3.0 COACHELLA VALLEY SERVICE REVIEW AREA

3.0 COACHELLA VALLEY SERVICE REVIEW AREA

3.1 AGENCY DESCRIPTIONS

The following *Table 3.1.1* lists water and wastewater agencies in the Coachella Valley service review area.

TABLE 3.1.1
COACHELLA VALLEY AGENCIES

Riverside LAFCO Water and Wastewater Service Review Agencies	WATER SERVICES	Retail Domestic Potable Water	Wholesale Water	Water Treatment	Recycled-Reclaimed Water	Groundwater Management	WASTEWATER SERVICES	Sanitary Sewer Collection	Sanitary Sewer Treatment	MULTI-COUNTY SERVICE AREA
COACHELLA VALLEY										
1. City of Coachella										
- Coachella Water Authority	X	●		●						
- Coachella Sanitary District							X	●	●	
2. City of Indio (Indio Water Authority)	X	●				●				
3. Coachella Valley Water District	X	●		●	●	●	X	●	●	X
4. Desert Water Agency	X	●			●	●	X	●		
5. Mission Springs Water District	X	●				●	X	●	●	
6. Valley Sanitary District							X	●	●	

❖ CITY OF COACHELLA (COACHELLA WATER AUTHORITY AND COACHELLA SANITARY DISTRICT)

The Coachella Water Authority serves potable water the City with nearly 4,000 water service connections. The City formed the Coachella Water Authority in 2003 in order to issue bonds to make improvements in the City's water system and repair streets. The water authority board is comprised of City Council members. The Coachella Sanitary District, a dependent district with the Coachella City Council sitting as the SD board, provides wastewater service to a portion of the City and areas outside the City's SOI.

❖ CITY OF INDIO (INDIO WATER AUTHORITY)

The City of Indio, through the Indio Water Authority, provides potable water to approximately 12,000 service connections. In 2000 the City created the Indio Water Authority to raise funds for improvements to the water system and roadways. The water authority board is comprised of City Council members and others.

❖ COACHELLA VALLEY WATER DISTRICT

The Coachella Valley Water District's service area includes approximately 640,000 acres and encompasses territory primarily within Riverside County but also within Imperial and San Diego Counties. The district provides irrigation water, domestic water, storm water protection, agricultural drainage, groundwater management and wastewater reclamation and water conservation to approximately 225,000 residents. The District imports water from the Colorado River and the State Water Project.

❖ DESERT WATER AGENCY

The Desert Water Agency serves a 325-square-mile area including all of Palm Springs, unincorporated areas and parts of Cathedral City. It provides potable water to approximately 20,000 water connections and wastewater collection services to approximately 350 connections.

❖ MISSION SPRINGS WATER DISTRICT

The Mission Springs Water District provides water and wastewater services to Desert Hot Springs, 10 communities in Riverside County and a portion of Palm Springs. The service area includes 135 square miles and over 25,000 people. It serves approximately 8,000 water connections and 3,300 wastewater accounts.

❖ VALLEY SANITARY DISTRICT

The Valley Sanitary District provides wastewater service to approximately 23,000 wastewater connections. Its service area includes a majority of the City of Indio, portions of the City of Coachella, unincorporated areas and portions of the Cabazon Reservation.

3.2 GROWTH AND POPULATION PROJECTIONS

3.2.1 Growth and Population—Regional Setting

One of the determinations that LAFCO is required to make for service reviews includes growth and population projections. Accurate and consistent population and growth projections are critical in planning for the provision of future services and infrastructure.

The Riverside LAFCO survey asked the agencies to provide the current population and projected growth in five-year increments through 2025. Those projections are shown in the following charts and tables. The information submitted by the agencies was then aggregated by service review area and compared to countywide and sub-regional projections, where available, to evaluate the consistency of projections among agencies. Sources for county-wide and sub-regional population projections were obtained from Riverside County (as part of the documentation for the recent General Plan process), the Western Riverside Council of Governments (WRCOG), the Coachella Valley Association of Government (CVAG), the United States Census and the California Department of Finance (DOF). The population projections from the wholesale agencies, whose population projections include retail agencies, were also used as a means of comparison.

The rate of growth in Riverside County has frequently been cited as one of the fastest in southern California as well as in the nation with a ranking of fifth among California counties for the highest increase in population. *Table 3.2.1* shows the change in the Census population for Riverside County from 1990 to the 2000 counts in comparison with other southern California counties.

TABLE 3.2.1
CHANGE IN POPULATION FROM 1990-2000

County	1990 Census	2000 Census	Change	% Change
Los Angeles	8,863,164	9,519,338	656,174	7%
Orange	2,410,556	2,846,289	435,733	18%
San Bernardino	1,418,380	1,709,434	291,054	21%
San Diego	2,498,016	2,813,833	315,817	13%
Riverside	**1,170,413**	**1,545,387**	**374,974**	**32%**

Source: *SCAG and US Census*

Although regional population projections developed by the DOF and by the Southern California Association of Governments (SCAG) use Census data as the basis for their projections, the numbers vary. In Riverside County, both the Western Riverside Council of Governments (WRCOG) and the Coachella Valley Association of Governments (CVAG) use the Census figures and the SCAG numbers in projecting future population growth. *Table 3.2.2* compares the 2000 Census figures and projections from both DOF and WRCOG.

TABLE 3.2.2
REGIONAL POPULATION PROJECTIONS FOR RIVERSIDE COUNTY

	1990	2000	2002	2003	2005	2010	2015	2020	2030
United States Census									
Riverside County	1,170,413	1,545,387							
Department of Finance (DOF)*									
Riverside County		1,577,700	1,645,300	1,705,500	1,864,700	2,159,700	2,459,600	2,817,600	
Western Riverside Council of Governments (WRCOG)									
Western Riverside County		1,559,554				2,085,500			

**Some numbers based on interim County Projections, 2003*

Growth is projected to primarily be concentrated in the unincorporated area simply because only 10% of the land area of Riverside County is incorporated (i.e., within the boundaries of a city). However, existing population figures and future projections are most frequently based on municipal boundaries and are rarely projected for the service areas of special districts. Therefore, it is difficult to obtain current population figures or project future population for future service demands in the service areas of smaller agencies or to ensure that agencies use consistent methodology and assumptions as regional forecasts. This is a significant issue for predicting future service demands for smaller water and wastewater agencies where growth is expected and whose resources are more limited.

ENVIRONMENTAL JUSTICE

The final OPR Guidelines for Municipal Service Reviews recommend that service review reports address environmental justice issues, including the provision of affordable housing. LAFCO has no legal authority to regulate land use or affordable housing production, nevertheless, information about affordable housing will be included in subsequent and more appropriate service review reports.

3.2.2 Growth and Population—Coachella Valley Service Review Area

The population and growth projections from each agency are shown *in Figure 3.2.1, Coachella Valley Population Projections*; actual numbers are shown in *Table 3.2.3, Water/Wastewater Service Population Projections.*

FIGURE 3.2.1
COACHELLA VALLEY POPULATION PROJECTIONS

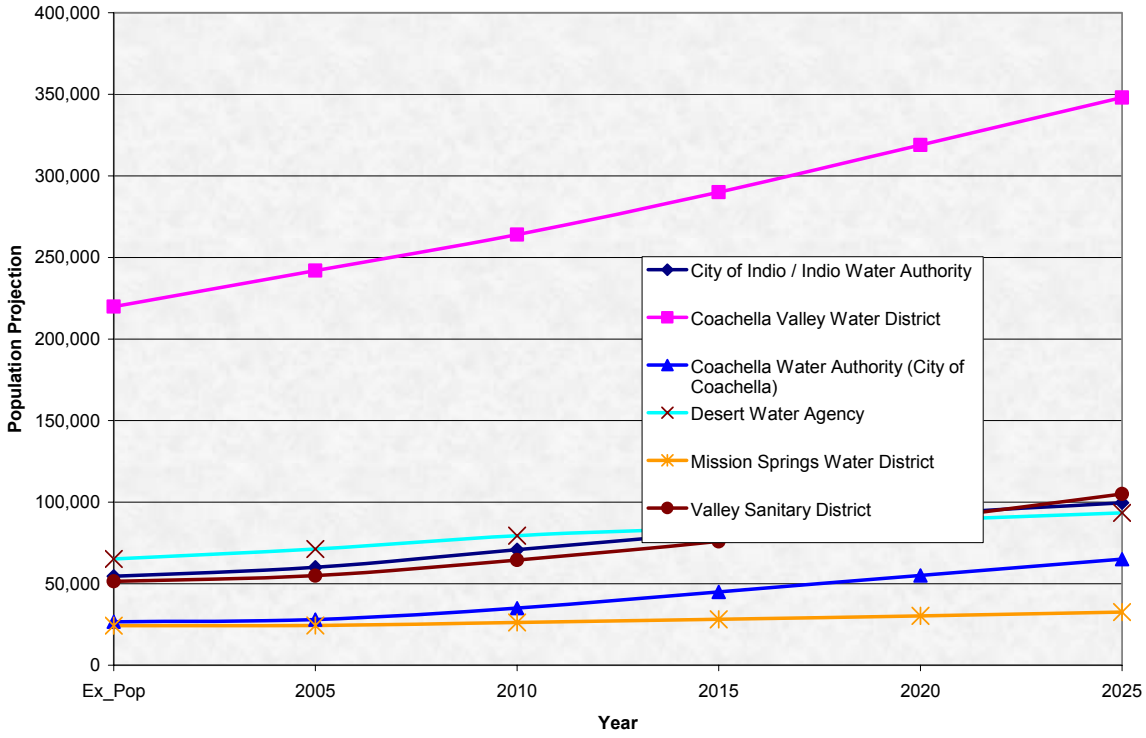


TABLE 3.2.3
WATER/WASTEWATER SERVICE POPULATION PROJECTIONS

Agency	Existing Population	2005	2010	2015	2020	2025
City of Coachella	26,700	28,000	35,000	45,000	55,000	65,000
City of Indio*	54,500	60,100	70,866	81,646	92,426	99,601
Coachella Valley Water District	219,800	242,000	264,000	290,000	319,000	348,000
Desert Water Agency	65,119	71,200	79,400	84,200	88,900	93,500
Mission Springs Water District	24,252	24,384	26,213	28,179	30,292	32,564
Valley Sanitary District**	51,400	54,900	64,500	75,900	89,300	105,000
TOTAL	**441,771**	**482,589**	**541,989**	**606,940**	**676,938**	**745,690**

* *Service review questionnaire data used. UWMP included significantly higher projections*

** *VSD serves 95% of the City of Indio*

As a comparison, data received from the WRCOG contained three population projections for the CVAG area in the year 2030. They were:

- 688,097—2030 projections from data submitted by the agencies
- 715,696—2030 projections from the Regional Transportation Plan's EIR "no project" alternative
- 715,648—2030 projections from the Regional Transportation Plan

The difference among the population projections varies by approximately 5-7%. While the differences are not considered substantial or significant if used for regional planning purposes, it can result in difficulties for agencies, in particular smaller cities and special districts, when planning for the sizing and financing of future infrastructure. The lack of a generally accepted, consistent source and methodology for projecting future growth and population projections was noted in all three service review areas in Riverside County. No other significant issues related to population and growth projections were noted.

It is suggested that the Riverside LAFCO along with other agencies in Riverside County investigate the costs and benefits of developing a county-wide system for consistent populations projections for both municipalities and, most importantly, for special districts. The WRCOG has previously proposed a regional model for projection population figures that are specific to Riverside County and has estimated that it would require approximately $250,000 per year to operate and maintain those projections. Regional, consistent projections would be of most value to agencies with expected growth; agencies whose service areas are generally built-out

typically estimate population using the current number of service connections, the average population per household from the U.S. Census and regional growth rates.

3.3 INFRASTRUCTURE NEEDS AND DEFICIENCIES

In addressing infrastructure needs and deficiencies, the service review survey included a series of questions to determine current and future demand/supply and capacity. Additional questions were included to gather an overall "snapshot" of the infrastructure. This section first addresses infrastructure needs and deficiencies for the water agencies within the Coachella Valley service review area. The second part addresses infrastructure needs and deficiencies for the wastewater agencies.

3.3.1 Water System Information

Table 3.3.1, Water System Information, depicts data obtained from responses to the service review questionnaire regarding number of customers, peak capacity/demand, storage and facilities of each water agency. Assessing this type of information can highlight agencies that might have infrastructure deficiencies such as significant shortfalls in the peak capacity as compared to the peak demand.

TABLE 3.3.1
WATER SYSTEM INFORMATION

AGENCY	Total # of Connections	Miles of Lines	Storage (mg)	Storage (in days)	Estimated Peak Demand (mgd)	Estimated Peak Capacity (mgd)
City of Coachella	4,120	60	5.1	2	4.8	8.4
City of Indio	1,758	120	8	0.4	22	22
Coachella Valley Water District	89,926	1730	105.8	0.5	200	230
Desert Water Agency	19,733	368	54.2	NP	59.63	67
Mission Springs Water District	8,230	245	18.25	1-3 days	9.878	18.247

NP – not provided

Typical water system storage is based on providing a maximum day demand, on enough storage to account for the peaking that occurs throughout the day, on required fire flow within all pressure zones and on a reserve volume. All of these factors are based on the needs of the specific agency and may vary.

In the table above, peak demand is assumed to reflect the maximum demand required by customers on any one day. Demand peaking, which occurs typically twice each day (morning and evening), is normally in the range of 1.5 to 3 times the average demand for the day. Water storage reservoirs are designed to fulfill these peaks during the day and refill at night, thereby creating a buffer that will allow a constant supply from the water source. Wells and replenishment of underground aquifers also can serve as storage facilities. The agencies in the Coachella Valley review area use groundwater so that typical storage requirements are not as meaningful since the agencies can use the underground aquifers as storage.

Based on the table above, it would appear that the CVWD and the City of Indio have systems with one-half the typical water storage reservoir volume needed to maintain pressures during a maximum day. In their service review response, the City of Indio did not note plans to address storage capacity. However, their master plan was adopted in April of 2000 and the CIP budget for FY 2002-2003 (actual numbers) was four times the previous year's CIP expenditures. It is assumed that the majority of the CIP budget reported was earmarked for water system replacement and upgrades.

The CVWD has a master plan and CIP process that has and continues to address storage needs. In addition the agency primarily relies on groundwater and the underground aquifer used also serves storage purposes. In terms of other infrastructure needs and deficiencies, the CVWD also noted transmission and distribution line infrastructure needs in the Salton Sea area.

In their responses the Desert Water Agency noted a need to the service review questionnaire for developing more storage capacity; the agency is addressing the need through their master plan and CIP process.

The City of Coachella (Coachella Water Authority) also noted a need for additional storage capacity to meet the growing need as well as fire flow requirements. Construction of a new 5 MG reservoir is expected to occur in 2004.

No significant areas of infrastructure deficiencies were noted and the future need for new and/or upgraded infrastructure has generally been addressed by the agencies through master plans and/or annual CIP budgets and plans. All water agencies reported that all permits are current, have master plans/Urban Water Management Plans (UWMP) and 2003 water quality reports.

3.3.2 Regional Water Demand Projections

The first step in determining an overall, regional picture of supply and demand for water was assembling the data for each agency which was presented in the preceding section. A per capita daily use of 397 gallons per day per capita (gd/pc) was used in calculating future demand in the following table for the Coachella Valley service review region. The figure, which does not include agricultural use, was derived by dividing the existing demand by the existing population. The per capita figure is high relative to figures from the Department of Water Resources which estimates that the per capita water use in California varies from a high in the Central Valley of 300 gd/pc to a low in the Central Coast of as little as 50 gd/pc in cooler weather when demand for water is less. Using a figure of 397 gd/pc is a "worse-case" analysis for future demand based on existing information. *Table 3.3.2, Regional Water Demand Projections,* shows the expected increase in demand for each agency as of 2025 based on available data. . *Figure 3.3.1* shows the relationship of water providers and water sources in the service review region.

