 7

Los Angeles LAFCO

Municipal Service Review Report

Water Service – High Desert Region

Palmdale Water District

PWD is a SWP contractor and provides both retail and wholesale water service. The District treats approximately 4,533 acre-feet of local surface water annually and 10,000–13,000 acre-feet of SWP water annually. The Palmdale Water Treatment Plant, built in 1987 and expanded in 1993, has a permitted capacity of 28 MGD and is reported in good condition. PWD plans to construct a new treatment plant to respond to increasing demand and to provide redundancy to the existing plant. Several new booster stations are also anticipated.

PWD operates two surface water reservoirs – Palmdale Lake and Littlerock Reservoir. It owns Palmdale Lake and is co-owner of Littlerock Reservoir with LCID. The Littlerock Reservoir, located in the Angeles National Forest, collects rain and snowmelt runoff from Littlerock Creek. It was originally constructed in 1924 and strengthened in 1993. Palmdale Lake receives water from the SWP and from Littlerock Reservoir. The dam at Palmdale Lake was originally built in 1895 and was reconstructed in 1968. Total capacity in both reservoirs is 7,750 acre-feet combined. No additional surface water storage facilities are planned by PWD.

PWD serves areas within AVEK's service area where that district's infrastructure is limited and AVEK serves areas within PWD's service area. These areas are indicated on a map created by PWD. Future development will require additional water resources; there is no excess or reserved capacity to meet an increased demand.

While the District does not currently recharge groundwater, it is exploring the potential construction of surface water spreading recharge facilities through involvement in the Antelope Valley State Water Contractors Association. The 2001 Water System Master Plan calls for the construction of up to seven new production wells. The new wells are to be used for peaking and drought supply and not to meet annual supply requirements.

Quartz Hill Water District

Quartz Hill relies on AVEK to provide treated water. In 2002, Quartz Hill received 2,630 acre-feet of treated water from AVEK. Quartz Hill maintains seven wells with a combined capacity of approximately 9,636 AF/yr (2001 data). An additional five wells with a capacity of 500 gpm each are proposed. Three additional reservoirs are proposed with a capacity totaling 8.3 MG. A new pump station is proposed, as is a pressure reducing station and transmission lines. Within its service area, private agricultural wells are being replaced with connections to District facilities as agriculture land is developed.

Los Angeles LAFCO Municipal Service Review Report Water Service – High Desert Region

LACWWD provides service to the east side of 50th Street West, south of Avenue L as Quartz Hill does not have a waterline in that location.

According to a study prepared in May 2003, the District will need \$15 million in proposed improvements to serve new connections estimated to occur by 2023.⁴ The District anticipates recharge facilities as well, and reports no infrastructure needs or deficiencies that limit their ability to provide service.

West Valley County Water District

West Valley anticipates a new pumping facility, pending financing. The District's June 30, 2002 financial statement indicates that the infrastructure is approaching full depreciation. Replacement will be necessary at some point; there was no indication of an assessment of current conditions, expected life, or replacement program. This may limit the District's ability to provide service as population increases within the service area.

3.2.2 Water Supply/Demand

Groundwater is the primary water source for the Antelope Valley. AVEK, the largest provider of imported water, has a policy requiring that its supply be supplementary to a retail agency's groundwater source. The Antelope Valley Groundwater Basin is not adjudicated and existing pumpers and overlying landowners have correlative water rights in the basin and may pump without limit. To safeguard the basin and provide a reliable water supply for current and future users, there is a need to develop a program to manage the groundwater basin and to bring extractions more in line with the safe yield of the basin. Safe yield estimates prepared by the United States Geological Services (USGS) in 1993 were reported to range from 31,200 to 59,100 af/yr. According to a study completed in 1991 for PWD, the accumulated overdraft for the period 1956 to 1990 was 2.5 million acre-feet or 71,400 af/yr.⁵ No agencies are providing groundwater recharge although studies have been completed. With the number of private and municipal water companies using groundwater, it is critical that there be a coordinated effort to manage this resource. This lack of planning and coordination is a concern in an area dependent on groundwater.

Water supply and demand for each of the eight water districts or agencies in the High Desert Region is summarized below in *Table 3.3 – Supply and Demand Summary*. Two agencies,

⁴ Quartz Hill Water District, Update of Master Plan Improvements and Capacity Charge for 2003, May 13, 2003

⁵ Palmdale Water District 2000 Urban Water Management Plan, page 16

Los Angeles LAFCO Municipal Service Review Report Water Service – High Desert Region

Palmdale Water District and Quartz Hill Water District show a shortfall in 2020 between expected demand and projected supply.

Table 3.3 - Supply and Demand Summary
(Acre Feet/Year unless otherwise noted)

	Antelope Valley – East Kern Water Agency	Waterworks District #37 – Acton (1)	Waterworks District #40 – Antelope Valley (2)	Littlelock Creek ID	Palm Ranch ID	Palmdale Water District	Quartz Hill Water District	West Valley CWD
SWP Entitlements	141,400	NA	NA	2,300	NA	21,300	NA	NA
Existing Supply - Imported	59,529	1,594	33,587	300	137	18,360	2,630	N/P
Existing Supply - Groundwater	-	1,180	21,194	1,500	1,558	8,297	2,802	250 AF
Projected Supply – Imported	N/P	N/P	90,726	N/P	N/P	18,620	2,169	N/P
Projected Supply - Groundwater	-	N/P	22,681	N/P	N/P	17,744	4,933	N/P
Projected Supply – Surface						6,600		
2020 Total Projected Supply	N/P	N/P	113,407	N/P	N/P	42,964	7,102	N/P
Existing Demand: Average Annual		2,402	49,133	1,500	N/P	26,280	5,432	250
2020 Projected Demand: Average Annual		N/P	113,407	(10% increase over next ten years)	N/P	46,660	8,945	450
Existing Demand: Maximum Day		N/P	N/P	N/P	2.5 MGD	34.1 MGD	13,580 MGD	N/P
Projected Demand: Maximum Day		N/P	N/P	N/P	N/P	78.8 MGD	N/P	N/P
Increase in Maximum Day	N/P	N/P	N/P	N/P	N/P	44.7 MGD	N/P	N/P

(1) Information was provided for County Waterworks Districts as a combined total. Therefore, it is not reportable for individual districts 21, 29, 36 and 37.

