CHAPTER 8

FUTURE AIR QUALITY - DESERT NONATTAINMENT AREAS

INTRODUCTION

The 1990 federal Clean Air Act revised the planning requirements for many areas that have not attained NAAQS. The District has jurisdiction over the South Coast Air Basin and the desert portion of Riverside County in the Salton Sea Air Basin (see Figure 1-1). The Coachella Valley, located in the desert portion of Riverside County, exceeds the federal ozone standard and is classified as a "serious" ozone nonattainment area. The federal Clean Air Act requires that the Coachella Valley:

- identify specific emission reduction goals;
- demonstrate reasonable further progress in VOC emission reductions;
- demonstrate attainment of the federal ozone standard by June 15, 2013; and
- provide contingency measures or actions in the event of a failure to attain or to meet interim milestones.

The Final 2007 AQMP addresses these requirements and satisfies the State Implementation Plan requirements under Title I of the CAA.

On April 18, 2003, U.S. EPA approved the CVSIP, which addressed future year attainment of the PM10 standards and incorporated the latest mobile source emissions model results and planning assumptions. Over the past five years, annual average PM10 concentrations have met the levels of the revoked federal standard (50 $\mu g/m^3$) and peak 24-hour average PM10 concentrations have not exceeded the current federal standard (150 $\mu g/m^3$) and is currently eligible for redesignation as attainment.

STATEMENT OF PROBLEM

There are a number of circumstances that are unique to the Coachella Valley that make it difficult to develop a local control strategy that satisfies CAA requirements. For example, with little in the way of local emissions, and with the significant growth projected, it is difficult to satisfy the reasonable further progress requirements of the CAA. Pollutant transport from the South Coast Air Basin to the Coachella Valley is the primary cause of its ozone nonattainment status. As a result, the District believes that aggressive control of the South Coast Air Basin emissions is an effective strategy to substantially improve air quality in the Coachella Valley. Each of these issues is addressed in further detail below.

Regulatory Requirements

State Implementation Plan requirements under Title I of the CAA depend on the severity of the nonattainment problem. For the Coachella Valley, the CAA requirements for moderate through severe areas must be addressed. Thus, the area is subject to the reasonable further progress requirements of the CAA, as discussed in Chapter 6 for the South Coast Air Basin; these requirements are intended to ensure that each ozone nonattainment area provide for sufficient VOC emission reductions to attain the ozone national ambient air quality standard. The expected population growth for the Coachella Valley is significant; thus the rate-of-progress requirements of the CAA cannot be met unless further local controls are implemented.

The CAA also requires that "serious" ozone nonattainment areas, such as the Coachella Valley, demonstrate attainment of the federal ozone air quality standard by June15, 2013 using a photochemical grid model and modeling techniques. The South Coast Air Basin modeling domain, as shown in Figure 8-1, was expanded to include the Coachella Valley so that this CAA requirement could be addressed. It is clear from available data that federal ozone standard exceedances in the Coachella Valley largely result from pollutant transport from the upwind South Coast Air Basin. Photochemical grid modeling for the Final 2007 AQMP, using the U.S. EPA guidelines and CAMx show that attainment of the ozone standard is possible with the proposed control strategy described in the Final 2007 AQMP for the South Coast Air Basin, and control of locally generated emissions via state and federal regulations. This 2007 Plan carries forward the 1997 AQMP, 1999 AQMP Amendment and 2003 AQMP control approach for the Coachella Valley.

Population Growth

The Coachella Valley is a rapidly growing area, as shown in Table 8-1. By 2020, the population in the Coachella Valley is projected to double. It is clearly more challenging to meet the rate-of-progress requirements of the CAA in such rapidly growing areas.

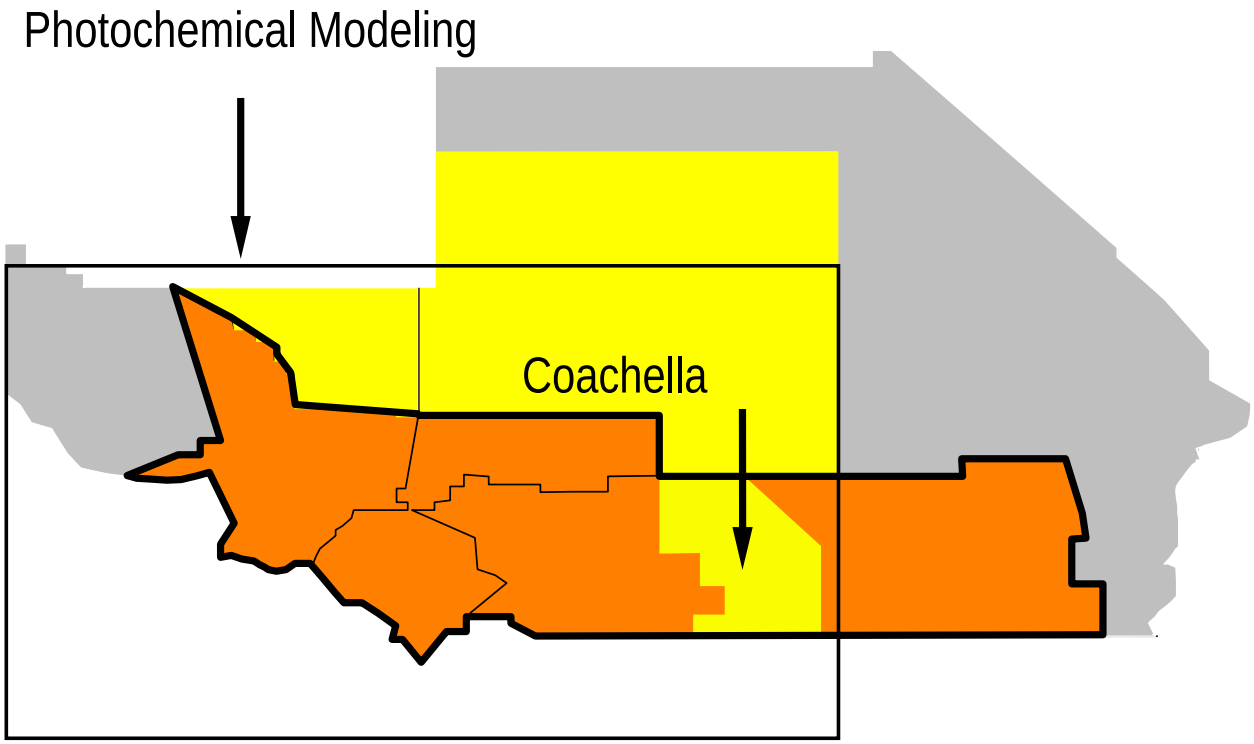

FIGURE 8-1

Modeling Domain

[Note: A New District (Antelope Valley Air Pollution Control District) was formed in September 1996 and was effective on July 1, 1997.]