TABLE 3.3.2 – REGIONAL WATER DEMAND PROJECTIONS

Agency	Existing Demand AF	Existing Supply AF	Future Demand (2025) AF	Future Supply (2025) AF	Future Demand Based on Population Projections (2025) AF
City of Coachella	3,572	9,416	8,968	28,810	28,893
City of Indio*	18,390	20,000	73,000	77,000	44,273
Coachella Valley Water District	129,000	257,000	187,000	360,000	154,686
Desert Water Agency	42,260	85,115	70,500	85,115	41,560
Mission Springs Water District	5,597	20,159	10,034	37,142	14,475

**Figure obtained from 2001 Riverside LAFCO Special Districts Questionnaire*

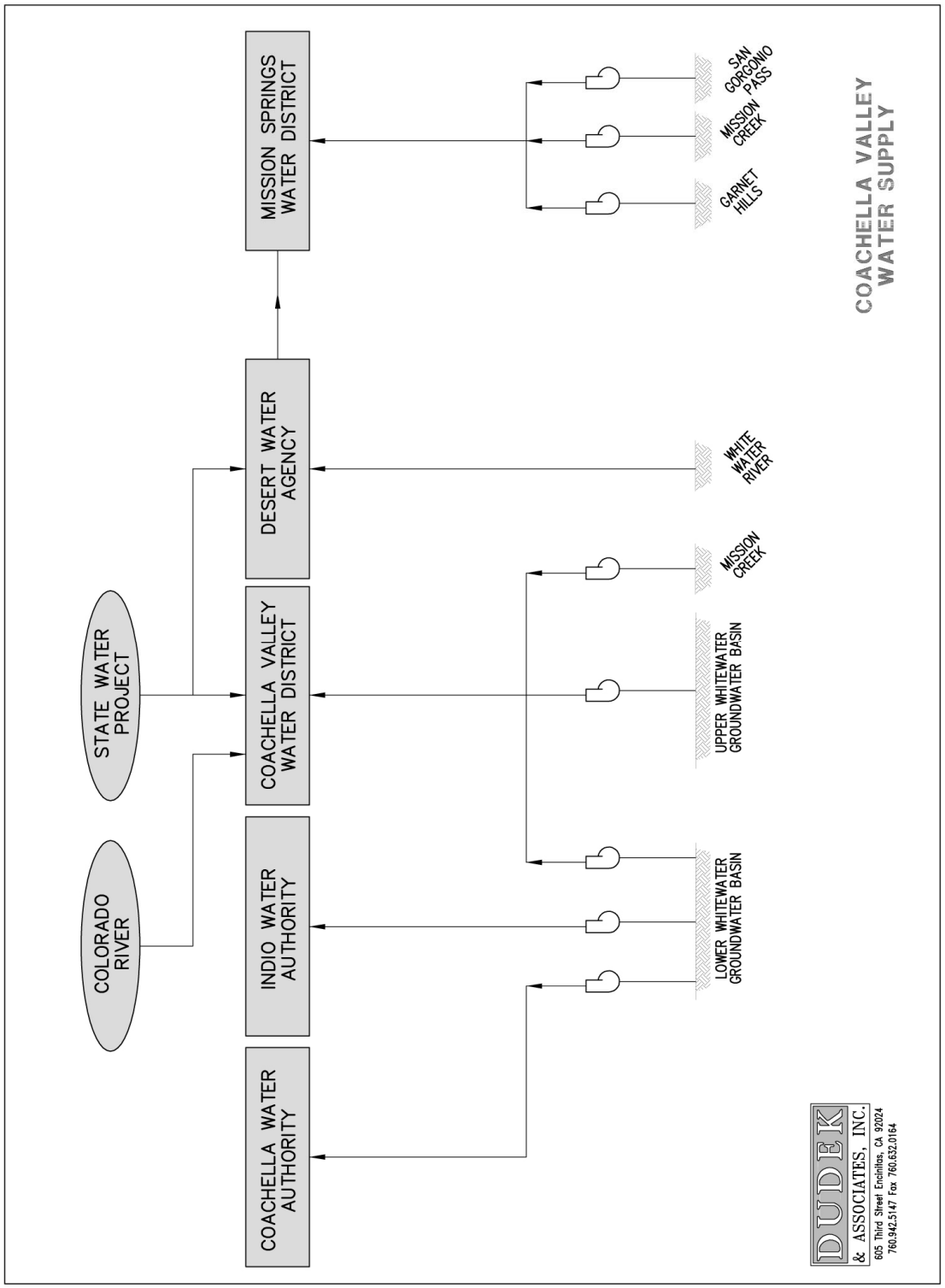
3.3.3 Water Demand and Supply by Agency

The water and wastewater service review questionnaire requested data from agencies regarding both the current and future supply of water and the current and future demand. The data is summarized in the following paragraphs and a regional aggregate of data is presented at the end of this section.

The responses to the service review questionnaire were to be the basis for determining the existing and future demand; however, several agencies did not respond or provided partial responses. Therefore, other sources of information, such as UWMPs, were used. However, data taken from supplemental reports submitted by agencies did not always coincide with data

submitted as part of this service review. It was not possible to reconcile the various sources of data; the graphs on the following pages, which show the expected demand for each agency in five-year increments, have been created using a combination of the service review questionnaire, the agencies' UWMPs, if available, and other documents.

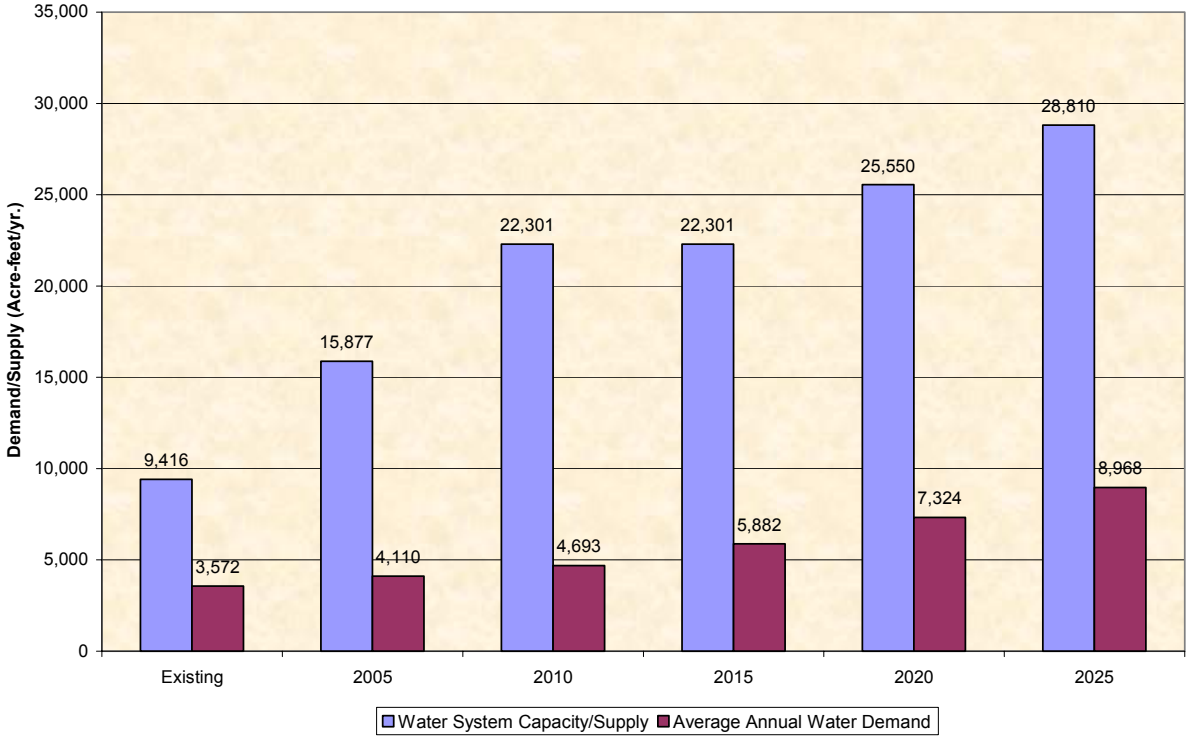
FIGURE 3.3.1
COACHELLA VALLEY WATER SUPPLY SCHEMATIC



❖ CITY OF COACHELLA (COACHELLA WATER AUTHORITY)

Water supply and demand information was not submitted by the City of Coachella. The City's website, 1997 General Plan and EIR, and other sources were used to obtain the following information. All water supplied to the City of Coachella is from groundwater from four active wells. In 2002, a total of 1,163 MG was used, equaling an average daily demand of 3.19 MGD. The City has two reservoirs totaling approximately 5.1 MG of storage. The City's 1997 EIR concluded that some of the existing transmission lines are inadequate to meet the demands of the future and will need to be paralleled or replaced. The City's un-adopted (as of 1997) Water Master Plan noted the need for new wells, reservoirs (with a total storage capacity for average day demand plus fire flow requirements (which were estimated at 65 million gallons) and water distribution lines within the City and its SOI. *Figure 3.3.2* illustrates the water supply/demand forecast to year 2025.

FIGURE 3.3.2
COACHELLA WATER AUTHORITY
SUPPLY/DEMAND FORECAST



❖ CITY OF INDIO

The City of Indio, through the Indio Water Authority (IWA) provides potable water to its residents with the Valley Sanitary District (VSD) providing wastewater services. Since the 1960s the City has provided water service directly to residents; in 2000 IWA was created to raise funds for improvements to the water system and streets. IWA, whose board is comprised of City Council members, leases the water assets from the city. The Authority serves over 12,000 service connections using approximately 6.8 billion gallons of water per year.

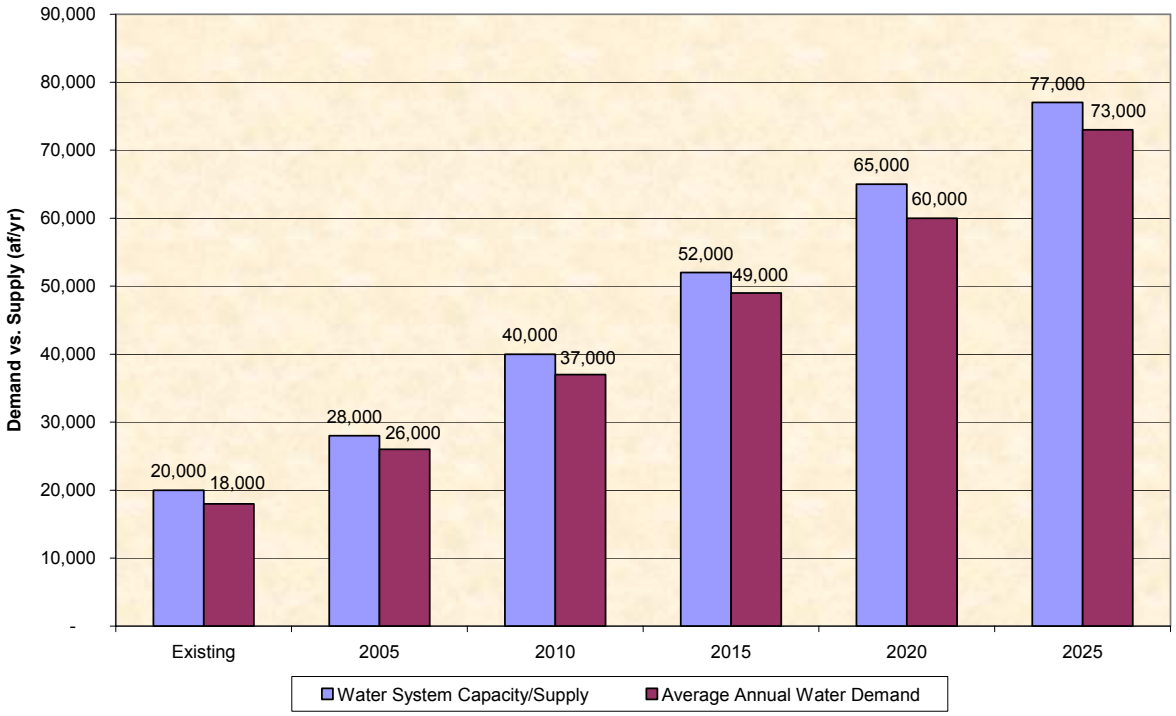
The City's water supply is groundwater and recycled water supplied by EVMWD. The City of Indio, Indio Water Authority and the Coachella Valley Water District entered into a Settlement Agreement in December 2002 to increase the reliability and efficiency of their respective domestic water distribution system. This agreement includes the construction of three new inter-tie connections and service area boundary modifications.

Groundwater is provided to IWA by 14 wells and 4 reservoirs. Wells are capable of supplying 1,500 to 2,000 gpm and each of the four reservoirs has a capacity of 2 million-gallons each, for a total of 8 MG of storage. Therefore the existing peak supply of the City water system is approximately 35 MGD.

Water for irrigation and non-potable uses is currently provided to the City by CVWD. The Valley Sanitary District, through its treatment plant, serves 95% of the City of Indio but does not currently reclaim effluent water. Although providing reclaimed water from the VSD's treatment facilities and the CVWD's facility could decrease the region's reliance on imported and groundwater, the constraints are primarily the costs of upgrades to the treatment facility, the costs of the distribution system and the currently relative low costs of potable water.

Because the primary supply of source water for the Coachella Valley, including the City of Indio, is groundwater, the water supply is considered reliable and not as subject to fluctuations in supply if over drafting ceases. However, the Indio Water Authority's UWMP contains a water shortage contingency analysis in the event that supply is compromised in the future. *Figure 3.3.3* illustrates the water supply/demand forecast to year 2025.

FIGURE 3.3.3
CITY OF INDIO
SUPPLY/DEMAND FORECAST



❖ Coachella Valley Water District

The Coachella Valley Water District (CVWD) was formed in 1918 under the state water code provisions of the County Water District Act. Its service area includes approximately 640,000 acres and encompasses territory primarily within Riverside County but also within Imperial and San Diego Counties. The district provides irrigation water, domestic water, stormwater protection, agricultural drainage, wastewater reclamation, groundwater management, sanitation collection and treatment, and water conservation. Recreational facilities and generation of energy have become by-products of some of these services. It imports water from the Colorado River under a contract with the Bureau of Reclamation and by exchange agreements with the Metropolitan Water District of Southern California for State Water Project (SWP) entitlements. The CVWD has a five member board of directors elected by division.

The district serves urban water to most of the Coachella Valley and along both sides of the Salton Sea in Imperial Valley. The CVWD's urban water service area is 70 miles long. It has between 81 and 83 wells in operation and serves 89,826 connections with total water use of 30 billion gallons of water annually. The agency maintains more than 1,420 miles lines and 60 reservoirs.

The CVWD has used groundwater as the primary source of drinking water. A common groundwater source, the Whitewater River Basin, is shared by the Coachella Valley Water District (CVWD), Desert Water Agency (DWA), the City of Indio, and the City of Coachella. The basin is divided into the upper and lower basins, with an estimated total storage of 30 million acre feet of water. The City of Indio and City of Coachella obtain water from the lower basin. CVWD obtains water from both the upper and lower Whitewater River Basin and Mission Creek.