(2) A separate Urban Water Management Plan was submitted for County Waterworks District No. 40.

NP – data not provided by agency; NA – not applicable

Regulatory agencies with which the districts must comply include:

- Los Angeles Regional Quality Control Board – permit to operate wastewater treatment and disposal facilities and to discharge effluent when necessary
- South Coast Air Quality Management Board for permits to operate and discharge exhaust emissions from stationary emergency generators, diesel engines used to operate pumps, and emissions resulting from biosolid disposal facilities
- California Dept. of Health Services for permits to operate and maintain potable water storage, treatment, and distribution facilities
- Los Angeles County Dept. of Health Services for permits to operate and deliver recycled water to customers for use as irrigation water, and backflow prevention

Compliance with these regulatory agencies does not limit capacity of the supply system.

Los Angeles LAFCO

Municipal Service Review Report

Water Service – High Desert Region

Antelope Valley – East Kern Water Agency (AVEK)

AVEK provides imported water as a supplemental source to retailers. According to the District, AVEK does not do a detailed forecast of water demands for its service area. The responsibility for forecasting water demand lies with the retail water purveyors.

AVEK did note excess capacity in its water treatment plants during the winter, an opportunity that should be explored with its retailers for cost avoidance opportunities.

The demand for water from AVEK varies depending on the price of AVEK water and the cost for AVEK customers to pump groundwater from the un-adjudicated groundwater basin. AVEK imported 53,360 acre-feet of water in 2003. Its entitlement from the SWP is 141,400 acre-feet per year.

AVEK's 2000 UWMP only addressed public participation. In the next required submittal of UWMPs (2005), the agency should prepare a plan that addresses all the issues as required by the California Water Code Division 6, Sections 10610 et seq., Urban Water Management Planning Act, as amended January 1, 2002.

County Waterworks District # 37 and #40

Approximately 40% of the water demand in District #40 is met from groundwater supplies. Imported water from AVEK provides the remaining 60%. Targeted ratios established by Los Angeles County Waterworks have been set at 80% for imported water and 20% for groundwater, although based on data submitted the agency does not appear to be meeting the target. For District #40, 80% of demand is from residential use, both single and multi-family properties. Recycled water is available through the Palmdale Water Reclamation Plant and the Lancaster Water Reclamation Plant. Potential users in District #40 include schools, parks, golf courses and other landscape areas. The projected annual recycled water demand is approximately 32,200 af/yr.

Littlerock Creek Irrigation District

Littlerock Creek Irrigation District (LCID) shares water rights with Palmdale Water District to the Littlerock Creek. Under an existing agreement, LCID is allowed to purchase a specified amount of the yield from Littlerock Reservoir, local surface water, and for PWD to treat and deliver water from LCID's SWP allotment. LCID owns all the water under the agreement. PWD only provides water treatment and delivery to the inter-tie.

Water demand in the Littlerock Creek ID is heaviest from May through September due to agricultural use. The District noted in the LAFCO RFI that while it has capacity to serve

Los Angeles LAFCO

Municipal Service Review Report

Water Service – High Desert Region

development in their existing sphere of influence, it has no excess capacity. Approximately 1,400 acre-feet of its annual demand is from groundwater and 300 acre-feet are supplied by the Palmdale Water District. Groundwater recharge and water conservation services are not provided by Littlerock Creek.

Palm Ranch Irrigation District

While the District noted in the LAFCO RFI that it has capacity to serve development in their boundaries and existing sphere of influence, it also noted no excess capacity. Groundwater recharge and water conservation services are not provided by Palm Ranch Irrigation District.

Palmdale Water District

Future development within PWD's boundaries will require additional water resources. In November 1998, the District prepared a Source Water Assessment Program (SWAP), a groundwater and wellhead protection plan. The District is dependent on groundwater as a component of its water resources. In the Water System Master Plan, a number of options are explored to address future supply shortages. While not a new source, conjunctive use is encouraged as it optimizes the utilization of existing sources.⁶

The current capacity for treatment at the Palmdale Water District WTP is 18 MGD and the District noted that to meet future water demand it will construct a new treatment plant in the future. PWD extracted approximately 8,300 acre feet of groundwater in 2002. The 2001 Water System Master Plan Update indicates that the District will develop facilities to provide 40% of its water supply capacity from groundwater resources and 60% from other sources. Water conservation will play a part in meeting supply and reducing demand in the District. Since the PWD water distribution system is fully interconnected, there is no one area that has excess capacity.

Quartz Hill Water District

Quartz Hill relies on imported and groundwater and has no fixed entitlement for deliveries through AVEK. New wells include provision in the casings to accept water for recharge, although it was not indicated if this opportunity is being utilized. The District does not plan to invest in recycled water in the foreseeable future.⁷ The District reports that capacity for future development over the next twenty years will be provided by the facilities in the District's Master Plan of Improvements. No excess capacity exists or is expected.

⁶ Palmdale Water District Final Water System Master Plan Update, March 2001, Montgomery/Watson.

⁷ Quartz Hill Water District 2002 Urban Water Management Plan, page 6

Los Angeles LAFCO Municipal Service Review Report Water Service – High Desert Region