TABLE 8-1

Historical Population and Population Forecasts

Area	1980	1990	2000	2010	2020
South Coast Air Basin	~10,500,000	13,022,000	14,681,000	16,880,000	18,359,000
Coachella Valley	139,000	267,000	320,892	490,226	619,900

Pollutant Transport

The pollutant transport pathway from the South Coast Air Basin to the Salton Sea Air Basin is through the Banning Pass to the Coachella Valley.[1] The transport pathway to the Coachella Valley is well recognized and has been an intensely studied phenomenon. An experiment to study this transport pathway concluded that the South Coast Air Basin was the source of the observed high oxidant levels in the Coachella Valley.[2] Transport from Anaheim to Palm Springs was directly identified with an inert sulfur hexafluoride tracer release[3]. The most comprehensive study to date of transport from the South Coast Air Basin to the Salton Sea air basin confirmed the transport pathways to the Coachella Valley.[4]

Ozone pollutant transport to the Coachella Valley can be demonstrated by examining ozone exceedance frequencies as a function of distance from the source areas. Figure 8-2 shows the frequency of exceedances of the federal one-hour ozone standard by hour for the period 2002 through 2006. The Coachella Valley transport route is represented in Figure 8-2, starting at Pico Rivera near the source region and passing through Fontana and Banning and finally through Banning Pass to Palm Springs in the Coachella Valley. Note that near the source region exceedances occur most frequently at mid-day (noon to 1:00 p.m.) during the peak of incoming solar radiation and therefore the peak of ozone production. As one goes downwind of the source region, exceedances occur later and later in the day as the ozone cloud is transported downwind. For example, at Palm Springs exceedances occur most frequently at 6:00 p.m. If this peak were locally generated, it would be occurring near mid-day and not in the late afternoon or early evening.

Table 8-2 compares the 2002, 2012 and 2017 emission inventories of the South Coast Air Basin with those for the Coachella Valley. The South Coast Air Basin emissions, upwind of the Coachella Valley, overwhelm the locally-generated emissions. Depending on the pollutant, emissions in the South Coast Air Basin are five (for PM10) to 50 (for SOx) times greater than emissions in the Coachella Valley. It is clear that improved air quality in the Coachella Valley depends on reduced emissions in the South Coast Air Basin. This is illustrated by the trends in ozone air quality described in the following section.

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1 R.W. Keith. 1980. A Climatological Air Quality Profile: California's South Coast Air Basin. Staff Report, South Coast Air Quality Management District.

2 E.K. Kauper. 1971. Coachella Valley Air Quality Study. Final Report, Pollution Res. & Control Corp., Riverside County Contract & U.S. Public Health Service Grant No. 69-A-0610 RI.

3 P.J. Drivas and F.H. Shair . 1974. A Tracer Study of Pollutant Transport in the Los Angeles Area. Atmos. Environ. 8: 1155-1163.

4 T.B. Smith et al. 1983. The Impact of Transport from the South Coast Air Basin on Ozone Levels in the Southeast Desert Air Basin. CARB Research Library Report No. ARB-R-83-183. ARB Contract to MRI/Caltech.

