BOARD MEETING DATE: May 3, 2019 AGENDA NO. 27

PROPOSAL: Informational Briefing on Reclassification of Coachella Valley for 1997 8-Hour Ozone Standard

SYNOPSIS: The Coachella Valley is classified as a Severe nonattainment area for the 1997 8-hour ozone standard, with an attainment date of June 15, 2019. Although the air quality in the Coachella Valley area has steadily improved over the years, higher ozone levels were experienced throughout the State of California, including Coachella Valley in 2017 and 2018, resulting in levels greater than the 1997 8-hour ozone standard. The ozone levels in Coachella Valley are impacted by pollutants directly transported from the South Coast Air Basin. As a result, additional time will be needed to bring the Coachella Valley into attainment of this standard. This item provides an informational summary of the Coachella Valley attainment status for the 1997 8-hour ozone standard and a recommendation for attainment reclassification, with proposed action scheduled for the June Board meeting.

COMMITTEE: No Committee Review

RECOMMENDED ACTION:
This is an informational item. Action will be requested at the June Board meeting.

Wayne Nastri
Executive Officer

PF:SR:ZP:KTG

Background

The Coachella Valley Planning Area is defined as the desert portion of Riverside County in the Salton Sea Air Basin, and is under the jurisdiction of the South Coast AQMD. The Coachella Valley is the most populated area in this desert region, which encompasses several communities, including Palm Springs, Desert Hot Springs, Cathedral City, Rancho Mirage, Palm Desert, Indian Wells, La Quinta, Indio, Coachella, Thermal, and Mecca.

In 1979, the U.S. EPA established primary and secondary national ambient air quality standards (NAAQS or standards) for ozone at 0.12 parts per million (ppm) averaged over a 1-hour period[1]. On July 18, 1997, the U.S. EPA revised the primary and secondary standards for ozone to 0.08 ppm, averaged over an 8-hour period (1997 8-hour ozone standards). The 1997 8-hour ozone standard was lowered to 0.075 ppm in 2008, and to 0.070 ppm in 2015. The U.S. EPA classifies areas of ozone nonattainment (i.e., Extreme, Severe, Serious, Moderate or Marginal) based on the extent to which an area exceeds the standard. The higher the exceedance level, the more time is allowed to demonstrate attainment in recognition of the greater challenge involved. However, nonattainment areas with the higher classifications are also subject to more stringent requirements.

The Coachella Valley is currently classified as a Severe nonattainment area for the 1997 8-hour ozone NAAQS of 0.08 ppm, with an attainment date of June 15, 2019. The Coachella Valley is downwind of the South Coast Air Basin and its ozone levels are impacted by pollutants directly transported from the South Coast Air Basin as well as pollutants formed secondarily through photochemical reactions from precursors emitted upwind, with limited impact from local sources. Over the past fifteen years, the ozone levels in the Coachella Valley have steadily decreased largely due to the implementation of emission control measures by the South Coast AQMD and CARB. Design values[2] for the 8-hour ozone standard have declined from 0.108 ppm in 2003 to 0.088 ppm in 2015 and continued to decline to 0.087 ppm in 2016. However, in 2017 and 2018, higher ozone levels were experienced throughout the State of California due to warm and stagnant weather conditions. As a result, the design values in the Coachella Valley increased to 0.088 ppm and 0.091 ppm in 2017 and 2018, respectively. Because of the higher ozone experienced in 2017 and 2018, the Coachella Valley cannot practically attain the 1997 8-hour ozone standard by the attainment deadline of June 15, 2019.

Under the Clean Air Act, states and local agencies are able to voluntarily request that U.S. EPA reclassify a nonattainment area to a higher classification of nonattainment. The U.S. EPA is required to approve such a request. This “bump-up” request can provide additional time for the area to reach attainment, as the new classification will have a later attainment date. However, the area would be subject to the additional requirements of the new classification. For a reclassification of the Coachella Valley to Extreme, the new attainment date would be June 15, 2024.

[1] U.S. EPA revoked the 1-hour ozone standard entirely in 2005. However, U.S. EPA regulations require the continuation of certain control measures in areas that were formerly in nonattainment for the 1-hour standard.

[2] A design value is a statistic that describes the air quality status of a given area relative to the level and form of the NAAQS. For the 8-hour ozone standard, the design value is a 3-year average and takes into account the form of the short-term standard (i.e., 99th percentile).

The U.S. EPA will make a finding of failure to attain the 1997 8-hour ozone standard for Coachella Valley by December 2019 unless South Coast AQMD submits a voluntary request for a reclassification to Extreme and that request is approved by the U.S. EPA. If the South Coast AQMD does not request the bump up, the Coachella Valley would fail to attain the standard, and the South Coast AQMD would then have to adopt a rule requiring all major stationary sources to pay a non-attainment fee. Under either a finding of failure to attain or a reclassification request, the major source threshold will be lowered from 25 tons per year to 10 tons per year (tpy) of NOx and VOC emissions with additional requirements under Title V and New Source Review (NSR) programs. Also, a revision to the State Implementation Plan (SIP) will be required which will include any additional measures that may reasonably be prescribed to attain the standard.

Given that additional time is needed to bring the Coachella Valley into attainment of the 1997 8-hour ozone standard, staff is recommending submittal of a formal request to U.S. EPA to reclassify the Coachella Valley from Severe-15 to Extreme nonattainment, with a new attainment date of June 15, 2024. The reclassification ensures that the Coachella Valley will be given the needed extension to make attainment feasible, and prevent the imposition of the non-attainment fees on major stationary sources that must be adopted after a finding of failure to attain. Following a finding of failure to attain, the South Coast AQMD must adopt a rule requiring major stationary sources to pay a fee of over $10,000 per ton for any emissions exceeding 80% of their emissions in the attainment year (2019). This action will necessitate the development of a new Extreme area SIP, including an attainment demonstration with a new deadline as early as practicable but no later than June 15, 2024. The Extreme nonattainment area SIP will necessarily continue to rely on emission reductions in the South Coast Air Basin, upwind of Coachella Valley. The reclassification will require South Coast AQMD rule amendments to lower the major stationary source threshold for NOx and VOC from the 25 tpy to 10 tpy within 12 months after the reclassification is approved by U.S. EPA. Stationary sources in Coachella Valley with a potential to emit between 10 and 25 tpy of NOx and VOC would be subject to the applicable requirements for major stationary sources in Title V permitting and NSR programs. Based on staff analysis, only a few existing facilities in Coachella Valley may be potentially subject to these new requirements. Moreover, under the Clean Air Act, the South Coast AQMD would be required to lower the major source threshold even if we do not request a “bump up” but instead are subject to a finding of failure to attain.

Considering the overall downward ozone trends in recent years, notwithstanding 2017 and 2018, Coachella Valley is anticipated to attain the standard under an Extreme nonattainment classification earlier than the new attainment deadline of June 15, 2024. Therefore, apart from uncertainties in meteorology, the amount of emission reductions required for attainment in Coachella Valley is not as great compared to what is required upwind in the South Coast Air Basin. Existing regulations that are already implemented

or will fully be implemented in the next few years will continue to reduce emissions in future years. The reduced baseline emissions are expected to be sufficient to demonstrate attainment as early as practicable but no later than June 15, 2024.

More details on this issue are provided in the Preliminary Draft Staff Report in Attachment A.

Public Process

Staff is providing this informational update prior to the South Coast AQMD Board's consideration for approval of the reclassification request at its June 7, 2019 meeting. Public outreach is being conducted to notify interested parties regarding the Coachella Valley reclassification request for the 1997 8-hour Ozone standard. Notifications including newspaper postings, mass mailings, and email notifications are being sent to all permitted facilities and interested parties in Coachella Valley. Additionally, staff scheduled two public consultation meetings for Wednesday, May 1, 2019 in Coachella Valley with representatives from the public, local communities, environmental groups, and local governments. Written comments on the reclassification request for Coachella Valley and associated staff report will be accepted until May 15, 2019. Response to the comments received will be incorporated into the final staff report.

Resource Impacts

Reclassification of the Coachella Valley will necessitate development of a SIP update within 12 months of U.S. EPA's approval of the bump-up request. In addition, minor updates to South Coast AQMD rules will be required to change the major source threshold to 10 tpy of VOC and NOx. These updates will be implemented with South Coast AQMD's existing resources.

Attachments

A. Preliminary Draft Staff Report - Request for Reclassification of Coachella Valley for the 1997 8-Hour Ozone Standard
B. Board Meeting Presentation

ATTACHMENT A

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Preliminary Draft Staff Report

Request for Reclassification of Coachella Valley for the 1997 8-Hour Ozone Standard

April 17, 2019

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SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

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Executive Summary

The Coachella Valley is classified as a Severe-15 nonattainment area for the 1997 8-hour ozone national ambient air quality standard (NAAQS) of 0.08 ppm, with an attainment date of June 15, 2019. Over the past 15 years, the air quality in the Coachella Valley has steadily improved because of the implementation of emission control measures by South Coast AQMD and California Air Resources Board (CARB). Ozone levels in the Coachella Valley are impacted by pollutants directly transported from the South Coast Air Basin as well as pollutants formed secondarily through photochemical reactions from precursors emitted upwind. Local sources therefore have limited impact on the Coachella Valley's ozone levels. Design values for the 8-hour ozone standard have declined from 0.108 ppm in 2003 to 0.087 ppm in 2016. However, in 2017 and 2018, higher ozone levels were experienced throughout the State of California due to changes in meteorology, biogenic emissions, and/or anthropogenic emissions. For example, 2017 and 2018 summers were particularly warm and stagnant throughout the West. As a result of the higher ozone experienced in 2017 and 2018, the Coachella Valley cannot practically attain the 1997 8-hour ozone standard by the attainment deadline of June 15, 2019. The inability to attain the standard is largely due to weather conditions that are impacting not only the Coachella Valley and the South Coast Air Basin, but the entire State of California and Western United States.

Under the Clean Air Act, states and local agencies are able to voluntarily request that U.S. EPA reclassify a nonattainment area to a higher classification of nonattainment. This "bump-up" request can provide additional time for the area to reach attainment, as the new classification will have a later attainment date. However, the area would be subject to the additional requirements of the new classification.

The U.S. EPA will make a finding of failure to attain the 1997 8-hour ozone standard for Coachella Valley by December 2019 unless South Coast AQMD submits a voluntary request for a reclassification to Extreme and that request is approved by the U.S. EPA. If the South Coast AQMD does not request the bump-up, the Coachella Valley would fail to attain the standard, and the South Coast AQMD would then have to adopt a rule requiring all major stationary sources to pay a nonattainment fee. In either case, the major source threshold will be lowered from 25 tons per year to 10 tons per year of NOx and VOC emissions with additional requirements under Title V and New Source Review (NSR) programs. Finally, a revision to the State Implementation Plan (SIP) will likely be required which will include additional measures that may reasonably be prescribed to attain the standard.

Given that additional time is needed to bring the Coachella Valley into attainment of the 1997 8-hour ozone standard, staff is recommending to submit a formal request to U.S. EPA to reclassify the Coachella Valley from Severe-15 to Extreme nonattainment, with a new attainment date of June 15, 2024. The reclassification ensures that the Coachella Valley will be given the needed extension of the attainment date to make attainment feasible, and prevent the imposition of the nonattainment fee imposed on major stationary sources. This action will necessitate the development of a new Extreme area SIP, including an attainment demonstration with a new deadline as early as practicable but no later than June 15, 2024. The Extreme nonattainment area SIP will necessarily continue to rely on emission reductions in the South Coast Air Basin, upwind of Coachella Valley. Furthermore, the reclassification will require South Coast AQMD rule amendments to lower the major stationary source threshold for NOx and VOC from the 25 tpy to 10 tpy within 12 months after the reclassification is approved by U.S. EPA. Stationary sources in Coachella Valley with a potential to emit between 10 and 25 tpy of NOx and VOC would be subject to the

applicable requirements for major stationary sources in Title V permitting and NSR Programs. Based on staff's analyses, only a few existing facilities in Coachella Valley may be potentially impacted by these new requirements. Although the reclassification request may potentially impose additional requirements on these facilities, it will ensure that the Coachella Valley is given the needed extension of the attainment date to make attainment feasible. Moreover, the change in the major source threshold must be implemented even if reclassification is not requested and U.S. EPA makes a finding of nonattainment.

1. Introduction

The Coachella Valley Planning Area is defined as the desert portion of Riverside County in the Salton Sea Air Basin, and is under the jurisdiction of the South Coast Air Quality Management District (South Coast AQMD or District). The Coachella Valley is the most populated area in this desert region, which encompasses several communities, including Palm Springs, Desert Hot Springs, Cathedral City, Rancho Mirage, Palm Desert, Indian Wells, La Quinta, Indio, Coachella, Thermal, and Mecca. Figure 1-1 provides a map of the area and the surrounding topography.