West Valley County Water District

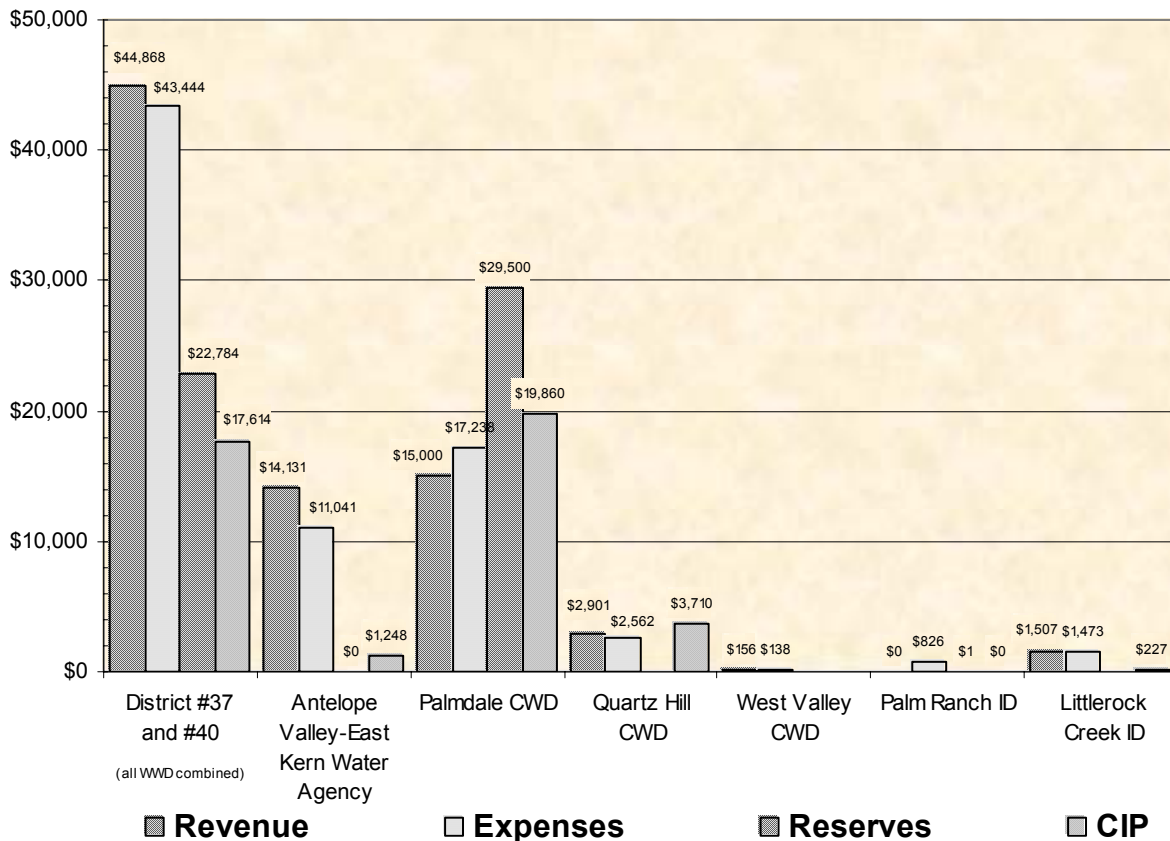
The District extracted 250 acre-feet of groundwater in 2002 and maintained a storage capacity of 590,000 gallons. Growth in this area is increasing slowly, providing a corresponding slow increase in water demand. No excess capacity exists or is expected to occur.

3.3 Financing Constraints and Opportunities

3.3.1 Revenues and Expenses Comparison

The following, *Figure 3.2 – High Desert Region 2002-2003 Financial Information*, compares the revenues, expenses, reserves and capital improvement program costs of each agency in the High Desert service review region for water agencies. The data received for County Waterworks Districts #37 and #40 includes all of the waterworks agencies for Los Angeles County; data specific to #37 or #40 was not provided.

**Figure 3.2 – High Desert Region
2002-2003 Financial Information (in thousands)**



Los Angeles LAFCO

Municipal Service Review Report

Water Service – High Desert Region

Antelope Valley – East Kern Water Agency (AVEK)

AVEK reports a potential revenue and operating constraint over the next ten years due to necessary treatment plant upgrades to comply with increased water quality requirements.

County Waterworks District #37 and #40

The County reports that no financing or other constraints are delaying the construction of needed facilities or facility upgrades. However, rate increases will be needed to replace deteriorated infrastructure and meet future regulatory standards for water quality and fire protection in the future.

Little Rock Creek Irrigation District

The district states it does not face revenue and operating constraints that affect the level of service, the condition of infrastructure or the ability to meet future service needs over the next ten years. The District's June 30, 2002 financial statement shows long-term debt of \$2.1 million for two loans, one to construct a million-gallon storage tank and the other to rehabilitate the domestic water system.

Palm Ranch Irrigation District

Palm Ranch Irrigation District noted no revenue and operating constraints that affect the level of service, the condition of infrastructure or the ability to meet future service needs over the next ten years. However, they do report that they have not collected enough reserves for well and storage construction at the time new facilities would be needed. Therefore, the district will need to borrow a portion of the cost and include the interest for loans when calculating the total cost of improvements. On July 14, 2004, the District commented that it had approximately \$1.7 million in usable assets for future facility needs.

Palmdale Water District

PWD reports no financing or other constraints delaying the construction of needed facilities or facility upgrades. The funding to meet future water service needs is fully included in the fees for future connections. There may be instances where PWD would use reserves or other types of financing on larger projects, such as a new treatment plant. In that instance, the future connection fees and Capital Improvement Fees would be used to repay PWD or the financing tool. PWD reports an existing public debt of \$21,925,000 in the form of Palmdale Water District Refunding Revenue Certificates of Participation Series 1998.

Quartz Hill Water District

Quartz Hill reports no financing or other constraint affecting the level of service, the condition of infrastructure, or delaying the construction of needed facilities or facility upgrades.

Los Angeles LAFCO

Municipal Service Review Report

Water Service – High Desert Region

West Valley County Water District

In fiscal year 2002, the West Valley County Water District showed signs of operating at a reasonably positive margin. Up until that time, the District had consistently shown an operating loss, primarily due to depreciation. In the June 30, 2002 financial statement the District showed a balance of \$113,372 in the California Local Agency Investment Fund, which is regulated by Government Code Section 16429 under the oversight of the Treasurer of the State of California. The district reports no financing or other constraint affecting the level of service, the condition of infrastructure, or delaying the construction of needed facilities or facility upgrades. However, the District notes that possible constraints may arise in the future.

3.4 Cost Avoidance Opportunities

Antelope Valley – East Kern Water Agency (AVEK)

To avoid unnecessary costs to customers, AVEK provides service to one Mojave Water Agency customer located in San Bernardino County just east of AVEK's boundary line since AVEK facilities are closer than Mojave's. AVEK also provides service to three areas belonging to Palmdale Water District that are islands within AVEK's boundaries. As noted earlier, the Agency does have excess capacity in its water treatment plants during the winter, which could provide cost avoidance opportunities for its retailers or for groundwater recharge if permitted. No further cost avoidance opportunities were noted.

County Waterworks District #37 and #40

A portion of Quartz Hill Water District lies within CWW #40. While facilities do not overlap or duplicate, there may be cost savings opportunities that Los Angeles LAFCO should address through reorganization of the two agencies. The County also notes that many areas of potential growth, both within their service area boundaries and SOI, are at elevations that are higher than can be served by their existing systems. Some areas could potentially be served by other purveyors or by the construction of new facilities. There are some areas that could not be physically served, regardless of the expense or extent of facilities installed.