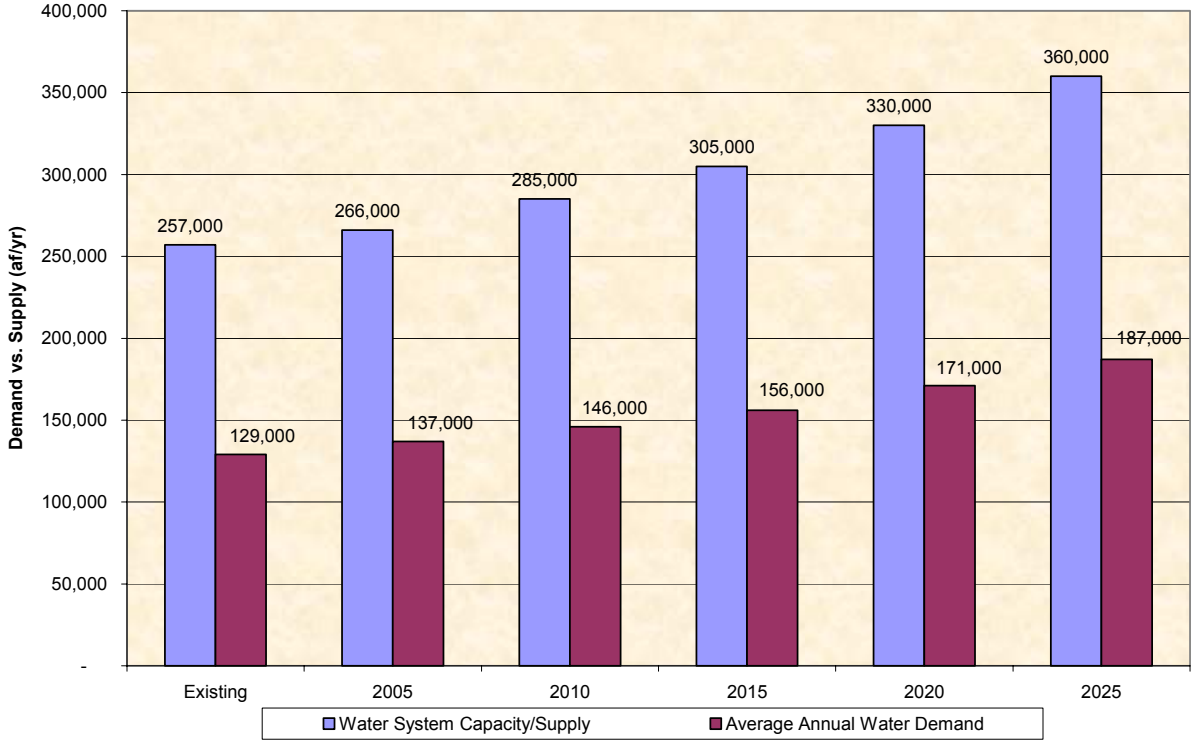
Based on the water balance calculations performed for the District's UWMP, the basin is currently over drafted by 3.7 million acre feet. It was estimated that 4.7 million acre feet was over drafted during the 64 year period between 1936 and 1999.

The agency has had a concern about the potential for over drafting of the groundwater basin for sometime. In 1963 CVWD and Desert Water Agency entered into contracts for SWP water as a supplemental source of water for farming and for expected growth. To avoid the cost of constructing an aqueduct for the SWP water, the CVWD and Desert Water Agency (DWA) entered into an exchange agreement with Metropolitan which allowed CVWD and DWA to trade their SWP entitlement for the same amount of Colorado River. The exchange agreement runs to the year 2035 and there are no plans to construct a transmission system for future delivery of SWP supplies.

When the Hoover Dam was built, the Coachella Canal and All-American Canal were built to provide imported water from the Colorado River. The water delivered is limited to the "reasonable beneficial use for land within a defined portion of the Coachella Valley". The future of this source is protected as a result of the Quantification Settlement Agreement signed in 2003. This has and will continue to result in increased dependence on groundwater within the valley.

In the past, available surplus water from both the SWP and the Colorado River Basin water have been used to recharge the upper Coachella Valley groundwater basin. According to the District's UWMP, over 290,000 acre-feet of surplus remains from a 1980's storage program. *Figure 3.3.4* was developed using information submitted by the District. A pilot program has been in place to demonstrate the ability to percolate Colorado River water into the lower basin at a rate of potentially up to 100,000 AF/Yr. CVWD has purchased additional SWP water above its original contract with the State. The District and DWA have recharge programs in both the Whitewater and Mission Springs Basins.

FIGURE 3.3.4
COACHELLA VALLEY WATER DISTRICT
SUPPLY/DEMAND FORECAST



In addition, declining groundwater levels prompted the district to initiate a recharge program for the lower Coachella Valley. The effort included preparation of an environmental impact study to determine the size of the groundwater supply and potential recharge sites, legal action to reduce overdraft and hiring an engineering firm to help farmers convert from well to canal water. The CVWD has several reclamation plants to reclaim wastewater effluent as an additional source of groundwater recharge and non-potable water use.

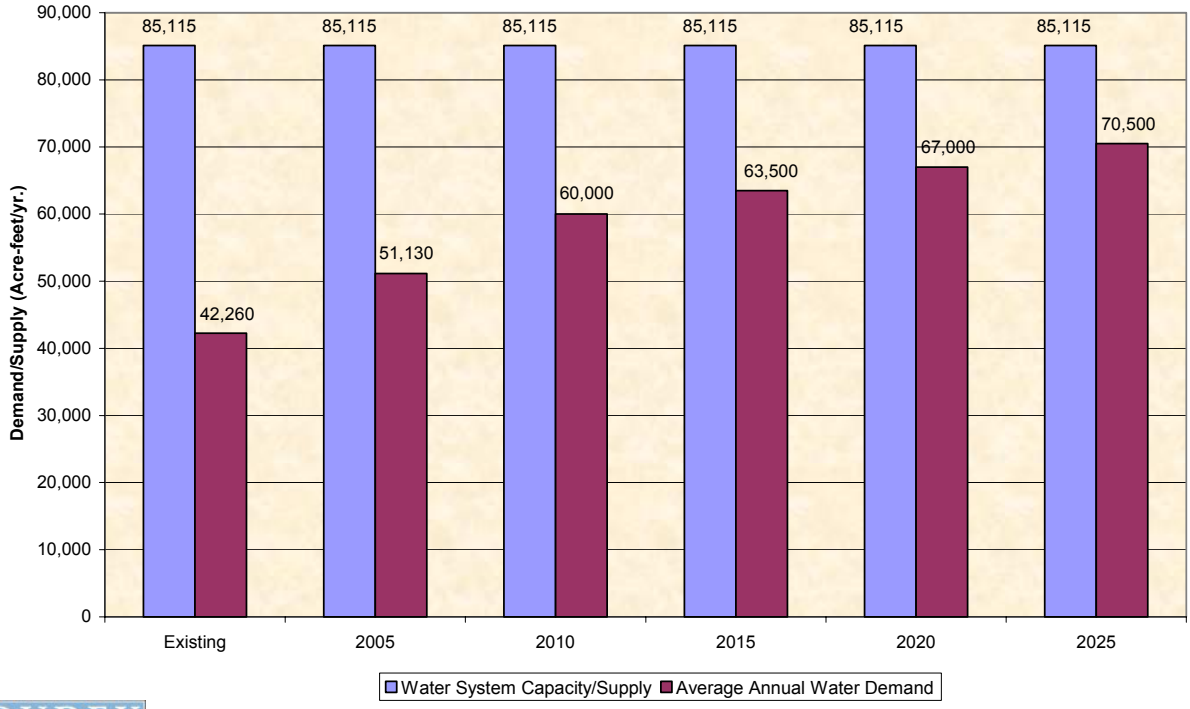
Even though Coachella Valley has a high quality groundwater supply adequate to meet the growth needs of the area for many years, the supply is not inexhaustible.

❖ Desert Water Agency

The Desert Water Agency serves a 325-square-mile area including all of Palm Springs, unincorporated areas and parts of Cathedral City. The Agency's service area overlies four groundwater basins. The Whitewater River sub basin, the largest of the four basins, supplies most of the water. The Agency notes that the amount of water used has increased considerably due to area population growth with 1,200 AF used in 1940 increasing to 45,000 AF in 1990; demand is expected to exceed 84,000 AF/Yr by 2020. Natural replenishment has been supplemented since 1973 with Colorado River water imported through the Colorado River Aqueduct. The Desert Water Agency, as a participating public agency, is entitled to water through the State Water Project (SWP) originating in Northern California and has a contract for delivery of 38,100 AF. As of January 1, 2004 entitlement is 50,000 AF/Yr.

The Agency trades its SWP water with the Metropolitan's Colorado River allotment, which is accessible to recharge basins located near Windy Point. In 1988 the Desert Water Agency and the City of Palm Springs entered into an agreement to treat sewage water and reclaim water which is used for non-potable purposes and for groundwater recharge. DWA and CVWD recharge the Whitewater and Mission Springs Basins. *Figure 3.3.5* illustrates the water supply/demand forecast to year 2025.

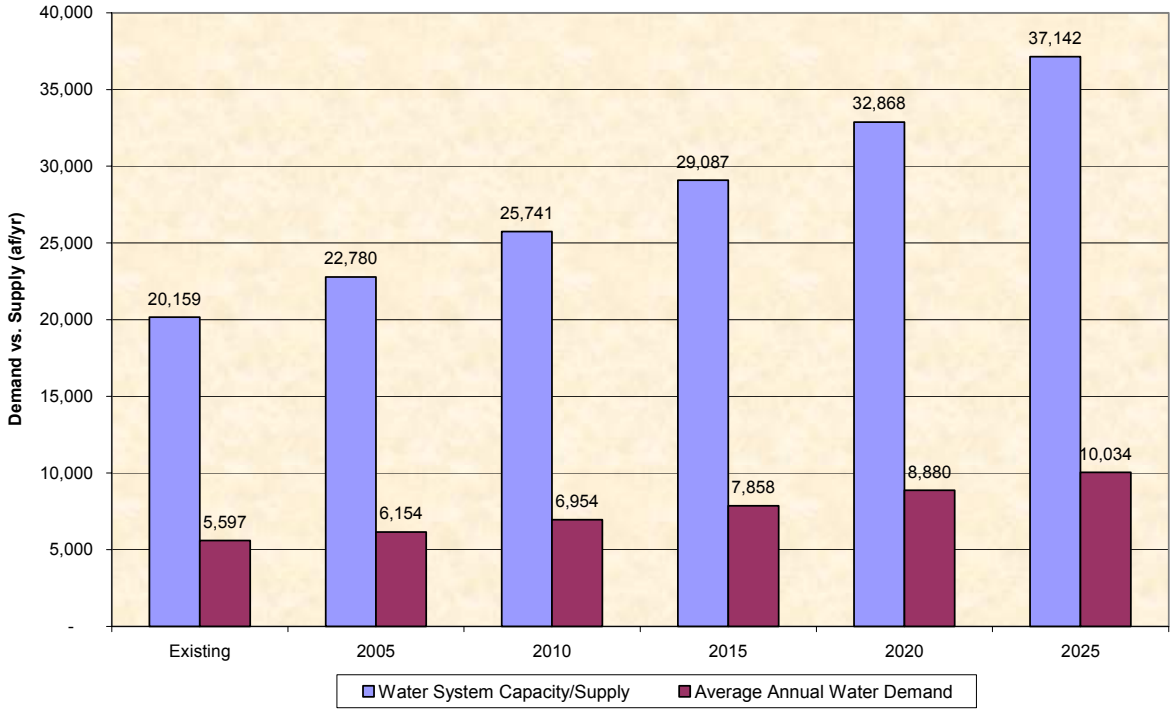
FIGURE 3.3.5
DESERT WATER AGENCY
SUPPLY/DEMAND FORECAST



❖ Mission Springs Water District

The Mission Springs Water District (MSWD) operates three separate water distribution systems and two separate wastewater collection and treatment systems, serving Desert Hot Springs, ten smaller communities in Riverside County, and a portion of Palm Springs. The service area includes 135 square miles and over 25,000 people. It serves approximately 8,000 water connections and 3,300 wastewater accounts. The information used in creating the following chart was taken from the Riverside LAFCO service review questionnaire. The District is within the Desert Water Agency's taxing jurisdiction boundary in order to qualify for the State Water Project entitlements. *Figure 3.3.6* illustrates the water supply/demand forecast to year 2025.

FIGURE 3.3.6
MISSION SPRINGS WATER DISTRICT
SUPPLY/DEMAND FORECAST



Sources of Water in Coachella Valley Service Review Area

The service review questionnaire also requested that the agencies provide information regarding the sources of water. Each agency was asked to list the supply in AF for each source (wholesale, SWP, surface water, wells, reclaimed) for each five-year increment. The regional summary of water supply sources is shown in *Figure 3.3.7*. Colorado River water will be used

for direct and in-lieu recharge and for treatment and delivery. The following *Figures 3.3.8-12* show the proportion of source water for each water agency over the next 25 years.