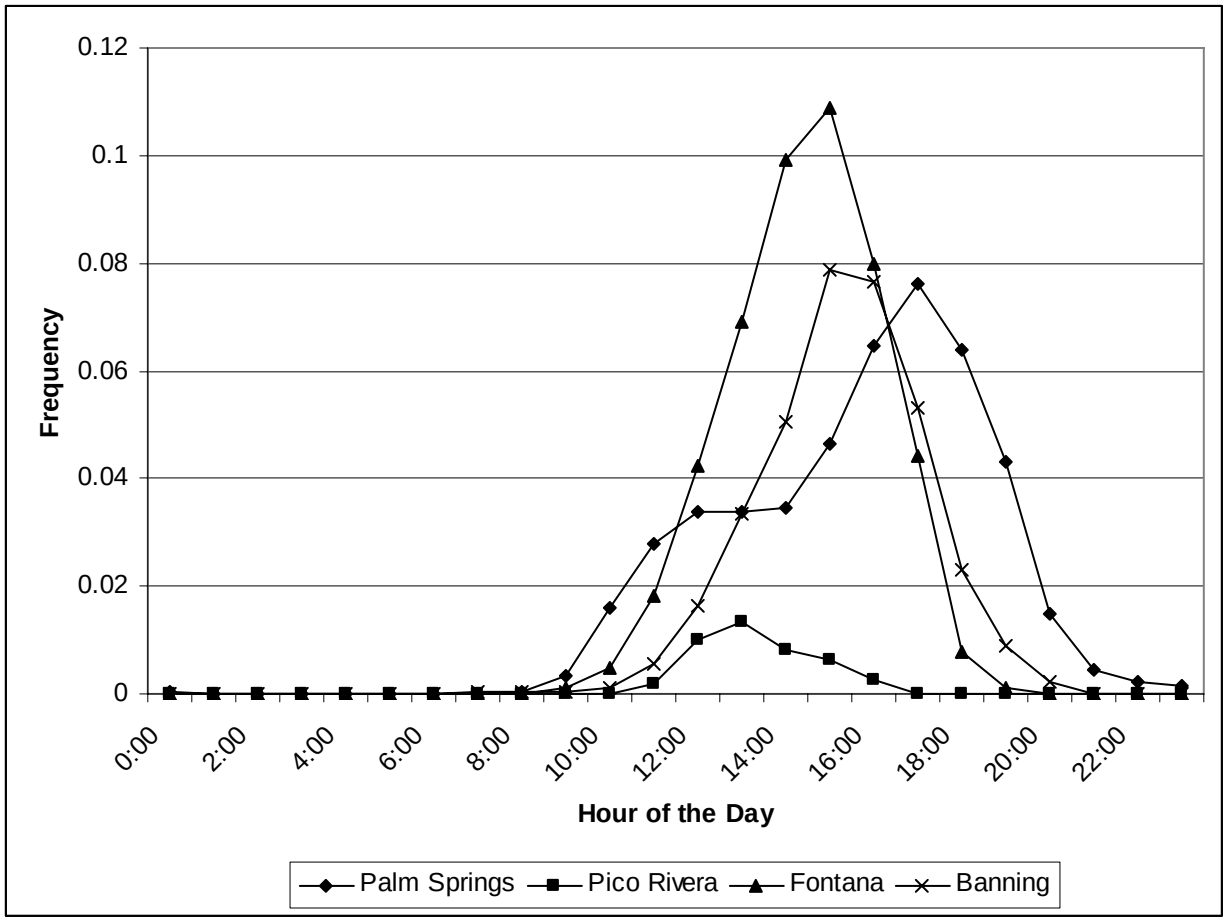

FIGURE 8-2

Frequency of Federal Ozone Exceedances Along the Coachella Valley Transport Route, 2002-2006

TABLE 8-2

Comparison of 2002, 2012 and 2017 Annual Average Emissions

		Emissions (tons/day)		
Year	**Area**	**VOC**	**NOx**	**PM10**
2002	South Coast Air Basin	844	1093	275
	Coachella Valley	21	51	16
2012	South Coast Air Basin	548	712	285
	Coachella Valley	17	35	20
2017	South Coast Air Basin	509	581	294
	Coachella Valley	16	26	22

Trends in Ozone Air Quality

The ozone air quality trends for stations along the Coachella Valley transport route since 1990 are shown in Figure 8-3. The statistic used here to illustrate trends is the average of the 30 highest daily maximum one-hour ozone concentrations in each year, referred to as the "Top 30 Mean." Over this time period, population growth in the Coachella Valley was much greater than that in the South Coast Air Basin, as shown in Table 8-1. Since emissions are directly related to population for many source categories, emissions growth was also greater in the Coachella Valley relative to the South Coast Air Basin. However, the downward trend in the Top 30 Means at Palm Springs parallels the trend of the upwind stations, which are in the South Coast Air Basin. This observation confirms the conclusion that ozone air quality in the Coachella Valley is largely due to transport from the upwind source region of the South Coast Air Basin and that attainment in the valley is only possible with emission reductions in the Basin.

From 1999 through 2006, the trend of the Top 30 Mean levels off in both the Basin and Coachella Valley. Figure 8-4 offers a more focused look at the Top 30 8-hour average ozone trends over the past 5-years from 2002 through 2006. Note that while the fluctuations in the trend are dampened with the 8-hour average concentrations the trends at the four stations along the transport route are consistent. More specifically, the trend of the Top 30 mean 8-hour average ozone concentrations at Banning Airport (located at the mouth of the Coachella Valley) and at Palm Springs are closely matched. The Top 30 mean 8-hour average ozone concentrations at Palm Springs decreases by more than 5 percent from 2002 to 2006 while the trend at Banning Airport decreases by more than 3 percent during the period. The trends at the upwind east-Basin sites are generally mixed.

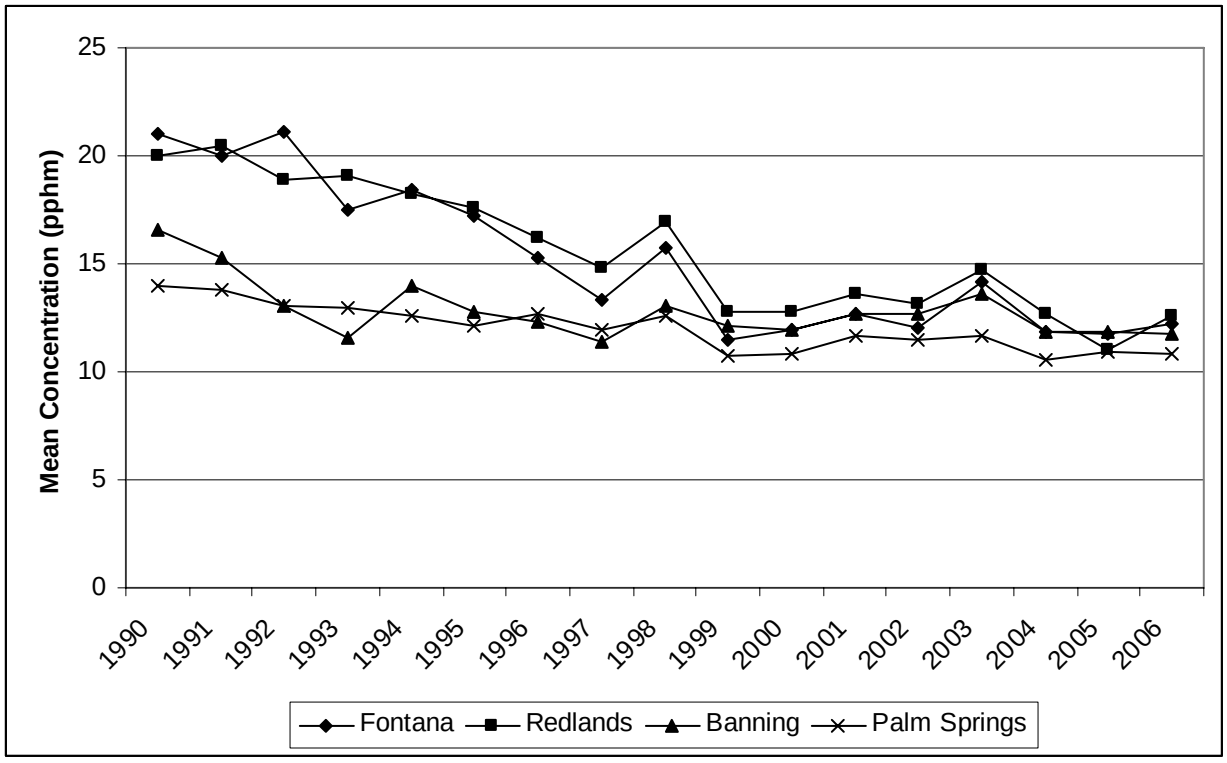

FIGURE 8-3

Mean of the Top 30 Daily Peak 1-Hour Average Ozone Concentrations (1990-2006)
Coachella Valley Transport Route