The Coachella Valley Planning Area is located downwind of the South Coast Air Basin, which is also under the jurisdiction of South Coast AQMD. The topography and climate of Southern California combine to make the South Coast Air Basin an area of high air pollution potential. Ozone levels in the Coachella Valley Planning Area are impacted by pollutants directly transported from the South Coast Air Basin as well as pollutants formed secondarily through photochemical reactions from precursors emitted upwind with limited impact from local emission sources. While local emissions controls benefit Coachella Valley air quality, the area must rely on emissions controls being implemented upwind to demonstrate improved air quality and attainment of the federal ozone standard.

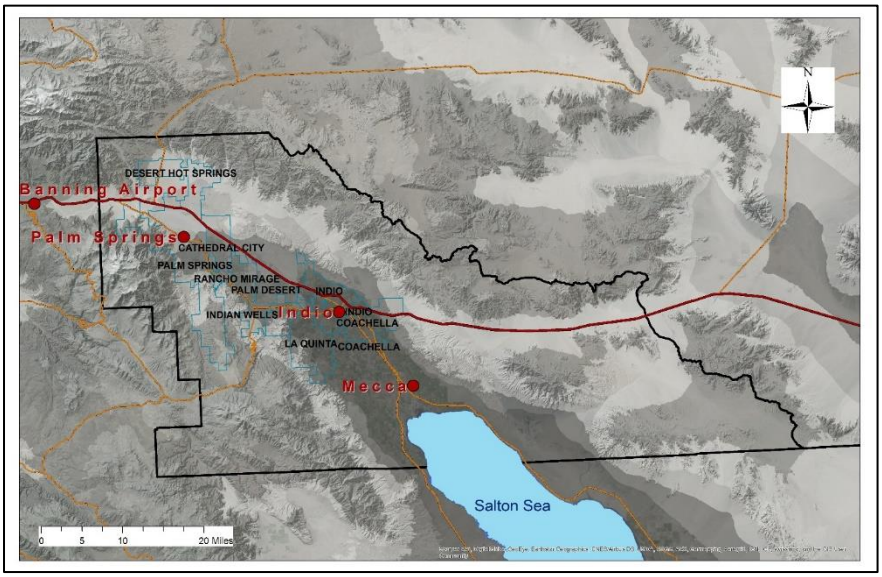


FIGURE 1-1
LOCATION AND TOPOGRAPHY OF THE COACHELLA VALLEY PLANNING AREA

Attainment Status of Coachella Valley for Ozone National Ambient Air Quality Standards

In 1979, the U.S. EPA established primary and secondary national ambient air quality standards (NAAQS or standards) for ozone at 0.12 parts per million (ppm) averaged over a 1-hour period[1]. On July 18, 1997,

[1] U.S. EPA revoked the 1-hour ozone standard entirely in 2005. However, U.S. EPA regulations require the continuation of certain control measures in areas that were formerly in nonattainment for the 1-hour standard.

the U.S. EPA revised the primary and secondary standards for ozone to 0.08 ppm, averaged over an 8-hour period ("1997 8-hour ozone standards"). The 1997 8-hour ozone standard was lowered to 0.075 ppm in 2008, and to 0.070 ppm in 2015. The U.S. EPA classifies areas of ozone nonattainment (i.e., Extreme, Severe, Serious, Moderate or Marginal) based on the extent to which an area exceeds the standard. The higher the current exceedance level, the more time is allowed to demonstrate attainment in recognition of the greater challenge involved. However, nonattainment areas with higher classifications are also subject to more stringent requirements.

The Coachella Valley is designated by U.S. EPA as a nonattainment area for the 2015 8-hour ozone standard of 0.070 ppm, the 2008 8-hour ozone standard of 0.075 ppm, and for the 1997 8-hour ozone standard of 0.08 ppm. For the three 8-hour ozone federal standards, the Coachella Valley is classified as a Severe-15 or Severe ozone nonattainment area, indicating that the area has 15 years from the nonattainment designation date to attain the standard. The Coachella Valley is already in attainment of the revoked federal standard for 1-hr ozone. Table 1 summarizes the attainment date and the attainment status for each of the federal ozone air quality standard for Coachella Valley.

TABLE 1-1

ATTAINMENT STATUS OF THE FEDERAL OZONE AIR QUALITY STANDARDS OF THE COACHELLA VALLEY PLANNING AREA

Criteria Pollutant	Averaging Time	Designation	Attainment Date
Ozone (O_3)	(1979) 1-Hour (0.12 ppm)	Attainment	11/15/2007 (attained 12/31/2013)
	(1997) 8-Hour (0.08 ppm)	Nonattainment (Severe-15)	6/15/2019
	(2008) 8-Hour (0.075 ppm)	Nonattainment (Severe-15)	7/20/2027
	(2015) 8-Hour (0.070 ppm)	Nonattainment (Severe)	8/3/2033

In contrast, the South Coast Air Basin is classified as an Extreme nonattainment area for all three 8-hour ozone standards because of even higher ozone levels, and has 20 years to attain each standard from the effective date of the final designation. For the 1997 and 2008 8-hour ozone standards, the attainment dates for the South Coast Air Basin are June 15, 2024 and July 20, 2032, respectively.

History of Air Quality Planning for the 1997 8-Hour Ozone Standards in Coachella Valley

The federal Clean Air Act (CAA or Act) requires nonattainment areas to develop and implement an emission reduction plan that will bring the area into attainment in a timely manner by the statutory deadline. This plan and the underlying technical analyses are integrated into Air Quality Management Plans (AQMPs or Plans) for the region. The South Coast AQMD, with contributions from and collaborations with the California Air Resources Board (CARB) and Southern California Association of Governments (SCAG), has developed several comprehensive AQMPs since the mid 1990s to address updates to air quality standards and attainment deadlines.

The following SIP submittals addressed the CAA planning requirements for attaining the 1997 8-hour ozone standard for the Coachella Valley:

1. "Final 2007 Air Quality Management Plan," South Coast Air Quality Management District, June 2007 (2007 AQMP); and "2007 State Strategy for the California State Implementation Plan," September, 2007 (2007 State Strategy);

   The 2007 AQMP addressed attainment of the 1997 ozone standard for both the South Coast Air Basin and Coachella Valley including the following components:

   - Emissions estimates, reasonable further progress (RFP) demonstrations, and motor vehicle emission budgets in Chapter 8;
   - Detailed base and future emission inventories in Appendix III;
   - Modeling for the attainment demonstration in Chapters 5 and 8, and Appendix V;
   - Control strategy in Chapters 4 and 7; and
   - Reasonably Available Control Measures (RACM) discussion in Chapter 6 and Appendix VI.

   The 2007 State Strategy, as amended by the 2009 State Strategy Status Report[2] and 2011 State Strategy Progress Report[3], provided a RACM demonstration for mobile sources (Chapter 3, Chapter 5, Appendix A, etc.). Appendix F of the 2011 State Strategy Progress Report provided revised control measure commitments and a revised rule implementation schedule for the 2007 AQMP.

   Based on the 2007 AQMP and the 2007 State Strategy, the Coachella Valley was projected to attain the 1997 8-hour ozone standard (0.08 ppm) by 2018.

2. "Proposed Updates to the 1997 8-Hour Ozone Standard, State Implementation Plans; Coachella Valley and Western Mojave Desert," CARB, October, 2014 (2014 SIP Update).

   The 2014 SIP Update, which covered both the Coachella Valley and Western Mojave Desert 1997 8-hour ozone nonattainment areas, reflected the new U.S. EPA guidance[4] for the RFP demonstration and updated emission inventories. The 2014 SIP Update included updated emissions inventories, reasonable further progress (RFP) demonstration, vehicle miles travelled (VMT) offset demonstration, motor vehicle emissions budgets and revision to the attainment

[2] "Status Report on the State Strategy for California's 2007 State Implementation Plan (SIP) and Proposed Revision to the SIP Reflecting Implementation of the 2007 State Strategy," CARB, Release Date: March 24, 2009 (2009 State Strategy Status Report).

[3] "Progress Report on Implementation of PM2.5 State Implementation Plans (SIP) for the South Coast and San Joaquin Valley Air Basins and Proposed SIP Revisions," CARB, Release Date March 29, 2011 (2011 State Strategy Progress Report).

[4] Since the submission of the 2007 AQMP, U.S. EPA determined it was no longer appropriate to include emissions from sources outside the nonattainment area in the RFP demonstration and revised its RFP policy to limit emission reductions to sources within the nonattainment area.

targets for NOx and VOC emissions. The 2014 Update demonstrated that the adopted regulations would provide the emission reductions necessary to achieve attainment of the 0.08 ppm 8-hour ozone standard in the Coachella Valley by the attainment date and meet RFP requirements in the milestone years. Finally, the 2014 SIP Update (and 2007 AQMP) contained contingency measures to be implemented in the event the area fails to meet an RFP milestone or fails to attain by the applicable date.

While the 2007 AQMP and the 2014 SIP Update addressed and satisfied the CAA planning requirements for the Coachella Valley, the 2012 AQMP provided the projections of future ozone levels based on the updated emissions inventories and modeling efforts for informational purposes. With the latest emissions and modeling projections provided in the 2012 AQMP, staff confirmed that the strategy towards attainment of the federal ozone standards in the Coachella Valley remained effective.

The 2016 AQMP outlined the strategy to attain the 2008 8-hour ozone standard (0.075 ppm) for the Coachella Valley Planning Area, and discussed the attainment status towards the 1997 8-hour ozone standard (0.08 ppm). The 2016 AQMP evaluated the number of days exceeding the 1997 standard at the highest Coachella Valley monitoring station from 1990 through 2015. The ozone levels showed progressive improvement, from 18 exceedance days in 2012 base year to only 6 days in 2015. The 8-hour ozone standard is based on the 99th percentile highest value, which is the fourth highest value each year. As such, staff expected that Coachella Valley would attain the 1997 ozone standard by the end of 2018, corroborating the ozone SIP attainment demonstration in the 2007 AQMP and the CARB 2014 SIP Update.

Current Attainment Status for the 1997 8-Hour Ozone Standard in Coachella Valley Planning Area

The Coachella Valley is downwind from the South Coast Air Basin (Basin), and is directly impacted by the air quality in the Basin. Implementation of the South Coast AQMD and the CARB emissions control measures over the past several decades have resulted in demonstrable progress in reducing ozone levels in the Basin. As a result, air quality in the Coachella Valley has also steadily improved, as demonstrated by the ambient air quality data. Design values[5] for the 8-hour ozone standard declined from 0.108 ppm in 2003 to 0.088 ppm in 2015 and continued to decline to 0.087 ppm in 2016, as presented in the 2016 AQMP. However, in 2017 and 2018, the State of California experienced a series of high ozone episodes due to unexpected changes in meteorology including warm and stagnant weather conditions, biogenic emissions, and/or anthropogenic emissions. As a result, the design values in 2017 and 2018 were higher than the previous years and increased to 0.088 ppm and 0.091 ppm respectively, (more detailed discussion in Chapter 2), indicating that additional time is needed to meet the standard.

As discussed previously, Coachella Valley is a Severe-15 nonattainment area for the 1997 8-hour ozone standard, with an attainment deadline of June 15, 2019. Because the attainment date is mid-year, the demonstration of attainment must take place by the previous calendar year, which is 2018. Within six months after the applicable attainment date, U.S. EPA is required to make a determination as to whether the area attained the standard by that date. If U.S. EPA determines that a nonattainment area has failed

[5] A design value is a statistic that describes the air quality status of a given area relative to the level and form of the NAAQS. For the 8-hour ozone standard, the design value is a 3-year average and takes into account the form of the short-term standard (i.e., 99th percentile).

to attain the air quality standard by the applicable attainment date, the consequences for failure to attain are listed under CAA section 179(d) and CAA section 181 (b)(4), and are summarized below:

- All major stationary sources are required to pay a nonattainment fee (about $10,000 per ton of VOC and NOx emissions per year) beginning the year after the attainment deadline;
- The threshold for both major sources and major stationary sources will be lowered from 25 tons per year to 10 tons per year for VOC and NOx;
- A revision to the State Implementation Plan within 1 year of U.S. EPA's notice of failure to attain;[6] and
- The State Implementation Plan revision should meet the requirements of CAA section 110 and section 172, and include additional measures that may reasonably be prescribed for a nonattainment area.

Under CAA Subpart 2, section 182(a)(5), the U.S. EPA allows for a one year extension of the attainment date, if no more than one exceedance of the 1997 standard has occurred in the area in the preceding year. The standard was exceeded on four days in 2016, 15 days in 2017, and 13 days in 2018. This increase in exceedance days was not unique to the Coachella Valley. Similar increases in ozone concentrations occurred in the South Coast Air Basin and throughout California. Since more than one exceedance of the standard occurred in Coachella Valley, the one year attainment date extension is not available. Furthermore, based on the air quality trends in the Coachella Valley, a one year extension would not be a suitable amount of time to practically bring the Coachella Valley into attainment.