FIGURE 3.3.7
COACHELLA REGIONAL AREA WATER SUPPLY BY SOURCE

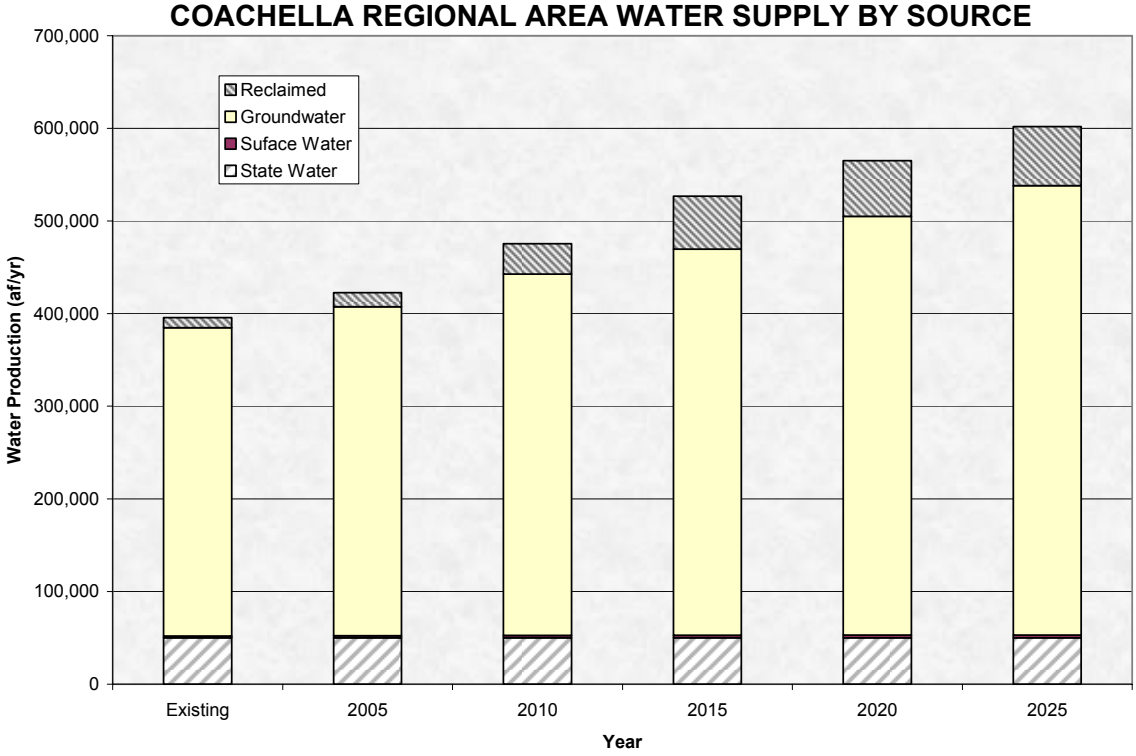


FIGURE 3.3.8 – COACHELLA WATER AUTHORITY
WATER SUPPLY BY SOURCE

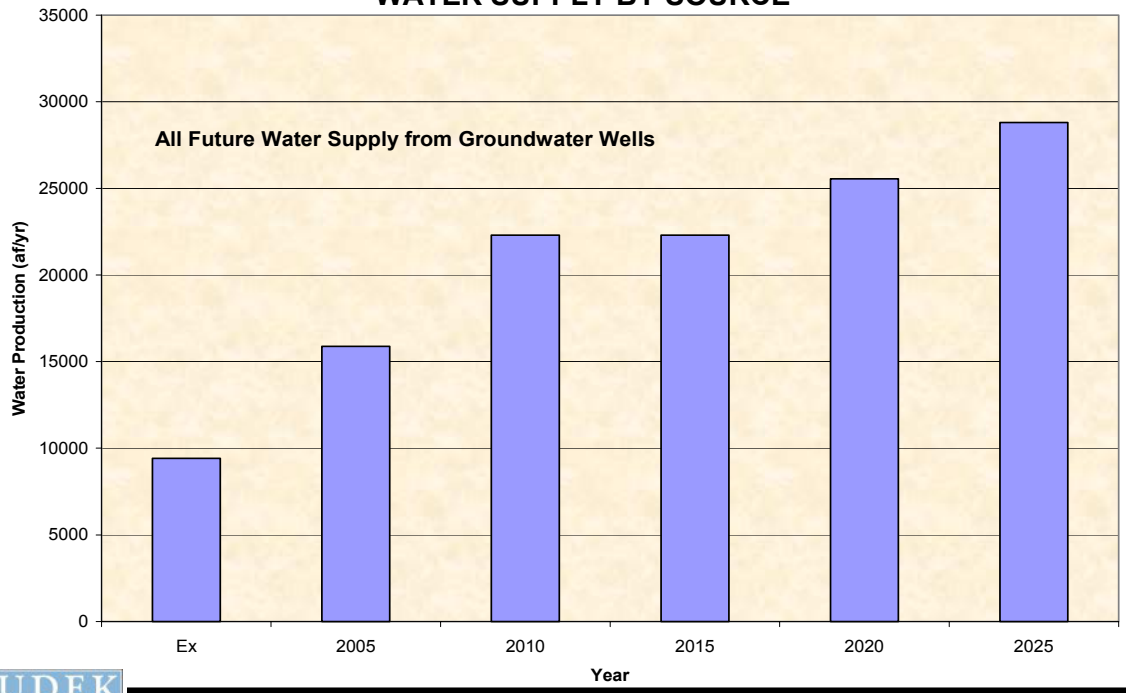


FIGURE 3.3.9
CITY OF INDIO WATER SUPPLY BY SOURCE

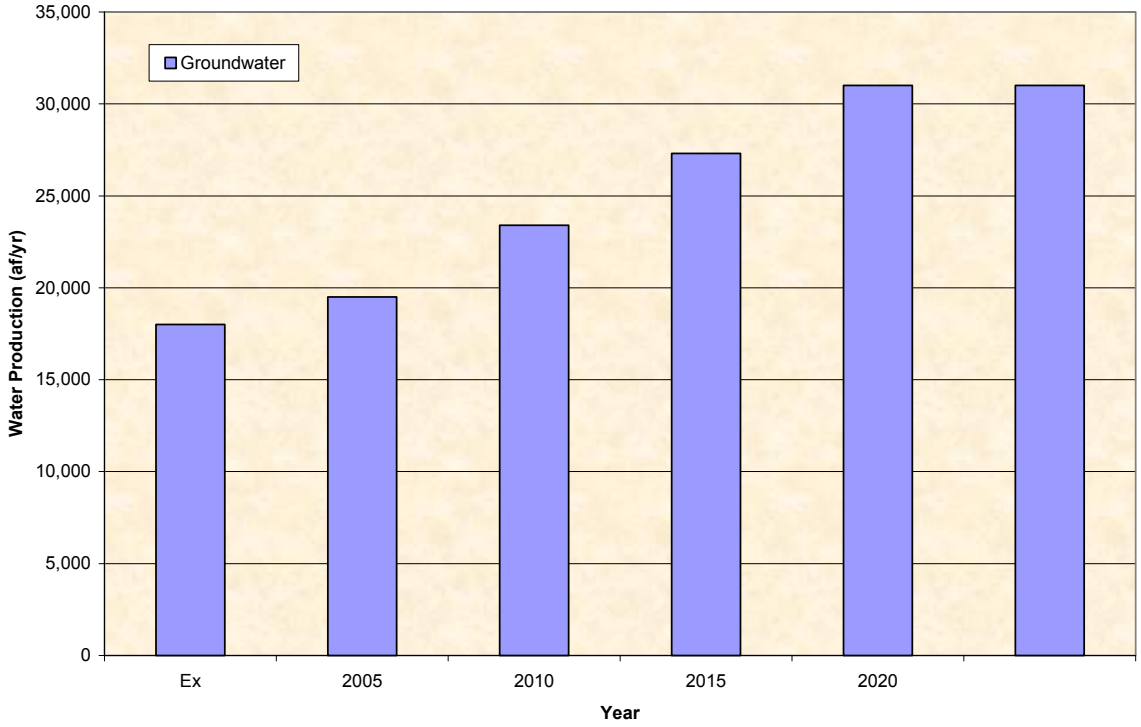


FIGURE 3.3.10
COACHELLA VALLEY WATER DISTRICT
WATER SUPPLY BY SOURCE

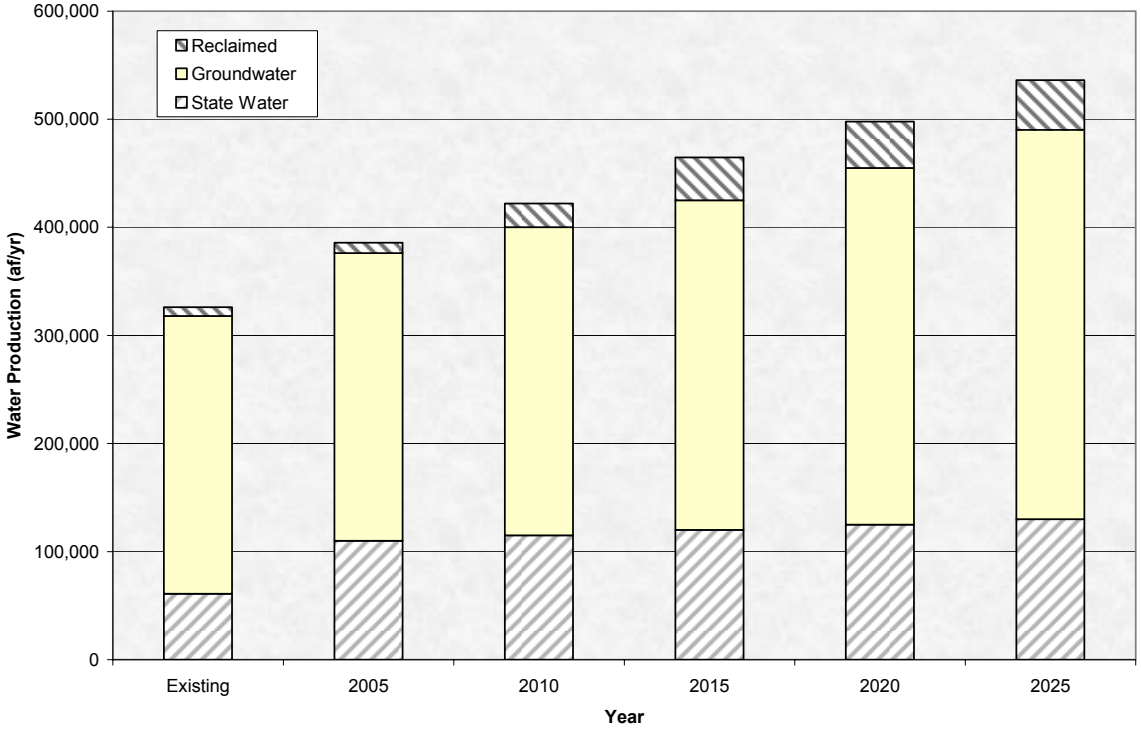


FIGURE 3.3.11
DESERT WATER AGENCY WATER SUPPLY BY SOURCE

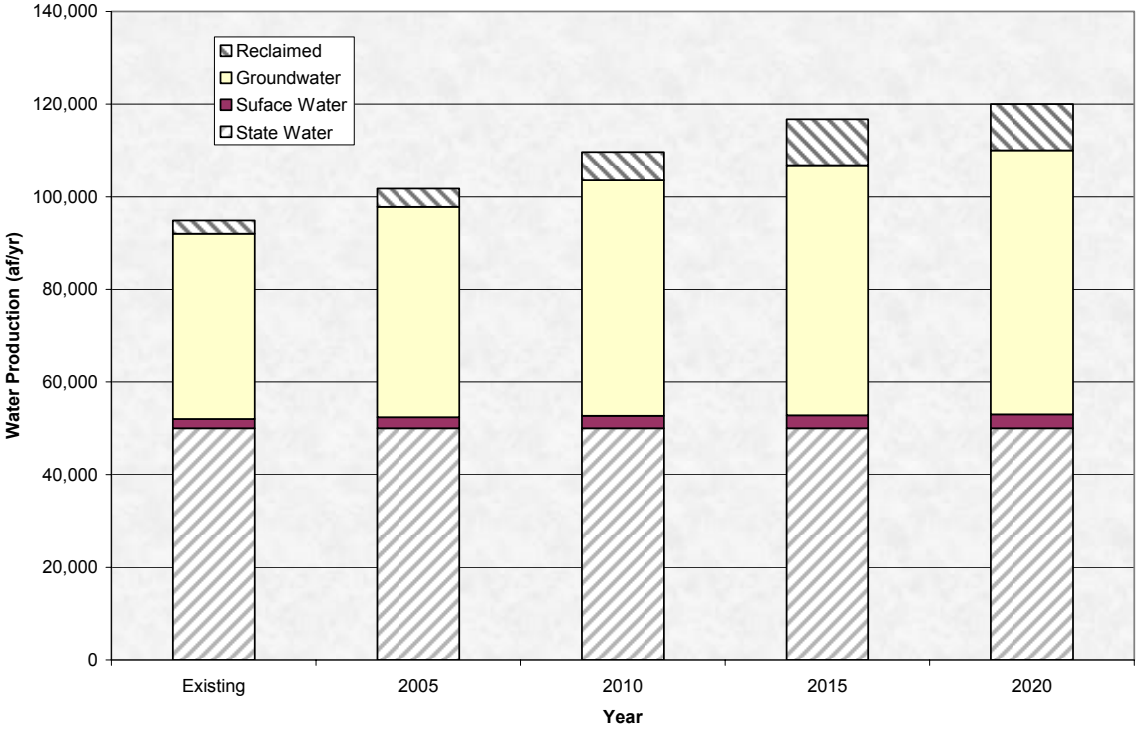
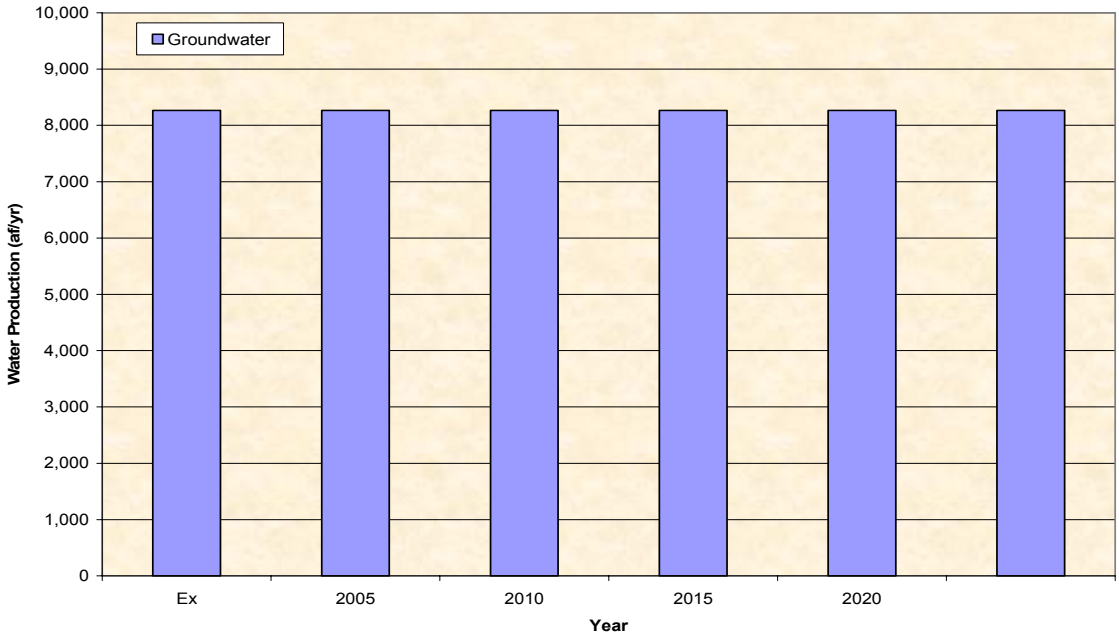


FIGURE 3.3.12
MISSION SPRINGS WATER DISTRICT WATER SUPPLY BY SOURCE



Based on the supplied source water information provided by each agency for projected future water, it is apparent that groundwater will continue to be the primary source of water for the Coachella Valley. The source of recycled/reclaimed water is expected to increase but actual supply is highly dependent on the amount of infrastructure constructed to serve future customers. The supply of SWP deliveries is expected to increase as the result of the DWA and the CVWD entering into an agreement with Metropolitan to maximize SWP use and of the CVWD's purchase of an additional 9,000 AF from the SWP. Finally the Quantification Settlement Agreement, signed in October 2003, provides a firm supply of 456,000 AF/Yr to the lower Coachella Valley.

3.3.4 Wastewater Demand Capacity

Four of the six agencies in the Coachella Valley provide wastewater treatment services. The Coachella Sanitary District, which provides wastewater service to portions of the City, is a dependent district of the City of Coachella with the City Council sitting as the board.

The following table summarizes the basic treatment levels and infrastructure of each agency.

Based on the above information, most agencies are currently operating within their rated capacity. The City of Coachella is quickly approaching their treatment capacity and is currently in the design phase of a treatment plant expansion that will take them to a rated capacity of 5.4 MGD.

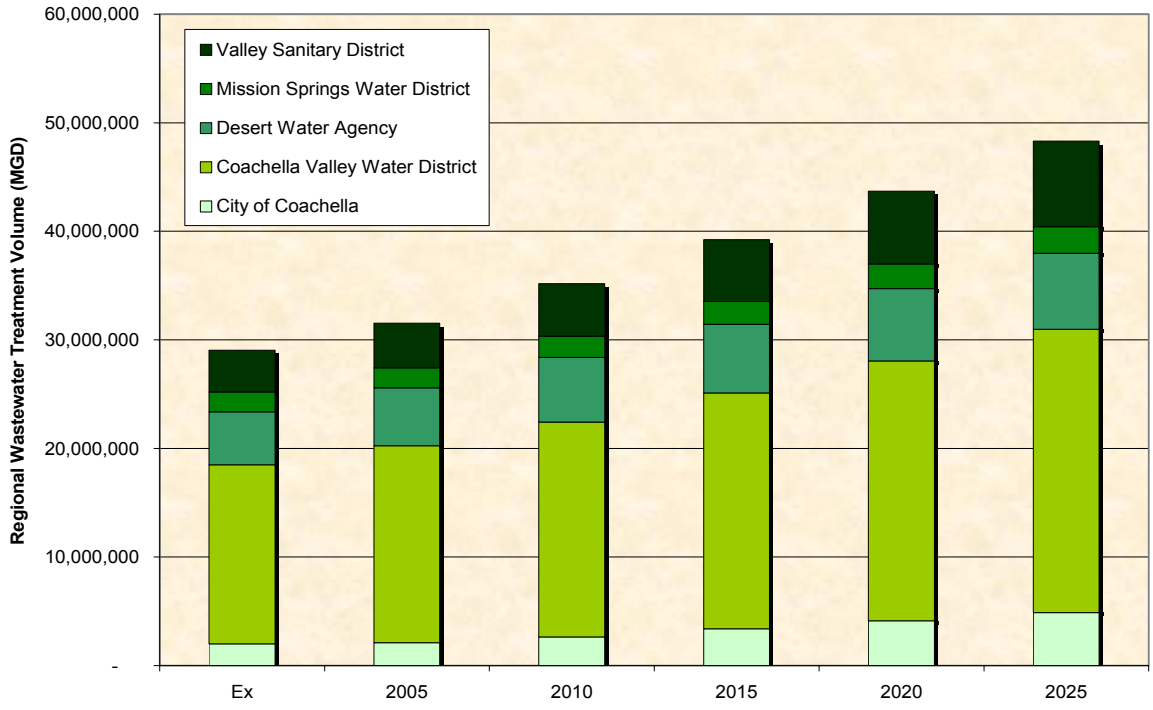
TABLE 3.3.3
WASTEWATER AGENCY INFORMATION

Agency	Total # of Connections	Rated Capacity (mgd)	ADWF (mgd)	Treatment Level	Miles of Lines
City of Coachella – Coachella Sanitary District	4,065	2.4	2.0	Secondary	59
Coachella Valley Water District	81,012	28.6	14.0	Advanced secondary; some tertiary	1,040
Desert Water Agency*	361	NA	1.1	NA	NA
Mission Springs Water District	3,553	2.5	0.9	Secondary	51
Valley Sanitary District**	21,963	8.5	5.7	Secondary	160

NP = not provided; NA – not applicable
**DWA does not provide wastewater treatment services; sewer effluent is transmitted to CVWD for treatment*
*** City of Indio wastewater needs are served by Valley Sanitary District*

Using the results from the City of Coachella, Coachella Valley Water District, and the Valley Sanitary District shown in *Table 3.3.3,* the total average flow per connection equals approximately 200 gallons per day. Dividing the existing population for each of these three agencies by their number of connection results in 2.7 people per connection. Therefore the estimate flow per capita is 200 gpd divided by 2.7 or 75 gallons per capita. *Figure 3.3.13* shows the projected wastewater flows up to year 2025 based on population estimates and an average flow of 75 gallons per day per capita.