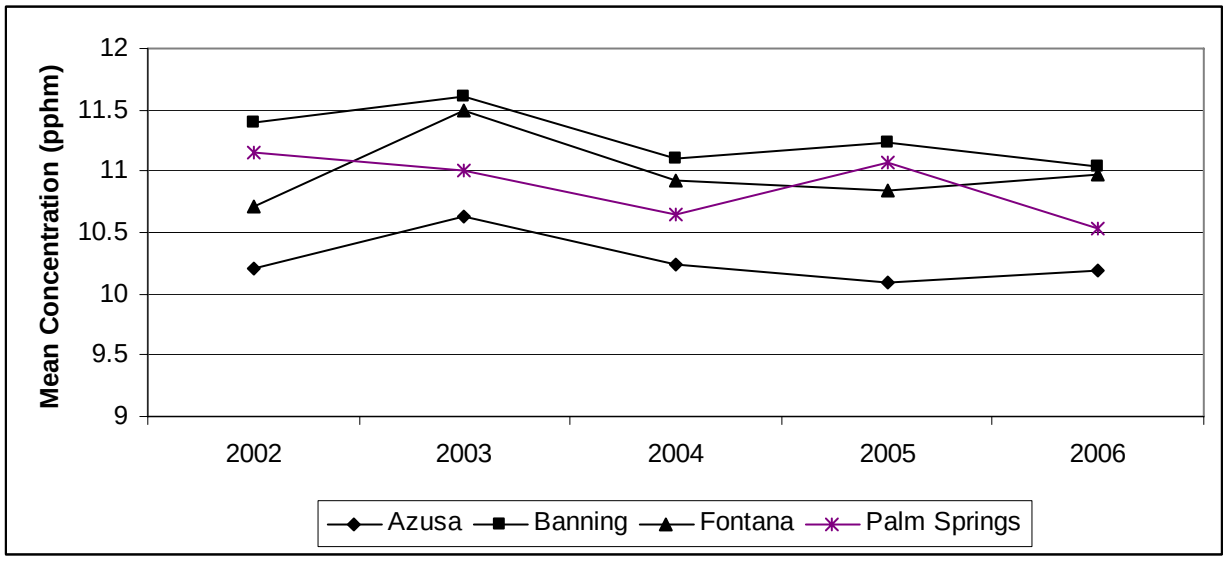

FIGURE 8-4

Recent Years (2003-2006) Mean of the Top 30 Daily Peak 8-Hour Average Ozone Concentrations - Coachella Valley Transport Route

Figure 8-5 depicts the trends of days exceeding the federal 8–hour average ozone concentrations at Palm Springs and several of the upwind Basin stations situated along the Coachella Valley transport route. The number of days exceeding the federal standard increased from 1999 through 2003 at all sites then began to subside through 2006. In the mid 1990's, California Phase II Fuel Reformulation resulted in a significant lowering of the tons of emissions of volatile organic substances and in the reactivity of the fuels. The net impact of the reformulations was regionally lower ozone concentrations however the lower reactivity translated to a delay in the photochemical production of the daily maximum ozone concentration. Under typical wind transport, this amounted to a shift in the ozone maximum concentration (albeit lower in concentration) to the east. With the bulk of the population and hence emissions located in the western Basin, the majority of the impact was noted in the far eastern portion of the Basin and downwind desert areas.

The increase in the number of days above the standard (depicted in Figure 8-5) from the late 1990's continues through 2003, when California Phase III Fuel Reformulation was implemented. The 2003 ozone peak in the trend reflects both and exceedingly favorable meteorological year for ozone generation coupled with the side effects of introducing ethanol as a substitute oxygenate gasoline additive. Commingling of the outgoing fuel using MTBE as an additive and those being introduced with ethanol as the oxygenate lead to enhance evaporative emissions. The increase in evaporative emissions was further enhanced due to the exceedingly warmer temperatures observed that summer. Post 2003, the trend of days exceeding the 8-hour standard has been lowered.

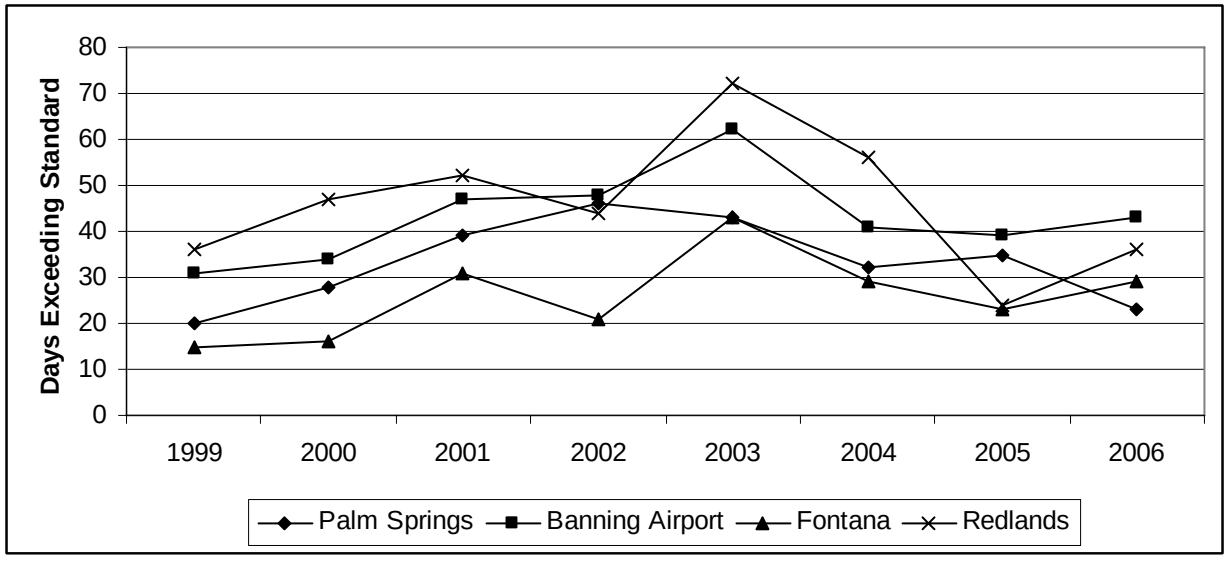

FIGURE 8-5

The Number of Days Exceeding the 8-Hour Average Ozone Federal Ozone Standard Along the Coachella Valley Transport Route