On the other hand, under Subpart 2, section 181(b)(2) of the CAA, the U.S. EPA may reclassify a nonattainment area to a higher classification if the area cannot practicably attain the NAAQS by the attainment date and the area voluntarily requests reclassification. Given that additional time is needed to bring the Coachella Valley into attainment of the 1997 8-hour ozone standard, staff is recommending that the South Coast AQMD formally request the U.S. EPA to reclassify the Coachella Valley as an Extreme nonattainment area for the 1997 8-hour ozone standard. This reclassification will provide an extension of the attainment date to make attainment feasible. Upon reclassification, the new attainment deadline for the Extreme nonattainment status will be June 19, 2024.

This document outlines the action to request reclassification to an Extreme nonattainment area for the 1997 8-hour ozone standard in Coachella Valley. Chapter 2 of this document presents the air quality trends. Chapter 3 describes the voluntary reclassification request with potential implications for major stationary sources. The staff recommendation is presented in Chapter 4.

[6] U.S. EPA staff has indicated that for the finding of failure to attain, a SIP revision is not required since the 1997 8-hour ozone standard has been revoked; however, this remains unclear because of uncertainties related to revoked standards

2. *Air Quality Trends*

The South Coast AQMD currently monitors Coachella Valley ozone concentrations at Indio and Palm Springs. The Palm Springs air monitoring station is located closer to the San Gorgonio Pass (also known as the Banning Pass), predominantly downwind of the densely populated South Coast Air Basin. The Indio station is located further east in the Coachella Valley, on the predominant downwind side of the main population areas of the Coachella Valley. Both of these sites routinely measure ozone, particulate matter with a diameter less than 10 micron (PM10), particulate matter with a diameter less than 2.5 micron (PM2.5), sulfates (from PM10), and several meteorological parameters. The Palm Springs station also measures carbon monoxide, and nitrogen dioxide. This chapter summarizes recent and historic ozone air pollution data collected in the Coachella Valley.

Factors that Influence Ozone Concentrations

Ozone (O3) is not emitted directly into the atmosphere; near-surface ozone, in contrast to stratospheric ozone, is formed by the reaction of volatile organic compounds (VOCs) with oxides of nitrogen (NOx) in the presence of sunlight. Figure 2-1 illustrates the processes influencing ozone concentrations in the Coachella Valley. NOx is generated from combustion processes whereas VOCs are emitted from a wide variety of sources such as consumer products, mobile sources, and vegetation. Wildfires generate both NOx and VOCs. However, the chemical reactions that form ozone are highly complex and depend not only on NOx and VOC levels, but also on the ratio of VOC to NOx concentrations, temperature, the amount of sunlight, and other meteorological conditions. NOx emissions can even reduce ozone concentrations in the immediate vicinity of an emission source, but will contribute to ozone formation downwind.

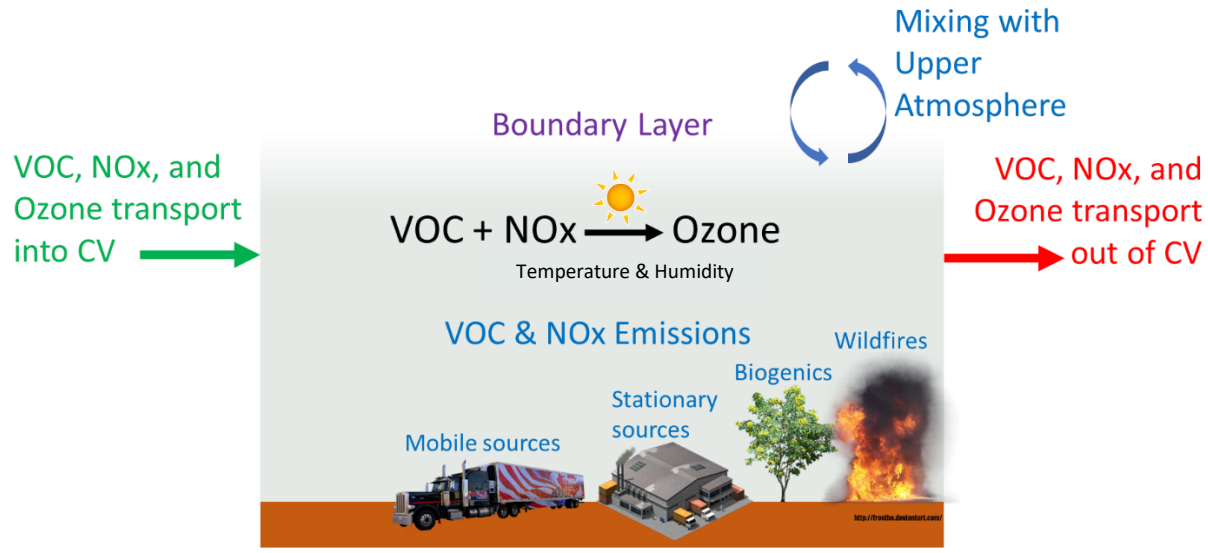


FIGURE 2-1
SCHEMATIC OF PROCESSES INFLUENCING OZONE CONCENTRATIONS IN THE COACHELLA VALLEY.

Atmospheric ozone in the Coachella Valley is both directly transported from the Basin and formed photochemically from precursors emitted upwind and within the Coachella Valley. The precursors are emitted in the greatest quantity in the coastal and central Los Angeles County areas of the South Coast

Air Basin (Basin). The Basin's prevailing sea breeze causes polluted air to be transported inland. As the air is being transported inland, ozone is formed, with peak concentrations occurring in the inland valleys of the Basin, extending from eastern San Fernando Valley through the San Gabriel Valley into the Riverside-San Bernardino area and the adjacent mountains. As the air is transported further inland into the Coachella Valley through the San Gorgonio Pass, ozone concentrations typically decrease due to dilution, although ozone standards can still be exceeded wind speed and wind direction further influence ozone concentrations throughout the Coachella Valley.

Ozone concentrations are also heavily dependent on meteorological conditions. Concentrations in the Coachella Valley, and the number of days exceeding the federal ozone standards, are greatest in the late spring and summer months, with no exceedances during the winter. Ozone concentrations are a strong function of season for several reasons. The rate of reactions that produce ozone in the atmosphere proceeds faster at higher temperatures. In addition, elevated temperatures lead to increased ozone precursor concentrations by hastening the evaporation into the air of VOCs. Ozone concentrations are also dependent on sunlight intensity, which is stronger during the summer months. The stability of the atmosphere also influences ozone concentrations. Strong inversions inhibit mixing with the upper atmosphere, leading to elevated concentrations at the surface.

Ozone Monitoring Data

Several metrics are used to quantify progress towards attaining the ozone standards in the Coachella Valley. The number of days exceeding the 1997 8-hour ozone standard anywhere in the Coachella Valley is a basic, yet useful tool for assessing progress. This metric has decreased markedly over the past few decades. However, year-to-year variabilities are evident throughout the historical record. Figure 2-2 shows the trend in Coachella Valley ozone exceedance days for the 1979 1-hour standard and the 1997 8-hour standard. Note that the Coachella Valley attained the 1-hour standard in 2013.

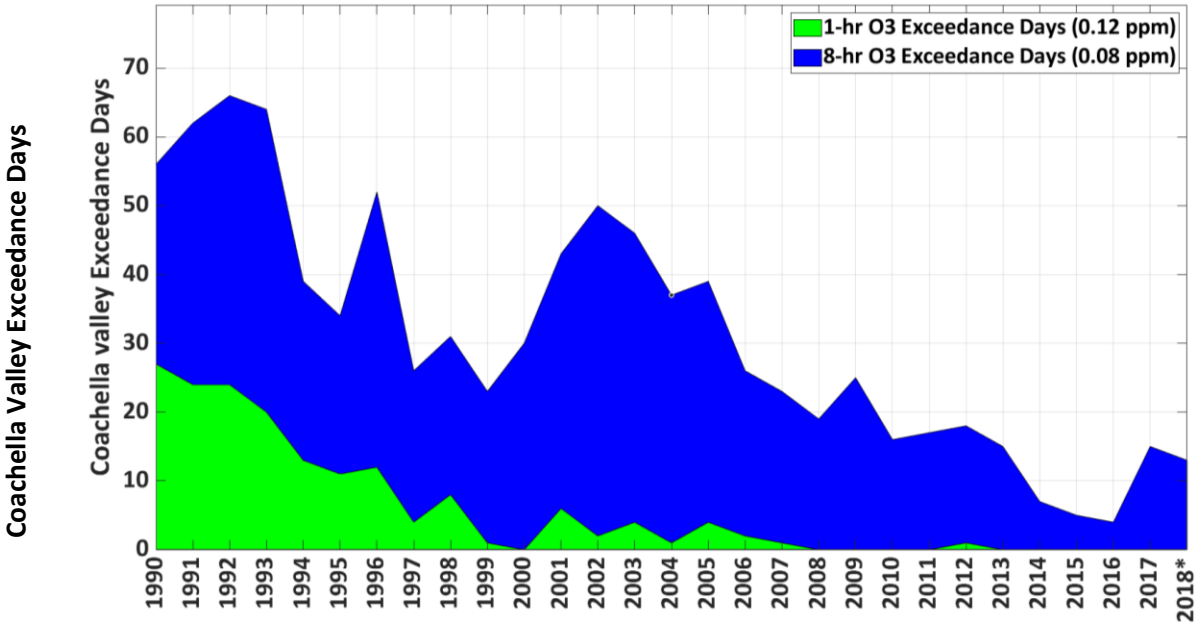


FIGURE 2-2: TRENDS IN OZONE EXCEEDANCE DAYS IN THE COACHELLA VALLEY, 1990–2018 *(*2018 DATA IS PRELIMINARY AND SUBJECT TO CHANGE)*The Coachella Valley exceeded the 1997 standard on four days in 2016, 15 days in

2017, and 13 days in 2018. This increase in exceedance days was not unique to the area. Similar increases in ozone concentrations occurred in the South Coast Air Basin. Figure 2-3 shows the trend in ozone exceedance days in both the South Coast Air Basin and the Coachella Valley.

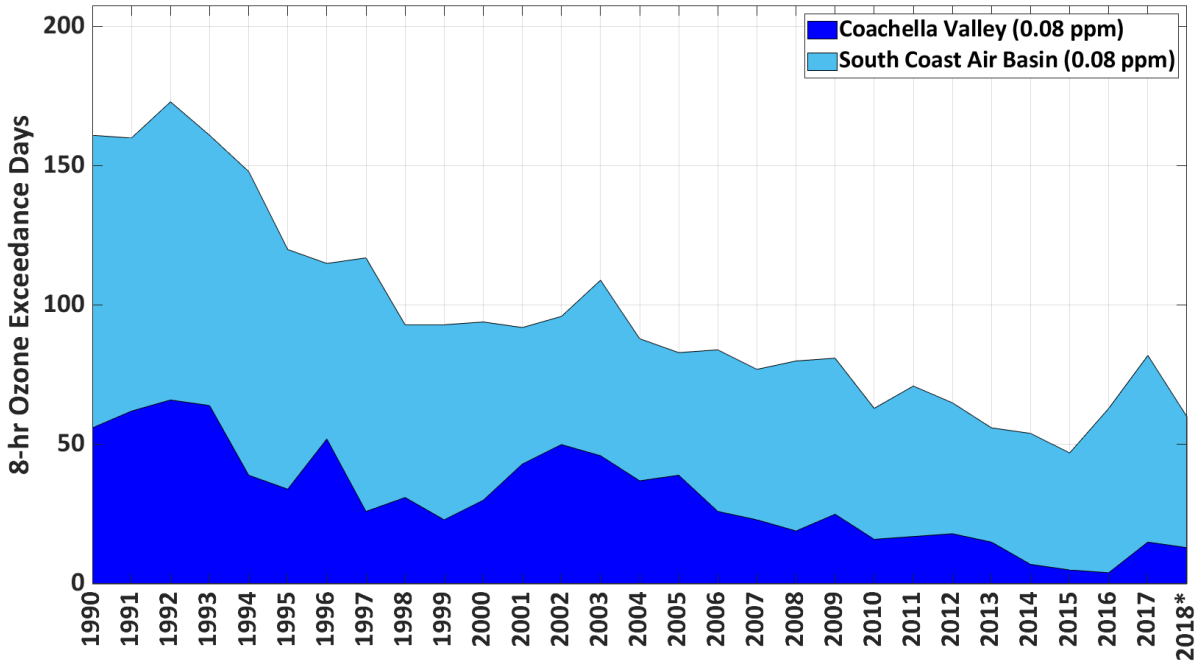


FIGURE 2-3: TRENDS IN OZONE EXCEEDANCE DAYS IN THE COACHELLA VALLEY AND THE SOUTH COAST AIR BASIN, 1990–2018 *(*2018 DATA IS PRELIMINARY AND SUBJECT TO CHANGE)*

The similarity in the trends in ozone exceedances seen in Figure 2-3 are not unexpected due to typical transport patterns of ozone precursors and ozone from the South Coast Air Basin to the Coachella Valley. In addition, while there are differences in meteorological conditions between the two areas, regional meteorological trends influence conditions in both areas.