Littlerock Creek Irrigation District

The Littlerock Creek Irrigation District maintains an estimated production of approximately 5,000 acre-feet of water annually. Presently, water usage is approximately 1,800 AF/yr. The agency noted that cost savings are achieved by reserving the balance of the water supply. In addition, through its agreement with PWD, the District is able to avoid water treatment costs.

Los Angeles LAFCO

Municipal Service Review Report

Water Service – High Desert Region

Palm Ranch Irrigation District

The Palm Ranch ID does not provide service to other agencies by contract. Since it has fewer than 3,000 customers, and supplies less than 3,000 acre-feet of water, an Urban Water Management Plan is not required. The Palm Ranch ID reported no overlap or duplication of services or facilities with other agencies. However, Quartz Hill Water District noted that its service area nearly surrounds PRID and collaboration might be feasible regarding maintenance, administration, billing and shared staffing.

To avoid future costs through forward planning, the District has updated their master plan twice, once in 1998 and again in 1999, which includes an analysis of costs and fees associated with new infrastructure for development.

Palmdale Water District

While authorized by its enabling legislation to provide flood control and wastewater service, the Palmdale Water District does not provide either service at this time. The PWD provides water treatment for Littlerock Creek ID and wholesale water to two mutual water companies within its boundaries and to areas served by Waterworks District #40. In addition, some areas within Palmdale Water District's boundaries that cannot currently be served by PWD are provided water service by other agencies. Existing interconnections allow PWD and its neighboring agencies to assist each other under emergency conditions. The water distribution systems are not compatible under normal conditions. PWD has no annexable expansion area. Furthermore, there is not a specific policy that reserves capacity for un-served property within PWD's boundaries. However, all properties within the District have equal access to the water supplies of PWD, including State Water Project allotments.

Quartz Hill Water District

The District reports that it could provide sewer service, which is currently being provided by the Los Angeles County Sanitation District. While it does not provide water or other service to areas outside its boundaries, it noted a potential cost avoidance opportunity when neighboring agencies have pipelines in the same streets or reservoirs at the same elevation. There is no written policy regarding responsibility to reserve capacity for un-served properties. Future development in higher elevations would require construction of reservoirs or pumping systems.

West Valley County Water District

West Valley is presently providing all the services it is authorized to provide. It does not provide service to outside areas or agencies nor does it participate in any reciprocal or joint powers agreements. The District reports developable areas just west of its service area where they would have difficulty providing service or where service would be expensive. There is no other

Los Angeles LAFCO

Municipal Service Review Report

Water Service – High Desert Region

service provider in this area. Due to limited financial resources for capital improvements, the life of the infrastructure may be extended, which might increase maintenance costs over time.

3.5 Management Efficiencies

Antelope Valley – East Kern Water Agency (AVEK)

AVEK noted routine reviews and evaluations of operations performance, as well as employee workload monitoring to increase efficiency. The General Manager responds to all customer complaints.

County Waterworks District #37 and #40

Waterworks District # 37 and #40 are operated by the Los Angeles County Department of Public Works (LACDPW). This allows some overhead cost savings and shared management. LACDPW reported routine reviews and evaluations of operations performance, financial data, as well as employee workload monitoring.

Littlerock Creek Irrigation District

The Littlerock Creek ID monitors performance through customer satisfaction and feedback. Comments can be made by phone, mail or in person. In 2002, nine complaints were received, focusing on issues related to cloudy water and pressure.

Palm Ranch Irrigation District

The Palm Ranch ID noted that they perform routine reviews and evaluations of operations performance as well as employee workload monitoring. Customer complaints are received in writing or in person to the General Manager. Historically, grievances focus on cost or quality issues.

Palmdale Water District

Reciprocal water service agreements are in place with AVEK for servicing portions of Waterworks #40, with Littlerock Creek Irrigation District and with two other mutual water companies within the PWD's boundaries. The two mutual water companies are within a separate area of PWD northwest of the main service area. The arrangement with Littlerock Creek is mutually beneficial: Littlerock Creek is able to obtain treated water from their State Water Project allotment, eliminating the need for their own treatment plant; and PWD benefits from the complete control and water diversions from Littlerock Reservoir under a joint use agreement.

Los Angeles LAFCO

Municipal Service Review Report

Water Service – High Desert Region

Quartz Hill Water District

While Quartz Hill reported no routine review of operations or employees, they do indicate past recognition for workplace safety. In calendar year 2002, 29 complaints were received, mostly regarding pressure. These were resolved at the staff level or referred to the Operations Supervisor or General Manager.

West Valley County Water District

West Valley reports no routine review of operations or employees.

3.6 Shared Facilities

Antelope Valley – East Kern Water Agency (AVEK)

AVEK reported excess capacity for their water treatment plants during the winter. AVEK is a partner in the Joint Powers Agreement (JPA) for the Antelope Valley State Water Contractors Association, whose goal is to plan for joint conjunctive use projects in the Antelope Valley area. To date, only planning activities have occurred.

County Waterworks District #37 and #40

The County is not a part of any JPA regarding water in the Antelope Valley nor do they share facilities. They do, however, operate and maintain several joint/reciprocal agreements with neighboring agencies that allows them to provide or receive service in the most efficient manner possible.

Littlerock Creek Irrigation District

The Littlerock Creek ID is a partner in the JPA for the Antelope Valley State Water Contractors Association, along with AVEK and PWD. The District also participates in a joint use agreement with Palmdale Water District for shared use of Littlerock Dam and for treated water.

Palm Ranch Irrigation District

The Palm Ranch ID does not presently participate in any reciprocal or joint use agreement for shared facilities or services.

Palmdale Water District

As described above, PWD offers both retail and wholesale water service, providing wholesale water to two mutual water companies and to areas within the boundaries of Waterworks #40 as well as treated water to the Littlerock Creek ID. However, there are no shared operations – actual facility operations are performed only by PWD. PWD is also a party to the JPA for the Antelope Valley State Water Contractors Association, whose goal is to plan for joint conjunctive use projects in the Antelope Valley area.