The impact of the trend of air quality, in particular the shift in the ozone maximum due to pollution transport and slower reactivity of the air mass has resulted in an overall increase in the Coachella Valley 8-hour ozone design value over time. (The design values are calculated as three-year averages of the 4th highest 8-hour average concentration). As shown in Figure 8-6 the 2002 Coachella Valley design concentration is 10.5 pphm (105 ppb) and when using a weighted (5-year design centered around 2002) the design increases to 10.6 pphm (106 ppb). Even if a 2006 based design value (based solely on ozone data observed in 2004 through 2006) is considered, the design would be 10.2 pphm (102 ppb). While somewhat lower in 2006, the movement of the Coachella Valley design values upward presents a substantial obstacle for an ozone attainment demonstration, particularly one that clearly relies on emissions reductions being implemented in the upwind South Coast Air Basin.

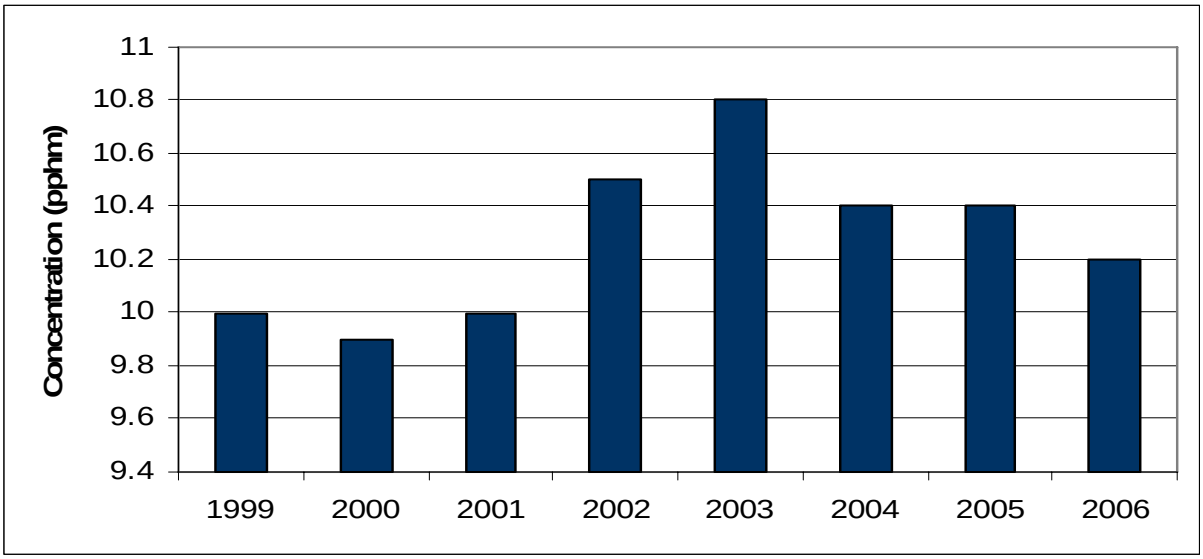

FIGURE 8-6

Trend of the Coachella Valley 8-Hour Average Design Value

ATTAINMENT DEMONSTRATION

Air quality modeling is an integral part of the planning process to achieve clean air. The CAA requires that ozone nonattainment areas designated as serious and above be required to use a regional photochemical model to demonstrate attainment. To meet this requirement, CAMx, is used in the attainment demonstration for Coachella Valley. The CAMx modeling system is described in Chapter 5 and Appendix V. CAMx was run for six meteorological episodes to develop relative response factors (RRFs) to project future

air quality. The 8-hour average ozone design values (based on a 3-year weighted average) for the Coachella Valley air quality stations located in Palm Springs and Indio were 106 and 95 ppb, respectively. Performance evaluations for the meteorological episodes are discussed in Appendix V.

Future-year air quality projections in the Coachella Valleys are presented in detail in Appendix V; the results for 2013 are summarized in the following discussion. In 2012, selected region wide controls are projected to be implemented to reduce emissions beyond the baseline tonnage. Many of the proposed controls will address goods movement and fleet turnover. The controlled 2012 emissions are projected to be lower than the baseline emissions. ("Baseline" assumes no further control beyond existing rules and regulations and "controlled" assumes implementation of the proposed control strategy described in Chapters 4 and 7). The results of the CAMx model simulations and corresponding RRFs using the controlled emissions for 2012 project a maximum 2013 8-hour concentration of 0.088 ppm, approximately four percent above the federal standard. The analysis indicates that additional emissions reductions beyond those stated in Table 8-2 for 2012 will be required to meet the federal standard.

As a consequence, the District will voluntarily request that EPA re-designate the Coachella Valley portion of the Salton Sea Air Basin from "Serious" non-attainment to "Severe-15" and extend the attainment date of the 8-hour ozone standard to 2019. CAMx simulations of the ozone episodes using the 2017 controlled emissions indicate that the federal 8-hour standard will be attained in the Coachella Valley by 2018, (one year prior to the newly requested attainment date). The implications for stationary sources are discussed in Chapter 12.