The Clean Air Act requires attainment of the ozone standard at the most ozone polluted monitoring station, which for the case of the Coachella Valley, is in Palm Springs. The 8-hour ozone design value is based on the 99th percentile highest value (4th highest daily maximum of 8-hour-average concentrations) in a year, averaged over a three year period. Therefore the 4th highest 8-hour daily max value is a useful metric to assess yearly progress towards attainment of the standard. Figure 2-4 details the 8-hour daily maximum ozone concentrations at the Palm Springs and Indio monitoring stations during the ozone season[7] for 2016, 2017, and 2018, which are the three years considered for ozone attainment by the 2019 deadline. The four highest values each year are indicated with filled circles, with the fourth highest value further notated with a black "X".

[7] The ozone season is defined as May 1 – September 30 by the U.S. EPA.

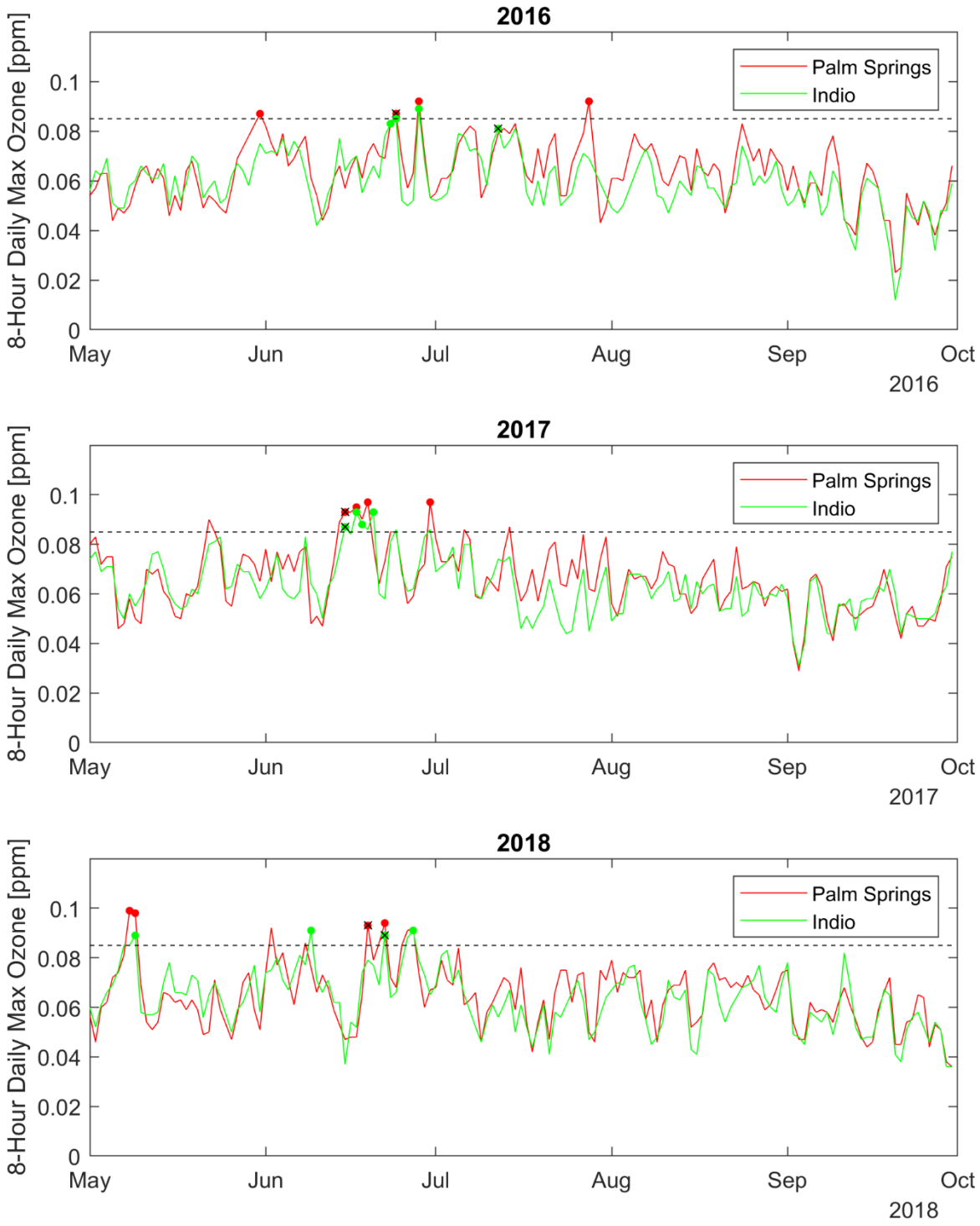


FIGURE 2-4: OZONE MONITORING DATA IN COACHELLA VALLEY FROM 2016-2018. FILLED CIRCLES INDICATE THE FOURTH HIGHEST VALUES IN A YEAR. A BLACK "X" INDICATES THE FOURTH HIGHEST VALUE. THE 1997 8-HOUR OZONE STANDARD IS SHOWN WITH A HORIZONTAL DASHED LINE.

The four highest ozone concentrations in 2016 occurred in four separate episodes. It is possible that the high values recorded on June 23rd and June 27th were influenced by the San Gabriel Complex Fire in Duarte, CA. It is also possible, but less likely, that the high value recorded on July 27th was influenced by the Sand Fire, burning east of the Santa Clarita Valley in northern Los Angeles County. A single multi-day ozone episode in 2017 is responsible for generating three of the four highest values recorded that year. It is possible, but unlikely due to the distances involved that high values recorded on June 17th and June 18th were influenced by emissions from the Lake Fire, which burned near Castaic Lake. The Mart Fire north of Highland may have influenced the elevated ozone concentrations measured on June 29th, 2017.

The U.S. EPA's Exceptional Events Rule allows air authorities to exclude monitoring data in calculating design values if the data was influenced by an event that is not reasonably controllable nor preventable. There must also be a clear causal relationship between the exceedance and the event. Under the Exceptional Events Rule, ozone exceedances caused by wildfires may be approved to be excluded by the U.S. EPA upon successful demonstration by states or local air districts. While there are some exceedances that may be smoke-influenced due to the presence of satellite-detected smoke and/or an active smoke advisory, even if the U.S. EPA approved all of these as exceptional events, the Coachella Valley would still fail to attain the 1997 8-Hour ozone standard.

The increase in ozone concentrations seen in 2017 in the Coachella Valley and the South Coast Air Basin were also seen throughout California (Figure 2-5) and the Western United States (Figure 2-6).

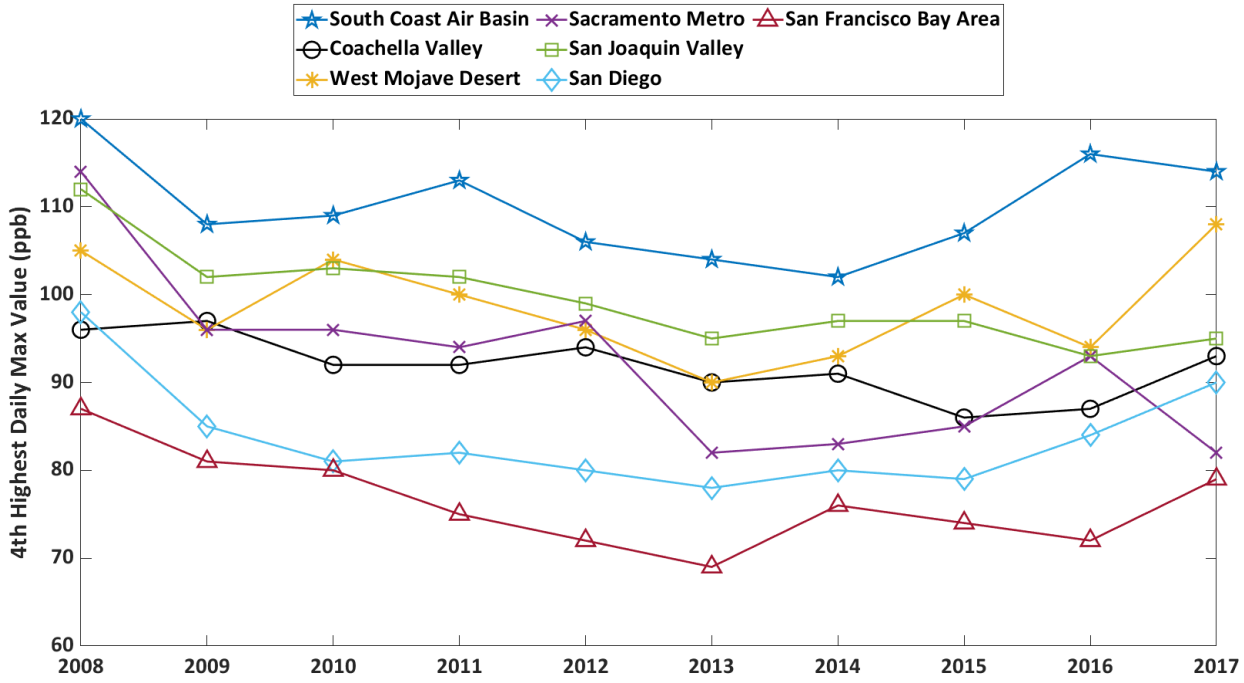


FIGURE 2-5: FOURTH HIGHEST DAILY MAXIMUM OZONE VALUES IN SEVERAL NEARBY CALIFORNIA AIR BASINS FROM 2008 TO 2017. 2018 DATA FOR AIR BASINS OUTSIDE OF THE SOUTH COAST AQMD JURISDICTION IS NOT YET AVAILABLE.

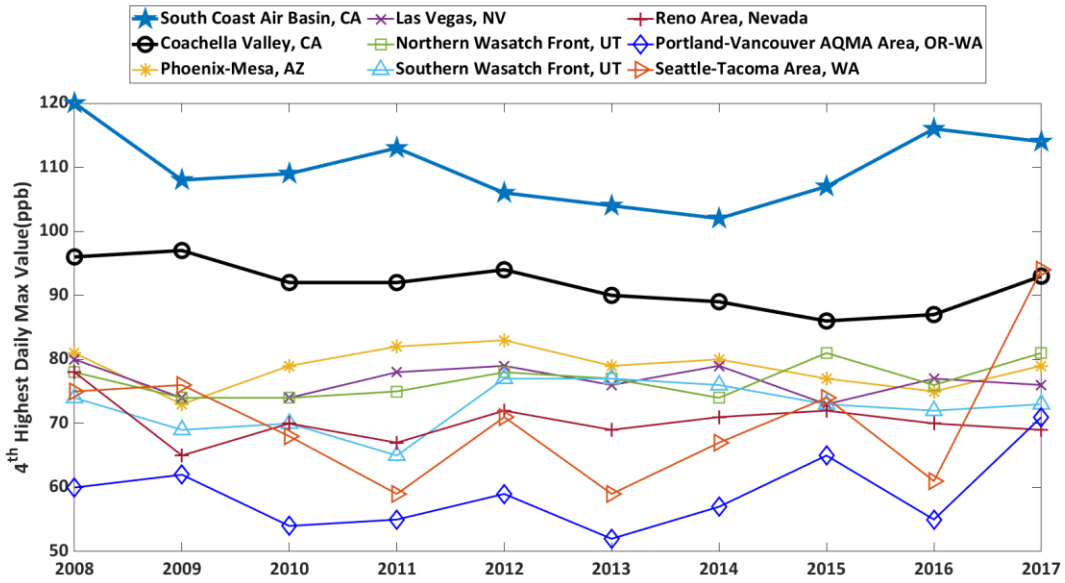


FIGURE 2-6: FOURTH HIGHEST 8-HOUR DAILY MAXIMUM OZONE VALUES AT THE MOST POLLUTED MONITORING SITE IN SEVERAL DESIGNATED AREAS IN WESTERN STATES FROM 2008 TO 2018

South Coast AQMD staff and other researchers in the air quality and meteorology communities are still investigating the reasons for the increase in ozone concentrations starting in 2017 experienced throughout the Western United States. However, the fact that these increases were seen over wide areas can help explain the elevated ozone concentrations. Both unexpected changes in meteorology and/or emissions (e.g., biogenic, anthropogenic) can contribute to this unexpected increase. However, year-to-year increases in ozone are not uncommon in the historical record and one should be careful to not over-interpret temporary increases.

While local wildfires cannot explain all exceedances in the 2016-2018 period in the Coachella Valley, it is possible that wildfire emissions from distant fires could have influenced ozone concentrations throughout the West. 2017 and 2018 were particularly active wildfire seasons in California (Figure 2-7), with total acreage burned surpassing all years since 2008.