Los Angeles LAFCO Municipal Service Review Report Water Service – High Desert Region

Quartz Hill Water District

Presently, Quartz Hill maintains no excess capacity and shares no facilities with other agencies. They indicate however, that an opportunity for shared facilities exists with five other agencies, most notably Palm Ranch Irrigation District. Collaboration may be feasible regarding maintenance, administration, billing and shared staffing. Some sharing of pipelines, reservoirs and wells may also be feasible. The District has standby piping with LACWWD in the event of emergencies.

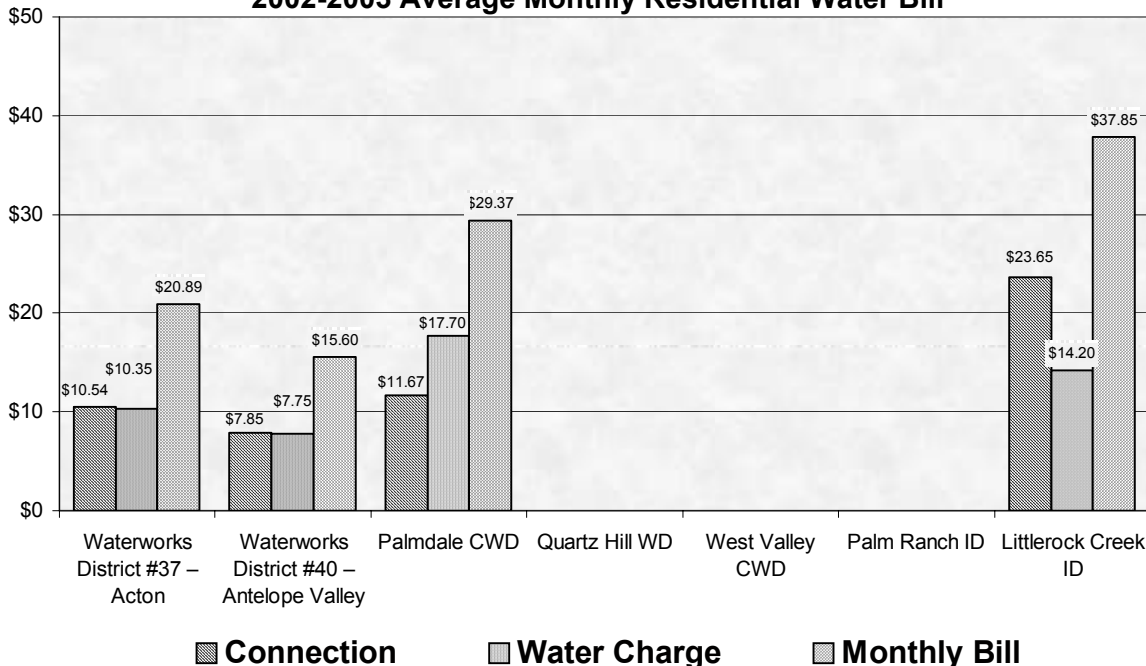
West Valley County Water District

West Valley reports no existing shared facilities and no apparent opportunities for future sharing of facilities or operations.

3.7 Rate Restructuring

The following figure, *Figure 3.3 - 2002-2003 Average Residential Water Bill*, compares reported rates from retail agencies in the High Desert service review region. Three agencies (Quartz Hill WD, West Valley WD and Palm Ranch ID) did not report rate information. In order to fully collect data the agencies were sent the LAFCO RFI, the profiles (both fax and email) and were called. The agencies did not respond to this part and no estimate for an average bill has been included.

**Figure 3.3 – High Desert Region
2002-2003 Average Monthly Residential Water Bill**



Los Angeles LAFCO

Municipal Service Review Report

Water Service – High Desert Region

Antelope Valley – East Kern Water Agency (AVEK)

AVEK does not charge a different rate for different customer classes. In 1990, the Board of Directors of AVEK established capacity charges per equivalent dwelling unit to fund construction of facilities to provide water within undeveloped portions of the District. The rates adjust annually. Other rate increases, notably in 2001-2002, were the result of the energy crisis and the removal of a subsidy for agricultural users. AVEK did not note an opportunity for reducing service costs by further rate restructuring.

County Waterworks District #37 and #40

Water supply fees are charged based on acreage and fire flow protection requirements, meter demands and the size of the water main from which the connection is made. The Districts are unaware of opportunities for reducing service costs through rate restructuring.

Littlerock Creek Irrigation District

Domestic and agricultural customers pay varying rates for water through the Littlerock Creek ID. Connection fees include the cost of the meter, materials and labor, and the cost of the fire hydrant, materials and labor. A flat fee for existing or new capital costs may be assessed. Over the last ten years, the district has had one rate increase, in 2001, of 5%. No further opportunities for rate re-structuring were noted.

Palm Ranch Irrigation District

The Palm Ranch ID has not increased rates in the past twelve years. The rates do not vary between customer classes or for customers in different geographic areas.

Palmdale Water District

Existing Palmdale Water District customers do not subsidize the cost of new capacity in the water system. Water rate changes are generally matched with the Consumer Price Index increases. Two exceptions involved energy costs and the creation of elevation-based water rates. While the PWD does not charge different water rates charged for classes of customers, the elevation-based rates, adopted in FY 2000-2001 and scheduled to be reviewed in FY 2005-2006, reflect the cost of pumping water to higher elevation areas. No further opportunities for rate re-structuring were noted.

Quartz Hill Water District

The Quartz Hill WD noted that areas west of 60th Street West or south of Avenue N, are charged a higher rate based on pumping costs. Rate restructuring could possibly occur given the shared boundaries with other districts and the possibility of future shared facilities.

Los Angeles LAFCO

Municipal Service Review Report

Water Service – High Desert Region

The District prepared an Update of Master Plan Improvements and Capacity Charge for 2003, which evaluates the improvements needed through 2023 and recommends an increase to the capacity charge.

West Valley County Water District

Connection fees, established by the Board of Directors, include installation of water meters only. The access fee increased by \$2.00 in the last fifteen years and the water rate fee increased by \$0.15. There are no differing rates to particular customer classes. No further opportunities for rate re-structuring are apparent.

3.8 Government Structure Options

The following summarizes the responses received by the agencies.

Antelope Valley – East Kern Water Agency (AVEK)

No amendments to the sphere are expected within the next two years and there are no areas outside the District's existing boundaries and sphere which are expected to require service. Furthermore, the District did not identify any opportunities to streamline or improve the provision of service through a reorganization of service providers.