FIGURE 3.3.13
REGIONAL WASTEWATER TREATMENT FLOW PROJECTION



The Coachella Sanitary District (City of Coachella) is planning a treatment plant expansion to 4 MGD and is considering an ultimate expansion to 5.5 MGD. The District also noted that it has some lines that are currently within storm drain channels although CIP funds have been budgeted for replacement. The Coachella Valley Water District reported plans to increase the capacity of their Wastewater Reclamation Plant (WRP) #4 from 5.3 MGD to 9.9 MGD although no date for completion was noted. The Valley Sanitary District reported plans to increase the capacity of their wastewater treatment plant from 8.5 MGD to 11 MGD by 2010.

SUMMARY

Groundwater is the primary source of potable water for the Coachella Valley agencies and will continue to be depended upon at an increasing rate into the future. The withdrawal rate of groundwater is currently greater than the recharge rate, but given the total estimated volume of the aquifer, groundwater will continue to be a reliable source of water well into the future. In addition, agencies are researching what appear to be highly effective groundwater recharge methods utilizing portions of their contractual allotments of SWP and Colorado River water supply. No significant issues regarding water supply and demand for individual agencies or for the service review region were noted.

However, while the CVWD maintains information regarding the take from the groundwater basins by private and/or mutual water companies, a means of ensuring that the data from private and mutual agencies is readily and regularly available to the public and planning organizations should be established. This exists in annual replenishment assessment reports presented at public hearings by CVWD and DWA.

The City of Indio and the City of Coachella have both formed water authorities which use revenue from fees and bonds based on water system assets to fund street repairs as well as system improvements. Typically bond issuers will require substantial investments in infrastructure to preserve the value of the assets. However, with multiple and increasing demands on municipalities from state and federal programs, it is a potential concern that these agencies continue to adequately fund water and wastewater infrastructure repair and replacement.

No significant issues regarding infrastructure needs and deficiencies were noted for wastewater service. In the Coachella Valley, the DWA, CVWD and MSWD all recycle and sell reclaimed water; in addition the CVWD and DWA have replenishment assessments in the range of $30-80 per AF of groundwater pumped. Recycled water continues to represent a priority water management practice in the Coachella Valley. As described in the Coachella Valley Final Water Management Plan (CVWD, September 2002), use of recycled water will continue to increase as growth occurs in the valley. Recycled programs will plan an important role in providing supplemental water in the lower Coachella Valley.

3.4 FINANCING OPPORTUNITIES AND CONSTRAINTS

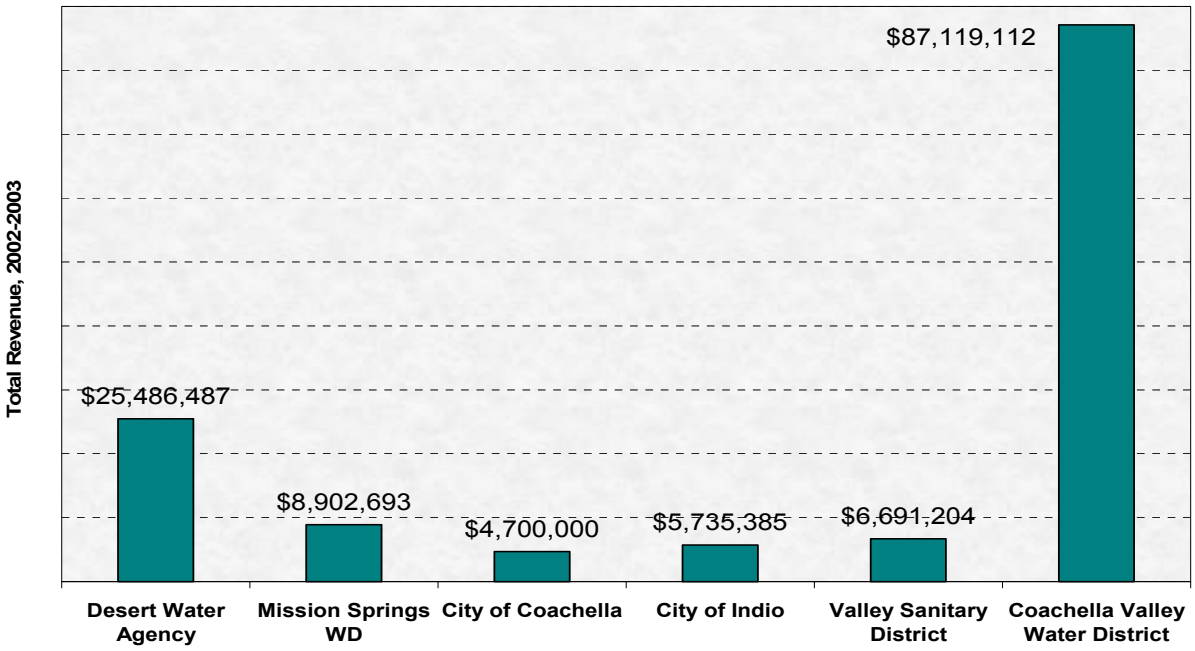
A series of questions was included in the service review questionnaire as a means of evaluating financial constraints and opportunities in relation to existing and projected service needs. Information collected addressed total revenues and expenditures as well as reserve levels.

Agencies were also asked to identify any financing constraints and opportunities that affect the service provided and infrastructure needs. Beyond existing legislative, political and governmental regulations, few agencies identified any financing constraints. Most agencies did note that the cost of infrastructure replacement and upgrades, the cost of meeting increasing federal and state regulatory requirements and the cost of insurance were a concern. Agencies noted that their governing board examined rates annually to ensure a balance between rates and capital needs. Maintaining reasonable rates for customers and to preserve agricultural resources were cited as a self-imposed financing constraint.

The service review questionnaire asked agencies to provide total revenues, revenue sources, CIP budget and reserves for the previous three fiscal years. That information is summarized for each agency in *Appendix C, Agency Financial Summaries*. No significant issues were noted for any of the agencies in relation to financing opportunities and constraints.

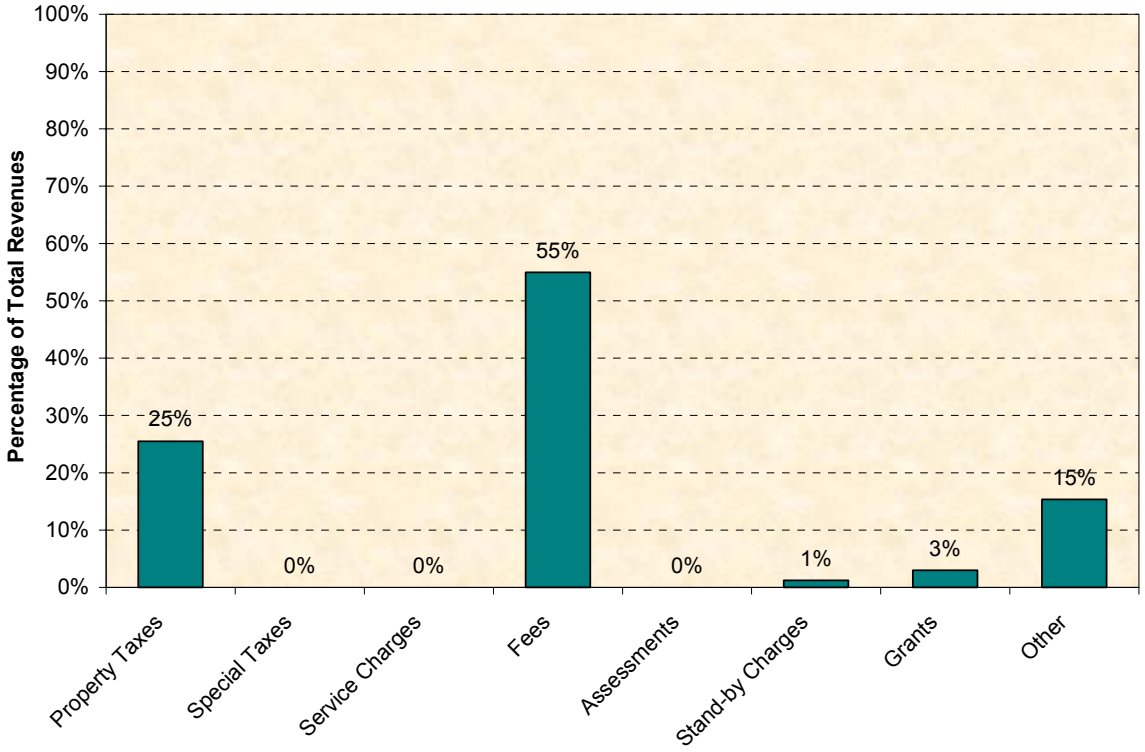
Figure 3.4.1, Agency Revenue Comparison, and *Figure 3.4.2, Aggregate Sources of Agency Revenue*, compare total revenues for all agencies and aggregate sources of revenues. Data from FY 2002-2003 was used to compare actual numbers. Generally revenues for all agencies are proportional to their size and service area. For example, the Coachella Valley Water district, whose revenues are nearly three times that of the next agency, has more than 3.5 times the number of customers.

FIGURE 3.4.1 - 2002-2003 AGENCY REVENUE COMPARISON



As enterprise activities, the primary revenue source for all water and wastewater agencies comes from service charges and fees directly related to the provision of services. Other income generally comes from interest earned on various funds. *Figure 3.4.2, 2002-2003 Aggregate Sources of Agency Revenue*, shows that water and wastewater agencies, as enterprise funds, derive a majority of their revenue from fees and charges.

FIGURE 3.4.2
AGGREGATE SOURCES OF AGENCY REVENUE
FY 2002-2003



"Other" income, which represented 15% of the aggregate sources of income, includes interest, miscellaneous water and wastewater charges, capacity fees and permit income and unspecified income. The service review questionnaire did not include specific definitions of each revenue source and it is assumed that some of the income reported as "Other" would be more properly classified as "Fees" and/or "Assessments". For example, the Valley Sanitary District reported $272,948 in "Other" income but noted that it was derived from capacity charges/permits and the Desert Water Agency reported $399,353 in miscellaneous water and wastewater charges.

The amount of property tax revenue each agency received during FY 2002-2003 is shown in *Table 3.4.1, 2002-2003 Property Tax Revenue*. The Cities of Coachella and Indio both have formed water authorities which lease the water system assets and issues bonds for street and system repairs. Neither water authority reported receiving property taxes. The Coachella Sanitary District, a dependent district of the City, received $36,000 in property tax revenue.

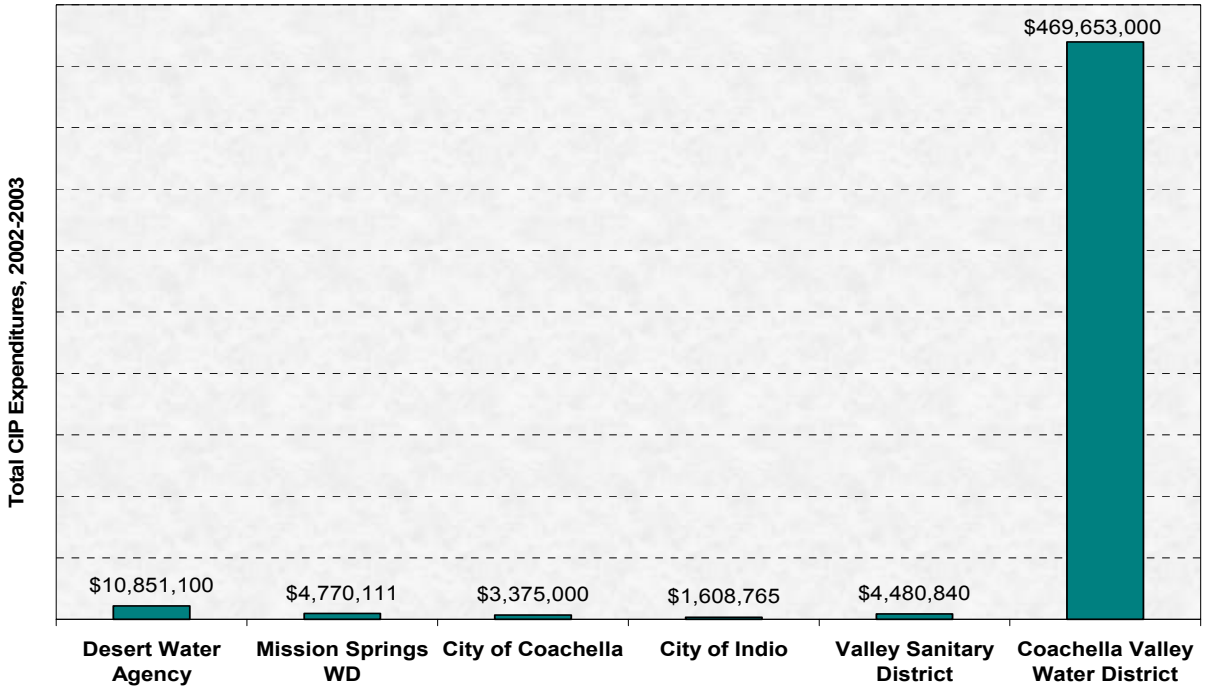
TABLE 3.4.1
2002-2003 PROPERTY TAX REVENUE

AGENCY	PROPERTY TAX REVENUE
City of Coachella (Coachella Sanitary District)	$36,000
City of Indio (Indio Water Authority)	0
Coachella Valley Water District	$13,238,175
Desert Water Agency	$6,278,901
Mission Springs Water District	$740,226
Valley Sanitary District	$348,057

Funds of dependent districts are required by law to be maintained separately from the funds of the city. However, municipalities can and almost universally charge water and wastewater departments, dependent districts and special purpose agencies (such as a water authorities) charges for administrative services (i.e. accounting, personnel administration, insurance etc). For the FY 2002-2003, the Coachella Sanitary District transferred $413,000 and the Coachella Water Authority transferred $371,000 to the City of Coachella General Fund. The Indio Water Authority reported transferring no funds to the City of Indio's General Fund. No information was requested from the water authorities regarding lease payments from water assets.

A comparison of the capital improvement financial expenditures for the Fiscal Year 2002-2003 is shown in *Figure 3.4.3, 2002-2003 Agency CIP Comparisons*. CIP expenditures were generally consistent across agencies according to the size of their service area and customer base.

FIGURE 3.4.3
2002-2003 AGENCY CIP COMPARISON



The issue of reserve levels was raised as a general statewide concern in the 2000 Little Hoover Commission report on special districts. That report concluded that some agency reserves appear unreasonably large, are not integrated into infrastructure planning and are obscure. Data collected for this service review did not find that the agencies in the Coachella service review area showed evidence of the concerns noted by the Little Hoover Commission for agencies in other parts of California.

Setting specific levels of reserves for the diversity of agencies addressed in this service review report is impracticable. The different services, service areas, customer bases, condition of infrastructure, capital improvement programs and other issues require reserve levels specific to each agency. Agencies with large reserves typically have major, long-term capital improvement projects.

The service review questionnaire asked agencies to report reserves in the categories of operating, capital, rate stabilization, restricted and other for the previous three fiscal years. *Figure 3.4.4, 2002-2003 Agency Reserve Comparison* compares reserve amounts.

All reserve levels reported by the agencies were clearly segregated into the uses for the reserves—operating and rate stabilizations, restricted debt reserves and capital reserves funds. The Coachella Valley Water District did not report reserves segregated by categories.