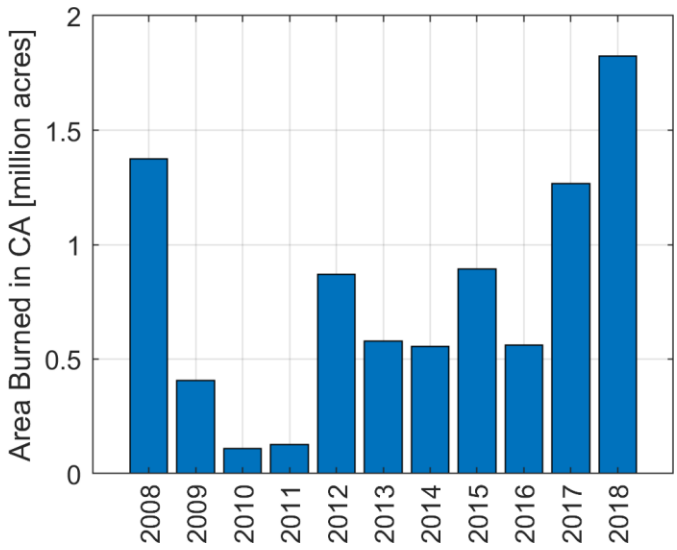


FIGURE 2-7: TOTAL ACRES BURNED BY YEAR WITHIN CALIFORNIA. DATA FROM THE NATIONAL INTERAGENCY FIRE CENTER.

Biogenic VOC emissions (those deriving from vegetation) may also exhibit large year-to-year variations. Vegetation is a large source of VOCs, especially during summer months. Vegetative growth is highly dependent on rainfall during the growing season, which exhibits significant year-to-year variations throughout California.

While it is difficult to measure anthropogenic emissions (emissions from human activity) of NOx and VOCs directly, emission inventory projections indicate that emissions from anthropogenic sources in the South Coast Air Basin have declined and will continue to decline (Figure 2-8). Emissions in the South Coast Air Basin are the primary contributor to ozone concentrations in the Coachella Valley.

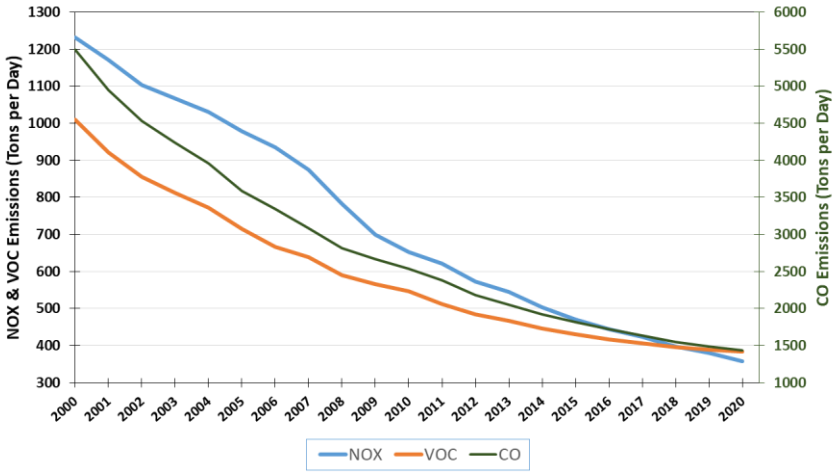


FIGURE 2-8: EMISSION INVENTORY PROJECTIONS IN THE SOUTH COAST AIR BASIN

Nitrogen dioxide (NO_2) concentration is measured hourly throughout the South Coast AQMD boundaries and can be used as a surrogate for NOx emissions. An analysis of monitoring data between 1990 and 2018 indicate that NO2 concentration have been reduced by over 60% and have continued to decline year-to-year since 1999 (Figure 2-9).

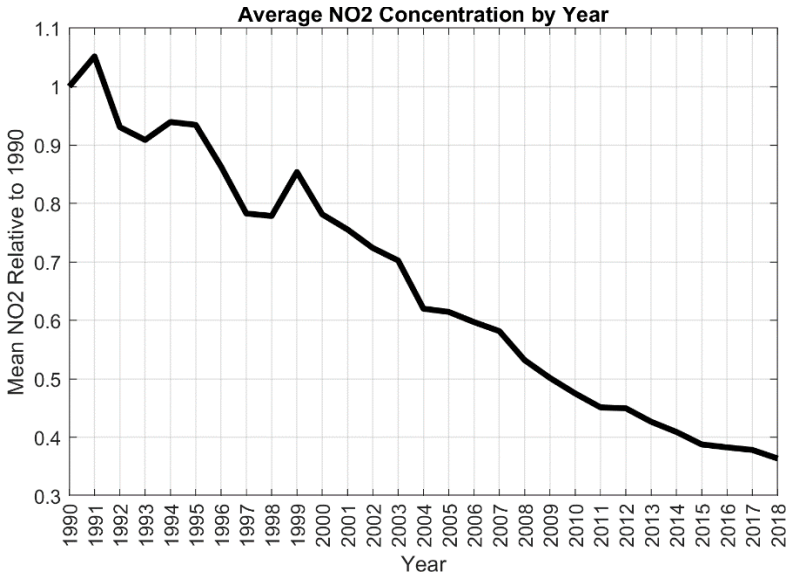


FIGURE 2-9: NO_2 CONCENTRATIONS AT MONITORS IN THE SOUTH COAST AIR BASIN AND THE COACHELLA VALLEY. ONLY MONITORS WITH DATA IN AT LEAST 75% OF THE YEARS ARE INCLUDED IN THIS ANALYSIS.

Meteorology is also an important factor governing ozone concentrations. Year-to-year changes in meteorology can alter transport patterns, leading to changes in precursors and upwind ozone entering the Coachella Valley. Elevated temperatures and reduced atmospheric mixing can also contribute to additional ozone formation. In addition, the North American Monsoon, which can bring an increase in humidity and afternoon thunderstorms into the Coachella Valley between July and September can also affect ozone concentrations.

Ozone Attainment Status

Trends in the 8-hour ozone design value and the 1-hour ozone design value are plotted in Figure 2-10.

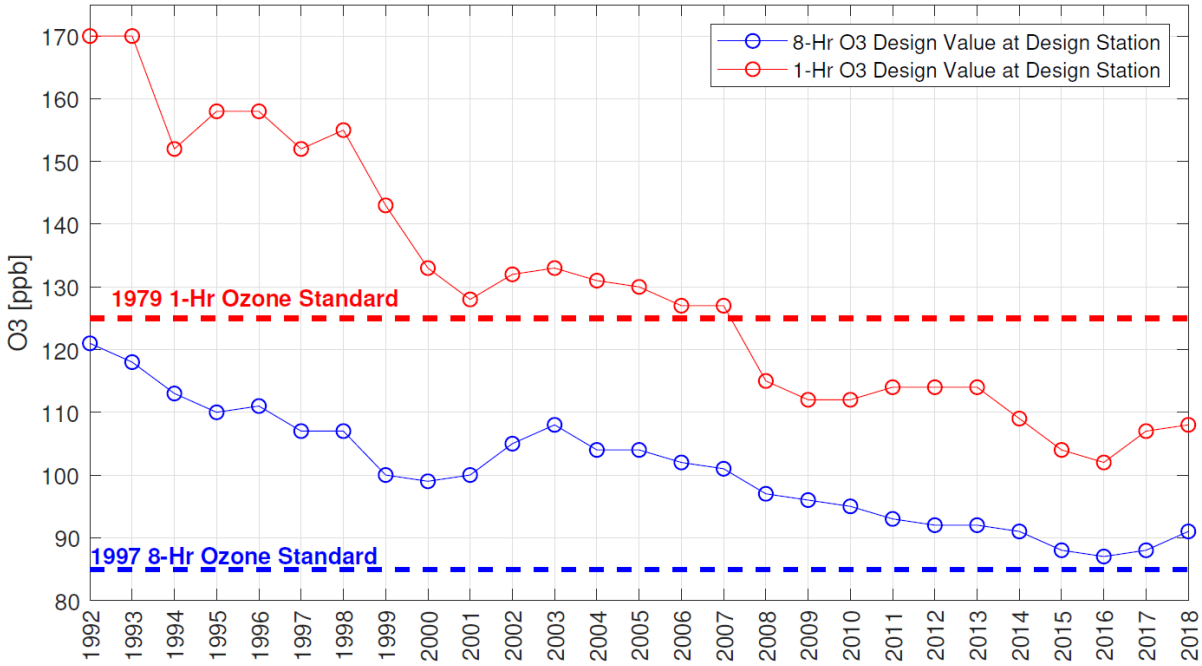


FIGURE 2-10

COACHELLA VALLEY 3-YEAR DESIGN VALUE TRENDS OF OZONE, 1990–2015

*(THE YEAR PLOTTED IS THE END YEAR OF THE 3-YEAR DESIGN VALUE, *2018 DATA IS PRELIMINARY AND SUBJECT TO CHANGE)*

While the Coachella Valley attains the former 1-hour federal ozone standard, the area exceeds the 8-hour NAAQS. In 2016, the 3-year design value (2014-2016) for the Coachella Valley was 0.087 ppm. The 2017 and 2018 design value increased to 0.088 ppm and 0.091 ppm, respectively. In each of these cases, the Palm Springs monitoring station had the highest design value, and therefore the Palm Springs measurement data reflects the design location for the Coachella Valley. The 2018 design value exceeds the 1997 8-hour standard. The standard is met if the design value is less than or equal to 0.084 ppm, due to rounding conventions associated with the 0.08 ppm standard.

In summary, the Coachella Valley has experienced a multi-decadal trend of steady ozone improvements over the years, however, additional improvements are needed to achieve the 8-hour ozone standard.

3. Request for Reclassification

The Coachella Valley is currently classified as a Severe ozone nonattainment area for the 1997 8-hour standard, with an attainment deadline of June 14, 2019. As previously described in Chapter 2 – Air Quality Trends, the monitoring data shows that the Coachella Valley will not achieve attainment by the attainment deadline and is not eligible to request for a one-year extension of the attainment date due to the number of exceedances in the prior year.

The CAA under section 181(b)(3) allows for a "voluntary reclassification" request by any State to reclassify to a higher classification for a nonattainment area in order to provide additional time to meet the standard. The voluntary request for reclassification to a higher classification is commonly referred to as a "bump up." Since additional time is needed to bring Coachella Valley into attainment of the 1997 8-hour ozone standard, staff is recommending requesting a voluntary reclassification from Severe to Extreme nonattainment.

Requirements upon Reclassification to an Extreme Nonattainment Area

After the bump-up request is submitted to the U.S. EPA and the U.S. EPA takes final action granting the reclassification request, a revision to the State Implementation Plan (SIP) is required. The new SIP revision will have to include an attainment demonstration with the pathway to attain the 1997 8-hour ozone NAAQS as expeditiously as practicable, but no later than the maximum attainment period set forth in CAA section 182, Table 1. Currently, the Severe classification of Coachella Valley allows for 15 years to reach attainment in 2019. With the approval of the bump-up request to Extreme, the attainment period will be extended to 20 years, or an additional 5 years from the Severe classification, to June 15, 2024. Therefore, upon reclassification to Extreme nonattainment status, the attainment date for Coachella Valley will be updated from June 15, 2019 to as expeditiously as practicable, but no later than June 15, 2024. The updated SIP for an Extreme nonattainment area will require the same elements as the previously developed SIP for a Severe nonattainment area together with the requirements for an Extreme nonattainment area described under CAA section 182 including:

- Section 182(e) - Definition of major sources and major stationary sources
- Section 182(e)(1) - Offset requirement
- Section 182(e)(2) - Modifications
- Section 182(e)(3) - Use of clean fuels or advanced control technology
- Section 182(e)(4) - Traffic control measures during heavy traffic hours
- Section 182(e)(5) - New technologies
- Section 182(f) – NOx Requirements

Each of these requirements is discussed below.

CAA Section 182(e) Requirements

Currently under the Severe nonattainment designation, the definition of major stationary sources includes facilities with the potential to emit (PTE)[8] of 25 tons per year (tpy) of VOC and NOx or higher. Following reclassification to an Extreme nonattainment area, the threshold for major stationary sources will be lowered to include facilities with the PTE of 10 tpy of VOC and NOx or higher. This change makes the definition stricter and will cause additional facilities to be subject to requirements (major sources). The potential impacts on stationary sources are discussed later in this chapter. However, this change must also occur even if a "bump-up" is not requested.

CAA Section 182(e)(1) - Offset requirement

Section 182(e)(1) requires a modified offset ratio of 1.5 to 1 of total emission reductions of VOCs to total increased VOC emissions of each air pollutant (due to permit modifications), unless federal best available control technology (BACT) is required for all new or modified existing major sources. South Coast AQMD's regulations implement best available retrofit control technology (BARCT) which is the equivalent of federal BACT for major and non-major sources, and therefore an offset ratio of 1.2 to 1 is used for NSR offset requirements for all nonattainment criteria air contaminants (Rule 1303). South Coast AQMD's NSR rules already include these requirements for VOC and NOx sources.

CAA Section 182(e)(2) – Modifications

Section 182(e)(2) requires any increase of emissions at a major stationary source to be considered a modification. South Coast AQMD Regulation XIII requires any new or modified source that results in an emissions increase of any nonattainment air contaminant to be subject to NSR. Therefore, the modification requirement is already addressed in existing NSR rules and no additional action is needed upon reclassification.