County Waterworks District #37 and #40

An internal reorganization occurred in November 1993 to consolidate eight districts operated in the Antelope Valley by the Los Angeles County Department of Public Works into one which became Waterworks District #40. A proposed annexation to Waterworks District #37 will require the boundaries of the current sphere of influence to be revised.

Littlerock Creek Irrigation District

No amendments to the sphere are expected within the next two years and there are no areas outside the District's existing boundaries and sphere which are expected to require service. No amendments to the sphere are expected within the next two years. No opportunities to streamline or improve the provision of service through a reorganization or service providers were noted.

Palm Ranch Irrigation District

No amendments to the sphere are expected within the next two years and there are no areas outside the District's existing boundaries and sphere which are expected to require service. No opportunities to streamline or improve the provision of service through a reorganization or service providers were noted.

Los Angeles LAFCO

Municipal Service Review Report

Water Service – High Desert Region

Palmdale Water District

The Palmdale Water District noted that there appears to be very little opportunity for reorganizing water service providers or boundaries adjacent to the District's current service area. AVEK is a SWP contractor that only provides wholesale and agricultural water service, and Waterworks District #40 is a very large organization that relies on AVEK for imported water. However, the Littlerock Creek ID provides similar services as PWD. The two agencies work cooperatively in ways that benefit both.

Quartz Hill Water District

There are no areas that the District desires or plans to serve that are not presently within its boundaries or sphere of influence. No amendments to the sphere are expected within the next two years. Furthermore, the District did not identify any opportunities to streamline or improve the provision of service through a reorganization or service providers.

West Valley County Water District

No amendments to the sphere are expected within the next two years and there are no areas outside the District's existing boundaries and sphere which are expected to require service. No amendments to the sphere are expected within the next two years. No opportunities to streamline or improve the provision of service through a reorganization or service providers were noted.

During the service review several other potential governmental structure options were noted. Some agencies in the High Desert service review region provide service to territory located in other agencies. While this has been done to ensure that service is provided in an efficient manner, some of the service agreements may be subject to Government Code Section §56133 which requires LAFCOs to approve out-of-agency service agreements.

A list of all the service agreements, agencies involved and dates of agreements should be submitted to LAFCO along with a plan for a comprehensive update of all the agencies spheres of influence. The following are areas noted during the service review which should be addressed during the sphere review:

- Palmdale Water District and the Littlerock Creek Irrigation District: A review of out-of-agency service agreements and an update of the spheres of influence for both districts should be completed. The agencies share water rights and any subsequent study should also address that issue.
- Palm Ranch Irrigation District and Quartz Hill Water District: The Quartz Hill WD almost completely surrounds the Palm Ranch Irrigation District and a possible reorganization of

Los Angeles LAFCO

Municipal Service Review Report

Water Service – High Desert Region

the two agencies should be examined. PRID commented in a letter dated July 14, 2004 to the LA LAFCO that it was approached by Quartz Hill WD a year ago and declined their offer of consolidation. PRID is concerned about losing control of district assets and water supply.

- Palmdale Water District and the Antelope Valley-East Kern Water Agency: Both agencies serve territory located in the other agency. The Palmdale Water District has supplied a map of the areas which should be used as the basis for a sphere of influence update.
- Quartz Hill Water District and Waterworks District #40: The Quartz Hill WD noted an area east of 50th Street where Waterworks District #40 might be able to provide more efficient service. The spheres should be updated to reflect this.

The sphere of influence update should also address the potential reorganization of agencies.

3.9 Local Accountability and Governance

Antelope Valley – East Kern Water Agency (AVEK)

AVEK is an independent special district, formed under Act 9095 in 1959. The Board of Directors, elected by district, holds published local meetings twice monthly. Complaints, which average two to three per year, can be made by e-mail, phone, mail or in person.

County Waterworks District #37 and #40

Both Districts are dependent special districts, formed under Division 16 (County Waterworks District Law) of the California Water Code. The County of Los Angeles Board of Supervisors acts as the governing body for the Los Angeles County Waterworks Division. Supervisors are elected for each district every four years. Meetings are advertised and held weekly.

Littlerock Creek Irrigation District

The Littlerock Creek ID is an independent special district, formed under Division II of the State Water Code in 1982. The governing board is elected at large and meets monthly. Their agendas are posted and comments can be made at the meetings, in writing or in person directly to the general manager. Typical complaints focus on leaks, high bills, aeration and turbidity.

Palm Ranch Irrigation District

The Palm Ranch ID is an independent special district, established in 1959. The governing board is elected at large and meets monthly. Their agendas are posted and comments can be made at the meetings, in writing or in person directly to the general manager.

Los Angeles LAFCO

Municipal Service Review Report

Water Service – High Desert Region

Palmdale Water District

The Palmdale Water District is an independent special district, formed under Division 11 of the California Water Code (Irrigation Districts) in 1918. The five-member Board of Directors meets monthly and distributes agendas locally and on the web page. The District sends out quarterly newsletters, maintains a web page and staffs information booths regularly at local community events. Comments can be made in person, via phone or e-mail to staff or the Board of Directors. Of the 5,600 customer complaints received in 2002, all but five were resolved at the staff level. The Board of Directors addressed the remaining five.

Quartz Hill Water District

The Quartz Hill Water District is an independent special district, formed under the California Water Code, Division 12, Section 30321, in 1954. The five-member Board of Directors meets monthly, with advertised agendas. The District maintains a web site for information and contact. Customers may also contact the staff and General Manager directly. In the last fiscal year, 29 complaints were received, focusing on taste, odor or pressure.

West Valley County Water District

West Valley County Water District is an independent special district, formed under the County Water District Act of 1949 and Water Code Sections 30000 et seq. seq., in 1971. The governing body is elected at large and notices of meetings are posted in newsletters and in public places. Customers can call or write the staff of General Manager with comments.