FIGURE 3.4.4
2002-2003 AGENCY RESERVES COMPARISON

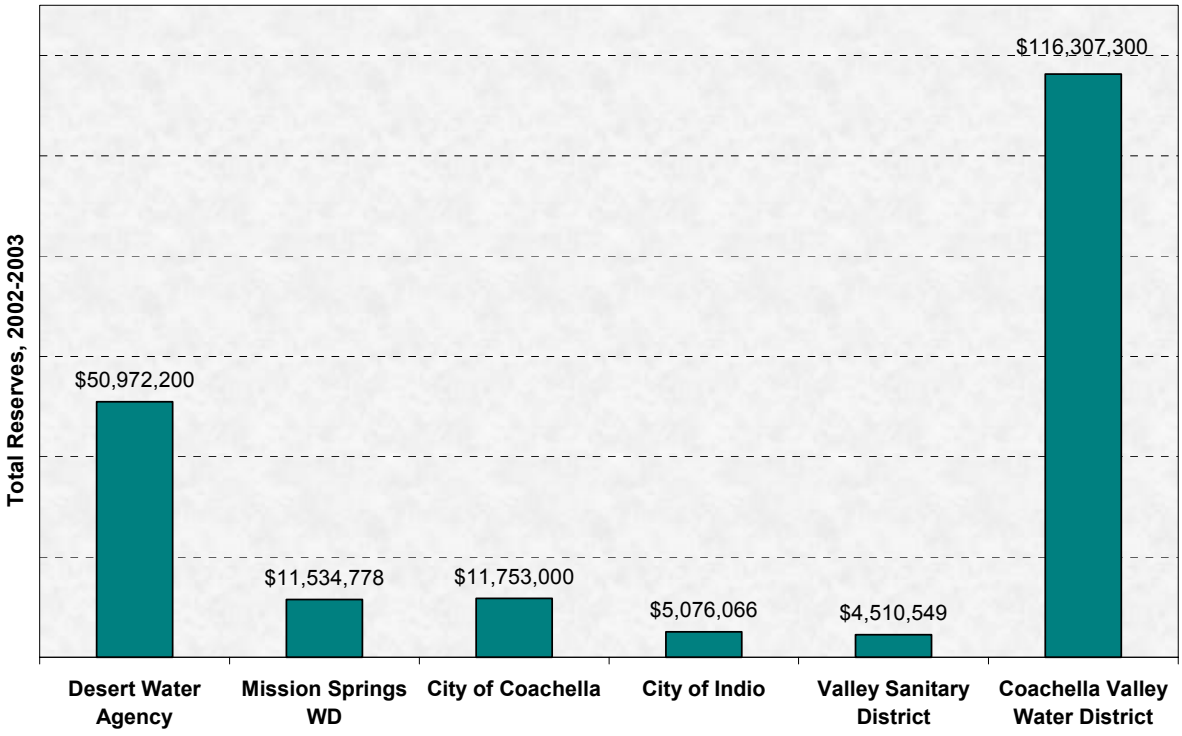
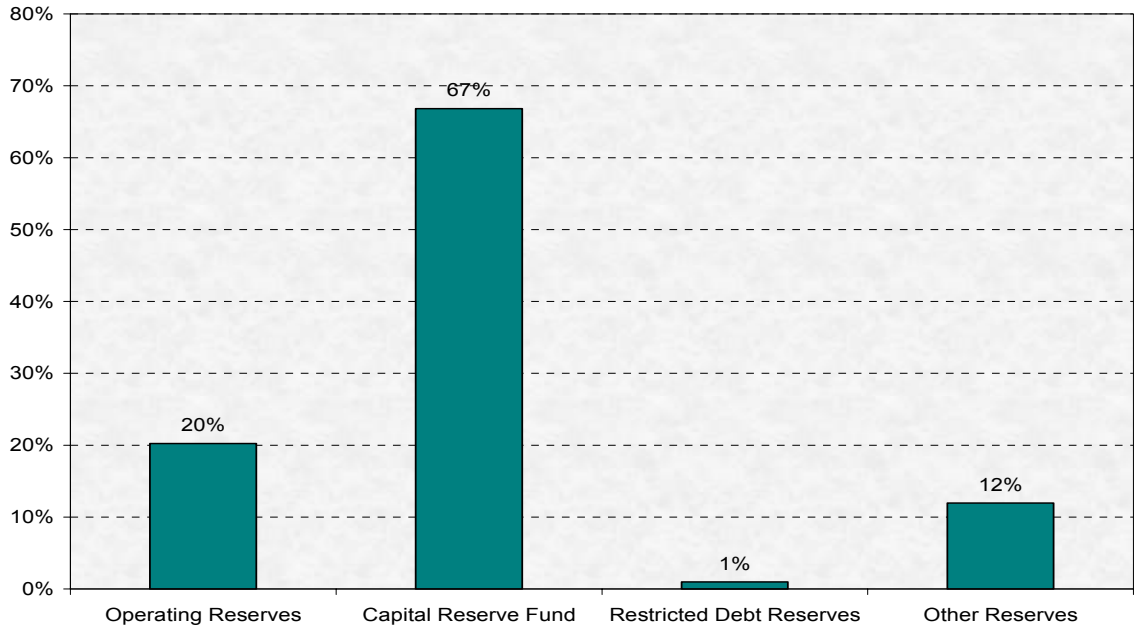


Figure 3.4.5, Aggregate Reserves by Category, supports the link between capital improvement projects and reserve levels. Almost 70% of the reserves were earmarked for capital reserve funds. High capital reserve levels indicate an agency's need to maintain adequate reserves for planned infrastructure improvements/upgrades, meet expected demand and to comply with stricter regulatory requirements.

FIGURE 3.4.5
AGGREGATE RESERVES BY CATEGORY



3.5 OPPORTUNITIES FOR RATE RESTRUCTURING

The service review questionnaire asked agencies to list current rates for water and wastewater service, rates changes in the previous two years, anticipated rate changes and any difference in rates charged to customers outside agency boundaries. The responses regarding the meter and commodity charges are summarized in the "Agency Profiles" section of this chapter; complete responses to the service review questionnaire can be found in *Appendix B, Database Reports.*

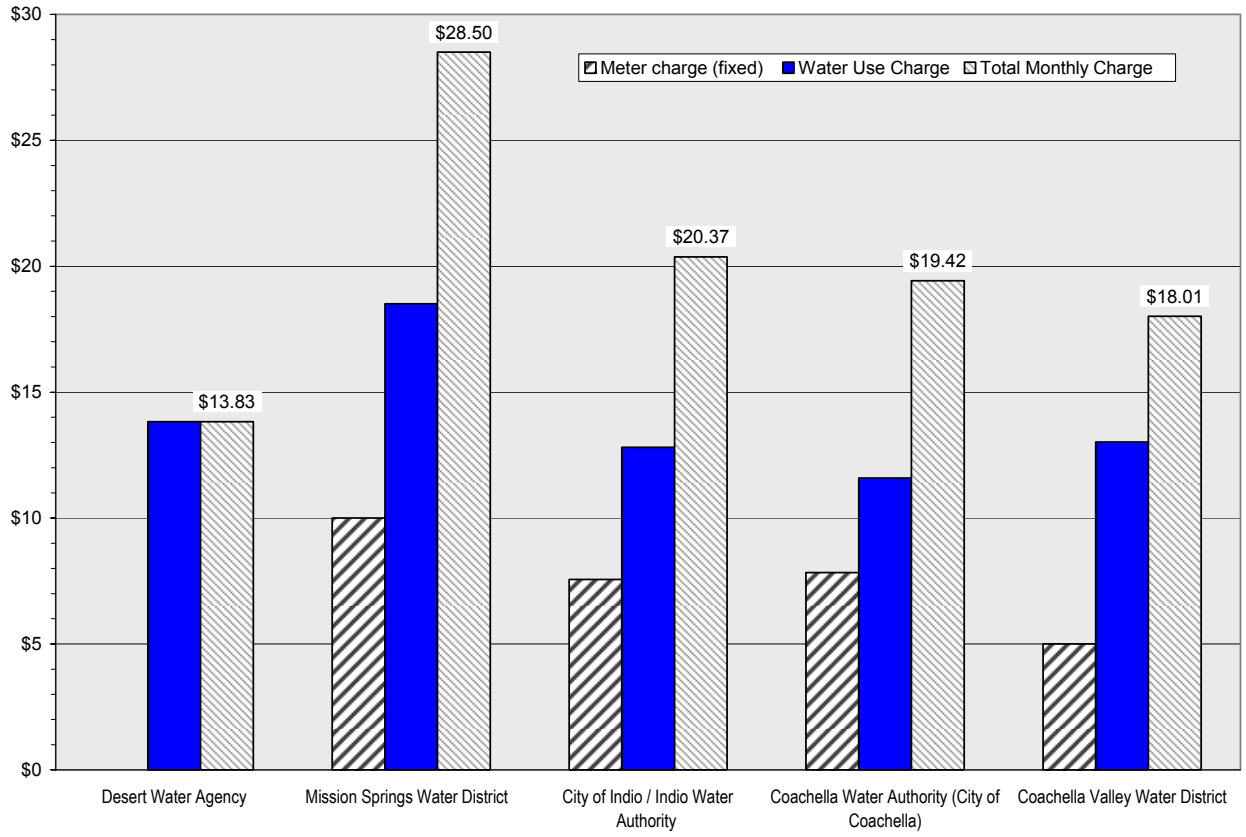
All the agencies in the Coachella Valley service review area noted rate increases in the previous two years except for the Coachella Water Authority. Both the Coachella Water Authority and the Coachella Sanitary District reported that rates for water and sewer respectively would increase in the next two years. All agencies noted that rates are reviewed annually.

Agencies were asked about the differences in rates charged for areas served outside their boundaries; the intent was to identify areas where customers may want to consider annexation to a service provider to reduce rates. Only two agencies reported rate differences between customers inside and outside their agency boundaries. For a 5/8" meter the Coachella Water Authority charges $7.83 for customers inside their boundaries and $22.10 for customers outside their boundaries; CWA only serves 100 customers outside their boundaries. The Indio Water

Authority doubles their commodity rate of $0.63 to $1.26 HCF for customers outside their boundaries; IWA reported serving 12,400 connections inside their service area and 1,634 connections outside.

The following *Figure 3.4.6, Water Rate Comparison*, compares water rates among the Coachella Valley water agencies based on a 5/8-inch meter and 500 gallons of water per month.

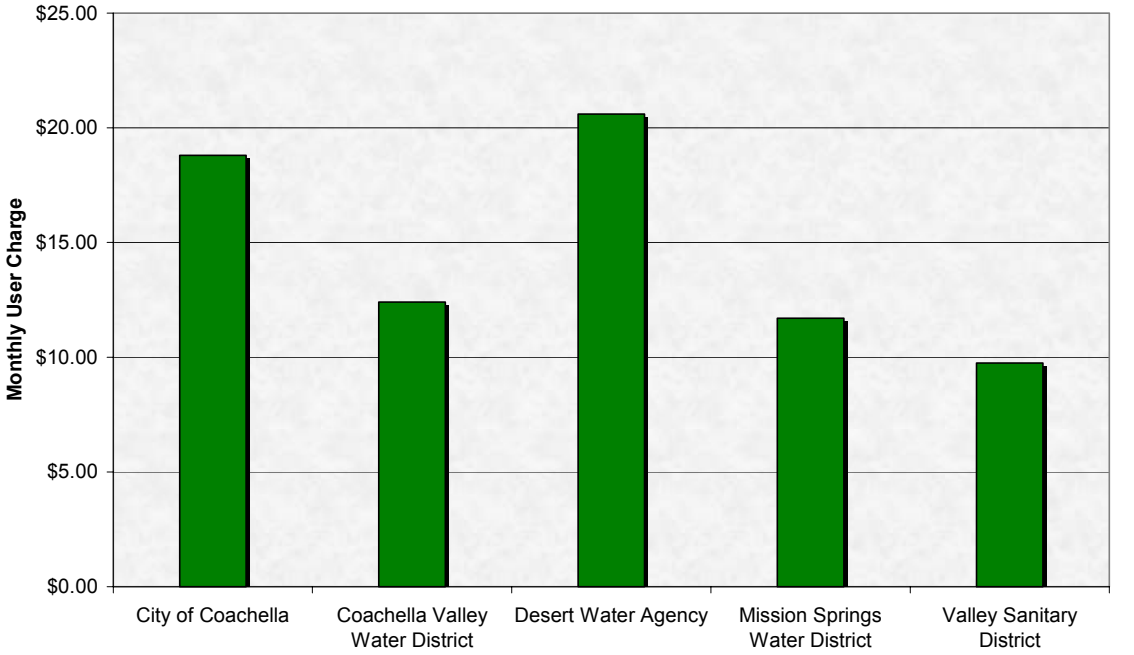
FIGURE 3.4.6
WATER RATE COMPARISON
(5/8" meter, water usage = 500 gallons per day)



Wastewater agencies were asked to note if rates were flat or were tied to water usage and to provide the residential rate. Those responses are shown in *Figure 3.4.7, Wastewater User Charge Comparison*. In addition, the State Water Resources Control Board (WRCB) publishes a wastewater users survey report, which includes information regarding connection fees for wastewater agencies. Data from that publication was also used to develop *Figure 3.4.8,*

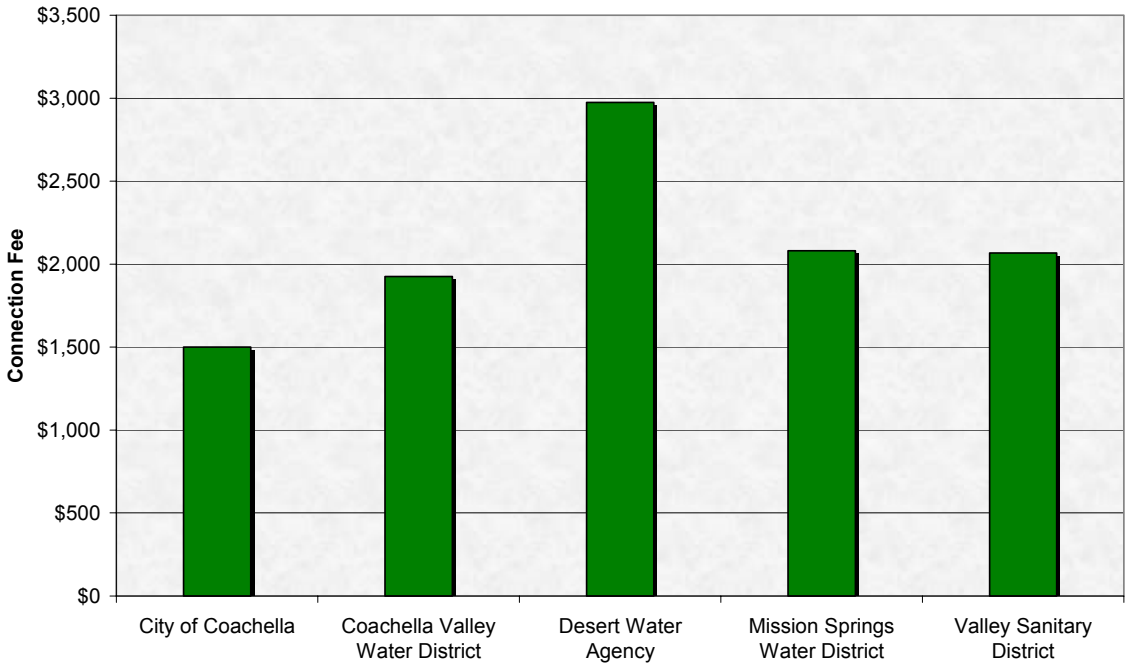
Wastewater Connection Fee Comparison, comparing connection fees of the wastewater agencies in the Coachella Valley service review area.

FIGURE 3.4.7
WASTEWATER USER CHARGE COMPARISON



SOURCE: CALIFORNIA, STATE OF. STATE WATER RESOURCES CONTROL BOARD AND CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY. 2002. WASTEWATER USER CHARGE SURVEY REPORT FY 2001-02: A SUMMARY AND LISTING OF DATA FROM THE OCTOBER 2001-APRIL 2002 SURVEY OF CALIFORNIA WASTEWATER AGENCIES.