REASONABLE FURTHER PROGRESS

The CAA requires SIPs for most nonattainment areas to demonstrate reasonable further progress (RFP) toward attainment through emission reductions phased in from the time of the SIP submission out to the attainment date. The reasonable further progress requirements in the CAA are intended to ensure that each ozone nonattainment area provide for sufficient precursor emission reductions to attain the ozone national ambient air quality standard. Specifically, Section 182(b)(1)(A) requires that each moderate or above area provide for VOC reductions of at least 15 percent from baseline emissions within six years from the baseline year (i.e., 2002). Furthermore, Section 182(c)(2)(B) requires that serious and above areas provide VOC and/or NOx reductions of an additional 3 percent per year starting at the end of the baseline year and out to their attainment year. The U.S. EPA in its Phase 2 rule specified that areas which have already completed and received approval for their 15 percent VOC Rate of Progress (ROP) for the 1-hour ozone standard will not be required to do another 15 percent VOC-only reduction plan for the 8-hour ozone standard. However, unlike for the South Coast

Air Basin, the Coachella Valley portion of the Salton Sea Air Basin does not have an approved 15 percent VOC Rate of Progress (ROP) plan for the 1-hour ozone standard and the District must show an RFP plan using the 15 percent VOC-only reduction from 2002 to 2008 (the first milestone year). Thereafter, from 2002 to 2008, the District must show a 15% VOC-only reduction and then provide for VOC and/or NOx reductions of 3 percent per year from the 2002 baseline year averaged over each consecutive three-year period beginning in 2008 until the Basin's attainment date (i.e., June 2018). Table 8-3 shows the percent emission reductions for both VOC and NOx emissions necessary to meet the 15 percent VOC-only and 3 percent requirement. Tables 8-4A and 8-4B summarizes the RFP calculations for VOC and NOx, respectively. Figures 8-7A and 8-7B depicts the target level and projected baseline RFP demonstration for VOC and NOx, respectively.

As mentioned a number of times in this chapter, poor ozone air quality in the Coachella Valley is primarily due to transport of ozone and its precursors from the upwind source region of the South Coast Air Basin and attainment in Coachella Valley is only possible with substantial emission reductions in the Basin. With this in mind, the proposed control strategy consists of two components: 1) an aggressive control strategy for VOC and NOx emission sources in the South Coast Air Basin; and 2) control of locally generated emissions via proposed control measures implemented by state and federal actions.

As shown by Tables 8-4A and 8-4B, the milestone years are 2008, 2011, 2014, 2017, and 2018. For each of the milestone years the District is unable to show that the required progress is met on the basis of reductions from the existing control program using a combination of VOC and NOx reductions from the Coachella Valley portion of the Salton Sea Air Basin alone. As a result, upwind area (i.e., South Coast Air Basin) emissions which contribute to the ozone exceedances in the Coachella Valley are included in the RFP calculation. This procedure is permitted by U.S. EPA guidance. No reductions from the proposed control measures in the Plan are needed for progress purposes.

TABLE 8-3

Percent VOC and NOx Reductions from the 2002 Baseline to meet RFP Requirements

Milestone Year	VOC	NOx*	CAA**
2008	15.0	0.0	15.0
2011	24.0	0.0	24.0
2014	28.0	5.0	33.0
2017	30.0	12.0	42.0
2018	30.0	15.0	45.0

* The percent NOx reduction needed to meet CAA percentage reduction targets
** The percent VOC and NOx reductions must equal the CAA percent reduction requirements listed here.

TABLE 8-4A

Summary of Reasonable Further Progress Calculations for the Coachella Valley - VOC

ROW	CALCULATION STEP [a]	2008	2011	2014	2017	2018
1	2002 Base Year Emissions [b]	379.3	379.3	379.3	379.3	379.3
2	Required Reduction (%) [c]	15%	24%	33%	42%	45%
3	Emission Reductions Needed [d]	56.9	91.0	125.2	159.3	170.7
4	Target Level [e]	322.4	288.3	254.1	220.0	208.6
5	Projected Baseline [f, g]	299.9	282.0	271.4	265.9	265.0
6	Percent Reduction Achieved (%) [h]	21%	26%	28%	30%	30%
7	Percent VOC Shortfall (%) [i]	0%	0%	5%	12%	15%
8	Percent VOC Shortfall Previously Provided by NOx Substitution (%) [j]	0%	0%	0%	5%	12%
9	Actual Percent VOC Shortfall Provided by NOx Substitution (%) [k]	0%	0%	5%	7%	3%

[a] Units are in tons per day (summer) unless otherwise noted; [b] Contains only anthropogenic emissions from Coachella Valley and upwind areas (provided by CARB); [c] 15% VOC in 2008 and 3% per year thereafter (total VOC reductions from 2002 baseline year); [d] [(Row 1) x (Row 2)]/100;[e] (Row 1) – (Row 3); [f] Projected baseline emissions provided by CARB taking into account existing rules and projected growth.; [g] The projected baseline in Tables 8-4A includes the motor vehicle emissions depicted in Table 8-5 showing that the motor vehicle emissions are below the RFP targets; [h] [(1-(Row 5)/(Row 1))] x 100; [i] (Row 2) – (Row 6); [j] Percentage of VOC emissions from previous milestone year subject to NOx substitution, which can be carried over to following year in order to reduce the actual VOC substitution required; [k] (Row 7) – (Row 8)