Los Angeles LAFCO
Municipal Service Review Report
Water Service – High Desert Region

4.0 DETERMINATIONS

In approving a Municipal Service Review (MSR), LAFCO must adopt written determinations for the following nine factors specified in LAFCO's governing statute. Determinations for each agency are provided below:

Antelope Valley - East Kern Water Agency (AVEK)

1) *Infrastructure Needs and Deficiencies*

AVEK is the largest SWP contractor serving the High Desert region and as such controls 86% of the region's SWP entitlements. AVEK requires that SWP water be supplementary to their retailers' primary groundwater supply so that fluctuations in delivery volumes do not create critical conditions. The Agency relies on their retailers to forecast demand. With its large role as a wholesale provider, AVEK should provide leadership in the region with regards to water resource management.

2) *Growth and Population*

AVEK relies on the population projections of its retail customers for future estimates of growth. Population is expected to increase to 476,889 by 2020.

3) *Financing Constraints and Opportunities*

No significant issues regarding financing constraints or opportunities were noted for AVEK except for the cost of increasing water quality requirements.

4) *Cost-Avoidance Opportunities*

The agency has identified cost-avoidance opportunities by modifying service areas to increase efficiency.

5) *Opportunities for Rate Restructuring*

The rates for customers within AVEK are reviewed annually and are increased as determined by the AVEK Board of Directors.

6) *Opportunities for Shared Facilities*

AVEK shares various facilities, equipment and staff with other entities to ensure more efficient service to customers. It is a member of the Antelope Valley Water Contractor's Association, a JPA which is planning conjunctive joint use facilities in the region.

Los Angeles LAFCO
Municipal Service Review Report
Water Service – High Desert Region

7) *Government Structure Options*

AVEK did not note areas where its sphere would require updating to accommodate expected growth; however, a list of out-of-agency service agreements should be compiled in preparation for a comprehensive sphere of influence update for all the agencies in the region.

8) *Management Efficiencies*

AVEK performs routine reviews of its operations to increase management efficiencies.

9) *Local Accountability and Governance*

No issues were noted. The Board of Directors for the agency has established processes for ensuring local accountability and governance.

Waterworks District #37 – Acton

1) *Infrastructure Needs and Deficiencies*

Waterworks District #37 has no identified infrastructure needs and deficiencies. The District serves approximately 5,000 residents south of the Cities of Lancaster and Palmdale. All the agencies in the High Desert service review region which rely on groundwater should coordinate efforts to manage the basin to ensure that overdrafting is corrected and that supplies are available concurrent with need.

2) *Growth and Population*

Population for the agency is expected to increase by approximately 10,000 people by 2020 with an annual growth rate of 9.6%.

3) *Financing Constraints and Opportunities*

No financing constraints were noted for Waterworks District #37 except for the cost to replace and improve infrastructure.

4) *Cost-Avoidance Opportunities*

A portion of the Quartz Hill WD lies within Waterworks District #37 and cost avoidance opportunities might be realized through a change in service boundaries or in governmental structure. In addition, changes in the sphere of influence may help the agency avoid costs to construct facilities to serve areas which may be more efficiently served by other agencies.

5) *Opportunities for Rate Restructuring*

No opportunities for reducing costs through rate restructuring were noted.

Los Angeles LAFCO
Municipal Service Review Report
Water Service – High Desert Region

6) *Opportunities for Shared Facilities*

Waterworks District #37 shares various facilities, equipment and staff with other entities managed by the LACDPW.

7) *Government Structure Options*

Waterworks District #37 noted potential changes in its sphere of influence which might increase service efficiency.

8) *Management Efficiencies*

Waterworks District #37 is operated by the LACDPW which increases shared management and administrative efficiencies.

9) *Local Accountability and Governance*

No issues were noted. The Los Angeles County Board of Supervisors, as the governing body, has an extensive process for ensuring local accountability and governance.

Waterworks District #40 – Antelope Valley

1) *Infrastructure Needs and Deficiencies*

Waterworks District #40 has no identified infrastructure needs and deficiencies. The District serves approximately 42,000 service connections in Antelope Valley. No significant infrastructure needs or deficiencies were noted. All the agencies in the High Desert service review region which rely on groundwater should coordinate efforts to manage the basin to ensure that overdrafting is corrected and that supplies are available concurrent with need.

2) *Growth and Population*

Population is expected to increase significantly by 2020. The District projects an annual growth rate of 9.2% and SCAG projections indicate an annual rate of 5.6%. The difference in population at 2020 is nearly 41,000. The District did not indicate the methodology used to determine its projections; therefore SCAG projections should be used for analysis.

3) *Financing Constraints and Opportunities*

No financing constraints were noted for Waterworks District #40 except for financing necessary improvements and upgrades.

Los Angeles LAFCO
Municipal Service Review Report
Water Service – High Desert Region

4) *Cost-Avoidance Opportunities*

Some cost avoidance opportunities might be realized through a change in service boundaries, sphere of influence or in governmental structure.

5) *Opportunities for Rate Restructuring*

No opportunities for reducing costs through rate restructuring were noted.

6) *Opportunities for Shared Facilities*

Waterworks District #40 shares various facilities, equipment and staff with other entities managed by the LACDPW.

7) *Government Structure Options*

Waterworks District #40 noted potential changes in its sphere of influence which might increase service efficiency

8) *Management Efficiencies*

Waterworks District #40 is operated by the LACDPW which increases shared management and administrative efficiencies.

9) *Local Accountability and Governance*

No issues were noted. The Los Angeles County Board of Supervisors, as the governing body, has an extensive process for ensuring local accountability and governance.

Littlerock Creek Irrigation District

1) *Infrastructure Needs and Deficiencies*

Littlerock Creek Irrigation District has identified expected infrastructure needs through its master planning process and no issues were identified that would limit their ability to provide service over the next ten years. All the agencies in the High Desert service review region which rely on groundwater should coordinate efforts to manage the basin to ensure that overdrafting is corrected and that supplies are available concurrent with need.

2) *Growth and Population*

Population is expected to reach 8,125 by 2020.

3) *Financing Constraints and Opportunities*

Financing appears to be adequate for current and future service provision.

Los Angeles LAFCO
Municipal Service Review Report
Water Service – High Desert Region

4) *Cost-Avoidance Opportunities*

The agency has identified cost-avoidance opportunities by reserving water supplies for future use.

5) *Opportunities for Rate Restructuring*

The rates for customers within Littlerock Creek Irrigation District have been raised once in the previous 10 years; no additional opportunities for rate restructuring were noted.

6) *Opportunities for Shared Facilities*

The Littlerock Creek Irrigation District has entered into joint agreement with PWD for treated water and shared use of Littlerock Dam to improve service to customers.