FIGURE 3.4.8
WASTEWATER CONNECTION FEE COMPARISON



SOURCE: CALIFORNIA, STATE OF. STATE WATER RESOURCES CONTROL BOARD AND CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY. 2002. WASTEWATER USER CHARGE SURVEY REPORT FY 2001-02: A SUMMARY AND LISTING OF DATA FROM THE OCTOBER 2001-APRIL 2002 SURVEY OF CALIFORNIA WASTEWATER AGENCIES.

3.6 OPPORTUNITIES FOR SHARED FACILITIES AND COST AVOIDANCE

In evaluating both shared facilities and cost avoidance opportunities, the service review noticed numerous areas of overlap between the two determinations and the analysis for both determinations have been combined into this section.

The Riverside LAFCO service review process examined current practices used by the agencies to reduce or avoid costs including the use of outside vendors and contractors. Overlapping or inefficient service boundaries were also examined as a means that the Riverside LAFCO can use to encourage efficiently provided water and wastewater services, increase opportunities for shared facilities and avoid costs. Some boundary issues have been addressed in *Section 3.7 - Government Structure Options*. However, it should be noted that the lack of digitized maps and an in-house GIS system is a deterrent to the ability of the Riverside LAFCO staff to ensure that boundaries of the agencies and their SOIs are efficient.

As part of the service review questionnaire, agencies were asked to identify ways that they currently cooperate with other agencies to maximize opportunities for sharing facilities. Agencies were asked to list current joint activities with other agencies, which are shown in *Table 3.6.1, Joint Service Agreements*. The agencies within the Coachella Valley service review area noted joint activities which increase opportunities for shared facilities.

TABLE 3.6.1
JOINT SERVICE AGREEMENTS

AGENCY	JOINT AGREEMENTS NOTED
City of Coachella	Joint Powers Authority (JPA) between the City of Coachella and the Coachella Redevelopment Agency for financing; Coachella Valley Association of Governments (CVAG)
Coachella Valley Water District	Recharge agreement with the Department of Water Resources; emergency inter-tie with Mission Springs Water District; City of Indio service agreement and inter-tie
Desert Water Agency	Association of California Water Agencies (ACWA) JPIA for insurance; State Water Contractors (State Water project)
City of Indio	CVWD service agreement and inter-tie
Mission Springs Water District	Association of California Water Agencies (ACWA) JPIA for insurance; emergency inter-ties with the CVWD
Valley Sanitary District	California Sanitation Risk Management Association (CSRMA) for worker's compensation insurance; service agreement with the CVWD for La Quinta development

The Coachella Valley Water District, Desert Water Agency and Mission Springs Water District noted that their agencies make excess capacity, facilities and/or staff available on an emergency basis to other agencies.

The Coachella Valley Water District also noted that there may be potential opportunities for shared facilities with the Cities of Coachella and Indio as well as the Myoma Dunes Water Company (a mutual water company) due to areas where existing and planned infrastructure overlaps. The CVWD also has agreements with the Desert Water Agency, the Imperial irrigation District, Metropolitan, the Bureau of Reclamation and various cities.

The Mission Springs Water District noted a potential opportunity to share a GIS system with the City of Desert Hot Springs. Finally the Valley Sanitary District uses private contractors for engineering, janitorial, grounds and maintenance work and noted that they currently have excess capacity, however the current treatment capacity is less than what would be ultimately needed at build-out.

The City of Coachella, City of Indio and CVWD all operate independent water distribution systems adjacent to each other. Potential interconnections with neighboring systems could be mutually beneficial, providing a more reliable water supply.

3.7 GOVERNMENT STRUCTURE OPTIONS

The service review becomes a tool to examine existing and future service provision and to evaluate governmental structure options that can ensure that services are provided efficiently and concurrent with need. The service review does not require the Riverside LAFCO to initiate changes of organization but to list options which the LAFCO Commission, service review agencies and the public can use as a starting point for changes in service provision, in agencies or in SOIs.

Changes in government structure of agencies are proposed for a variety of reasons. Sometimes the governing board, an external agency, such as a Grand Jury, or the public identifies benefits that might result or a problem that might be “fixed” by a consolidation with another agency. Advantages that might accrue from the reorganization of agencies include:

- Simplification of boundaries – If there are too many agencies that provide similar services in a limited area, there could be overlapping service areas and confusion among the customers.

- Improved service delivery – An agency might be reorganized if the provision of service would be improved. For example, a small agency might reorganize with a larger one to increase staff expertise and depth or to increase the agency's capacity to provide services. An agency may find itself better able to serve its constituency after reorganization or a sphere amendment adds or deletes territory.

- Reduction in costs or fees – The cost of providing service may vary among agencies and reorganization may be seen as a means of lowering rates and/or reducing costs. If an agency is very small, reorganization with another agency might achieve economies of scale.

- Increase in local accountability and "home rule" – If citizens believe that an agency is unresponsive to their needs, a reorganization might be proposed to allow closer interaction between a governing board and residents.

- Correction of problems – Occasionally governing board members may be perceived by the public as ineffectual or service provision as inefficient and reorganizations are proposed to "fix" the problem.

- Realignment – An agency may find itself better able to serve its constituency after an incorporation or sphere amendment adds or deletes territory.

Disadvantages or neutral effects from a change in governmental boundaries can include:

- No actual or limited costs savings – Reorganizations must assess and calculate all cost inputs such as the cost of reorganization, merging staffs, retirement obligations or upgrades to systems, etc. Sometimes the actual savings as a result of reorganization are modest enough that it is not cost-efficient to pursue.

- Little improvement in service efficiency – If agencies considering a reorganization are run efficiently, there may be little improvement in services.

- Local autonomy – A small agency providing services may offer benefits of community cohesion and local "ownership" which might be lost in a reorganization with a larger agency.

- Political opposition – Pursuing reorganization without the support of residents or the governing board typically increases the time and effort involved.

3.7.1 Services Outside of Agency Boundaries/Sphere of Influence Updates

Government Code Section §56133 states that a city or district may provide services by contract or agreement outside its jurisdictional boundaries only through approval by LAFCO. This requirement, which was enacted in 2000, exempts agreements between two public agencies for the transfer of untreated surplus water to agricultural lands and other instances.

Several agencies including the Mission Springs Water District, the Coachella Valley Water District, the Coachella Sanitary District, the Coachella Water Authority, City of Indio and the Valley Sanitary District all noted water and/or wastewater connections outside their jurisdictional boundaries. Most of the service areas of the Cities of Indio and Coachella are within the CVWD and some out-of-boundary service agreements may reflect this. While many of these service agreements may be exempted, it may be worthwhile for the Riverside LAFCO to list and map service agreements that are not exempt before updating spheres. This might simplify the sphere review process.

❖ CITY OF INDIO (INDIO WATER AUTHORITY) / COACHELLA VALLEY WATER DISTRICT

In April of 2003, the Coachella Valley Water District (CVWD) and the City of Indio (Indio Water Authority) negotiated a settlement to an on-going service area dispute. It was agreed that the CVWD would provide domestic water service to all current CVWD constituents within Indio's city limits, to all current water district constituents within Indio's sphere of influence, to the Desert Sands Unified School District sites within the city/its sphere of influence, to Andreas Ranch, to the "North Indio" area, generally identified as land north of Interstate 10, west of Madison Street and to existing customers within the CVWD's existing SOI as well as to new customers within the city where CVWD already provides service.

The CVWD agreed to pay the City of Indio 5.2¢ per 100 cubic-feet of water sold within the city limits or city's sphere of influence but the fee will not be assessed on CVWD's existing customers in the sphere until they are annexed into the city. The CVWD also agreed to collect the City of Indio's 5% utility tax. The CVWD also agreed to buy city-owned domestic water facilities in North Indio, including transmission lines, wells and reservoirs, $370,180.

The settlement also included other provisions designed to increase cooperation between the two agencies as well as settled previous litigation regarding water to an elementary and middle school at the southeast corner of Miles Avenue and Dune Palms Road that was going to be build by the school district.

Riverside LAFCO should consider updating the SOIs of both agencies to reflect the current negotiated agreement. Both agencies have areas where existing and/or planned infrastructure may be duplicated and the Coachella Valley Water District has noted that the general area east of I-10 may need to be analyzed for changes in existing spheres to facilitate efficient services.

3.7.2 Other Governmental Structure Options

The service review process examined a full range of governmental structure options. Some government structure options had been previously examined by the Riverside LAFCO (or other groups such as the Grand Jury) were not pursued due to opposition, existing agreements, modest savings or increases in efficiency. These options are not included in the discussion in this section but should be periodically revisited by the Riverside LAFCO.

In the Coachella Valley service review area, the Grand Jury had previously examined the reorganization of the CVWD and the Desert WA. This reorganization was not pursued due to differences in service areas, systems, rates and customer bases. Other options which have been discussed and could be periodically revisited include the reorganization of the Valley Sanitary District and the Cities of Indio and/or Coachella and the Mission Springs Water District and the Desert Water Agency.

- **CITY OF COACHELLA / COACHELLA SANITARY DISTRICT**

The Coachella Sanitary District is a dependent district of the City of Coachella. The Sanitary District currently serves areas outside its boundaries which are not within its SOI. Riverside LAFCO should consider not only a sphere update for the Sanitary District but also discuss with the City of Coachella the possible reorganization of the district with the City to determine if service provision could be improved and/or costs avoided.

3.8 EVALUATION OF MANAGEMENT EFFICIENCIES

Reviewing management efficiencies is generally an internal function of a public agency with limited oversight by other agencies such as the state and federal government or grand juries. The OPR service review guidelines suggested twenty factors that could be used when evaluating management efficiencies but some of those factors assess internal practices which

are difficult to measure or whose correction is outside the purview of LAFCO authority. These factors were not included in the service review questionnaire.

Further complicating the process is the variety of water and wastewater agencies in Riverside County. Managerial efficiencies can vary widely among the water and wastewater agencies and can be affected by size, organizational culture, politics, past agency actions and other explanatory factors. In order to try to assess the relative effectiveness of the agencies while still accounting for the explanatory factors unique to the agencies, the Riverside LAFCO service review collected data that indicated compliance with some federal/state requirements and data that could be used as a general indicator of managerial efficiencies. Agencies were asked to provide the number and classification of employees, employee training, the presence of master plans and other long-range planning documents and audits. GIS capabilities and the administrative costs expressed as a percent of total revenues were collected to serve as indicators of managerial efficiencies. Agencies that did not meet requirements or whose response was significantly different from other agencies were contacted individually to determine what explanatory factors, if any, existed.

The service review questionnaire asked agencies to provide data on the total number of employees for each agency, the staff providing direct provision of water and wastewater and the number of employees in water and wastewater with certification. The presence of employees with certification indicates both meeting legal requirements as well as some support within the agency for improved knowledge and training opportunities for employees. In California, operators of drinking water treatment and distribution facilities must possess a water treatment and/or a distribution certificate. Certification is also required in order to work as an operator in a wastewater treatment plant. The results are shown in the following *Table 3.8.1.* In some instances, the number of employees with certification exceeds the total number of operational employees. This is usually a result of employees holding multiple certificates.

TABLE 3.8.1
EMPLOYEE INFORMATION

Agency	Total Employees	# Operational Employees-- Water Service	# of Certifications held by Staff	# of Operational Employees-- Wastewater Service	# of Certifications held by Staff
City of Coachella	9	7	6	9	8
Coachella Valley Water District	63	NP	NP	NP	NP
Desert Water Agency	60	38	27	NA	NA
City of Indio	28	25	14	NA	NA
Mission Springs Water District	39	26	26	13	8
Valley Sanitary District	20	NA	NA	20	15

NP – not provided; NA – not applicable

The Riverside LAFCO service review questionnaire also used the presence and/or frequency of Capital Improvement Programs (CIP), master plans, Urban Water Management Plans, Emergency Response Plans and audits as a means of assessing an agency's management efficiencies. All urban water suppliers with more than 3,000 customers or delivering more than 3,000 AF are required to prepare urban water management plans (UWMP) and update them every five years. Most Riverside County agencies completed their UWMP in 2000 and will be required to prepare an update in 2005. Audits and CIPs are generally prepared annually. While there are no established standards for the frequency of preparation, typically master plans for water and wastewater agencies are prepared every 5-10 years. The type of service area (i.e., level of development, rate of growth or presence of growth control initiatives) can also affect the frequency of preparation. The presence of audits, CIPs, UWMPs and Emergency Response Plans can indicate that the agency's management structure is efficient in meeting basic reporting requirements as well as long range planning.

Table 3.8.2, Long Range Planning, depicts information regarding master plans and other long range planning documents.

TABLE 3.8.2
LONG RANGE PLANNING

	Water Master Plan	Wastewater Master Plan	CIP	Urban Water Management Plan*	Emergency Response Plan	Date of last Audit
City of Coachella	Yes	Yes	Yes	Yes	NP	2002
Coachella Valley Water District	Yes	No	Yes	Yes	Yes	2003
Desert Water Agency	Yes	Yes	Yes	Yes	Yes	2003
City of Indio	Yes	NA	Yes	Yes	NP	2002
Mission Springs Water District	Yes	Yes	Yes	Yes	Yes	2003
Valley Sanitary District	NA	Yes	Yes	NA	NA	2003

***Water agencies under 3,000 customers are not required to prepare an Urban Water management Plan*

Comparing an agency's total administrative expenses as a percent of total operating revenue can provide a rough measure of an agency's overhead costs relative to its size. *Table 3.8.3* shows the resulting percentages of this comparison. However, since the service review questionnaire did not include specific instructions for calculating administrative costs, the data provided by the agencies could not be verified to ensure a consistent methodology. The results for each fiscal year, where reported by the agencies, are included in *Appendix C, Financial Summaries* and are summarized in the following chart.

The fluctuations in the responses provided by the agencies are mostly likely the result of differing methods of defining administrative expenses or in the method of calculation. It is suggested that future service review questionnaires either provide detailed instructions for calculating the administrative expenses or that another indicator of management efficiencies be used.

Note: The calculation method was not defined so results vary by how each agency classifies administrative costs.

TABLE 3.8.3
FY 2002-2003 ADMINSTRATIVE COSTS AS A PERCENT OF OPERATING REVENUE

	WATER AGENCIES	WASTEWATER AGENCIES
City of Coachella	14%	16%
Coachella Valley Water District	37%	NP
Desert Water Agency	20%	5%
City of Indio	44%*	NA
Mission Springs Water District	26%	43%
Valley Sanitary District	NA	5%

**FY 2001-2002 figures; FY 2002-2003 figures not available.*

The American Water Works Association Research Foundation recommends that water and wastewater utilities consider using the number of customer accounts per full-time employee as one of several performance indicators for organizational best practices. Agencies were asked as part of the service review questionnaire to provide the total number of employees and total number of service connections as shown in *Table 3.8.4*

TABLE 3.8.4
WASTEWATER INFORMATION

	Total Number of Water Employees	Total Number of Water Service Connections	Water Connections per Employee	Total Number of Wastewater employees	Total Number of Wastewater Connections	Wastewater Connections per Employee
City of Coachella	7	4,120	589	9	4,065	452
Coachella Valley Water District	NP	89,926	NP	NP	81,012	NP
Desert Water Agency	38	19,694	518	NA	361	NA
City of Indio	25	12,400	5	NA	NA	NA
Mission Springs Water District	26	8,230	317	13	3,553	273
Valley Sanitary District	NA	NA	NA	20	22,869	1,143

NP – not provided; NA – not applicable

It should be noted that the City of Indio reported a total of 12,400 water connections within its boundaries with 355 water connections within its SOI but outside the agency's boundaries and 1,279 water connections outside both its boundaries and SOI. To ensure consistency, the service review questionnaire only used the number of connections in all agencies' boundaries.

No significant issues regarding the evaluation of management efficiencies were noted.

3.9 LOCAL ACCOUNTABILITY AND GOVERANCE

No significant issues regarding local accountability and governance were noted for any of the agencies within the Coachella Valley service review area. The governing boards of the agencies appear to be locally accountable through adherence to applicable government code sections, open and accessible meetings, and dissemination of information and encouragement of participation in their election process. However, only four of the six agencies have websites which is an important means of increasing public accountability and access. The following *Table 3.8.5* shows the results of survey information for each agency.