CAA Section 182(e)(3) - Use of clean fuels or advanced control technology

Section 182(e)(3) requires each new, modified, and existing electric utility and industrial and commercial boiler that emits more than 25 tpy of NOx to burn a low polluting fuel or use advanced NOx control technology. Existing boilers are already subject to South Coast AQMD Rule 1146 (Emissions of Oxides of Nitrogen from Industrial, Institutional and Commercial Boilers, Steam Generators, and Process Heaters) and Rule 1135 (Emissions of Oxides of Nitrogen from Electricity Generating Facilities), which require the use of South Coast AQMD's BARCT for existing equipment. Any new or modified sources with emission increases are also subject to California BACT (federal lowest achievable emission rate [LAER] for the case of major sources) requirements. As such, the implementation of existing California BARCT and BACT already require new, modified, and existing electric utility and industrial and commercial boilers to use advanced NOx control technology, and therefore, no additional action is needed upon reclassification.

[8] "Potential to emit" is the maximum capacity of a stationary source to emit under its physical and operational design. Any physical or operational limitation on the source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation, or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation is enforceable by the U.S. EPA.

CAA Section 182(e)(4) - Traffic control measures during heavy traffic hours

Section 182(e)(4) allows for control measure programs to reduce use of high polluting or heavy-duty vehicles during heavy traffic hours. These are not required measures and do not require any additional action upon reclassification.

CAA Section 182(e)(5) - New technologies

Section 182(e)(5) allows for Extreme nonattainment area attainment demonstrations to be based on the anticipated development of new technologies or improvement of existing control technologies. These long-term control measures are often referred to as "black box" measures and go beyond the short-term control measures that are based on known and demonstrated technologies. For Extreme nonattainment areas, the "black box" measures may be used as part of the attainment strategy. The ability to use 182(e)(5) , however, ceases 3 years prior to the attainment date. Since Coachella Valley is only about 5 years from its new attainment date (June 2024), these long term measures might not be appropriate or needed for the attainment demonstration for the new Extreme area SIP.

CAA Section 182(f) – NOx requirements

Pursuant to Section 182(f), all provisions required for major stationary sources of VOC shall also apply to major stationary sources of NOx as defined in 182(e)(1), including the modified offset ratio. Since the offset requirement for an Extreme nonattainment area has already been incorporated into South Coast AQMD's existing NSR rules, there will not be any additional offset requirements due to reclassification of Coachella Valley to Extreme nonattainment.

Impacts on Major Stationary Sources

U.S. EPA defines a major source as a facility that emits, or has the potential to emit, any criteria pollutant or hazardous air pollutant at levels equal to or greater than the major source thresholds. As a Severe nonattainment area, the definition of a major stationary source in Coachella Valley includes facilities with a PTE of 25 tpy of VOC or NOx or higher. For the Extreme nonattainment reclassification in Coachella Valley, the major source thresholds will be lowered to 10 tpy or higher of VOC or NOx. Even if the South Coast AQMD were not to request a reclassification of Coachella Valley from Severe to Extreme and, consequentially, the U.S. EPA issued a finding of a failure to attain the standard, the lower major source thresholds would still apply.[9] As such, under either scenario, a major source in Coachella Valley will include facilities with a PTE of 10 tpy or higher of VOC or NOx.

Following reclassification of Coachella Valley to an Extreme nonattainment area, Rule 3001 will need to be amended to lower the threshold for major stationary sources in Coachella Valley to include facilities with a PTE of 10 tpy or higher for VOC or NOx. This change will cause additional facilities to be subject to requirements for major sources. The threshold for major stationary source is also used to define applicability in the Title V Operating Permit program (Title V Program) and the New Source Review Program. As such, more facilities in Coachella Valley could be subject to the requirements under these programs. To assess the potential impact of the reclassification request, an analysis was done to identify

[9] Clean Air Act Section 181(b)(4)((B); 42 U.S.C. Section 7511(b)(4)(B).

the facilities within the Coachella Valley with a VOC or NOx PTE between 10 and 25 tpy, and the results of the analysis are included in the sections below.

The South Coast AQMD staff analysis identified the following eight stationary-source facilities, shown in Table 3-1 as potentially impacted by a change of the VOC and NOx major source threshold from 25 tpy to 10 tpy.

TABLE 3-1

LIST OF POTENTIALLY IMPACTED FACILITIES IN COACHELLA VALLEY

Facility Name	City
Imperial Irrigation District/Coachella *	Coachella
Sentinel Energy Center LLC *	North Palm Springs
Wildflower Energy LP/Indigo Gen., LLC *	North Palm Springs
Armtec Defense Prod. Co.	Coachella
Eisenhower Medical Center	Rancho Mirage
Palm Springs Aerial Tramway	Palm Springs
County of Riverside (IN702)	Indio
Desert Hospital	Palm Springs

* Existing South Coast AQMD Title V Permit Facility

Title V Program

The Title V permitting program was created in the 1990 amendments to the Clean Air Act to establish a national permit program to standardize air quality permits and the permitting process for major sources of emissions across the country. Title V only applies to "major sources." The South Coast AQMD adopted Regulation XXX – Title V Permits in 1993 to align the permitting requirements with the federal Title V permit program (approved by U.S. EPA on November 30, 2001). The current major source thresholds for the South Coast Air Basin (currently designated as Extreme nonattainment) and Coachella Valley within South Coast AQMD are defined in Rule 3001, and are summarized in Table 3-1 below for VOC and NOx:

TABLE 3-2:

MAJOR SOURCE PTE EMISSION THRESHOLDS (TONS PER YEAR)

Pollutant	South Coast Air Basin	Coachella Valley
VOC	10	25
NOx	10	25

Following approval of the reclassification, Rule 3001 will be amended to lower the major source thresholds from 25 tpy to 10 tpy for VOC and NOx in Coachella Valley.

Under the South Coast AQMD Title V Program, all facilities whose PTE[10] is equal to or greater than the major source thresholds must comply with the Title V regulations unless they have enforceable permit limit(s) keeping their actual emissions below the applicable major source threshold(s) or if they satisfy specific requirements for certain industries through Rule 3008. Title V does not include any new requirements for reducing emissions, but it does include a Title V permit that consolidates and subsumes all of the previously issued air permits for individual pieces of equipment at a major source facility into one Title V permit. It includes public noticing, U.S. EPA approvals, and enhanced monitoring recordkeeping, reporting, and compliance requirements.

South Coast AQMD currently exempts facilities from the Title V permitting requirements if they demonstrate that *their actual emissions* have been permanently reduced through accepting an enforceable permit condition to limit the actual permitted and non-permitted emissions to levels less than the major source emission threshold. These facilities would still be required to comply with major source BACT (synonymous with U.S. EPA LAER). The South Coast AQMD exempts facilities from the Title V permitting requirements as well as the major source BACT if they demonstrate that their PTE has been permanently reduced by accepting an enforceable permit condition to *limit the PTE* to levels less than the major source emission threshold.

New Source Review

New Source Review (NSR) is a preconstruction review program required under both federal and state statutes for new and modified stationary sources located in nonattainment areas for Clean Air Act standards. NSR applies to both individual permits and entire facilities.

The Federal NSR requirements are reflected in South Coast AQMD Regulation XIII - New Source Review. Among other requirements, Regulation XIII (New Source Review) requires applicants to use Best Available Control Technology (BACT, equivalent to federal LAER for the case of major sources) for new sources, relocated sources, and modifications to existing sources that may result in an emission increase of any nonattainment air contaminant. Major source facilities that are subject to NSR are required by the Clean Air Act to have the lowest achievable emission rate (LAER) under South Coast AQMD Reg XIII. LAER is determined through the BACT process at the time the permit is issued, with little regard for cost, and pursuant to U.S. EPA's LAER policy as to what is achieved in practice. For non-major source facilities, BACT will be determined in accordance with state law[11] at the time an application is deemed complete unless a more stringent rule requirement becomes applicable prior to permit issuance. For non-major facilities, BACT takes economic feasibility (cost-effectiveness, measured in terms of control costs per ton of air emissions reduced) into account. The BACT guidelines for major and non-major polluting facilities are

[10] PTE is based on permit conditions that limit emissions or throughput. If there are no such permit conditions, PTE is based on the maximum rated capacity; and the maximum daily hours of operation; and physical characteristics of the materials processed.

[11] See Health & Safety Code 40440.11.

listed separately[12]. Given the potentially different BACT emission limits between a major source and a non-major source, the change in the major source threshold upon reclassification could affect the level of controls needed for facilities that trigger NSR requirements upon modification or installation, namely, the major source threshold, which requires implementing LAER, will be a potential to emit of 10 tpy of VOC or NOx. However, this will occur regardless of whether the area is reclassified or, instead, is declared to have failed to attain.

In addition, facilities with a net increase in emissions are required to offset the emission increase by use of Emission Reduction Credits (ERCs). Low emitting facilities (PTE < 4 tpy of VOC/NOx), as defined in Rule 1304 Table A, are exempt from the emission offset requirement. Instead, the South Coast AQMD maintains an internal bank that can be used to provide the required offsets. These offset requirements will not change as a result of reclassification.

Three existing facilities namely Imperial Irrigation District/Coachella, Sentinel Energy Center LLC, and Wildflower Energy LP/Indigo Gen., LLC will not be impacted by the "bump-up" to Extreme as they are already major sources under the Severe classification. Palm Springs Aerial Tramway, County of Riverside, Desert Hospital, Armtec Defense Prod. Co. and Eisenhower Medical Center currently have actual emissions under 10 tpy of NOx or VOC. These facilities may decide to apply for permit changes to limit their actual and PTE emissions to below the major source thresholds to avoid Title V permit or major source BACT. All new stationary source facilities with over 10 tpy of NOx or VOC or any existing non-major facilities that become a major stationary source will be subject to the new requirements under the Extreme classification.

[12] See BACT Guidelines: http://www.aqmd.gov/home/permits/bact/guidelines

4. Staff Recommendation

Considering the overall downward ozone trends in recent years notwithstanding 2017 and 2018, Coachella Valley is anticipated to attain the standard earlier than the attainment deadline of June 15, 2024 under an Extreme nonattainment classification. Therefore, apart from uncertainties in meteorology, the amount of emission reductions required for attainment in Coachella Valley is not as great as what is required upwind in the South Coast Air Basin. Existing regulations that are already implemented or will fully be implemented in the next few years will continue to reduce baseline emissions (business-as-usual situation with no new regulations) in future years. The reduced baseline emissions are expected to be sufficient to demonstrate attainment in 2024. In addition, South Coast AQMD has an aggressive NOx emission reduction strategy in the 2016 AQMP to attain the 1997 federal 8-hour ozone standard in South Coast Air Basin by 2023. Since the transport of ozone and its precursors from the South Coast Air Basin is the primary cause of the ozone air quality in Coachella Valley, the additional NOx strategies implemented in the South Coast Air Basin will also contribute to further improvement of ozone air quality in Coachella Valley. Therefore, attainment of the 1997 federal 8-hour ozone standard may occur earlier than June 15, 2024. While the federal ozone standard needs to be attained as expeditiously as possible, uncertainties in meteorological conditions and changes in emissions and chemistry as a possible consequence of changing climate cause greater challenges in attainment efforts and will be considered in the SIP revision to the extent possible. South Coast AQMD is currently conducting a study to evaluate the meteorological trends contributing to recent poor air quality in the South Coast Air Basin. The results from the study are expected to shed more light on the uncertainties associated with changing climate and their implications on air quality. The emissions inventory and numerical modeling platform developed for the 2016 AQMP will be utilized in the attainment demonstration. The new SIP will necessarily continue to rely on emission reductions to be achieved in the South Coast Air Basin.

Given that additional time is needed to bring the Coachella Valley into attainment of the 1997 8-hour ozone standard, staff is recommending formally requesting U.S. EPA reclassify the Coachella Valley as an Extreme nonattainment area for the 1997 8-hour ozone standard based on the monitoring data indicating attainment is not practicable by the current attainment date. The reclassification will provide the Coachella Valley the needed extension of the attainment date to make attainment feasible and alleviate the nonattainment fees imposed on major stationary sources. The reclassification request would have to be approved by the South Coast AQMD Governing Board and then be submitted to CARB for forwarding to U.S. EPA for their approval in their proposed actions on the attainment status of Coachella Valley for the 1997 8-Hour ozone standard. This action will necessitate the development of a new Extreme area SIP, including an attainment demonstration with an attainment deadline as early as practicable but no later than June 15, 2024. Furthermore, the reclassification will require South Coast AQMD rule amendments to lower major stationary source threshold for NOx and VOC from the 25 tpy to 10 tpy within 12 months after reclassification is final; however, this would also occur if reclassification is not requested. A full analysis for implementation of these requirements and the attainment demonstration will be included in a subsequent SIP submittal following U.S. EPA's final approval of the reclassification.