7) *Government Structure Options*

Government structure options were noted including listing out-of-agency service agreements and a sphere of influence update.

8) *Management Efficiencies*

Littlerock Creek Irrigation District monitors operations and management to improve efficiencies.

9) *Local Accountability and Governance*

No issues were noted.

Palm Ranch Irrigation District

1) *Infrastructure Needs and Deficiencies*

No issues were identified that would limit the Palm Ranch Irrigation District's ability to provide service over the next ten years. All the agencies in the High Desert service review region which rely on groundwater should coordinate efforts to manage the basin to ensure that overdrafting is corrected and that supplies are available concurrent with need.

2) *Growth and Population*

Per the population projections based on SCAG data, population growth is expected to grow by approximately 81% with an estimated population of 8,248 in 2020. However, PRID has commented that their service area is built-out, with little or no expandable boundaries or vacant land and this rate of growth is not expected.

Los Angeles LAFCO
Municipal Service Review Report
Water Service – High Desert Region

3) *Financing Constraints and Opportunities*

Financing appears to be adequate for current and future service provision.

4) *Cost-Avoidance Opportunities*

No cost-avoidance opportunities were identified.

5) *Opportunities for Rate Restructuring*

No data regarding rates was provided by the Palm Ranch ID.

6) *Opportunities for Shared Facilities*

The Palm Ranch ID and the Quartz Hill Water District share common boundaries and additional opportunities for shared facilities might exist.

7) *Government Structure Options*

The Palm Ranch ID and the Quartz Hill Water District share common boundaries and a comprehensive sphere update and possible reorganization between the two agencies should be examined. In its July 14, 2004 comment letter to LA LAFCO, PRID stated its opposition to a reorganization with Quartz Hill.

8) *Management Efficiencies*

Palm Ranch ID monitors operations and management to improve efficiencies.

9) *Local Accountability and Governance*

No issues were noted.

Palmdale Water District

1) *Infrastructure Needs and Deficiencies*

The Palmdale Water District provides retail water service to 187 square miles in the Antelope Valley. All the agencies in the High Desert service review region which rely on groundwater should coordinate efforts to manage the basin to ensure that overdrafting is corrected and that supplies are available concurrent with need.

2) *Growth and Population*

Data provided by the Palmdale Water District indicated an expected population growth of approximately 86% by 2020 with an estimated population of 161,467 in 2020. Based on SCAG population projections the estimated population in 2020 would be 162,480.

Los Angeles LAFCO
Municipal Service Review Report
Water Service – High Desert Region

3) *Financing Constraints and Opportunities*

Financing appears to be adequate for current and future service provision.

4) *Cost-Avoidance Opportunities*

No additional cost-avoidance opportunities were identified for the agency beyond current practices.

5) *Opportunities for Rate Restructuring*

Rates are reviewed annually.

6) *Opportunities for Shared Facilities*

The Palmdale Water District provides wholesale water to two mutual water companies and to areas within the boundaries of Waterworks #40 as well as treated water to the Littlerock Creek ID. The agency also is a member of the JPA for the Antelope Valley State Water Contractors Association.

7) *Government Structure Options*

Governmental structure options including listing out-of-agency service agreements and updating the sphere is recommended.

8) *Management Efficiencies*

Palmdale Water District has reciprocal agreements with the Antelope Valley-East Kern Water Agency, Waterworks District #40, Littlerock Creek ID and two private mutual water companies to improve efficiencies. The agency also monitors operations to find additional efficiencies.

9) *Local Accountability and Governance*

No issues were noted.

Quartz Hill Water District

1) *Infrastructure Needs and Deficiencies*

Quartz Hill Water District receives treated water from the AVEK; it has plans to drill five new wells as demand increases. All the agencies in the High Desert service review region which rely on groundwater should coordinate efforts to manage the basin to ensure that overdrafting is corrected and that supplies are available concurrent with need.

Los Angeles LAFCO
Municipal Service Review Report
Water Service – High Desert Region

2) *Growth and Population*

Data provided by the Quartz Hill Water District indicated an expected population growth of approximately 81% by 2020 with an estimated population of 7,920 in 2020. Based on population projections provided by Los Angeles LAFCO, population growth is expected to grow by approximately 100% with an estimated population of 29,209 in 2020. The differences are significant.

3) *Financing Constraints and Opportunities*

Financing appears to be adequate for current and future service provision.

4) *Cost-Avoidance Opportunities*

None were noted.

5) *Opportunities for Rate Restructuring*

The Quartz Hill Water District noted that rates for some customer would increase due to additional pumping costs; no additional opportunities for rate restructuring were noted.

6) *Opportunities for Shared Facilities*

The Palm Ranch ID and the Quartz Hill Water District share common boundaries and additional opportunities for shared facilities might exist.

7) *Government Structure Options*

There may be possible government structure options with neighboring districts that LAFCO should pursue.

8) *Management Efficiencies*

Quartz Hill Water District monitors operations and management to improve efficiencies.

9) *Local Accountability and Governance*

No issues were noted.

West Valley County Water District

1) *Infrastructure Needs and Deficiencies*

No issues were identified that would limit their ability to provide service over the next ten years. All the agencies in the High Desert service review region which rely on groundwater should

Los Angeles LAFCO
Municipal Service Review Report
Water Service – High Desert Region

coordinate efforts to manage the basin to ensure that overdrafting is corrected and that supplies are available concurrent with need.

2) *Growth and Population*

No data was provided by the West Valley County Water District (WVCWD). Based on SCAG population projections, population growth is expected to increase nearly four-fold by 2020. The WVCWD has a current population of approximately 300 which is expected to increase to 1,796 by 2020.

3) *Financing Constraints and Opportunities*

Financing appears to be adequate for current and future service provision. The agency noted possible future constraints.

4) *Cost-Avoidance Opportunities*

None were noted.

5) *Opportunities for Rate Restructuring*

The WVCWD noted that rates increased once in the previous 15 years; no additional opportunities for rate restructuring were noted.

6) *Opportunities for Shared Facilities*

None were noted.

7) *Government Structure Options*

Governmental structure options including listing out-of-agency service agreements and updating the sphere is recommended.

8) *Management Efficiencies*

The WVCWD monitors operations and management to improve efficiencies.

9) *Local Accountability and Governance*

No issues were noted.