TABLE 3.8.5
LOCAL ACCOUNTABILITY AND GOVERNANCE

	Website	Time of Meetings	# of Board Members Running Unopposed in November 2002 Election	Unqualified Audit
City of Coachella	Yes	6:00 pm	None	Yes
Coachella Valley Water District	Yes	9:00 am	None	Yes
Desert Water Agency	Yes	8:00 am	None	Yes
City of Indio	Yes	5:30 pm	None	Yes
Mission Springs Water District	No	3:00 pm	None	Yes
Valley Sanitary District	No	12:30 pm	None	Yes

The service review questionnaire asked each agency to provide current information about the governing board and the expiration date of each member's term; that information is contained in *Appendix A, Database Reports*. This information was entered into the database and will be used by the Riverside LAFCO staff to maintain current and accurate information.

Public access was evaluated by regularly scheduled meetings and locations, the presence of websites and the use of legally required notices. A majority of the agencies in the Coachella Valley service review area hold meetings during normal working hours; this may limit public accessibility. All agencies reported compliance with the legal requirements for posting of meetings.

3.10 COACHELLA VALLEY SERVICE REVIEW AREA DETERMINATIONS

- **Infrastructure needs or deficiencies**
  1. The water supply in the Coachella Valley will continue to come primarily from groundwater. While the agencies have established recharge/monitoring programs and have secured a firm supply of water for these programs, the underground aquifers are currently being over-drafted.
  2. The water service providers within the Coachella Valley service review area whose water supply is solely from groundwater should investigate programs to diversify their sources of water.
  3. It appears that the agencies in the Coachella Valley service review region have adequate water to meet future needs based on expected supplies and on information provided for this service review.

4. Wastewater providers have planned to meet future wastewater needs by upgrading existing facilities and constructing new facilities.
5. The agencies adequately address infrastructure needs and deficiencies through master plans, CIP, Urban Water Management Plans and other long range planning documents.

- **Growth and population projections for the affected area**

1. The variations in growth and population projections among the agencies could be addressed through a regional system to provide population projections for special districts.
2. Projections of growth provided by agencies indicate that growth is expected to increase in the region by approximately 75%.

- **Financing constraints and opportunities**

1. The agencies prepare comprehensive annual budgets, maintain annual Capital Improvement Plans (CIP) and maintain adequate and appropriate reserves.
2. The agencies, as enterprise activities, derive approximately 55% of their aggregate sources of revenues from fees and charges and approximately 25% from property taxes.
3. For most of the agencies within the Coachella Valley service review area, the amount of reserves held is matched to CIP and other infrastructure improvements.
4. All agencies reported unqualified audits prepared in accordance with generally accepted accounting standards.

- **Cost avoidance opportunities**

1. The agencies use their annual budget process to identify cost avoidance opportunities and use outside vendors and contractors for services when shown to be cost effective.
2. Wastewater agencies in the lower Coachella Valley should examine the relationship between the cost of potable water and increasing the financial incentives for water recycling.
3. Establishing clear service boundaries through the sphere of influence process may assist agencies in avoiding costs for duplicative planning and litigation.

- **Opportunities for rate restructuring**
  1. The agencies set rates and fees through an annual public process to ensure fair and equitable rates.
  2. Agencies noted rate changes in the previous two years and provided information regarding the differences in rates charged to customers inside and outside agency boundaries, if any.

- **Opportunities for shared facilities**
  1. The agencies collaborate as appropriate and as deemed efficient.
  2. Excess capacity, facilities and staff are made available by agencies whenever possible.
  3. The agencies increase opportunities for shared facilities through joint powers agreements, inter-ties, service agreements and industry groups.

- **Government structure options, including advantages and disadvantages of the consolidation or reorganization of service providers**
  1. Riverside LAFCO should list existing, non-exempt service agreements as part of the agency SOI update process.
  2. Riverside LAFCO should examine the revision of spheres of influence of agencies with overlapping service boundaries.
  3. The City of Coachella should examine potential costs savings from reorganization of the Coachella Sanitary District.

- **Evaluation of management efficiencies**
  1. The agencies maintain current management, interdepartmental and inter-agency practices and procedures appropriate to and efficient for their service.
  2. The number of employees per water or wastewater connections varies according to the size and service area of the agency.

- **Local accountability and governance**
  1. The governing bodies of the agencies are locally accountable through adherence to applicable government code sections, open and accessible meetings, and dissemination of information.
  2. The Mission Springs Water District and the Valley Sanitary District should consider developing websites to increase public awareness of their agencies.
  3. Participation in agency elections appears high; no board members ran unopposed in the previous election.

Coachella Valley Agency Profiles

City of Coachella

ADDRESS:	1515 Sixth Street, Coachella, CA 92236				
EMAIL/WEBSITE:	jsantillan@coachella.org, www.coachella.org				
TYPES OF SERVICES:	Water (Coachella Water Authority) and Wastewater (Coachella Sanitary District)				
POPULATION SERVED:	26,700				
SIZE OF SERVICE AREA:	13,172 acres				
FINANCIAL INFORMATION (FY 2002-2003):	Revenues:	Expenses:	Reserves:	CIP	
	$2,200,000	$1,600,000	$3,500,000	$3,000,000	(Water Authority)
	$2,500,000	$2,100,000	$3,500,000	$3,000,000	(Sanitary Ditrict)

WATER

Connections:

Domestic:	3,955
Irrigation:	NP
M&I:	165
Reclaimed:	NP
Other:	NP

Supply (AF):

Wholesale:	NP
State Water Project:	NP
Surface:	NP
Wells:	25.8
Reclaimed:	NP

Water Service Capacity:

Total Capacity (AF):	NP
Total Demand. (AF):	NP
Peak Capacity (mgd):	8.4
Peak Demand (mgd):	4.8
Storage Capacity (mg):	NP

Rates:

Billing Period:	NP

Meter/Service Charge:

Size	Residential	Irrigation	Ind/Com.
5/8"	$ 7.83	$ 7.83	$7.83
¾"	$ 7.83	$ 7.83	$7.83
1'	$ 10.48	$ 10.48	$10.48

Water Rates (HCF):

Residential	Irrigation	Ind/Com
$0.57	$0.57 (treated)	$0.57
$ NP	$0.57 (reclaimed)	$0.57

WASTEWATER

Connections:

Domestic:	5,100
Commercial:	1,300
Industrial:	80
Other:	0

Number of Treatment Plants: One

Total System Size: 59 miles

Miles Gravity Sewer:	NP
Miles Force Main:	NP

Rates:

Billing Period:	Monthly
Flat Rates:	Yes
Tied to Water Usage:	No
Estimated Monthly Bill:	$18.00

Current Capacity	Treatment Level
2.4mgd	Secondary

CIP = capital improvement program
FY = fiscal year
NA = not applicable
NP = information not provided
M & I = manufacturing and industry
HCF = hndrd cubic ft
AF = acre-feet
mgd = million gallons/day

COACHELLA MAP

City of Indio (Indio Water Authority)

ADDRESS:	100 Civic Center Mall, Indio, CA 92201			
EMAIL/WEBSITE:	jcorella@indio.org, www.Indio.org			
TYPES OF SERVICES:	Water only			
POPULATION SERVED:	54,500			
SIZE OF SERVICE AREA:	16,000 acres			
FINANCIAL INFORMATION (FY 2002-2003):	Revenues:	Expenses:	Reserves:	CIP:
	$5,735,385	$5,085,238	$5,076,066	$1,608,765

WATER

Connections:

Domestic:	12,400
Irrigation:	0
M&I:	0
Reclaimed:	0
Other:	0

Supply (AF):

Wholesale:	0
State Water Project:	0
Surface:	0
Wells:	18,000
Reclaimed:	0

Water Service Capacity:

Total Capacity (AF):	20,000
Total Demand. (AF):	18,000
Peak Capacity (mgd):	22
Peak Demand (mgd):	22
Storage Capacity (mg):	0

Rates:

Billing Period: Monthly

Meter/Service Charge: NP

Size	Residential	Irrigation	Ind/Com.
5/8”	$ 7.56	$ 7.56	$7.56
¾”	$ 7.56	$ 7.56	$7.56
1’	$ 11.34	$ 11.34	$11.34

Water Rates (HCF):

Residential	Irrigation	Ind/Com
$0.63	$0.63 (treated)	$0.63

CIP = capital improvement program
FY = fiscal year
NA = not applicable
NP = information not provided
M & I = manufacturing and industry
HCF = hndrd cubic ft
AF = acre-feet
mgd = million gallons/day

CITY OF INDIO MAP

Coachella Valley Water District

ADDRESS:	85-995 Avenue 52, Coachella, CA 92236			
EMAIL/WEBSITE:	srobbins@cvwd.org, www.cvwd.org			
TYPES OF SERVICES:	Water and Wastewater			
POPULATION SERVED:	219,800			
SIZE OF SERVICE AREA:	639,857 acres			
FINANCIAL INFORMATION (FY 2002-2003):	Revenues: $87,119,112	Expenses: $86,076,980	Reserves: $116,307,300	CIP: $469,653,000

WATER

Connections:

Domestic:	81,843
Irrigation:	3,881
M&I:	2,837
Reclaimed:	NP
Other:	1,365

Supply (AF):

Wholesale:	NP
State Water Project:	33,000
Surface:	NP
Wells:	257,000
Reclaimed:	8,100

Water Service Capacity:

Total Capacity (AF):	257,000
Total Demand. (AF):	129,000
Peak Capacity (mgd):	230
Peak Demand (mgd):	200
Storage Capacity (mg):	NP

Rates:

Billing Period:	Monthly

Meter/Service Charge:

Size	Residential	Irrigation	Ind/Com.
5/8”	$ 5	$ 5	$5
¾”	$ 5	$ 5	$5
1’	$ 5	$ 5	$5

Water Rates (HCF):

Residential	Irrigation	Ind/Com
$0.64	$0.64 (treated)	$0.64
$NP	$0.24 (reclaimed)	$0.24

WASTEWATER

Connections: 81,012

Domestic:	NP
Commercial:	NP
Industrial:	NP
Other:	

Total System Size: 104 (miles)

Miles Gravity Sewer:	1,003
Miles Force Main:	37

Rates:

Billing Period:	Monthly
Flat Rates:	yes
Tied to Water Usage:	no
Estimated Monthly Bill:	$18.80

Number of Treatment Plants: 6

Current Capacity	Treatment Level
0.15 mgd	Advanced Secondary
0.03 mgd	Advanced Secondary
2.37 mgd	Advanced Secondary
2.5 mgd	Advanced Secondary
0.4 mgd	Advanced Secondary
18.5 mgd	Advanced Secondary
Total 23.95 mgd	

CIP = capital improvement program
FY = fiscal year
NA = not applicable
NP = information not provided
M & I = manufacturing and industry
HCF = hndrd cubic ft
AF = acre-feet
mgd = million gallons/day

COACHELLA VALLEY MAP

Desert Water Agency

ADDRESS:	1200 South Gene Autry Trail, Palm Springs, CA 92264			
EMAIL/WEBSITE:	NP, www.dwa.org			
TYPES OF SERVICES:	Water and Wastewater			
POPULATION SERVED:	65,119			
SIZE OF SERVICE AREA:	208,000 acres			
FINANCIAL INFORMATION (FY 2002-2003):	Revenues:	Expenses:	Reserves:	CIP:
	$25,486,487	$19,843,332	$50,972,200	$10,851,100

WATER

Connections:

Domestic:	16,792
Irrigation:	0
M&I:	2,622
Reclaimed:	11
Other:	280

Supply (AF):

Wholesale:	
State Water Project:	50,000
Surface:	2,000
Wells:	40,000
Reclaimed:	2,880

Water Service Capacity:

Total Capacity (AF):	85,115
Total Demand. (AF):	42,260
Peak Capacity (mgd):	59.63
Peak Demand (mgd):	67
Storage Capacity (mg):	54.2

Rates:
Billing Period: Monthly

Meter/Service Charge:

Size	Residential	Irrigation	Ind/Com.
5/8”	$ 4.00	$ 4.00	$4.00
¾”	$ NA	$ NP	$ NP
1’	$ 4.50	$ 4.50	$4.50

Water Rates (HCF):

Residential	Irrigation	Ind/Com
$0.68	$0.68 (treated)	$0.68
$ NP	$0.34 (reclaimed)	$ NP

WASTEWATER

Connections: 361

Domestic:	305
Commercial:	56
Industrial:	0
Other:	0

Number of Treatment Plants: 0

Total System Size: 6.68 (miles)

Miles Gravity Sewer:	6.43
Miles Force Main:	0.25

Rates:

Billing Period:	Monthly
Flat Rates:	Yes
Tied to Water Usage:	No
Estimated Monthly Bill:	$20.60/edu

Current Capacity	Treatment Level
NA	NA

CIP = capital improvement program
FY = fiscal year
NA = not applicable
NP = information not provided
M & I = manufacturing and industry
HCF = hndrd cubic ft
AF = acre-feet
mgd = million gallons/day

DESERT WATER AGENCY MAP

Mission Springs Water District

ADDRESS:	66575 Second Street, Desert Hot Springs, CA 92240			
EMAIL/WEBSITE:	bcarr@mswd.org, NA			
TYPES OF SERVICES:	Water and Wastewater			
POPULATION SERVED:	24,252			
SIZE OF SERVICE AREA:	86,400 acres			
FINANCIAL INFORMATION	Revenues:	Expenses:	Reserves:	CIP:
(FY 2002-2003):	$8,902,693	$5,610,101	$11,534,778	$4,770,111

WATER

Connections:

Domestic:	7,842
Irrigation:	92
M&I:	296
Reclaimed:	0
Other:	0

Supply (AF):

Wholesale:	NP
State Water Project:	NP
Surface:	NP
Wells:	8,267
Reclaimed:	NP

Water Service Capacity:

Total Capacity (AF):	20,159
Total Demand. (AF):	5,597
Peak Capacity (mgd):	18.247
Peak Demand (mgd):	9.878
Storage Capacity (mg):	NP

Rates:
Billing Period: Bimonthly

Meter/Service Charge:

Size	Residential	Irrigation	Ind/Com.
5/8”	$ 10	$ 10	$10
¾”	$ 10	$ 10	$10
1’	$ 11.14	$ 11.14	$11.14

Water Rates (HCF):

Residential	Irrigation	Ind/Com
$0.91	$1.22 (treated)	$0.91
$ NP	$ NP (reclaimed)	$ NP

WASTEWATER

Connections:	3,553
Domestic:	3,310
Commercial:	243
Industrial:	NP
Other:	NP
Number of Treatment Plants:	2
Total System Size:	51 (miles)
Miles Gravity Sewer:	50.5
Miles Force Main:	.05

Rates:

Billing Period:	Bi-Monthly
Flat Rates:	Yes
Tied to Water Usage:	No
Estimated Monthly Bill:	$24.41

Current Capacity	Treatment Level
2.5 mgd	Secondary
0.64 mgd	Secondary

CIP = capital improvement program
FY = fiscal year
NA = not applicable
NP = information not provided
M & I = manufacturing and industry
HCF = hndrd cubic ft
AF = acre-feet
mgd = million gallons/day

MISSION SPRINGS MAP

Valley Sanitary District

ADDRESS:	45-500 Van Buren Street, Indio, CA 92201			
EMAIL/WEBSITE:	vsdrex@uia.net, NP			
TYPES OF SERVICES:	Wastewater only			
POPULATION SERVED:	51,400			
SIZE OF SERVICE AREA:	12,870 acres			
FINANCIAL INFORMATION (FY 2002-2003):	Revenues:	Expenses:	Reserves:	CIP:
	$6,691,204	$2,933,510	$417,435	$4,480,840

WASTEWATER

Connections:	21,963
Domestic:	18,158
Commercial:	4,710
Industrial:	1
Other:	NA

Number of Treatment Plants: 1

Total System Size:

Miles Gravity Sewer:	160
Miles Force Main:	0.24

Rates:

Billing Period:	Monthly
Flat Rates:	Yes
Tied to Water Usage:	No
Estimated Monthly Bill:	$12.00

Current Capacity	**Treatment Level**
8.5 mgd	Secondary

CIP = capital improvement program
FY = fiscal year
NA = not applicable
NP = information not provided
M & I = manufacturing and industry
HCF = hndrd cubic ft
AF = acre-feet
mgd = million gallons/day

VALLEY SANITARY MAP