5. Public Process

Public outreach is being conducted to notify interested parties regarding the Coachella Valley reclassification request for the 1997 8-hour Ozone standard. Notifications including newspaper postings, mass mailings, and email notifications are being sent to all permitted facilities and interested parties in Coachella Valley. Additionally, staff will hold two public consultation meetings on Wednesday, May 1, 2019, in Coachella Valley, with representatives from the public, local communities, environmental groups, and local governments. Written comments on the reclassification request for Coachella Valley and associated staff report will be accepted until May 15, 2019. Response to the comments received will be incorporated into the staff report. The South Coast AQMD Governing Board will consider approval of the reclassification request at its June 7, 2019, meeting.

Informational Briefing for Reclassification of Coachella Valley for the1997 8-Hour Ozone Standard

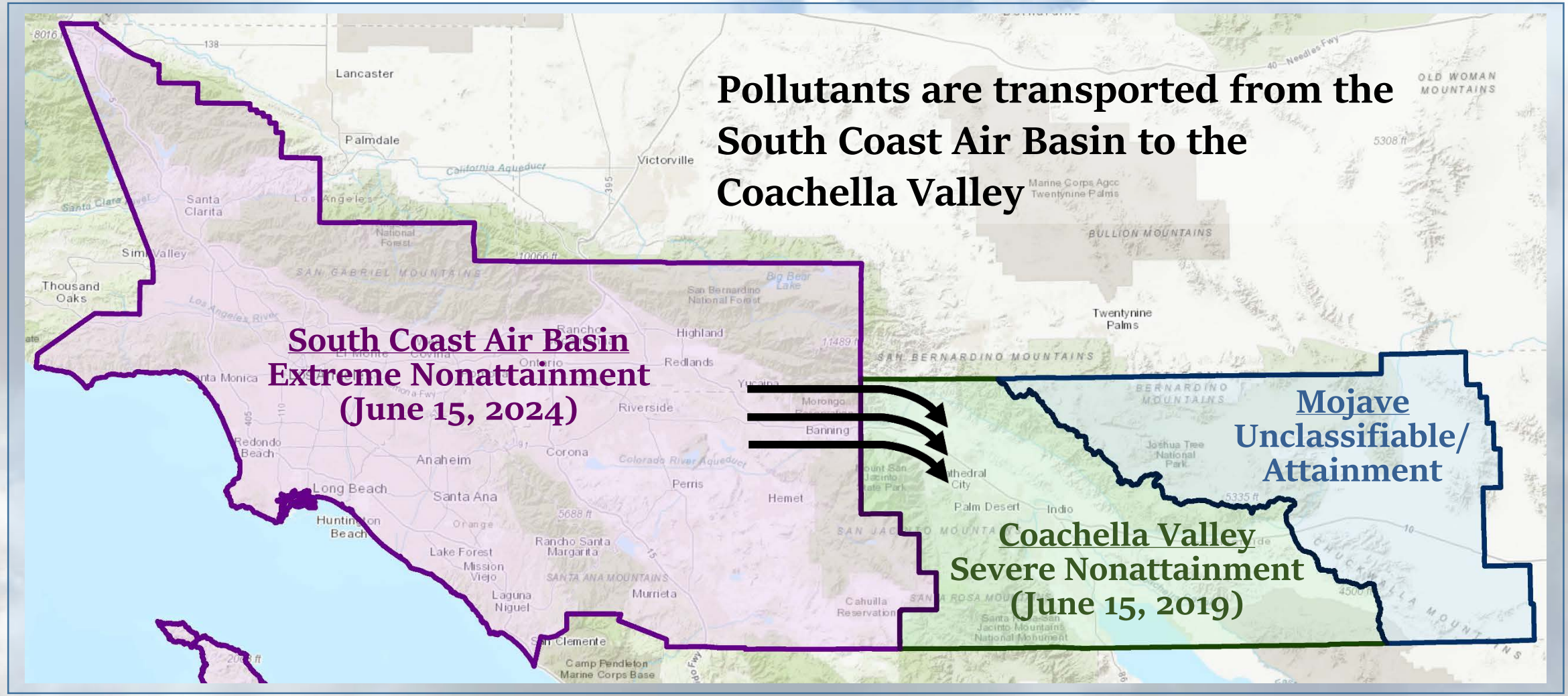
Governing Board Meeting

May 3, 2019

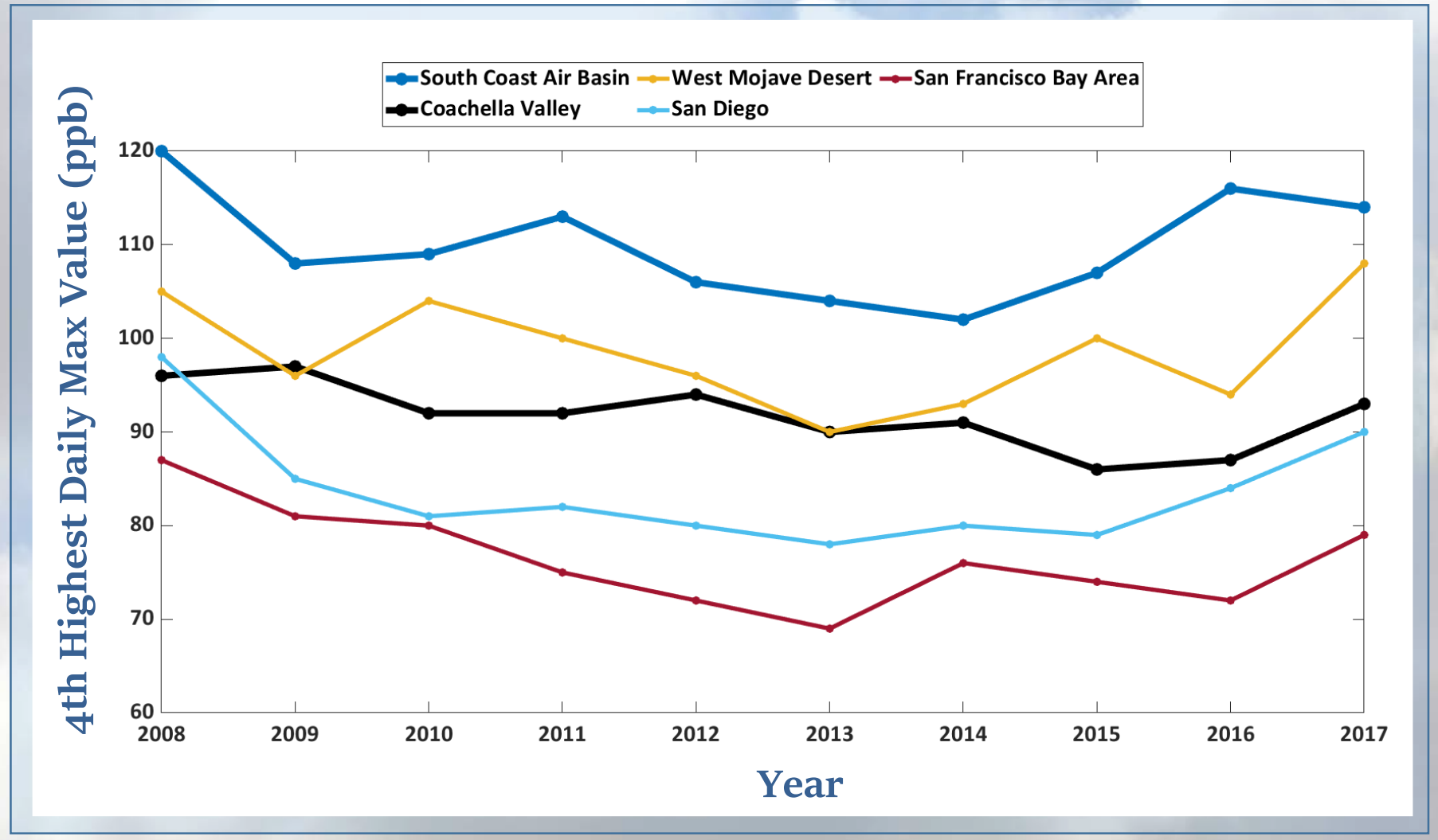
Summary

- Coachella Valley is classified as a Severe nonattainment area for the 1997 8-hour ozone standard, with an attainment date of June 15, 2019
- Based on recent monitoring data, the area will not attain the standard by the attainment date
- The Clean Air Act allows reclassification to the next level of ozone nonattainment
  - Recommend asking U.S. EPA to reclassify the area as Extreme nonattainment
  - This provides an additional 5 years to attain the standard

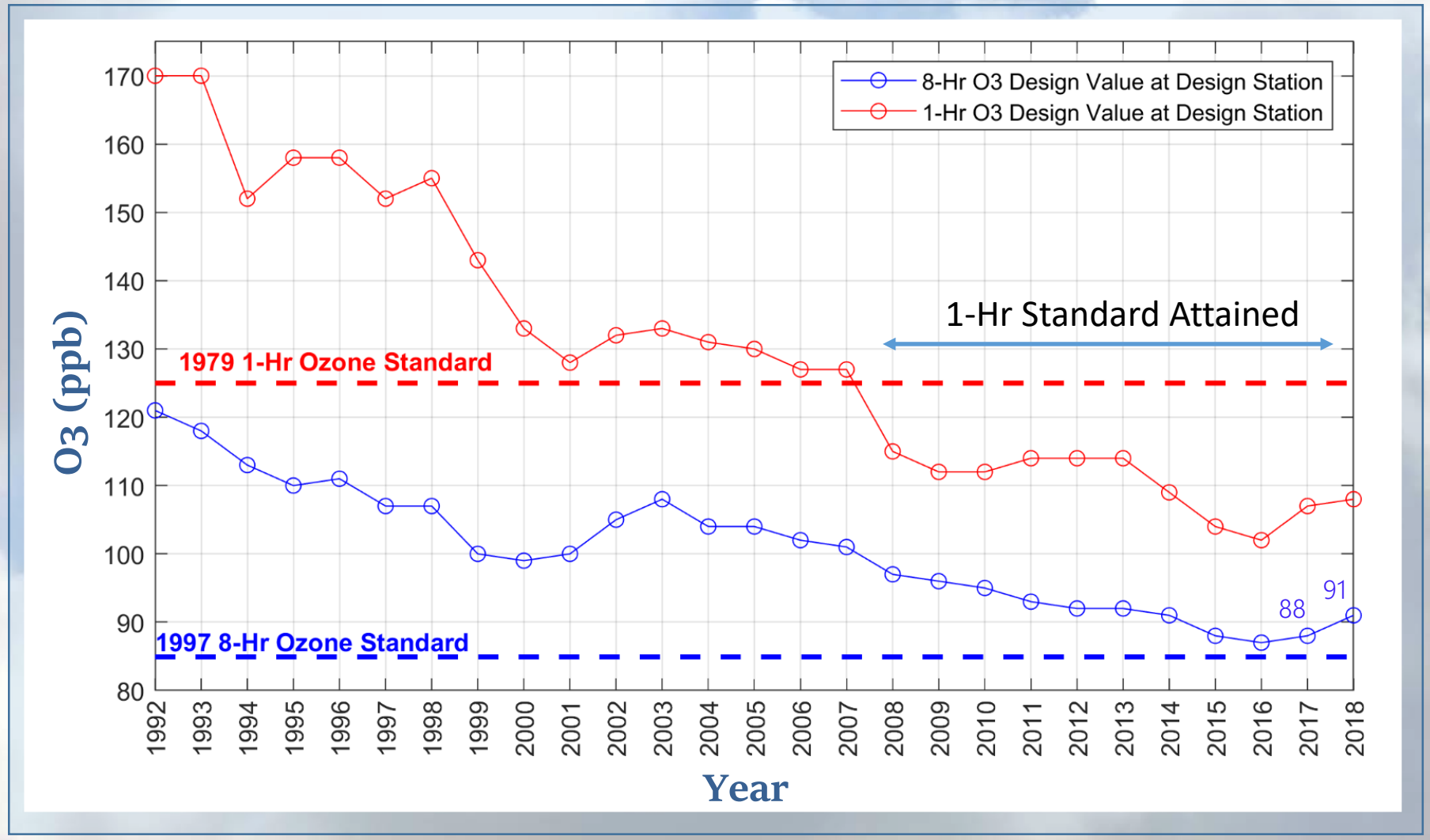
Regional Classifications for the 1997 8-Hour Ozone Standard