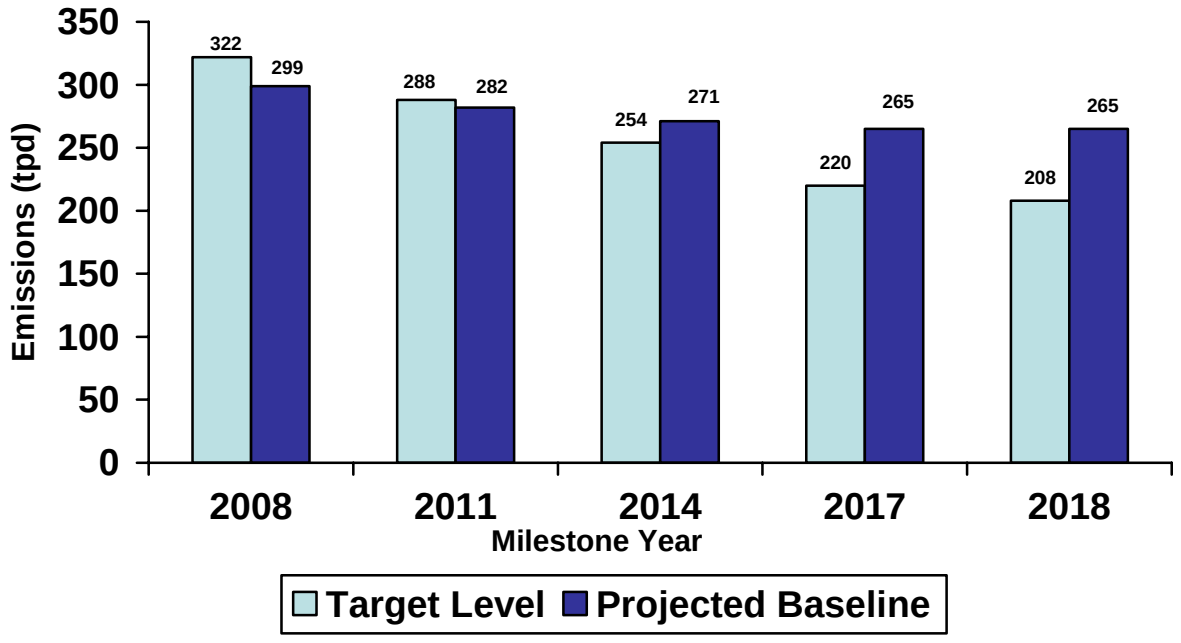

FIGURE 8-7A

Reasonable Further Progress – VOC

TABLE 8-4B

Summary of Reasonable Further Progress Calculations for the Coachella Valley - NOx

ROW	CALCULATION STEP [a]	2008	2011	2014	2017	2018
1	2002 Base Year Emissions [b]	1159.3	1159.3	1159.3	1159.3	1159.3
2	Actual Percent VOC Shortfall Provided by NOx Substitution (%)	0%	0%	5%	7%	3%
3	Additional 3% Reduction Needed for Contingency Measures (%) [c]	3%	3%	3%	3%	3%
4	Previous Year NOx Reductions (%) [d]	0%	3%	3%	8%	15%
5	Total Percent NOx Reductions Needed (%) [e]	3%	3%	8%	15%	18%
6	Emission Reductions Needed [f]	34.8	34.8	92.7	173.9	208.7
7	Target Level [g]	1124.2	1124.5	1066.6	985.4	950.6
8	Projected Baseline [h]	917.2	794.6	697.2	618.1	597.4
9	Percent Reduction Achieved (%) [i]	21%	31%	40%	47%	48%

[a] Units are in tons per day (summer) unless otherwise noted; [b] Contains only anthropogenic emissions from Coachella Valley and upwind areas (provided by CARB); [c] Additional reductions representing 1 years worth of CAA RFP reductions used to backstop contingency measure implementation; [d] Represents NOx reductions unavailable from previous milestone years; [e] (Row 2) + (Row 4), for year 2008: (Row 2) + (Row 4) + 3% contingency carryover; [f] [(Row 1) x (Row 5)]/100; [g] (Row 1) – (Row 6); [h] Projected baseline emissions provided by CARB taking into account existing rules and projected growth, the projected baseline in Tables 8-4B includes the motor vehicle emissions depicted in Table 8-5 showing that the motor vehicle emissions are below the RFP targets; [i] [(1-(Row 8)/(Row 1)) x 100]

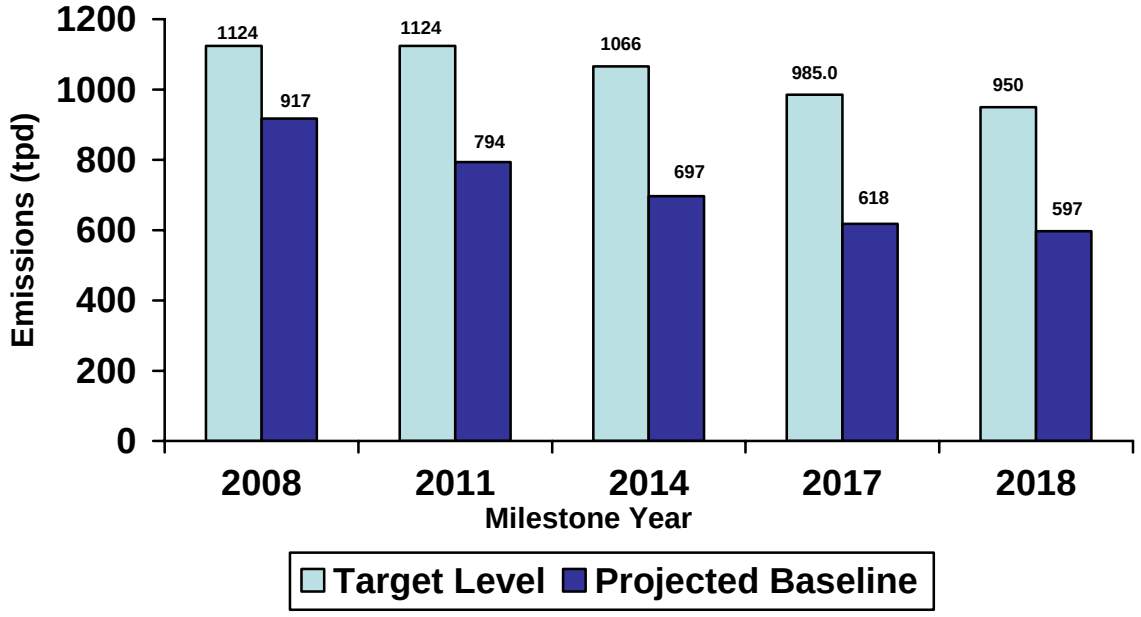

FIGURE 8-7B

Reasonable Further Progress – NOx

TRANSPORTATION CONFORMITY BUDGETS

The 2007 AQMP sets forth the strategy for achieving the federal 8-hour ozone, for the Coachella Valley Planning Area. For on-road mobile sources, Section 176(c) of the CAA requires that transportation plans and programs do not cause or contribute to any new violation of a standard, increase the frequency or severity of any existing violation, or delay the timely attainment of the air quality standards. Therefore, on-road mobile sources must "conform" to the attainment demonstration contained in the SIP.

U.S. EPA's transportation conformity rule, found in 40 CFR parts 51 and 93, details the requirements for establishing motor vehicle emissions budgets in SIPs for the purpose of ensuring the conformity of transportation plans and programs with the SIP attainment demonstration. The on-road motor vehicle emissions budgets act as a "ceiling" for future on-road mobile source emissions. Exceedances of the budget indicate an inconsistency with the SIP, and could jeopardize the flow of federal funds for transportation improvements in the region. As required by the CAA, a comparison of regional on-road mobile source emissions to these budgets will occur during the periodic updates of regional transportation plans and programs.

The on-road motor vehicle emissions estimates for the Final 2007 AQMP were analyzed using EMFAC2007 for estimating on-road mobile source emissions in conjunction with the most recent motor vehicle activity data from SCAG. The ozone emissions budgets for VOC and NOx are derived from the summer planning inventory and the reductions from defined new measures in the 2007 SIP. These budgets reflect existing control programs and new commitments for technology and transportation control measures.

This approach is consistent with U.S. EPA's transportation conformity rule, which provides that if emissions budgets rely on new control measures, these measures should be specified in the SIP and the emissions reductions from each control measure should be quantified and supported by agency commitments for adoption and implementation schedules. Moreover, the rule provides that conformity analyses by transportation agencies may not take credit for measures which have not been implemented unless the measures are "projects, programs, or activities" in the SIP supported by written implementation commitments by the responsible agencies (62 FR 43780, 40 CFR 93, subpart A).

The emissions budgets for 8-hour ozone are shown in Table 8-5 and are provided for the milestone years 2008, 2011, 2014, 2017, and 2018. Since transportation analyses are needed beyond the attainment dates, the carrying capacities for ozone attainment demonstration also serve as the budgets for future years (e.g., 2030 for ozone). Ozone precursor emissions from motor vehicles are projected to continue declining through these extended periods. The District is retaining the 1-hour ozone on-road budgets because of the recent ruling on the 1-hour standard, and are shown in Table 8-6 for year

2007. However, EPA has sought reconsideration of this ruling, and if reconsideration is granted, EPA will not require maintaining a 1-hour ozone budget area and it has been replaced by an 8-hour ozone budget.

Under section 182(d)(1)(A) of the CAA, regions classified as "Severe" or above must demonstrate that the emissions from motor vehicles decline each year through their attainment year (i.e., 2018). Table 8-7 shows the annual decline in motor vehicle emissions out to 2018.

TABLE 8-5

Motor Vehicle Emissions Budgets: 8-hour Ozone
(Summer Planning - Tons Per Day)*

		2008	**2011**	**2014**	**2017**	**2018**
VOC	Baseline Inventory**	8.4	7.1	6.1	5.3	5.1
	New Defined Mobile Source Measures***	0.1	1.0	1.2	1.1	1.0
	Mobile Source Emissions Budgets**	**9**	**7**	**5**	**5**	**5**
		2008	**2011**	**2014**	**2017**	**2018**
NOx	Baseline Inventory	43.8	35.0	26.7	20.8	19.4
	New Defined Mobile Source Measures***	0.6	6.9	10.3	7.2	6.5
	Mobile Source Emissions Budgets**	**44**	**29**	**17**	**14**	**13**

* 2018 budget is applicable to all future years beyond 2018.
**The baseline inventory for 2017 has been adjusted to reflect changes to the SCAG transportation demand model made subsequent to SCAG's submission of model activity data to the District in April 2006
*** Based on CARB's Proposed State Strategy for California's 2007 SIP and the District staff's proposed measures affecting on-road mobile categories (w/o long-term strategies)
**** Rounded up to the nearest ton. These budgets account for an area previously outside the transportation modeling boundary but within the Coachella portion of the Salton Sea Air Basin non attainment area. These emissions are in a downwind, mostly uninhabited, mountainous area and do not effect the attainment demonstration for the nonattainment area.

TABLE 8-6

Motor Vehicle Emissions Budgets: 1 Hour Ozone
(Summer Planning - Tons Per Day)*

		2007
VOC	Baseline Inventory	8.9
	New Defined Mobile Source Measures**	0.0
	Mobile Source Emissions* **	**9**

		2007
NOx	Baseline Inventory	45.8
	New Defined Mobile Source Measures**	0.0
	Mobile Source Emissions* **	**46**

* 2007 budget is applicable to all future years beyond 2007.
** Based on CARB's Proposed State Strategy for California's 2007 SIP and the District staff's proposed measures affecting on-road mobile categories (w/o long-term strategies)
*** Rounded up to the nearest ton. These budgets account for an area previously outside the transportation modeling boundary but within the Coachella portion of the Salton Sea Air Basin non attainment area. These emissions are in a downwind, mostly uninhabited, mountainous area and do not effect the attainment demonstration for the nonattainment area.

TABLE 8-7

Motor Vehicle Emissions
(Summer Planning - Tons Per Day)*

Year	Baseline		Remaining	
	VOC	NOx	VOC	NOx
2002	**10**	**41**	**10**	**41**
2003	10	42	10	42
2004	10	43	10	43
2005	**10**	**44**	**10**	**44**
2006	9	41	9	41
2007	**8**	**38**	**8**	**38**
2008	**8**	**36**	**8**	**36**
2009	8	34	7	31
2010	7	31	6	27
2011	**7**	**29**	**6**	**22**
2012	**6**	**26**	**5**	**18**
2013	6	24	5	15
2014	**6**	**22**	**4**	**12**
2015	5	20	4	11
2016	5	19	4	11
2017	**5**	**17**	**4**	**10**
2018	5	16	4	9

* Values shown in bold are results from model runs, while others are derived from interpolation.

CONCLUSIONS

District will voluntarily request that EPA re-designate the Coachella Valley portion of the Salton Sea Air Basin from "Serious" non-attainment to "Severe-15" and extend the attainment date of the 8-hour ozone standard to 2019. The District's proposed control strategy includes two components: a strategy for the South Coast Air Basin as described in Chapter 4 and control of locally generated emissions in the Coachella Valley via regulations at the state and federal level. CAMx simulations of the ozone episodes using the 2017 controlled emissions indicate that the federal 8-hour standard will be attained in the Coachella Valley by 2018.