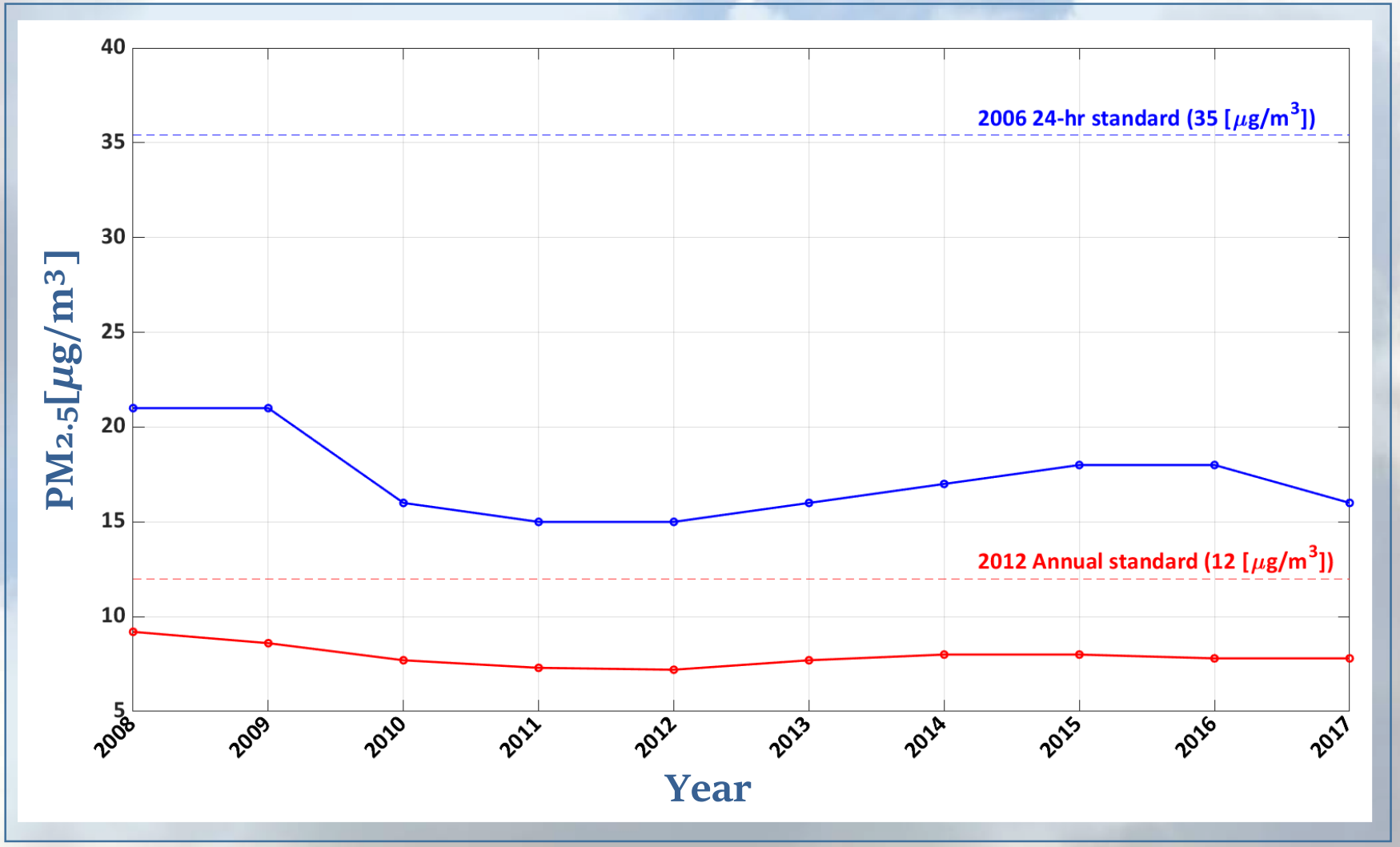
Ozone Trends in Other CA Air Basins



Ozone Design Value Trend in Coachella Valley



The Coachella Valley Meets the Federal $PM_{2.5}$ Standards

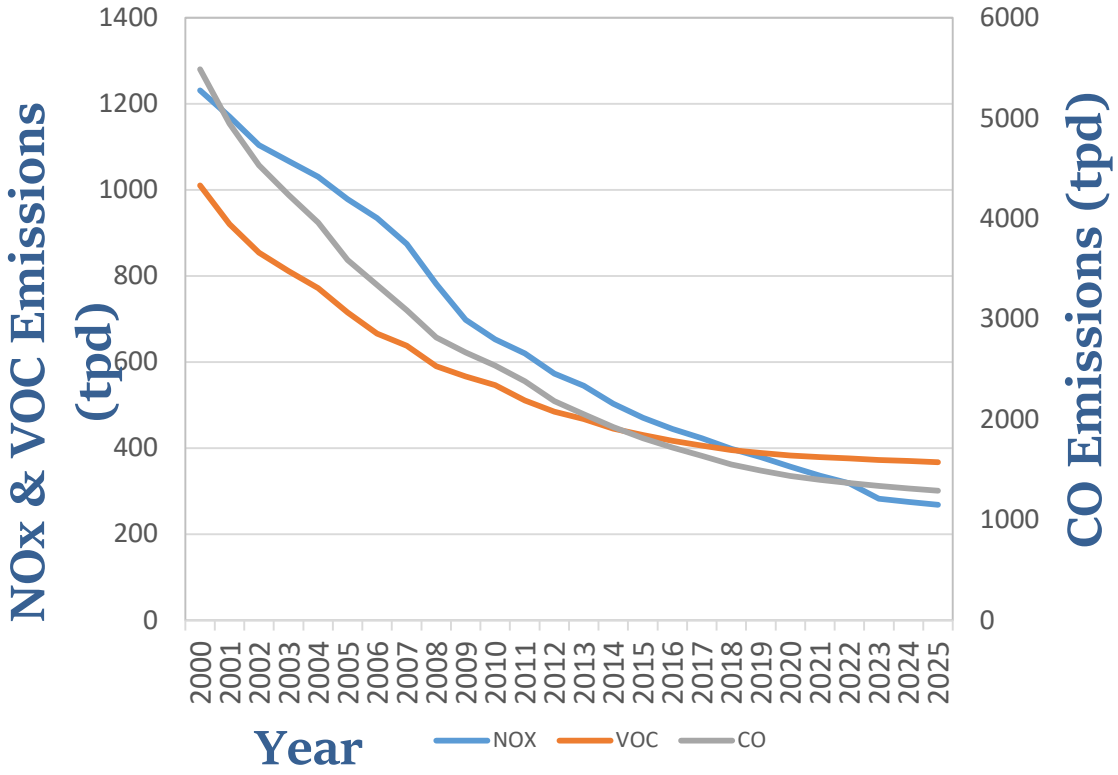


PM_{10} Attainment in the Coachella Valley

- PM10 measured at Indio, Palm Springs, and Mecca
- Days that exceed the federal 24-hour PM10 standard are associated with high-wind natural events
- Coachella Valley PM10 Attainment Re-designation Request was postponed by U.S. EPA pending additional monitoring and analysis in Mecca
- South Coast AQMD plans to seek re-designation once sufficient data is finalized and evaluated for exceptional events

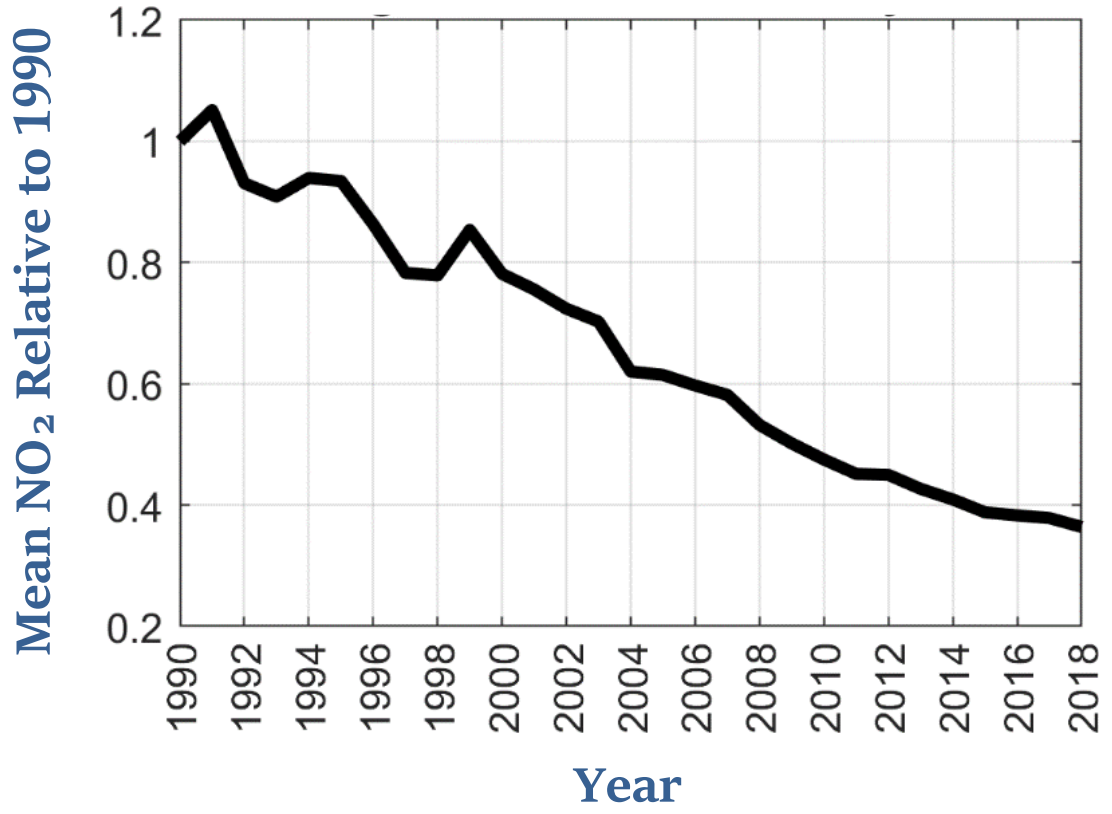
Trend in Emissions and Measurements

South Coast Air Basin Annual Emission Inventory Trend



tons per day (tpd)

Measured Average NO_2 Concentration by Year



Implications of Reclassification

- New attainment date of June 2024
- Major source threshold changed from 25 to 10 tpy
- No nonattainment fee for major sources
- Plan revision to demonstrate attainment (due 12 months after EPA's approval

If no action is taken, the U.S. EPA will issue a finding of failure to attain with similar consequences for major source threshold and plan revision. In addition, nonattainment fee will apply for major sources.

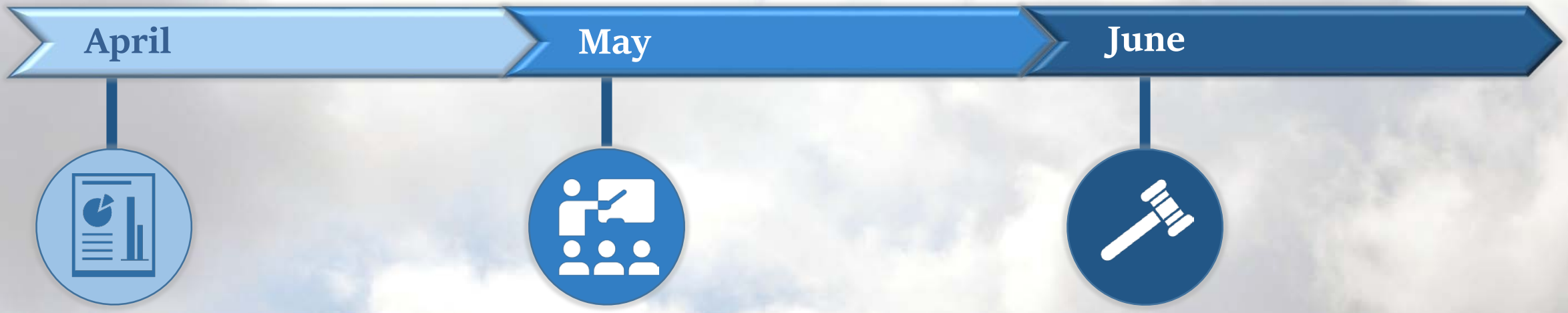
Number of Facilities Under Severe and Extreme Classifications

Attainment Designation	Major Source Threshold for VOC & NOx (tons per year)	# of Facilities	Facility Potential to Emit (tons per year)	Title V	New Source Review
Severe	25	3	≥25	No additional impacts	
Extreme	10	8	≥10	Potential Impacts	Potential Impacts

Impact on Facilities

- Five existing facilities potentially impacted
  - Industry
    - Manufacturing
    - Hospitals
    - Government
    - Transportation
  - Actual emissions of VOC or NOx
    - Two facilities emit less than 5 tpy
    - Three facilities emit less than 1 tpy
  - Option to apply for permit changes to limit actual and/or PTE emissions
- Expanding existing facilities becoming major sources
- New major source facilities

Public Process



- Release of Draft Staff Report for Public Comment

- Public Consultation Meeting in Coachella Valley
- Governing Board Briefing

- Governing Board Consideration
- Submittal to CARB/U.S. EPA

Staff Recommendation (for June Governing Board Meeting)

- Submit request to U.S. EPA for reclassification of Coachella Valley to extreme nonattainment status
  - Avoids nonattainment penalty fee for major sources
  - Provides additional time to demonstrate attainment (up to 5 years)
  - SIP revision to demonstrate attainment as expeditiously as possible, but not later than June 2024